UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

☒ Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the Quarterly Period Ended March 31, 2023

or

☐ Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Commission File Number 001-35651

THE BANK OF NEW YORK MELLON CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**13-2614959**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

240 Greenwich Street
New York, New York 10286
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code – (212) 495-1784

Not Applicable
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	BK	New York Stock Exchange
6.244% Fixed-to-Floating Rate Normal Preferred Capital Securities of Mellon Capital IV (fully and unconditionally guaranteed by The Bank of New York Mellon Corporation)	BK/P	New York Stock Exchange

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

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

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

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

As of March 31, 2023, 789,133,812 shares of the registrant's common stock, $0.01 par value per share, were outstanding.

THE BANK OF NEW YORK MELLON CORPORATION

First Quarter 2023 Form 10-Q
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The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Financial Highlights (unaudited)

(dollars in millions, except per share amounts and unless otherwise noted)	Quarter ended **March 31, 2023**	Quarter ended Dec. 31, 2022	Quarter ended March 31, 2022
Results applicable to common shareholders of The Bank of New York Mellon Corporation:			
Net income	**$ 905**	$ 509	$ 699
Basic earnings per share	**$ 1.13**	$ 0.63	$ 0.86
Diluted earnings per share	**$ 1.12**	$ 0.62	$ 0.86
Fee and other revenue	**$ 3,235**	$ 2,862	$ 3,228
Net interest revenue	**1,128**	1,056	698
Total revenue	**$ 4,363**	$ 3,918	$ 3,926
Return on common equity *(annualized)*	**10.3%**	5.7%	7.6%
Return on tangible common equity *(annualized)* – Non-GAAP *(a)*	**20.2%**	11.5%	15.4%
Fee revenue as a percentage of total revenue	**72%**	82%	80%
Non-U.S. revenue as a percentage of total revenue	**35%**	39%	35%
Pre-tax operating margin	**28%**	17%	23%
Net interest margin	**1.29%**	1.19%	0.75%
Net interest margin on a fully taxable equivalent (“FTE”) basis – Non-GAAP *(b)*	**1.29%**	1.19%	0.76%
Assets under custody and/or administration (“AUC/A”) at period end *(in trillions) (c)*	**$ 46.6**	$ 44.3	$ 45.5
Assets under management (“AUM”) at period end *(in billions) (d)*	**$ 1,908**	$ 1,836	$ 2,266
Average common shares and equivalents outstanding *(in thousands)*:			
Basic	**803,340**	811,669	809,469
Diluted	**807,718**	815,846	813,986
Selected average balances:			
Interest-earning assets	**$ 348,378**	$ 352,987	$ 373,186
Total assets	**$ 407,501**	$ 414,519	$ 440,202
Interest-bearing deposits	**$ 204,114**	$ 207,875	$ 223,243
Noninterest-bearing deposits	**$ 69,886**	$ 75,862	$ 90,179
Long-term debt	**$ 30,246**	$ 29,508	$ 25,588
Preferred stock	**$ 4,838**	$ 4,838	$ 4,838
Total The Bank of New York Mellon Corporation common shareholders’ equity	**$ 35,604**	$ 35,259	$ 37,363
Other information at period end:			
Cash dividends per common share	**$ 0.37**	$ 0.37	$ 0.34
Common dividend payout ratio	**34%**	60%	40%
Common dividend yield *(annualized)*	**3.3%**	3.2%	2.8%
Closing stock price per common share	**$ 45.44**	$ 45.52	$ 49.63
Market capitalization	**$ 35,858**	$ 36,800	$ 40,091
Book value per common share	**$ 45.36**	$ 44.40	$ 45.76
Tangible book value per common share – Non-GAAP *(a)*	**$ 23.52**	$ 23.11	$ 22.76
Full-time employees	**51,600**	51,700	49,600
Common shares outstanding *(in thousands)*	**789,134**	808,445	807,798

Consolidated Financial Highlights (unaudited) (continued)

Regulatory capital and other ratios	**March 31, 2023**	Dec. 31, 2022
Average liquidity coverage ratio (“LCR”)	**118%**	118%
Regulatory capital ratios: *(e)*		
Advanced Approaches:		
Common Equity Tier 1 (“CET1”) ratio	**11.0%**	11.2%
Tier 1 capital ratio	**13.9**	14.1
Total capital ratio	**14.7**	14.9
Standardized Approach:		
CET1 ratio	**11.4%**	11.3%
Tier 1 capital ratio	**14.4**	14.4
Total capital ratio	**15.4**	15.3
Tier 1 leverage ratio	**5.8%**	5.8%
Supplementary leverage ratio (“SLR”)	**6.9**	6.8
BNY Mellon shareholders’ equity to total assets ratio	**9.6%**	10.0%
BNY Mellon common shareholders’ equity to total assets ratio	**8.4**	8.8

(a) Return on tangible common equity and tangible book value per common share, Non-GAAP measures, exclude goodwill and intangible assets, net of deferred tax liabilities. See “Supplemental information – Explanation of GAAP and Non-GAAP financial measures” beginning on page 41 for the reconciliation of Non-GAAP measures.

(b) See “Net interest revenue” on page 9 for a reconciliation of this Non-GAAP measure.

(c) Consists of AUC/A primarily from the Asset Servicing line of business and, to a lesser extent, the Clearance and Collateral Management, Issuer Services, Pershing and Wealth Management lines of business. Includes the AUC/A of CIBC Mellon Global Securities Services Company (“CIBC Mellon”), a joint venture with the Canadian Imperial Bank of Commerce, of $1.5 trillion at March 31, 2023 and Dec. 31, 2022 and $1.7 trillion at March 31, 2022.

(d) Excludes assets managed outside of the Investment and Wealth Management business segment.

(e) For our CET1, Tier 1 capital and Total capital ratios, our effective capital ratios under U.S. capital rules are the lower of the ratios as calculated under the Standardized and Advanced Approaches. For additional information on our capital ratios, see “Capital” beginning on page 33.

Items 2. and 3. Management's Discussion and Analysis of Financial Condition and Results of Operations; Quantitative and Qualitative Disclosures about Market Risk

General

In this Quarterly Report on Form 10-Q, references to "our," "we," "us," "BNY Mellon," the "Company" and similar terms refer to The Bank of New York Mellon Corporation and its consolidated subsidiaries. The term "Parent" refers to The Bank of New York Mellon Corporation but not its subsidiaries.

Certain business terms used in this report are defined in the Glossary included in our Annual Report on Form 10-K for the year ended Dec. 31, 2022 (the "2022 Annual Report").

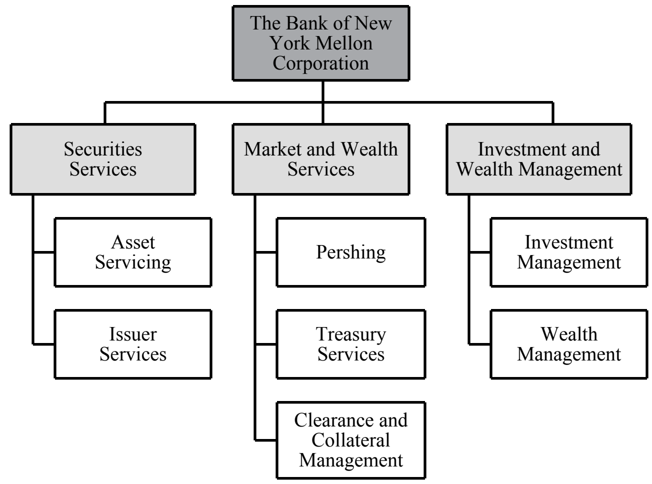
The following should be read in conjunction with the Consolidated Financial Statements included in this report. Investors should also read the section titled "Forward-looking Statements."

Overview

Established in 1784, BNY Mellon is America's oldest bank and the first company listed on the New York Stock Exchange (NYSE: BK). Today, BNY Mellon powers capital markets around the world through comprehensive solutions that help clients manage and service their financial assets throughout the investment life cycle. BNY Mellon has been named among Fortune's World's Most Admired Companies and Fast Company's Best Workplaces for Innovators. BNY Mellon is the corporate brand of The Bank of New York Mellon Corporation.

BNY Mellon has three business segments, Securities Services, Market and Wealth Services and Investment and Wealth Management, which offer a comprehensive set of capabilities and deep expertise across the investment life cycle, enabling the Company to provide solutions to buy-side and sell-side market participants, as well as leading institutional and wealth management clients globally.

The diagram below presents our three business segments and lines of business, with the remaining operations in the Other segment.



Key first quarter 2023 events

Leadership succession

Dermot McDonogh joined BNY Mellon on Nov. 1, 2022, and, effective Feb. 1, 2023, succeeded Emily Portney as the Chief Financial Officer ("CFO"). Ms. Portney served as the CFO since July 19, 2020, and has assumed a new position leading the Company's Asset Servicing business.

Highlights of first quarter 2023 results

Net income applicable to common shareholders was $905 million, or $1.12 per diluted common share, in the first quarter of 2023, compared with $699 million, or $0.86 per diluted common share, in the first quarter of 2022.

The highlights below are based on the first quarter of 2023 compared with the first quarter of 2022, unless otherwise noted.

- Total revenue of $4.4 billion increased 11%, primarily reflecting:
  - Fee revenue was flat, primarily reflecting the abatement of money market fee waivers and the $88 million reduction primarily due to accelerated amortization of deferred costs for

- depositary receipts services related to Russia recorded in the first quarter of 2022, offset by lower market values, the unfavorable impact of a stronger U.S. dollar and the impact of the Alcentra divestiture. (See "Fee and other revenue" beginning on page 6.)
  - Net interest revenue increased 62%, primarily reflecting higher interest rates on interest-earning assets, partially offset by higher funding expense. (See "Net interest revenue" on page 9.)
- Provision for credit losses was $27 million, reflecting changes in the macroeconomic forecast. (See "Consolidated balance sheet review – Allowance for credit losses" beginning on page 27.)
- Noninterest expense increased 3%, primarily reflecting higher investments and revenue-related expenses, as well as the impact of inflation, partially offset by the favorable impact of efficiency savings, a stronger U.S. dollar and the impact of the Alcentra divestiture. (See "Noninterest expense" on page 11.)
- Effective tax rate of 21.0%. (See "Income taxes" on page 11.)
- Return on common equity ("ROE") was 10.3% for the first quarter of 2023.
- Return on tangible common equity ("ROTCE") was 20.2% (Non-GAAP) for the first quarter of 2023.

See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for a reconciliation of the Non-GAAP measure.

Metrics

- AUC/A of $46.6 trillion increased 2%, primarily reflecting client inflows and net new business, partially offset by lower market values and the unfavorable impact of a stronger U.S. dollar.
- AUM of $1.9 trillion decreased 16%, primarily reflecting lower market values, the unfavorable impact of a stronger U.S. dollar and the divestiture of Alcentra, partially offset by net inflows.

Capital and liquidity

- Our CET1 ratio calculated under the Advanced Approaches was 11.0% at March 31, 2023 and 11.2% at Dec. 31, 2022. The decrease primarily reflects capital deployed through common stock repurchases and common dividends and higher risk-weighted assets ("RWAs"), partially offset by capital generated through earnings and unrealized gains in the first quarter on securities available-for-sale. (See "Capital" beginning on page 33.)
- Tier 1 leverage was 5.8% at March 31, 2023 and Dec. 31, 2022 as a slight decrease in capital was offset by a decrease in average assets. (See "Capital" beginning on page 33.)
- Returned $1.6 billion to common shareholders, including $1.3 billion of common share repurchases.

Highlights of our principal business segments

Securities Services

- Total revenue increased 19% and was impacted by the accelerated amortization of deferred costs for depositary receipts services related to Russia recorded in the first quarter of 2022.
- Income before income taxes increased 100% and was impacted by the first quarter 2022 adjustment to revenue related to Russia.
- Pre-tax operating margin of 26%.

Market and Wealth Services

- Total revenue increased 22%.
- Income before income taxes increased 41%.
- Pre-tax operating margin of 48%.

Investment and Wealth Management

- Total revenue decreased 14%.
- Income before income taxes decreased 56%.
- Pre-tax operating margin of 11%; adjusted pre-tax operating margin – Non-GAAP of 13%.

See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for a reconciliation of the Non-GAAP measure. See "Review of business segments" and Note 19 of the Notes to Consolidated Financial Statements for additional information on our business segments.

Fee and other revenue

Fee and other revenue

(dollars in millions, unless otherwise noted)	1Q23	4Q22	1Q22	1Q23 vs. 4Q22	1Q23 vs. 1Q22
Investment services fees	**$ 2,119**	$ 2,173	$ 1,993	**(2)%**	**6%**
Investment management and performance fees *(a)*	**776**	783	883	**(1)**	**(12)**
Foreign exchange revenue	**176**	190	207	**(7)**	**(15)**
Financing-related fees	**52**	43	45	**21**	**16**
Distribution and servicing fees	**33**	33	30	**—**	**10**
Total fee revenue	**3,156**	3,222	3,158	**(2)**	**—**
Investment and other revenue	**79**	(360)	70	**N/M**	**N/M**
Total fee and other revenue	**$ 3,235**	$ 2,862	$ 3,228	**13%**	**—%**
Fee revenue as a percentage of total revenue	**72%**	82%	80%		
AUC/A at period end *(in trillions) (b)*	**$ 46.6**	$ 44.3	$ 45.5	**5%**	**2%**
AUM at period end *(in billions) (c)*	**$ 1,908**	$ 1,836	$ 2,266	**4%**	**(16)%**

(a) Excludes seed capital gains (losses) related to consolidated investment management funds.
(b) Consists of AUC/A primarily from the Asset Servicing line of business and, to a lesser extent, the Clearance and Collateral Management, Issuer Services, Pershing and Wealth Management lines of business. Includes the AUC/A of CIBC Mellon of $1.5 trillion at March 31, 2023 and Dec. 31, 2022 and $1.7 trillion at March 31, 2022.
(c) Excludes assets managed outside of the Investment and Wealth Management business segment.
N/M – Not meaningful.

Fee revenue was flat compared with the first quarter of 2022 and decreased 2% compared with the fourth quarter of 2022. Compared with the first quarter of 2022, higher investment services fees were offset by lower investment management and performance fees and foreign exchange revenue. The decrease compared with the fourth quarter of 2022 primarily reflects lower investment services fees and foreign exchange revenue.

Investment and other revenue increased $9 million compared with the first quarter of 2022 and $439 million compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher other trading revenue and improved seed capital results, partially offset by strategic equity investment gains recorded in the first quarter of 2022. The increase compared with the fourth quarter of 2022 primarily reflects the net loss of $449 million related to repositioning the securities portfolio in the fourth quarter of 2022.

Investment services fees

Investment services fees increased 6% compared with the first quarter of 2022 and decreased 2% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects the abatement of money market fee waivers and the accelerated amortization of deferred costs for depositary receipts services related to Russia recorded in the first quarter of 2022, partially offset by lower market values. The decrease compared with the fourth quarter of 2022 primarily reflects lower Depositary Receipts revenue and client activity, partially offset by higher market values.

AUC/A totaled $46.6 trillion at March 31, 2023, an increase of 2% compared with March 31, 2022, primarily reflecting client inflows and net new business, partially offset by lower market values and the unfavorable impact of a stronger U.S. dollar. AUC/A consisted of 33% equity securities and 67% fixed income securities at March 31, 2023, and 36% equity securities and 64% fixed income securities at March 31, 2022.

See “Securities Services business segment” and “Market and Wealth Services business segment” in “Review of business segments” for additional details.

Investment management and performance fees

Investment management and performance fees decreased 12% compared with the first quarter of 2022 and 1% compared with the fourth quarter of 2022. The decrease compared with the first quarter of 2022 primarily reflects lower market values, the mix of cumulative net inflows, the impact of the Alcentra divestiture and the unfavorable impact of a stronger U.S. dollar, partially offset by the abatement of money market fee waivers. The decrease compared with the fourth quarter of 2022 primarily reflects the impact of the Alcentra divestiture and lower performance fees, partially offset by higher market values. Performance fees were $22 million in the first quarter of 2023, $34 million in the first quarter of 2022 and $26 million in the fourth quarter of 2022. On a constant currency basis (Non-GAAP), investment management and performance fees decreased 9% compared with the first quarter of 2022. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for the reconciliation of Non-GAAP measures.

AUM was $1.9 trillion at March 31, 2023, a decrease of 16% compared with March 31, 2022, primarily reflecting lower market values, the unfavorable impact of a stronger U.S. dollar and the divestiture of Alcentra, partially offset by net inflows.

See "Investment and Wealth Management business segment" in "Review of business segments" for additional details regarding the drivers of investment management and performance fees, AUM and AUM flows.

Foreign exchange revenue

Foreign exchange revenue is primarily driven by the volume of client transactions and the spread realized on these transactions, both of which are impacted by market volatility, the impact of foreign currency hedging activities and foreign currency remeasurement gain (loss). Foreign exchange revenue decreased 15% compared with the first quarter of 2022 and 7% compared with the fourth quarter of 2022. The decrease compared with the first quarter of 2022 primarily reflects lower volumes, partially offset by higher volatility. The decrease compared with the fourth quarter of 2022 primarily reflects lower volatility. Foreign exchange revenue is primarily reported in the Securities Services business segment and, to a lesser extent, in the Market and Wealth Services and Investment and Wealth Management business segments and the Other segment.

Financing-related fees

Financing-related fees, which are primarily reported in the Market and Wealth Services and Securities Services business segments, include capital market fees, loan commitment fees and credit-related fees. Financing-related fees increased 16% compared with the first quarter of 2022 and 21% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher loan commitment fees. The increase compared with the fourth quarter of 2022 primarily reflects higher capital markets fees, including underwriting fees.

Investment and other revenue

Investment and other revenue includes income or loss from consolidated investment management funds, seed capital gains or losses, other trading revenue or loss, renewable energy investments losses, income from corporate and bank-owned life insurance contracts, other investment gains or losses, gains or losses from disposals, expense reimbursements from our CIBC Mellon joint venture, other income or loss and net securities gains or losses. The income or loss from consolidated investment management funds should be considered together with the net income or loss attributable to noncontrolling interests, which reflects the portion of the consolidated funds for which we do not have an economic interest and is reflected below net income as a separate line item on the consolidated income statement. Other trading revenue or loss primarily includes the impact of market-risk hedging activity related to our seed capital investments in investment management funds, non-foreign currency derivative and fixed income trading, and other hedging activity. Investments in renewable energy generate losses in investment and other revenue that are more than offset by benefits and credits recorded to the provision for income taxes. Other investment gains or losses includes fair value changes of non-readily marketable strategic equity, private equity and other investments. Expense reimbursements from our CIBC Mellon joint venture relate to expenses incurred by BNY Mellon on behalf of the CIBC Mellon joint venture. Other income includes various miscellaneous revenues.

The following table provides the components of investment and other revenue.

Investment and other revenue *(in millions)*	**1Q23**	4Q22		1Q22
Income (loss) from consolidated investment management funds	**$ 5**	$ 9		$ (20)
Seed capital gains (losses) *(a)*	**8**	6		(8)
Other trading revenue	**45**	34		5
Renewable energy investments (losses)	**(32)**	(32)		(44)
Corporate/bank-owned life insurance	**27**	35		33
Other investments (losses) gains *(b)*	**(9)**	7		61
Disposal (losses)	**(1)**	(11)		—
Expense reimbursements from joint venture	**29**	28		27
Other income	**8**	12		12
Net securities (losses) gains	**(1)**	(448)	*(c)*	4
Total investment and other revenue	**$ 79**	$ (360)		$ 70

(a) Includes gains (losses) on investments in BNY Mellon funds which hedge deferred incentive awards.

(b) Includes strategic equity, private equity and other investments.

(c) Includes a net loss of $449 million related to the repositioning of the securities portfolio.

The increase in total investment and other revenue compared with the first quarter of 2022 primarily reflects higher other trading revenue and improved seed capital results, partially offset by strategic equity investment gains recorded in the first quarter of 2022. The increase compared with the fourth quarter of 2022 primarily reflects the net loss from repositioning the securities portfolio recorded in the fourth quarter of 2022.

Net interest revenue

Net interest revenue					
				1Q23 vs.	
(dollars in millions)	**1Q23**	4Q22	1Q22	**4Q22**	**1Q22**
Net interest revenue	**$ 1,128**	$ 1,056	$ 698	**7%**	**62%**
Add: Tax equivalent adjustment	**—**	2	3	**N/M**	**N/M**
Net interest revenue (FTE) – Non-GAAP *(a)*	**$ 1,128**	$ 1,058	$ 701	**7%**	**61%**
Average interest-earning assets	**$ 348,378**	$ 352,987	$ 373,186	**(1)%**	**(7)%**
Net interest margin	**1.29%**	1.19%	0.75%	**10 bps**	**54 bps**
Net interest margin (FTE) – Non-GAAP *(a)*	**1.29%**	1.19%	0.76%	**10 bps**	**53 bps**

(a) Net interest revenue (FTE) – Non-GAAP and net interest margin (FTE) – Non-GAAP include the tax equivalent adjustments on tax-exempt income, which allows for comparisons of amounts arising from both taxable and tax-exempt sources and is consistent with industry practice. The adjustment to an FTE basis has no impact on net income.
N/M – Not meaningful.
bps – basis points.

Net interest revenue increased 62% compared with the first quarter of 2022 and 7% compared with the fourth quarter of 2022. The increases compared with both the first quarter of 2022 and fourth quarter of 2022 primarily reflect higher interest rates on interest-earning assets, partially offset by higher funding expense.

Net interest margin increased 54 basis points compared with the first quarter of 2022 and 10 basis points compared with the fourth quarter of 2022. The changes compared with the first quarter of 2022 and the fourth quarter of 2022 primarily reflect the factors mentioned above.

Average interest-earning assets decreased 7% compared with the first quarter of 2022 and 1% compared with the fourth quarter of 2022. The decrease compared with the first quarter of 2022 primarily reflects lower securities, interest-bearing deposits with the Federal Reserve and other central banks and loan balances. The decrease compared with the fourth quarter of 2022 primarily reflects lower loan balances.

Average non-U.S. dollar deposits comprised approximately 25% of our average total deposits in the first quarter of 2023. Approximately 45% of the average non-U.S. dollar deposits in the first quarter of 2023 were euro-denominated.

Average balances and interest rates	Quarter ended								
	March 31, 2023			Dec. 31, 2022			March 31, 2022		
(dollars in millions; average rates annualized)	**Average balance**	**Interest**	**Average rates**	Average balance	Interest	Average rates	Average balance	Interest	Average rates
Assets									
Interest-earning assets:									
Interest-bearing deposits with the Federal Reserve and other central banks	**$ 94,899**	**$ 853**	**3.59%**	$ 94,868	$ 630	2.60%	$ 100,303	$ 2	0.01%
Interest-bearing deposits with banks	**16,225**	**140**	**3.51**	15,750	107	2.70	17,181	14	0.33
Federal funds sold and securities purchased under resale agreements *(a)*	**24,631**	**991**	**16.32**	25,657	726	11.22	27,006	37	0.56
Loans	**63,261**	**866**	**5.54**	67,364	788	4.65	66,810	260	1.57
Securities:									
U.S. government obligations	**38,852**	**279**	**2.89**	39,382	244	2.46	40,868	74	0.74
U.S. government agency obligations	**62,280**	**405**	**2.60**	61,426	354	2.30	67,055	245	1.46
State and political subdivisions *(b)*	**23**	**—**	**7.07**	1,178	7	2.77	2,337	13	2.16
Other securities *(b)*	**42,429**	**338**	**3.21**	41,732	279	2.66	45,541	115	1.02
Total investment securities *(b)*	**143,584**	**1,022**	**2.86**	143,718	884	2.45	155,801	447	1.15
Trading securities *(b)*	**5,778**	**70**	**4.97**	5,630	64	4.51	6,085	21	1.43
Total securities *(b)*	**149,362**	**1,092**	**2.94**	149,348	948	2.53	161,886	468	1.16
Total interest-earning assets *(b)*	**$ 348,378**	**$ 3,942**	**4.56%**	$ 352,987	$ 3,199	3.59%	$ 373,186	$ 781	0.84%
Noninterest-earning assets	**59,123**			61,532			67,016		
Total assets	**$ 407,501**			$ 414,519			$ 440,202		
Liabilities and equity									
Interest-bearing liabilities:									
Interest-bearing deposits	**$ 204,114**	**$ 1,366**	**2.71%**	$ 207,875	$ 1,046	2.00%	$ 223,243	$ (37)	(0.07)%
Federal funds purchased and securities sold under repurchase agreements *(a)*	**18,316**	**892**	**19.75**	13,985	595	16.88	12,864	12	0.36
Trading liabilities	**3,025**	**30**	**4.05**	3,572	31	3.45	3,372	4	0.53
Other borrowed funds	**711**	**3**	**1.75**	619	3	1.69	458	3	2.36
Commercial paper	**—**	**—**	**—**	6	—	3.87	4	—	0.09
Payables to customers and broker-dealers	**16,954**	**128**	**3.08**	17,147	99	2.27	16,661	—	0.01
Long-term debt	**30,246**	**395**	**5.22**	29,508	367	4.90	25,588	98	1.53
Total interest-bearing liabilities	**$ 273,366**	**$ 2,814**	**4.17%**	$ 272,712	$ 2,141	3.11%	$ 282,190	$ 80	0.11%
Total noninterest-bearing deposits	**69,886**			75,862			90,179		
Other noninterest-bearing liabilities	**23,789**			25,810			25,419		
Total liabilities	**367,041**			374,384			397,788		
Total The Bank of New York Mellon Corporation shareholders' equity	**40,442**			40,097			42,201		
Noncontrolling interests	**18**			38			213		
Total liabilities and equity	**$ 407,501**			$ 414,519			$ 440,202		
Net interest revenue (FTE) – Non-GAAP *(b)(c)*		**$ 1,128**			$ 1,058			$ 701	
Net interest margin (FTE) – Non-GAAP *(b)(c)*			**1.29%**			1.19%			0.76%
Less: Tax equivalent adjustment		**—**			2			3	
Net interest revenue – GAAP		**$ 1,128**			$ 1,056			$ 698	
Net interest margin – GAAP			**1.29%**			1.19%			0.75%

(a) Includes the average impact of offsetting under enforceable netting agreements of approximately $62 billion for the first quarter of 2023, $51 billion for the fourth quarter of 2022 and $53 billion for the first quarter of 2022. On a Non-GAAP basis, excluding the impact of offsetting, the yield on federal funds sold and securities purchased under resale agreements would have been 4.62% for the first quarter of 2023, 3.76% for the fourth quarter of 2022 and 0.19% for the first quarter of 2022. On a Non-GAAP basis, excluding the impact of offsetting, the rate on federal funds purchased and securities sold under repurchase agreements would have been 4.49% for the first quarter of 2023, 3.63% for the fourth quarter of 2022 and 0.07% for the first quarter of 2022. We believe providing the rates excluding the impact of netting is useful to investors as it is more reflective of the actual rates earned and paid.

(b) Average rates were calculated on an FTE basis, at tax rates of approximately 21%.

(c) See "Net interest revenue" on page 9 for the reconciliation of this Non-GAAP measure.

Noninterest expense

Noninterest expense				**1Q23 vs.**	
(dollars in millions)	**1Q23**	4Q22	1Q22	**4Q22**	**1Q22**
Staff	**$ 1,791**	$ 1,802	$ 1,702	**(1)%**	**5%**
Software and equipment	**429**	432	399	**(1)**	**8**
Professional, legal and other purchased services	**375**	415	370	**(10)**	**1**
Net occupancy	**119**	143	122	**(17)**	**(2)**
Sub-custodian and clearing	**118**	112	118	**5**	**—**
Distribution and servicing	**85**	86	79	**(1)**	**8**
Bank assessment charges	**40**	19	35	**111**	**14**
Business development	**39**	45	30	**(13)**	**30**
Amortization of intangible assets	**14**	16	17	**(13)**	**(18)**
Other	**90**	143	134	**(37)**	**(33)**
Total noninterest expense	**$ 3,100**	$ 3,213	$ 3,006	**(4)%**	**3%**
Full-time employees at period end	**51,600**	51,700	49,600	**—%**	**4%**

Total noninterest expense increased 3% compared with the first quarter of 2022 and decreased 4% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher investments and revenue-related expenses, as well as the impact of inflation, partially offset by the favorable impact of efficiency savings, a stronger U.S. dollar and the impact of the Alcentra divestiture. The investments, net of savings, are primarily included in staff, software and equipment, and professional, legal and other purchased services expenses. The decrease compared with the fourth quarter of 2022 primarily reflects lower severance and litigation expenses, partially offset by higher staff expense primarily driven by the annual vesting of stock-based awards to retirement-eligible employees.

Income taxes

BNY Mellon recorded an income tax provision of $260 million (21.0% effective tax rate) in the first quarter of 2023. The income tax provision was $153 million (16.7% effective tax rate) in the first quarter of 2022 and $142 million (20.7% effective tax rate) in the fourth quarter of 2022. For additional information, see Note 11 of the Notes to Consolidated Financial Statements.

Review of business segments

We have an internal information system that produces performance data along product and service lines for our three principal business segments: Securities Services, Market and Wealth Services and Investment and Wealth Management, and the Other segment.

Business segment accounting principles

Our business segment data has been determined on an internal management basis of accounting, rather than the generally accepted accounting principles ("GAAP") used for consolidated financial reporting. These measurement principles are designed so that reported results of the businesses will track their economic performance.

For information on the accounting principles of our business segments, see Note 19 of the Notes to Consolidated Financial Statements. For information on the primary products and services in each line of business, the primary types of revenue by line of business and how our business segments are presented and analyzed, see Note 24 of the Notes to Consolidated Financial Statements in our 2022 Annual Report.

Business segment results are subject to reclassification when organizational changes are made, or for refinements in revenue and expense allocation methodologies. Refinements are typically reflected on a prospective basis. There were no reclassification or organizational changes in the first quarter of 2023.

The results of our business segments may be influenced by client and other activities that vary by quarter. In the first quarter, staff expense typically increases, reflecting the vesting of long-term stock awards for retirement-eligible employees. In the second quarter, staff expense typically increases, reflecting the annual employee merit increase. In the third quarter, volume-related fees may decline due to reduced client activity. In the fourth quarter, we typically incur higher business development and marketing expenses. In our Investment and Wealth Management business segment, performance fees are typically higher in the fourth and first quarters, as those quarters represent the end of the measurement period for many of the performance fee-eligible relationships.

The results of our business segments may also be impacted by the translation of financial results denominated in foreign currencies to the U.S. dollar. We are primarily impacted by activities denominated in the British pound and the euro. On a consolidated basis and in our Securities Services and Market and Wealth Services business segments, we typically have more foreign currency-denominated expenses than revenues. However, our Investment and Wealth Management business segment typically has more foreign currency-denominated revenues than expenses. Overall, currency fluctuations impact the year-over-year growth rate in the Investment and Wealth Management business segment more than the Securities Services and Market and Wealth Services business segments. However, currency fluctuations, in isolation, are not expected to significantly impact net income on a consolidated basis.

Fee revenue in the Investment and Wealth Management business segment, and, to a lesser extent, the Securities Services and Market and Wealth Services business segments, is impacted by global market fluctuations. At March 31, 2023, we estimated that a 5% change in global equity markets, spread evenly throughout the year, would impact fee revenue by less than 1% and diluted earnings per common share by $0.04 to $0.07.

See Note 19 of the Notes to Consolidated Financial Statements for the consolidating schedules, which show the contribution of our business segments to our overall profitability.

Securities Services business segment

(dollars in millions, unless otherwise noted)	1Q23	4Q22	3Q22	2Q22	1Q22	1Q23 vs. 4Q22	1Q23 vs. 1Q22
Revenue:							
Investment services fees:							
Asset Servicing	**$ 948**	$ 971	$ 953	$ 995	$ 999	**(2)%**	**(5)%**
Issuer Services	**236**	271	288	309	141	**(13)**	**67**
Total investment services fees	**1,184**	1,242	1,241	1,304	1,140	**(5)**	**4**
Foreign exchange revenue	**139**	149	132	155	148	**(7)**	**(6)**
Other fees *(a)*	**55**	55	52	54	41	**—**	**34**
Total fee revenue	**1,378**	1,446	1,425	1,513	1,329	**(5)**	**4**
Investment and other revenue	**72**	70	111	36	74	**N/M**	**N/M**
Total fee and other revenue	**1,450**	1,516	1,536	1,549	1,403	**(4)**	**3**
Net interest revenue	**666**	656	538	457	377	**2**	**77**
Total revenue	**2,116**	2,172	2,074	2,006	1,780	**(3)**	**19**
Provision for credit losses	**—**	11	(6)	13	(10)	**N/M**	**N/M**
Noninterest expense (excluding amortization of intangible assets)	**1,548**	1,568	1,549	1,647	1,502	**(1)**	**3**
Amortization of intangible assets	**8**	8	8	9	8	**—**	**—**
Total noninterest expense	**1,556**	1,576	1,557	1,656	1,510	**(1)**	**3**
Income before income taxes	**$ 560**	$ 585	$ 523	$ 337	$ 280	**(4)%**	**100%**
Pre-tax operating margin	**26%**	27%	25%	17%	16%		
Securities lending revenue *(b)*	**$ 48**	$ 50	$ 48	$ 45	$ 39	**(4)%**	**23%**
Total revenue by line of business:							
Asset Servicing	**$ 1,664**	$ 1,681	$ 1,596	$ 1,534	$ 1,512	**(1)%**	**10%**
Issuer Services	**452**	491	478	472	268	**(8)**	**69**
Total revenue by line of business	**$ 2,116**	$ 2,172	$ 2,074	$ 2,006	$ 1,780	**(3)%**	**19%**
Selected average balances:							
Average loans	**$ 10,939**	$ 11,850	$ 11,573	$ 11,386	$ 10,150	**(8)%**	**8%**
Average deposits	**$167,209**	$176,541	$176,328	$191,191	$192,156	**(5)%**	**(13)%**
Selected metrics:							
AUC/A at period end *(in trillions) (c)*	**$ 32.6**	$ 31.4	$ 30.0	$ 31.0	$ 33.7	**4%**	**(3)%**
Market value of securities on loan at period end *(in billions) (d)*	**$ 441**	$ 449	$ 435	$ 441	$ 449	**(2)%**	**(2)%**

(a) Other fees primarily include financing-related fees.
(b) Included in investment services fees reported in the Asset Servicing line of business.
(c) Consists of AUC/A primarily from the Asset Servicing line of business and, to a lesser extent, the Issuer Services line of business. Includes the AUC/A of CIBC Mellon of $1.5 trillion at March 31, 2023 and Dec. 31, 2022, $1.4 trillion at Sept. 30, 2022, $1.5 trillion at June 30, 2022 and $1.7 trillion at March 31, 2022.
(d) Represents the total amount of securities on loan in our agency securities lending program. Excludes securities for which BNY Mellon acts as agent on behalf of CIBC Mellon clients, which totaled $69 billion at March 31, 2023, $68 billion at Dec. 31, 2022, $75 billion at Sept. 30, 2022, $70 billion at June 30, 2022 and $78 billion at March 31, 2022.
N/M – Not meaningful.

Business segment description

The Securities Services business segment consists of two distinct lines of business, Asset Servicing and Issuer Services, which provide business solutions across the transaction life cycle to our global asset owner and asset manager clients. We are one of the leading global investment services providers with $32.6 trillion of AUC/A at March 31, 2023. For information on the drivers of the Securities Services fee revenue, see Note 10 of the Notes to Consolidated Financial Statements in our 2022 Annual Report.

The Asset Servicing business provides a comprehensive suite of solutions. We are one of the largest global custody and front-to-back outsourcing partners. We offer services for the safekeeping of assets in capital markets globally, as well as fund accounting services, exchange-traded funds servicing, transfer agency, trust and depository, front-to-back capabilities and data and analytics solutions for our clients. We deliver foreign exchange, and securities lending and financing solutions, on both an agency and principal basis. Our agency securities lending program is one of the largest lenders of U.S. and non-

U.S. securities, servicing a lendable asset pool of approximately $4.6 trillion in 34 separate markets. Our market-leading liquidity services portal enables cash investments for institutional clients and includes fund research and analytics.

The Issuer Services business includes Corporate Trust and Depositary Receipts. Our Corporate Trust business delivers a full range of issuer and related investor services, including trustee, paying agency, fiduciary, escrow and other financial services. We are a leading provider to the debt capital markets, providing customized and market-driven solutions to investors, bondholders and lenders. Our Depositary Receipts business drives global investing by providing servicing and value-added solutions that enable, facilitate and enhance cross-border trading, clearing, settlement and ownership. We are one of the largest providers of depositary receipts services in the world, partnering with leading companies from more than 50 countries.

Review of financial results

AUC/A of $32.6 trillion decreased 3% compared with March 31, 2022, primarily reflecting lower market values and the unfavorable impact of a stronger U.S. dollar, partially offset by client inflows and net new business.

Total revenue of $2.1 billion increased 19% compared with the first quarter of 2022 and decreased 3% compared with the fourth quarter of 2022. The drivers of total revenue by line of business are indicated below.

Asset Servicing revenue of $1.7 billion increased 10% compared with the first quarter of 2022 and decreased 1% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher net interest revenue and the abatement of money market fee waivers, partially offset by lower market values, the unfavorable impact of a stronger U.S. dollar and lower foreign exchange revenue. The decrease compared with the fourth quarter of 2022 primarily reflects lower foreign exchange revenue and client activity, partially offset by higher net interest revenue and market values.

Issuer Services revenue of $452 million increased 69% compared with the first quarter of 2022 and decreased 8% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects the accelerated amortization of deferred costs for depositary receipts services related to Russia recorded in the first quarter of 2022, higher net interest revenue and the abatement of money market fee waivers. The decrease compared with the fourth quarter of 2022 primarily reflects lower Depositary Receipts revenue.

Market and regulatory trends are driving investable assets toward lower fee asset management products at reduced margins for our clients. These dynamics are also negatively impacting our investment services fees. However, at the same time, these trends are providing additional outsourcing opportunities as clients and other market participants seek to comply with regulations and reduce their operating costs.

Noninterest expense of $1.6 billion increased 3% compared with the first quarter of 2022 and decreased 1% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher investments, as well as the impact of inflation, partially offset by the favorable impact of efficiency savings and a stronger U.S. dollar. The decrease compared with the fourth quarter of 2022 primarily reflects lower severance expense and litigation reserves.

Market and Wealth Services business segment

(dollars in millions, unless otherwise noted)	1Q23	4Q22	3Q22	2Q22	1Q22	1Q23 vs. 4Q22	1Q23 vs. 1Q22
Revenue:							
Investment services fees:							
Pershing	**$ 499**	$ 502	$ 494	$ 479	$ 433	**(1)%**	**15%**
Treasury Services	**168**	170	173	176	170	**(1)**	**(1)**
Clearance and Collateral Management	**260**	249	239	240	243	**4**	**7**
Total investment services fees	**927**	921	906	895	846	**1**	**10**
Foreign exchange revenue	**18**	20	20	22	26	**(10)**	**(31)**
Other fees *(a)*	**54**	47	49	46	34	**15**	**59**
Total fee revenue	**999**	988	975	963	906	**1**	**10**
Investment and other revenue	**15**	15	14	11	—	**N/M**	**N/M**
Total fee and other revenue	**1,014**	1,003	989	974	906	**1**	**12**
Net interest revenue	**453**	396	378	340	296	**14**	**53**
Total revenue	**1,467**	1,399	1,367	1,314	1,202	**5**	**22**
Provision for credit losses	**—**	6	(1)	4	(2)	**N/M**	**N/M**
Noninterest expense (excluding amortization of intangible assets)	**768**	783	735	700	706	**(2)**	**9**
Amortization of intangible assets	**1**	2	2	2	2	**(50)**	**(50)**
Total noninterest expense	**769**	785	737	702	708	**(2)**	**9**
Income before income taxes	**$ 698**	$ 608	$ 631	$ 608	$ 496	**15%**	**41%**
Pre-tax operating margin	**48%**	43%	46%	46%	41%		
Total revenue by line of business:							
Pershing	**$ 693**	$ 673	$ 658	$ 636	$ 570	**3%**	**22%**
Treasury Services	**412**	382	390	373	338	**8**	**22**
Clearance and Collateral Management	**362**	344	319	305	294	**5**	**23**
Total revenue by line of business	**$ 1,467**	$ 1,399	$ 1,367	$ 1,314	$ 1,202	**5%**	**22%**
Selected average balances:							
Average loans	**$ 36,854**	$ 39,843	$ 40,882	$ 42,391	$ 42,113	**(8)%**	**(12)%**
Average deposits	**$ 86,040**	$ 86,083	$ 90,612	$ 94,716	$ 95,704	**—%**	**(10)%**
Selected metrics:							
AUC/A at period end *(in trillions) (b)*	**$ 13.7**	$ 12.7	$ 12.0	$ 11.8	$ 11.6	**8%**	**18%**
Pershing:							
AUC/A at period end *(in trillions)*	**$ 2.4**	$ 2.3	$ 2.1	$ 2.2	$ 2.5	**4%**	**(4)%**
Net new assets (U.S. platform) *(in billions) (c)*	**$ 37**	$ 42	$ 45	$ 16	$ 18	**N/M**	**N/M**
Average active clearing accounts *(in thousands)*	**7,849**	7,603	7,466	7,432	7,432	**3%**	**6%**
Treasury Services:							
Average daily U.S. dollar payment volumes	**236,322**	246,189	234,468	237,763	240,403	**(4)%**	**(2)%**
Clearance and Collateral Management:							
Average tri-party collateral management balances *(in billions)*	**$ 5,626**	$ 5,451	$ 5,457	$ 5,207	$ 5,026	**3%**	**12%**

(a) Other fees primarily include financing-related fees.
(b) Consists of AUC/A from the Clearance and Collateral Management and Pershing lines of business.
(c) Net new assets represents net flows of assets (e.g., net cash deposits and net securities transfers, including dividends and interest) in customer accounts in Pershing LLC, a U.S. broker-dealer.
N/M – Not meaningful.

Business segment description

The Market and Wealth Services business segment consists of three distinct lines of business — Pershing, Treasury Services and Clearance and Collateral Management — which provide business services and technology solutions to entities including financial institutions, corporations, foundations and endowments, public funds and government agencies. For information on the drivers of the Market and Wealth Services fee revenue, see Note 10 of the Notes to Consolidated Financial Statements in our 2022 Annual Report.

Pershing provides execution, clearing, custody, business and technology solutions, delivering operational support to broker-dealers, wealth managers and registered investment advisors ("RIAs") globally.

Our Treasury Services business is a leading provider of global payments, liquidity management and trade finance services for financial institutions, corporations and the public sector.

Our Clearance and Collateral Management business clears and settles equity and fixed income transactions globally and serves as custodian for tri-party repo collateral worldwide. We are the primary provider of U.S. government securities clearance and a provider of non-U.S. government securities clearance. Our collateral services include collateral management, administration and segregation. We offer innovative solutions and industry expertise, which help financial institutions and institutional investors with their financing, risk and balance sheet challenges. We are a leading provider of tri-party collateral management services with an average of $5.6 trillion serviced globally, including approximately $4.6 trillion of the U.S. tri-party repo market at March 31, 2023.

Review of financial results

AUC/A of $13.7 trillion increased 18% compared with March 31, 2022, primarily reflecting net client inflows, partially offset by lower market values and the impact of the stronger U.S. dollar.

Total revenue of $1.5 billion increased 22% compared with the first quarter of 2022 and 5% compared with the fourth quarter of 2022. The drivers of total revenue by line of business are indicated below.

Pershing revenue of $693 million increased 22% compared with the first quarter of 2022 and 3% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects the abatement of money market fee waivers and higher net interest revenue, partially offset by lower client activity. The increase compared with the fourth quarter of 2022 primarily reflects higher net interest revenue.

Treasury Services revenue of $412 million increased 22% compared with the first quarter of 2022 and 8% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher net interest revenue and the abatement of money market fee waivers. The increase compared with the fourth quarter of 2022 primarily reflects higher net interest revenue.

Clearance and Collateral Management revenue of $362 million increased 23% compared with the first quarter of 2022 and 5% compared with the fourth quarter of 2022. The increases compared with the first quarter of 2022 and the fourth quarter of 2022 primarily reflect higher net interest revenue and U.S. government clearance volumes.

Noninterest expense of $769 million increased 9% compared with the first quarter of 2022 and decreased 2% compared with the fourth quarter of 2022. The increase compared with the first quarter of 2022 primarily reflects higher investments and higher revenue-related expense, as well as the impact of inflation, partially offset by the favorable impact of efficiency savings and a stronger U.S. dollar.

Investment and Wealth Management business segment

(dollars in millions)	1Q23	4Q22	3Q22	2Q22	1Q22	1Q23 vs. 4Q22	1Q23 vs. 1Q22
Revenue:							
Investment management fees	**$ 752**	$ 754	$ 788	$ 825	$ 848	**—%**	**(11)%**
Performance fees	**22**	26	10	5	34	**N/M**	**(35)**
Investment management and performance fees *(a)*	**774**	780	798	830	882	**(1)**	**(12)**
Distribution and servicing fees	**55**	54	55	51	32	**2**	**72**
Other fees *(b)*	**(53)**	(58)	(45)	(31)	1	**N/M**	**N/M**
Total fee revenue	**776**	776	808	850	915	**—**	**(15)**
Investment and other revenue *(c)*	**6**	(3)	(3)	(13)	(8)	**N/M**	**N/M**
Total fee and other revenue *(c)*	**782**	773	805	837	907	**1**	**(14)**
Net interest revenue	**45**	52	57	62	57	**(13)**	**(21)**
Total revenue	**827**	825	862	899	964	**—**	**(14)**
Provision for credit losses	**—**	1	3	—	(3)	**N/M**	**N/M**
Noninterest expense (excluding goodwill impairment and amortization of intangible assets)	**729**	693	669	685	748	**5**	**(3)**
Goodwill impairment	**—**	—	680	—	—	**N/M**	**N/M**
Amortization of intangible assets	**5**	6	7	6	7	**(17)**	**(29)**
Total noninterest expense	**734**	699	1,356	691	755	**5**	**(3)**
Income (loss) before income taxes	**$ 93**	$ 125	$ (497)	$ 208	$ 212	**(26)%**	**(56)%**
Pre-tax operating margin	**11%**	15%	(57)%	23%	22%		
Adjusted pre-tax operating margin – Non-GAAP *(d)*	**13%**	17%	(64)% *(e)*	26%	24%		
Total revenue by line of business:							
Investment Management	**$ 557**	$ 550	$ 579	$ 603	$ 658	**1%**	**(15)%**
Wealth Management	**270**	275	283	296	306	**(2)**	**(12)**
Total revenue by line of business	**$ 827**	$ 825	$ 862	$ 899	$ 964	**—%**	**(14)%**
Average balances:							
Average loans	**$ 13,960**	$ 14,404	$ 14,482	$ 14,087	$ 13,228	**(3)%**	**6%**
Average deposits	**$ 16,144**	$ 16,416	$ 17,225	$ 20,802	$ 22,501	**(2)%**	**(28)%**

(a) On a constant currency basis, investment management and performance fees decreased 9% (Non-GAAP) compared with the first quarter of 2022. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for the reconciliation of this Non-GAAP measure.

(b) Other fees primarily include investment services fees.

(c) Investment and other revenue and total fee and other revenue are net of income (loss) attributable to noncontrolling interests related to consolidated investment management funds.

(d) Net of distribution and servicing expense. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for the reconciliation of this Non-GAAP measure.

(e) Excluding notable items and net of distribution and servicing expense, the adjusted pre-tax operating margin was 24% (Non-GAAP) in the third quarter of 2022. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for the reconciliation of this Non-GAAP measure.

N/M – Not meaningful.

AUM trends							**1Q23 vs.**	
(dollars in billions)		**1Q23**	4Q22	3Q22	2Q22	1Q22	**4Q22**	**1Q22**
AUM by product type: *(a)*								
Equity	**$**	**142**	$ 135	$ 125	$ 139	$ 168	**5%**	**(15)%**
Fixed income		**207**	198	205	226	248	**5**	**(17)**
Index		**408**	395	366	387	440	**3**	**(7)**
Liability-driven investments		**604**	570	546	641	812	**6**	**(26)**
Multi-asset and alternative investments		**161**	153	181	188	215	**5**	**(25)**
Cash		**386**	385	353	356	383	**—**	**1**
Total AUM	**$**	**1,908**	$ 1,836	$ 1,776	$ 1,937	$ 2,266	**4%**	**(16)%**
Changes in AUM: *(a)*								
Beginning balance of AUM	**$**	**1,836**	$ 1,776	$ 1,937	$ 2,266	$ 2,434		
Net inflows (outflows):								
Long-term strategies:								
Equity		**(4)**	(5)	(5)	(4)	(4)		
Fixed income		**4**	(12)	(3)	(1)	(5)		
Liability-driven investments		**10**	19	30	12	17		
Multi-asset and alternative investments		**(3)**	(4)	2	(5)	(4)		
Total long-term active strategies inflows (outflows)		**7**	(2)	24	2	4		
Index		**(2)**	(4)	(1)	12	(5)		
Total long-term strategies inflows (outflows)		**5**	(6)	23	14	(1)		
Short-term strategies:								
Cash		**—**	27	(2)	(26)	(11)		
Total net inflows (outflows)		**5**	21	21	(12)	(12)		
Net market impact		**52**	18	(118)	(241)	(130)		
Net currency impact		**15**	53	(64)	(76)	(26)		
Divestiture		**—**	(32)	—	—	—		
Ending balance of AUM	**$**	**1,908**	$ 1,836	$ 1,776	$ 1,937	$ 2,266	**4%**	**(16)%**
Wealth Management client assets *(b)*	**$**	**279**	$ 269	$ 256	$ 264	$ 305	**4%**	**(9)%**

(a) Excludes assets managed outside of the Investment and Wealth Management business segment.
(b) Includes AUM and AUC/A in the Wealth Management line of business.

Business segment description

Our Investment and Wealth Management business segment consists of two distinct lines of business, Investment Management and Wealth Management. Our investment firms deliver a highly diversified portfolio of investment strategies independently, and through our global distribution network, to institutional and retail clients globally. BNY Mellon Wealth Management provides investment management, custody, wealth and estate planning, private banking services, investment servicing and information management. See pages 19 and 20 of our 2022 Annual Report for additional information on our Investment and Wealth Management business segment.

Review of financial results

AUM decreased 16% compared with March 31, 2022, primarily reflecting lower market values, the unfavorable impact of a stronger U.S. dollar and the divestiture of Alcentra, partially offset by net inflows.

Net long-term strategy inflows were $5 billion in the first quarter of 2023, driven by inflows of liability-driven investments and fixed income, partially offset by outflows of equity and multi-asset and alternative investments. Market and regulatory trends have resulted in increased demand for lower fee asset management products and for performance-based fees.

Total revenue of $827 million decreased 14% compared with the first quarter of 2022 and was flat compared with the fourth quarter of 2022. The drivers of total revenue by line of business are indicated below.

Investment Management revenue of $557 million decreased 15% compared with the first quarter of 2022 and increased 1% compared with the fourth quarter of 2022. The decrease compared with the first quarter of 2022 primarily reflects the impact of the Alcentra divestiture, the mix of cumulative net inflows, lower market values and the unfavorable impact of a stronger U.S. dollar, partially offset by the abatement of money market fee waivers. The increase compared with the fourth quarter of 2022 primarily reflects higher market values.

Wealth Management revenue of $270 million decreased 12% compared with the first quarter of 2022 and 2% compared with the fourth quarter of 2022. The decrease compared with the first quarter of 2022 primarily reflects lower market values and changes in product mix.

Revenue generated in the Investment and Wealth Management business segment included 31% from non-U.S. sources in the first quarter of 2023, compared with 39% in the first quarter of 2022 and 34% in the fourth quarter of 2022.

Noninterest expense of $734 million decreased 3% compared with the first quarter of 2022 and increased 5% compared with the fourth quarter of 2022. The decrease compared with the first quarter of 2022 primarily reflects the impact of the Alcentra divestiture and the favorable impact of a stronger U.S. dollar, partially offset by higher revenue-related expenses. The increase compared with the fourth quarter of 2022 primarily reflects higher staff expense driven by the annual vesting of stock-based awards to retirement-eligible employees.

Other segment

(in millions)	**1Q23**	4Q22	3Q22	2Q22	1Q22
Fee revenue	**$ 3**	$ 12	$ 28	$ 13	$ 8
Investment and other revenue	**(14)**	(442)	(5)	62	12
Total fee and other revenue	**(11)**	(430)	23	75	20
Net interest expense	**(36)**	(48)	(47)	(35)	(32)
Total revenue	**(47)**	(478)	(24)	40	(12)
Provision for credit losses	**27**	2	(26)	30	17
Noninterest expense	**41**	153	29	63	33
(Loss) before income taxes	**$ (115)**	$ (633)	$ (27)	$ (53)	$ (62)
Average loans and leases	**$ 1,508**	$ 1,267	$ 1,145	$ 1,172	$ 1,319

See page 21 of our 2022 Annual Report for additional information on the Other segment.

Review of financial results

Total revenue includes corporate treasury and other investment activity, including hedging activity, which has an offsetting impact between fee and other revenue and net interest expense.

Total revenue decreased $35 million compared with the first quarter of 2022 and increased $431 million compared with the fourth quarter of 2022. The increase compared with the fourth quarter of 2022 primarily reflects the $449 million net loss from repositioning the securities portfolio in the fourth quarter of 2022.

The provision for credit losses was $27 million in the first quarter of 2023, reflecting changes in the macroeconomic forecast.

Noninterest expense increased $8 million compared with the first quarter of 2022 and decreased $112 million compared with the fourth quarter of 2022. The decrease compared with the fourth quarter of 2022 primarily reflects lower severance expense.

Critical accounting estimates

Our significant accounting policies are described in Note 1 of the Notes to Consolidated Financial Statements in our 2022 Annual Report. Our critical accounting estimates are those related to the allowance for credit losses, goodwill and other intangibles and litigation and regulatory contingencies, as referenced below.

Critical accounting estimates	Reference
Allowance for credit losses	2022 Annual Report, pages 23-25, and "Allowance for credit losses."
Goodwill and other intangibles	2022 Annual Report, pages 25-27. Also see below.
Litigation and regulatory contingencies	"Legal proceedings" in Note 18 of the Notes to Consolidated Financial Statements.

Goodwill and other intangibles

BNY Mellon's business segments include six reporting units for which goodwill impairment testing is performed on an annual basis. An interim test is performed when events or circumstances occur that may indicate that it is more likely than not that the fair value of any reporting unit may be less than its carrying value.

In the first quarter of 2023, due to the results of the fourth quarter 2022 interim impairment test and macroeconomic conditions, we performed an interim goodwill impairment test of the Investment Management reporting unit, which had $6.0 billion of allocated goodwill. The fair value of the Investment Management reporting unit exceeded its carrying value by approximately 1%. We determined the fair value of the Investment Management reporting unit using an income approach based on management's projections as of March 31, 2023. The discount rate applied to these cash flows was 10.5%.

Determining the fair value of a reporting unit is subject to uncertainty as it is reliant on estimates of cash flows that extend far into the future, and, by their nature, are difficult to estimate over such an extended time frame. In the future, changes in the assumptions or the discount rate could produce a material non-cash goodwill impairment.

As of March 31, 2023, if the discount rate applied to the estimated cash flows was increased or decreased by 25 basis points, the fair value of the Investment Management reporting unit would decrease or increase by 4%, respectively. Similarly, if the long-term growth rate was increased or decreased by 10 basis points, the fair value of the Investment Management reporting unit would increase or decrease by approximately 1%, respectively.

Consolidated balance sheet review

One of our key risk management objectives is to maintain a balance sheet that remains strong throughout market cycles to meet the expectations of our major stakeholders, including our shareholders, clients, creditors and regulators.

We also seek to undertake overall liquidity risk, including intraday liquidity risk, that stays within our risk appetite. The objective of our balance sheet management strategy is to maintain a balance sheet that is characterized by strong liquidity and asset quality, ready access to external funding sources at competitive rates and a strong capital structure that supports our risk-taking activities and is adequate to absorb potential losses. In managing the balance sheet, appropriate consideration is given to balancing the competing needs of maintaining sufficient levels of liquidity and complying with applicable regulations and supervisory expectations while optimizing profitability.

At March 31, 2023, total assets were $425 billion, compared with $406 billion at Dec. 31, 2022. The increase in total assets was primarily driven by higher interest-bearing deposits with the Federal Reserve and other central banks, partially offset by lower securities and loans. Deposits totaled $281 billion at March 31, 2023, compared with $279 billion at Dec. 31, 2022. The increase reflects higher interest-bearing deposits in U.S. offices, partially offset by lower non-interest bearing (principally in U.S. offices) and interest-bearing deposits in non-U.S. offices. Total interest-bearing deposits as a percentage of total interest-earning assets was 58% at March 31, 2023 and Dec. 31, 2022.

At March 31, 2023, available funds totaled $165 billion and included cash and due from banks, interest-bearing deposits with the Federal Reserve and other central banks, interest-bearing deposits with banks and federal funds sold and securities purchased under resale agreements. This compares with available funds of $138 billion at Dec. 31, 2022. Total available funds as a percentage of total assets was 39% at March 31, 2023 and 34% at Dec. 31, 2022. For additional information on our available funds, see "Liquidity and dividends."

Securities were $139 billion, or 33% of total assets, at March 31, 2023, compared with $143 billion, or 35% of total assets, at Dec. 31, 2022. The decrease primarily reflects lower U.S. Treasury securities, partially offset by unrealized pre-tax gains in the first quarter and higher U.S. government agencies and collateralized loan obligation ("CLOs") securities. For additional information on our securities portfolio, see "Securities" and Note 4 of the Notes to Consolidated Financial Statements.

Loans were $62 billion, or 15% of total assets, at March 31, 2023, compared with $66 billion, or 16% of total assets, at Dec. 31, 2022. The decrease was driven by lower overdrafts, margin loans and loans in the financial institutions portfolio, partially offset by higher other residential mortgages. For additional information on our loan portfolio, see "Loans" and Note 5 of the Notes to Consolidated Financial Statements.

Long-term debt totaled $30 billion at March 31, 2023 and Dec. 31, 2022. Issuances and an increase in the fair value of hedged long-term debt were offset by maturities. For additional information on long-term debt, see "Liquidity and dividends."

The Bank of New York Mellon Corporation total shareholders' equity totaled $41 billion at March 31, 2023 and Dec. 31, 2022. For additional information, see "Capital."

Country risk exposure

The following table presents BNY Mellon's top 10 exposures by country (excluding the U.S.) as of March 31, 2023, as well as certain countries with higher risk profiles. The exposure is presented on an internal risk management basis and has not been reduced by the allowance for credit losses. We monitor our exposure to these and other countries as part of our internal country risk management process.

The country risk exposure below reflects the Company's risk to an immediate default of the counterparty or obligor based on the country of residence of the entity which incurs the liability. If there is credit risk mitigation, the country of residence of the entity providing the risk mitigation is the country of risk. The country of risk for securities is generally based on the domicile of the issuer of the security.

Country risk exposure at March 31, 2023	Interest-bearing deposits						
(in billions)	Central banks	Banks	Lending *(a)*	Securities *(b)*	Other *(c)*	Total exposure	
Top 10 country exposure:							
Germany	$ 21.9	$ 0.5	$ 0.7	$ 4.1	$ 0.3	$ 27.5	
United Kingdom ("UK")	11.2	0.5	1.3	4.2	2.1	19.3	
Belgium	8.4	0.9	0.1	0.1	0.1	9.6	
Japan	6.1	0.8	0.1	0.5	0.1	7.6	
Canada	—	2.2	0.1	4.0	1.3	7.6	
South Korea	0.1	—	2.3	0.1	0.3	2.8	
Australia	—	1.4	0.1	0.7	0.6	2.8	
France	—	—	0.1	2.3	0.4	2.8	
Singapore	—	0.5	0.1	1.1	1.0	2.7	
Cayman Islands	—	—	1.2	—	1.1	2.3	
Total Top 10 country exposure	**$ 47.7**	**$ 6.8**	**$ 6.1**	**$ 17.1**	**$ 7.3**	**$ 85.0**	*(d)*
Select country exposure:							
Brazil	$ —	$ —	$ 0.8	$ 0.1	$ 0.2	$ 1.1	
Russia	—	0.4 *(e)*	—	—	—	0.4	

(a) Lending includes loans, acceptances, issued letters of credit, net of participations, and lending-related commitments.
(b) Securities include both the available-for-sale and held-to-maturity portfolios.
(c) Other exposures include over-the-counter ("OTC") derivative and securities financing transactions, net of collateral.
(d) The top 10 country exposures comprise approximately 70% of our total non-U.S. exposure.
(e) Represents cash balances with exposure to Russia.

Events in recent years have resulted in increased focus on Brazil. The country risk exposure to Brazil is primarily short-term trade finance loans extended to large financial institutions. We also have operations in Brazil providing investment services and investment management services.

The war in Ukraine has increased our focus on Russia. The country risk exposure to Russia consists of cash balances related to our securities services businesses and may increase in the future to the extent cash is received for the benefit of our clients that is subject to distribution restrictions. BNY Mellon has ceased new banking business in Russia and suspended investment management purchases of Russian securities. At March 31, 2023, less than 0.1% of our AUC/A and less than 0.01% of our AUM consisted of Russian securities. We will continue to work with multinational clients that depend on our custody and recordkeeping services to manage their exposures.

Securities

In the discussion of our securities portfolio, we have included certain credit ratings information because the information can indicate the degree of credit risk to which we are exposed. Significant changes in ratings classifications could indicate increased credit risk for us and could be accompanied by an increase in the allowance for credit losses and/or a reduction in the fair value of our securities portfolio.

The following table shows the distribution of our total securities portfolio.

Securities portfolio	Dec. 31, 2022	1Q23 change in unrealized gain (loss)	**March 31, 2023**		Fair value as a % of amortized cost *(a)*	Unrealized gain (loss)	% Floating rate *(b)*	Ratings *(c)*				
(dollars in millions)	Fair value		Amortized cost *(a)*	Fair value				AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Not rated
Agency RMBS	$ 38,916	$ 488	**$ 43,691**	**$ 39,519**	90%	$ (4,172)	16%	100%	—%	—%	—%	—%
U.S. Treasury	41,503	306	**36,662**	**35,505**	97	(1,157)	49	100	—	—	—	—
Agency commercial mortgage-backed securities (“MBS”)	11,864	101	**12,529**	**11,824**	94	(705)	42	100	—	—	—	—
Sovereign debt/sovereign guaranteed *(d)*	11,756	59	**12,262**	**11,783**	96	(479)	24	90	5	4	1	—
Supranational	8,298	34	**8,835**	**8,595**	97	(240)	62	100	—	—	—	—
CLOs	6,300	13	**6,780**	**6,664**	98	(116)	100	100	—	—	—	—
U.S. government agencies	6,115	62	**7,149**	**6,655**	93	(494)	41	100	—	—	—	—
Foreign covered bonds *(e)*	5,776	22	**6,234**	**5,991**	96	(243)	56	100	—	—	—	—
Non-agency commercial MBS	3,054	(9)	**3,358**	**3,069**	91	(289)	54	100	—	—	—	—
Foreign government agencies *(f)*	2,307	16	**2,521**	**2,415**	96	(106)	33	94	6	—	—	—
Non-agency RMBS	2,060	7	**2,146**	**1,986**	93	(160)	49	86	3	—	6	5
Other asset-backed securities (“ABS”)	1,319	17	**1,252**	**1,145**	91	(107)	14	100	—	—	—	—
State and political subdivisions	23	—	**13**	**11**	88	(2)	—	1	2	3	—	94
Other	1	—	**1**	**1**	100	—	—	—	—	—	—	100
Total securities	$ 139,292 *(g)*	$ 1,116	**$ 143,433**	**$ 135,163** *(g)*	94%	$ (8,270) *(g)(h)*	39%	99%	1%	—%	—%	—%

(a) Amortized cost reflects historical impairments and is net of the allowance for credit losses.
(b) Includes the impact of hedges.
(c) Represents ratings by Standard & Poor’s (“S&P”) or the equivalent.
(d) Primarily consists of exposure to Germany, UK, France, Canada, Singapore and Italy.
(e) Primarily consists of exposure to Canada, UK, Australia, Germany and Norway.
(f) Primarily consists of exposure to Canada, Norway, the Netherlands, Sweden and France.
(g) Includes net unrealized gains on derivatives hedging securities available-for-sale (including terminated hedges) of $2,678 million at Dec. 31, 2022 and $1,979 million at March 31, 2023.
(h) At March 31, 2023, includes net unrealized losses of $2,776 million related to available-for-sale securities, net of hedges, and $5,494 million related to held-to-maturity securities. The after-tax unrealized losses, net of hedges, related to available-for-sale securities is $2,094 million and the after-tax equivalent related to held-to-maturity securities is $4,189 million.

The fair value of our securities portfolio, including related hedges, was $135.2 billion at March 31, 2023, compared with $139.3 billion at Dec. 31, 2022. The decrease primarily reflects lower U.S. Treasury securities, partially offset by unrealized pre-tax gains in the first quarter and higher U.S. government agencies and CLO securities. At March 31, 2023, the securities portfolio had a net unrealized loss, including the impact of related hedges, of $8.3 billion, compared with a net unrealized loss, including the impact of related hedges, of $9.4 billion at Dec. 31, 2022. The decrease in the net unrealized loss, including the impact of hedges, was primarily driven by lower market interest rates.

The fair value of the available-for-sale securities totaled $86.1 billion at March 31, 2023, net of hedges, or 64% of the securities portfolio, net of hedges. The fair value of the held-to-maturity securities totaled $49.1 billion at March 31, 2023, or 36% of the securities portfolio, net of hedges.

The unrealized loss (after-tax) on our available-for-sale securities portfolio, net of hedges, included in accumulated other comprehensive income was $2.1 billion at March 31, 2023, compared with $2.4 billion at Dec. 31, 2022. The decrease in the unrealized loss, net of tax, was primarily driven by lower market interest rates.

At March 31, 2023, 99% of the securities in our portfolio were rated AAA/AA-, unchanged compared with Dec. 31, 2022.

See Note 4 of the Notes to Consolidated Financial Statements for the pre-tax net securities gains (losses) by security type. See Note 15 of the Notes to Consolidated Financial Statements for securities by level in the fair value hierarchy.

The following table presents the amortizable purchase premium (net of discount) and net amortization related to the securities portfolio.

Amortizable purchase premium (net of discount) and net amortization of securities *(a)* *(in millions)*	**1Q23**	4Q22	1Q22
Amortizable purchase premium, net of discount	**$ 1,096**	$ 1,109	$ 1,699
Net amortization	**$ 42**	$ 61	$ 121

(a) *Amortization of purchase premium decreases net interest revenue while accretion of discount increases net interest revenue. Both were recorded on a level yield basis.*

Loans

Total exposure – consolidated	**March 31, 2023**			Dec. 31, 2022		
(in billions)	Loans	Unfunded commitments	Total exposure	Loans	Unfunded commitments	Total exposure
Financial institutions	**$ 9.3**	**$ 31.4**	**$ 40.7**	$ 9.7	$ 31.7	$ 41.4
Commercial	**1.8**	**11.6**	**13.4**	1.7	11.7	13.4
Wealth management loans	**10.0**	**0.6**	**10.6**	10.3	0.6	10.9
Wealth management mortgages	**9.0**	**0.3**	**9.3**	9.0	0.2	9.2
Commercial real estate	**6.3**	**3.8**	**10.1**	6.2	3.9	10.1
Lease financings	**0.7**	**—**	**0.7**	0.7	—	0.7
Other residential mortgages	**1.0**	**—**	**1.0**	0.4	—	0.4
Overdrafts	**2.4**	**—**	**2.4**	4.8	—	4.8
Capital call financing	**3.3**	**3.5**	**6.8**	3.4	3.5	6.9
Other	**2.8**	**—**	**2.8**	3.0	—	3.0
Margin loans	**15.7**	**—**	**15.7**	16.9	—	16.9
Total	**$ 62.3**	**$ 51.2**	**$ 113.5**	$ 66.1	$ 51.6	$ 117.7

At March 31, 2023, our total lending-related exposure of $113.5 billion decreased 4% compared with Dec. 31, 2022, primarily reflecting lower overdrafts, margin loans and exposure in the financial institutions portfolio, partially offset by higher other residential mortgage loans.

Our financial institutions and commercial portfolios comprise our largest concentrated risk. These portfolios comprised 48% of our total exposure at March 31, 2023 and 47% at Dec. 31, 2022. Additionally, most of our overdrafts relate to financial institutions.

Financial institutions

The financial institutions portfolio is shown below.

Financial institutions portfolio exposure (dollars in billions)	March 31, 2023					Dec. 31, 2022		
	Loans	Unfunded commitments	Total exposure	% Inv. grade	% due <1 yr.	Loans	Unfunded commitments	Total exposure
Securities industry	**$ 1.3**	**$ 17.2**	**$ 18.5**	**96%**	**98%**	$ 1.6	$ 17.5	$ 19.1
Asset managers	**1.5**	**7.8**	**9.3**	**99**	**84**	1.6	7.6	9.2
Banks	**6.0**	**1.4**	**7.4**	**86**	**98**	6.1	1.5	7.6
Insurance	**0.1**	**3.8**	**3.9**	**100**	**9**	0.1	3.8	3.9
Government	**—**	**0.2**	**0.2**	**100**	**42**	—	0.2	0.2
Other	**0.4**	**1.0**	**1.4**	**98**	**54**	0.3	1.1	1.4
Total	**$ 9.3**	**$ 31.4**	**$ 40.7**	**95%**	**84%**	$ 9.7	$ 31.7	$ 41.4

The financial institutions portfolio exposure was $40.7 billion at March 31, 2023, a decrease of 2% compared with Dec. 31, 2022, primarily reflecting lower exposure in the securities industry portfolio.

Financial institution exposures are high quality, with 95% of the exposures meeting the investment grade equivalent criteria of our internal credit rating classification at March 31, 2023. Each customer is assigned an internal credit rating, which is mapped to an equivalent external rating agency grade based upon a number of dimensions, which are continually evaluated and may change over time. For ratings of non-U.S. counterparties, our internal credit rating is generally capped at a rating equivalent to the sovereign rating of the country where the counterparty resides, regardless of the internal credit rating assigned to the counterparty or the underlying collateral.

The exposure to financial institutions is generally short term, with 84% of the exposures expiring within one year. At March 31, 2023, 19% of the exposure to financial institutions had an expiration within 90 days, compared with 17% at Dec. 31, 2022.

In addition, 64% of the financial institutions exposure is secured. For example, securities industry clients and asset managers often borrow against marketable securities held in custody.

At March 31, 2023, the secured intraday credit provided to dealers in connection with their tri-party repo activity totaled $16.1 billion and was included in the securities industry portfolio. Dealers secure the outstanding intraday credit with high-quality liquid collateral having a market value in excess of the amount of the outstanding credit. Secured intraday credit facilities represent approximately 40% of the exposure in the financial institutions portfolio and are reviewed and reapproved annually.

The asset managers portfolio exposure is high quality, with 99% of the exposures meeting our investment grade equivalent ratings criteria as of March 31, 2023. These exposures are generally short-term liquidity facilities, with the majority to regulated mutual funds.

Our banks portfolio exposure primarily relates to our global trade finance. These exposures are short term in nature, with 98% due in less than one year. The investment grade percentage of our banks portfolio exposure was 86% at March 31, 2023 and Dec. 31, 2022. Our non-investment grade exposures are primarily trade finance loans in Brazil.

Commercial

The commercial portfolio is presented below.

Commercial portfolio exposure	**March 31, 2023**					Dec. 31, 2022		
(dollars in billions)	Loans	Unfunded commitments	Total exposure	% Inv. grade	% due <1 yr.	Loans	Unfunded commitments	Total exposure
Manufacturing	**$ 0.6**	**$ 4.0**	**$ 4.6**	**96%**	**24%**	$ 0.5	$ 4.1	$ 4.6
Services and other	**0.9**	**3.2**	**4.1**	**97**	**37**	0.8	3.2	4.0
Energy and utilities	**0.2**	**3.7**	**3.9**	**94**	**3**	0.3	3.7	4.0
Media and telecom	**0.1**	**0.7**	**0.8**	**88**	**—**	0.1	0.7	0.8
Total	**$ 1.8**	**$ 11.6**	**$ 13.4**	**95%**	**20%**	$ 1.7	$ 11.7	$ 13.4

The commercial portfolio exposure was $13.4 billion at March 31, 2023, unchanged from Dec. 31, 2022, primarily reflecting higher exposure in the services and other portfolio offset by lower exposure in the energy and utilities portfolio.

Our credit strategy is to focus on investment grade clients that are active users of our non-credit services. The following table summarizes the percentage of the financial institutions and commercial portfolio exposures that are investment grade.

Percentage of the portfolios that are investment grade	Quarter ended				
	March 31, 2023	Dec. 31, 2022	Sept. 30, 2022	June 30, 2022	March 31, 2022
Financial institutions	**95%**	95%	96%	96%	97%
Commercial	**95%**	95%	95%	95%	94%

Wealth management loans

Our wealth management loan exposure was $10.6 billion at March 31, 2023, compared with $10.9 billion at Dec. 31, 2022. Wealth management loans primarily consist of loans to high-net-worth individuals, a majority of which are secured by the customers' investment management accounts or custody accounts.

Wealth management mortgages

Our wealth management mortgage exposure was $9.3 billion at March 31, 2023, compared with $9.2 billion at Dec. 31, 2022. Wealth management mortgages primarily consist of loans to high-net-worth individuals, which are secured by residential property. Wealth management mortgages are primarily interest-only, adjustable-rate mortgages with a weighted-average loan-to-value ratio of 61% at origination. At March 31, 2023, less than 1% of the mortgages were past due.

At March 31, 2023, the wealth management mortgage portfolio consisted of the following geographic concentrations: California – 21%; New York – 14%; Florida – 11%; Massachusetts – 8%; and other – 46%.

Commercial real estate

The composition of the commercial real estate portfolio by asset class, including percentage secured, is presented below.

Composition of commercial real estate portfolio by asset class	**March 31, 2023**			Dec. 31, 2022		
(in billions)		Total exposure	Percentage secured *(a)*		Total exposure	Percentage secured *(a)*
Residential	**$**	**4.2**	**86%**	$	4.1	85%
Office		**2.7**	**75**		2.8	75
Retail		**0.9**	**59**		0.9	58
Mixed use		**0.8**	**33**		0.8	33
Hotels		**0.6**	**42**		0.6	42
Healthcare		**0.4**	**49**		0.4	49
Other		**0.5**	**67**		0.5	66
Total commercial real estate	**$**	**10.1**	**72%**	$	10.1	71%

(a) Represents the percentage of exposure secured by real estate in each asset class.

Our commercial real estate exposure totaled $10.1 billion at March 31, 2023 and Dec. 31, 2022. Our income-producing commercial real estate facilities are focused on experienced owners and are structured with moderate leverage based on existing cash flows. Our commercial real estate lending activities also include construction and renovation facilities. Our client base consists of experienced developers and long-term holders of real estate assets. Loans are approved on the basis of existing or projected cash flows and supported by appraisals and knowledge of local market conditions. Development loans are structured with moderate leverage and, in many instances, involve some level of recourse to the developer.

At March 31, 2023, the unsecured portfolio consisted of real estate investment trusts (“REITs”) and real estate operating companies, which are both primarily investment grade.

At March 31, 2023, our commercial real estate portfolio consisted of the following concentrations: New York metro – 36%; REITs and real estate operating companies – 28%; and other – 36%.

Lease financings

The lease financings portfolio exposure totaled $640 million at March 31, 2023 and $657 million at Dec. 31, 2022. At March 31, 2023, 100% of leasing exposure was investment grade, or investment grade equivalent, and consisted of exposures backed by well-diversified assets, primarily real estate and large-ticket transportation equipment. The largest components of our lease residual value exposure relate to freight-related rail cars and aircraft. Assets are both domestic and foreign-based, with primary concentrations in Germany and the U.S.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled $1.0 billion at March 31, 2023 and $345 million at Dec. 31, 2022. Included in this portfolio at March 31, 2023 was $784 million of fixed-rate jumbo mortgage loans, purchased primarily in the first quarter of 2023, with a weighted-average loan-to-value ratio of 73% at origination.

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients and are generally repaid within two business days.

Capital call financing

Capital call financing includes loans to private equity funds that are secured by the fund investors’ capital commitments and the funds’ rights to call capital.

Other loans

Other loans primarily include loans to consumers that are fully collateralized with equities, mutual funds and fixed-income securities.

Margin loans

Margin loan exposure of $15.7 billion at March 31, 2023 and $16.9 billion at Dec. 31, 2022 was collateralized with marketable securities. Borrowers are required to maintain a daily collateral margin in excess of 100% of the value of the loan. Margin loans included $6 billion at March 31, 2023 and Dec. 31, 2022 related to a term loan program that offers fully collateralized loans to broker-dealers.

Allowance for credit losses

Our credit strategy is to focus on investment grade clients who are active users of our non-credit services. Our primary exposure to the credit risk of a customer consists of funded loans, unfunded contractual commitments to lend, standby letters of credit and overdrafts associated with our custody and securities clearance businesses.

The following table details changes in our allowance for credit losses.

Allowance for credit losses activity *(dollars in millions)*	**March 31, 2023**	Dec. 31, 2022	March 31, 2022
Beginning balance of allowance for credit losses	**$ 292**	$ 280	$ 260
Provision for credit losses	**27**	20	2
Net recoveries (charge-offs):			
Loans:			
Commercial	**1**	—	—
Other residential mortgages	**—**	1	1
Other financial instruments	**—**	(9)	—
Net recoveries (charge-offs)	**1**	(8)	1
Ending balance of allowance for credit losses	**$ 320**	$ 292	$ 263
Allowance for loan losses	**$ 170**	$ 176	$ 171
Allowance for lending-related commitments	**83**	78	53
Allowance for financial instruments *(a)*	**67**	38	39
Total allowance for credit losses	**$ 320**	$ 292	$ 263
Total loans, at period end	**$62,323**	$ 66,063	$ 68,052
Allowance for loan losses as a percentage of total loans	**0.27%**	0.27%	0.25%
Allowance for loan losses and lending-related commitments as a percentage of total loans	**0.41%**	0.38%	0.33%

(a) *Includes allowance for credit losses on federal funds sold and securities purchased under resale agreements, available-for-sale securities, held-to-maturity securities, accounts receivable, cash and due from banks and interest-bearing deposits with banks.*

The provision for credit losses was $27 million in the first quarter of 2023, reflecting changes in the macroeconomic forecast.

The allowance for loan losses and the allowance for lending-related commitments represent management's estimate of lifetime expected losses in our credit portfolio. This evaluation process is subject to numerous estimates and judgments. To the extent actual results differ from forecasts or management's judgment, the allowance for credit losses may be greater or less than future charge-offs.

Based on an evaluation of the allowance for credit losses as discussed in "Critical accounting estimates" in our 2022 Annual Report, we have allocated our allowance for loans and lending-related commitments as presented below.

Allocation of allowance for loan losses and lending-related commitments *(a)*	**March 31, 2023**		Dec. 31, 2022		March 31, 2022	
(dollars in millions)	**$**	**%**	$	%	$	%
Commercial real estate	**$ 177**	**70%**	$ 184	72%	$ 176	78%
Financial institutions	**24**	**9**	24	9	15	7
Commercial	**21**	**8**	18	7	12	5
Wealth management mortgages	**14**	**5**	12	5	9	4
Other residential mortgages	**9**	**4**	8	3	7	3
Capital call financing	**6**	**2**	6	2	3	1
Lease financings	**1**	**1**	1	1	1	1
Wealth management loans	**1**	**1**	1	1	1	1
Total	**$ 253**	**100%**	$ 254	100%	$ 224	100%

(a) The allowance allocated to margin loans and overdrafts was insignificant at March 31, 2023, Dec. 31, 2022 and March 31, 2022.

The allocation of the allowance for credit losses is inherently judgmental, and the entire allowance for credit losses is available to absorb credit losses regardless of the nature of the losses.

Our allowance for credit losses is sensitive to a number of inputs, most notably the credit ratings assigned to each borrower, as well as macroeconomic forecast assumptions that are incorporated into our estimate of credit losses through the expected life of the loan portfolio. Thus, as the macroeconomic environment and related forecasts change, the allowance for credit losses may change materially. The following sensitivity analyses do not represent management's expectations of the deterioration of our portfolios or the economic environment, but are provided as hypothetical scenarios to assess the sensitivity of the allowance for credit losses to changes in key inputs. If commercial real estate property values were increased 10% and all other credits were rated one grade better, the quantitative allowance would have decreased by $39 million, and if commercial real estate property values were decreased 10% and all other credits were rated one grade worse, the quantitative allowance would have increased by $78 million. Our multi-scenario-based macroeconomic forecast used in determining the March 31, 2023 allowance for credit losses consisted of three scenarios. The baseline scenario reflects slow GDP growth through the fourth quarter of 2023 before moderating, slightly rising unemployment and moderating growth in commercial real estate prices through the end of 2023. The upside scenario reflects faster GDP growth, slightly declining unemployment and higher commercial real estate prices compared with the baseline. The downside scenario contemplates negative GDP growth through the fourth quarter of 2023 with subsequent stabilization as well as increasing unemployment through mid-2024 and lower commercial real estate prices than the baseline. In the first quarter of 2023, we placed the most weight on our downside scenario, followed by the baseline scenario, with the remaining weighting placed on the upside scenario. From a sensitivity perspective, at March 31, 2023, if we had applied 100% weighting to the downside scenario, the allowance for credit losses would have been approximately $67 million higher.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets *(dollars in millions)*	**March 31, 2023**	Dec. 31, 2022
Nonperforming loans:		
Commercial real estate	**$ 54**	$ 54
Other residential mortgages	**30**	31
Wealth management mortgages	**19**	22
Total nonperforming loans	**103**	107
Other assets owned	**2**	2
Total nonperforming assets	**$ 105**	$ 109
Nonperforming assets ratio	**0.17%**	0.16%
Allowance for loan losses/ nonperforming loans	**165.0**	164.5
Allowance for loan losses/ nonperforming assets	**161.9**	161.5
Allowance for loan losses and lending-related commitments/nonperforming loans	**245.6**	237.4
Allowance for loan losses and lending-related commitments/nonperforming assets	**241.0**	233.0

Deposits

Total deposits were $281.3 billion at March 31, 2023, an increase of 1%, compared with $279.0 billion at Dec. 31, 2022. The increase reflects higher interest-bearing deposits in U.S. offices, partially offset by lower noninterest-bearing (principally in U.S. offices) and interest-bearing deposits in non-U.S. offices.

Noninterest-bearing deposits were $70.3 billion at March 31, 2023, compared with $78.0 billion at Dec. 31, 2022. Interest-bearing deposits were primarily demand deposits and totaled $211.0 billion at March 31, 2023, compared with $201.0 billion at Dec. 31, 2022.

Short-term borrowings

We fund ourselves primarily through deposits and, to a lesser extent, other short-term borrowings and long-term debt. Short-term borrowings consist of federal funds purchased and securities sold under repurchase agreements, payables to customers and broker-dealers, commercial paper and other borrowed funds. Certain short-term borrowings, for example, securities sold under repurchase agreements, require the delivery of securities as collateral.

Federal funds purchased and securities sold under repurchase agreements include repurchase agreement activity with the Fixed Income Clearing Corporation ("FICC"), where we record interest expense on a gross basis, but the ending and average balances reflect the impact of offsetting under enforceable netting agreements. This activity primarily relates to government securities collateralized resale and repurchase agreements executed with clients that are novated to and settle with the FICC.

Payables to customers and broker-dealers represent funds awaiting reinvestment and short sale proceeds payable on demand. Payables to customers and broker-dealers are driven by customer trading activity and market volatility.

The Bank of New York Mellon may issue commercial paper that matures within 397 days from the date of issue and is not redeemable prior to maturity or subject to voluntary prepayment.

Other borrowed funds primarily include borrowings from the Federal Home Loan Bank, overdrafts of sub-custodian account balances in our Securities Services businesses, finance lease liabilities and borrowings under lines of credit by our Pershing subsidiaries. Overdrafts typically relate to timing differences for settlements.

Liquidity and dividends

BNY Mellon defines liquidity as the ability of the Parent and its subsidiaries to access funding or convert assets to cash quickly and efficiently, or to roll over or issue new debt, especially during periods of market stress, at a reasonable cost, and in order to meet its short-term (up to one year) obligations. Funding liquidity risk is the risk that BNY Mellon cannot meet its cash and collateral obligations at a reasonable cost for both expected and unexpected cash flow and collateral needs without adversely affecting daily operations or our financial condition. Funding liquidity risk can arise from funding mismatches, market constraints from the inability to convert assets into cash, the inability to hold or raise cash, low overnight deposits, deposit run-off or contingent liquidity events.

Changes in economic conditions or exposure to credit, market, operational, legal and reputational risks also can affect BNY Mellon's liquidity risk profile and are considered in our liquidity risk framework. For additional information, see "Risk Management – Liquidity Risk" in our 2022 Annual Report.

The Parent's policy is to have access to sufficient unencumbered cash and cash equivalents at each quarter end to cover maturities and other forecasted debt redemptions, net interest payments and net tax payments for the following 18-month period, and to provide sufficient collateral to satisfy transactions subject to Section 23A of the Federal Reserve Act. As of March 31, 2023, the Parent was in compliance with this policy.

We monitor and control liquidity exposures and funding needs within and across significant legal entities, branches, currencies and business lines, taking into account, among other factors, any applicable restrictions on the transfer of liquidity among entities.

BNY Mellon also manages potential intraday liquidity risks. We monitor and manage intraday liquidity against existing and expected intraday liquid resources (such as cash balances, remaining intraday credit capacity, intraday contingency funding and available collateral) to enable BNY Mellon to meet its intraday obligations under normal and reasonably severe stressed conditions.

We define available funds for internal liquidity management purposes as cash and due from banks, interest-bearing deposits with the Federal Reserve and other central banks, interest-bearing deposits with banks and federal funds sold and securities purchased under resale agreements.

The following table presents our total available funds at period end and on an average basis.

Available funds *(dollars in millions)*	**March 31, 2023**	Dec. 31, 2022	Average **1Q23**	4Q22	1Q22
Cash and due from banks	**$ 5,564**	$ 5,030	**$ 5,697**	$ 5,413	$ 6,040
Interest-bearing deposits with the Federal Reserve and other central banks	**117,042**	91,655	**94,899**	94,868	100,303
Interest-bearing deposits with banks	**15,114**	17,169	**16,225**	15,750	17,181
Federal funds sold and securities purchased under resale agreements	**26,894**	24,298	**24,631**	25,657	27,006
Total available funds	**$164,614**	$138,152	**$141,452**	$141,688	$150,530
Total available funds as a percentage of total assets	**39%**	34%	**35%**	34%	34%

Total available funds were $164.6 billion at March 31, 2023, compared with $138.2 billion at Dec. 31, 2022. The increase was primarily due to higher interest-bearing deposits with the Federal Reserve and other central banks, federal funds sold and securities purchased under resale agreements and cash and due from banks, partially offset by lower interest-bearing deposits with banks.

Average non-core sources of funds, such as federal funds purchased and securities sold under repurchase agreements, trading liabilities, other borrowed funds and commercial paper, were $22.1 billion for the first three months of 2023, compared with $16.7 billion for the first three months of 2022. The increase primarily reflects higher federal funds purchased and securities sold under repurchase agreements and other borrowed funds, partially offset by lower trading liabilities.

Average interest-bearing foreign deposits, primarily from our European-based businesses included in the Securities Services and Market and Wealth Services segments, were $91.3 billion for the first three months of 2023, compared with $107.0 billion for the first three months of 2022. Average interest-bearing domestic deposits were $112.8 billion for the first three months of 2023, compared with $116.3 billion for the first three months of 2022. The decreases primarily reflect client activity.

Average payables to customers and broker-dealers were $17.0 billion for the first three months of 2023 and $16.7 billion for the first three months of 2022. Payables to customers and broker-dealers are driven by customer trading activity and market volatility.

Average long-term debt was $30.2 billion for the first three months of 2023 and $25.6 billion for the first three months of 2022.

Average noninterest-bearing deposits decreased to $69.9 billion for the first three months of 2023 from $90.2 billion for the first three months of 2022, primarily reflecting client activity.

A significant reduction of client activity in our Securities Services and Market and Wealth Services business segments would reduce our access to deposits. See "Asset/liability management" for additional factors that could impact our deposit balances.

Sources of liquidity

The Parent's major sources of liquidity are access to the debt and equity markets, dividends from its subsidiaries, and cash on hand and cash otherwise made available in business-as-usual circumstances to the Parent through a committed credit facility with our intermediate holding company ("IHC").

Our ability to access the capital markets on favorable terms, or at all, is partially dependent on our credit ratings, which are as follows:

Credit ratings at March 31, 2023	Moody's	S&P	Fitch	DBRS
Parent:				
Long-term senior debt	A1	A	AA-	AA
Subordinated debt	A2	A-	A	AA (low)
Preferred stock	Baa1	BBB	BBB+	A
Outlook – Parent	Stable	Stable	Stable	Stable
The Bank of New York Mellon:				
Long-term senior debt	Aa2	AA-	AA	AA (high)
Subordinated debt	NR	A	NR	NR
Long-term deposits	Aa1	AA-	AA+	AA (high)
Short-term deposits	P1	A-1+	F1+	R-1 (high)
Commercial paper	P1	A-1+	F1+	R-1 (high)
BNY Mellon, N.A.:				
Long-term senior debt	Aa2 *(a)*	AA-	AA *(a)*	AA (high)
Long-term deposits	Aa1	AA-	AA+	AA (high)
Short-term deposits	P1	A-1+	F1+	R-1 (high)
Outlook – Banks	Stable	Stable	Stable	Stable

(a) Represents senior debt issuer default rating.
NR – Not rated.

Long-term debt totaled $30.5 billion at March 31, 2023 and Dec. 31, 2022. Issuances of $1.5 billion and an increase in the fair value of hedged long-term debt were offset by maturities of $1.8 billion. Long-term debt of $3.5 billion will mature in the remainder of 2023.

In April 2023, the Parent issued $1.5 billion of fixed-to-floating rate senior notes maturing in 2027. The annual fixed interest rate is 4.947% from issuance to, but excluding, April 26, 2026, and then an annual interest rate of the compounded secured overnight financing rate ("SOFR") plus 102.6 basis points. The Parent also issued $1.0 billion of fixed-to-floating rate senior notes maturing in 2034. The annual fixed interest rate is 4.967% from issuance to, but excluding, April 26, 2033, and then an annual interest rate of the compounded SOFR plus 160.6 basis points.

The Bank of New York Mellon may issue notes and certificates of deposit ("CDs"). At March 31, 2023 and Dec. 31, 2022, $780 million of notes were outstanding. At March 31, 2023, $697 million of CDs were outstanding. There were $122 million of CDs outstanding at Dec. 31, 2022.

The Bank of New York Mellon also issues commercial paper that matures within 397 days from the date of issue and is not redeemable prior to maturity or subject to voluntary prepayment. There was no commercial paper outstanding at March 31, 2023 and Dec. 31, 2022. There was no average commercial paper outstanding for the first three months of 2023. Average commercial paper outstanding was $4 million for the first three months of 2022.

Subsequent to March 31, 2023, our U.S. bank subsidiaries could declare dividends to the Parent of approximately $1.5 billion, without the need for a regulatory waiver. In addition, at March 31, 2023, non-bank subsidiaries of the Parent had liquid assets of approximately $4.5 billion. Restrictions on our ability to obtain funds from our subsidiaries are discussed in more detail in "Supervision and Regulation – Capital Planning and Stress Testing – Payment of Dividends, Stock Repurchases and Other Capital Distributions" and in Note 19 of the Notes to Consolidated Financial Statements, both in our 2022 Annual Report.

Pershing LLC has uncommitted lines of credit in place for liquidity purposes that are guaranteed by the Parent. Pershing LLC has two separate uncommitted lines of credit amounting to $350 million in aggregate. There were no average borrowings under these lines in the first quarter of 2023. Pershing Limited, an indirect UK-based subsidiary of BNY Mellon, has two separate uncommitted lines of credit amounting to $259 million in aggregate. Average borrowings under these lines were $2 million in the first quarter of 2023.

The double leverage ratio is the ratio of our equity investment in subsidiaries divided by our consolidated Parent company equity, which includes our noncumulative perpetual preferred stock. In short, the double leverage ratio measures the extent to which equity in subsidiaries is financed by Parent company debt. As the double leverage ratio increases, this can reflect greater demands on a company's cash flows in order to service interest payments and debt maturities. BNY Mellon's double leverage ratio is managed in a range considering the high level of unencumbered available liquid assets held in its principal subsidiaries (such as central bank deposit placements and government securities), the Company's cash generating fee-based business model, with fee revenue representing 72% of total revenue in the first quarter of 2023, and the dividend capacity of our banking subsidiaries. Our double leverage ratio was 119.9% at March 31, 2023 and 120.5% at Dec. 31, 2022, and within the range targeted by management.

Uses of funds

The Parent's major uses of funds are repurchases of common stock, payment of dividends, principal and interest payments on its borrowings, acquisitions and additional investments in its subsidiaries.

In February 2023, a quarterly dividend of $0.37 per common share was paid to common shareholders. Our common stock dividend payout ratio was 34% for the first quarter of 2023.

In the first quarter of 2023, we repurchased 25.1 million common shares at an average price of $49.94 per common share, for a total cost of $1.3 billion.

Liquidity coverage ratio ("LCR")

U.S. regulators have established an LCR that requires certain banking organizations, including BNY Mellon, to maintain a minimum amount of unencumbered high-quality liquid assets ("HQLA") sufficient to withstand the net cash outflow under a hypothetical standardized acute liquidity stress scenario for a 30-day time horizon.

The following table presents BNY Mellon's consolidated HQLA at March 31, 2023, and the average HQLA and average LCR for the first quarter of 2023.

Consolidated HQLA and LCR *(dollars in billions)*	**March 31, 2023**
Cash *(a)*	$ 117
Securities *(b)*	87
Total consolidated HQLA *(c)*	$ 204
Total consolidated HQLA – average *(c)*	$ 195
Average LCR	118%

(a) Primarily includes cash on deposit with central banks.
(b) Primarily includes securities of U.S. government-sponsored enterprises, the U.S. Treasury, sovereigns and U.S. agencies.
(c) Consolidated HQLA presented before adjustments. After haircuts and the impact of trapped liquidity, consolidated HQLA totaled $140 billion at March 31, 2023 and averaged $135 billion for the first quarter of 2023.

BNY Mellon and each of our affected domestic bank subsidiaries were compliant with the U.S. LCR requirements of at least 100% throughout the first quarter of 2023.

Statement of cash flows

The following summarizes the activity reflected on the consolidated statement of cash flows. While this information may be helpful to highlight certain macro trends and business strategies, the cash flow analysis may not be as relevant when analyzing changes in our net earnings and net assets. We believe that in addition to the traditional cash flow analysis, the discussion related to liquidity and dividends and asset/liability management herein may provide more useful context in evaluating our liquidity position and related activity.

Net cash provided by operating activities was $1.8 billion in the three months ended March 31, 2023, compared with $3.4 billion in the three months ended March 31, 2022. In the three months ended March 31, 2023, cash flows provided by operations primarily resulted from changes in trading assets and liabilities and earnings, partially offset by changes in accruals. In the three months ended March 31, 2022, cash flows provided by operations primarily resulted from changes in trading assets and liabilities and earnings.

Net cash used for investing activities was $17.8 billion in the three months ended March 31, 2023, compared with $33.9 billion in the three months ended March 31, 2022. In the three months ended March 31, 2023, net cash used for investing activities primarily resulted from changes in interest-bearing deposits with the Federal Reserve and other central banks, partially offset by net changes in securities and loans. In the three months ended March 31, 2022, net cash used for investing activities primarily resulted from changes in interest-bearing deposits with the Federal Reserve and other central banks and changes in interest-bearing deposits with banks, partially offset by changes in federal funds sold and securities purchased under resale agreements.

Net cash provided by financing activities was $14.4 billion in the three months ended March 31, 2023, compared with $30.1 billion in the three months ended March 31, 2022. In the three months ended March 31, 2023, net cash provided by financing activities primarily resulted from changes in federal funds purchased and securities sold under repurchase agreements. In the three months ended March 31, 2022, net cash provided by financing activities primarily resulted from changes in deposits, changes in payables to customers and broker-dealers and changes in federal funds purchased and securities sold under repurchase agreements.

Capital

Capital data *(dollars in millions, except per share amounts; common shares in thousands)*	**March 31, 2023**	Dec. 31, 2022
BNY Mellon shareholders' equity to total assets ratio	**9.6%**	10.0%
BNY Mellon common shareholders' equity to total assets ratio	**8.4%**	8.8%
Total BNY Mellon shareholders' equity	**$ 40,634**	$ 40,734
Total BNY Mellon common shareholders' equity	**$ 35,796**	$ 35,896
BNY Mellon tangible common shareholders' equity – Non-GAAP *(a)*	**$ 18,561**	$ 18,686
Book value per common share	**$ 45.36**	$ 44.40
Tangible book value per common share – Non-GAAP *(a)*	**$ 23.52**	$ 23.11
Closing stock price per common share	**$ 45.44**	$ 45.52
Market capitalization	**$ 35,858**	$ 36,800
Common shares outstanding	**789,134**	808,445
Cash dividends per common share	**$ 0.37**	$ 0.37
Common dividend payout ratio	**34%**	60%
Common dividend yield *(annualized)*	**3.3%**	3.2%

(a) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 41 for a reconciliation of GAAP to Non-GAAP measures.

The Bank of New York Mellon Corporation total shareholders' equity decreased to $40.6 billion at March 31, 2023 from $40.7 billion at Dec. 31, 2022. The decrease primarily reflects common stock repurchases and common dividends, partially offset by earnings and unrealized gains in the first quarter on securities available-for-sale.

The unrealized loss (after-tax) on our available-for-sale securities portfolio, net of hedges, included in accumulated other comprehensive income was $2.1 billion at March 31, 2023, compared with $2.4 billion at Dec. 31, 2022. The decrease in the unrealized loss, net of tax, was primarily driven by lower market interest rates.

In the first three months of 2023, we repurchased 25.1 million common shares at an average price of $49.94 per common share for a total of $1.3 billion.

In January 2023, we announced a share repurchase program approved by our Board of Directors providing for the repurchase of up to $5.0 billion of common shares beginning Jan. 1, 2023. This new share repurchase plan replaced all previously authorized share repurchase plans.

Capital adequacy

Regulators establish certain levels of capital for bank holding companies ("BHCs") and banks, including BNY Mellon and our bank subsidiaries, in accordance with established quantitative measurements. For the Parent to maintain its status as a financial holding company, our U.S. bank subsidiaries and BNY Mellon must, among other things, qualify as "well capitalized." As of March 31, 2023 and Dec. 31, 2022, BNY Mellon and our U.S. bank subsidiaries were "well capitalized." Failure to satisfy regulatory standards, including "well capitalized" status or capital adequacy rules more generally, could result in limitations on our activities and adversely affect our financial condition. See the discussion of these matters in "Supervision and Regulation – Regulated Entities of BNY Mellon and Ancillary Regulatory Requirements" and "Risk Factors – Capital and Liquidity Risk – Failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules more generally, could result in limitations on our activities and adversely affect our business and financial condition," both of which are in our 2022 Annual Report.

The U.S. banking agencies' capital rules are based on the framework adopted by the Basel Committee on Banking Supervision, as amended from time to time. For additional information on these capital requirements, see "Supervision and Regulation" in our 2022 Annual Report.

The table below presents our consolidated and largest bank subsidiary regulatory capital ratios.

Consolidated and largest bank subsidiary regulatory capital ratios	**March 31, 2023**			Dec. 31, 2022
	Well capitalized	Minimum required *(a)*	Capital ratios	Capital ratios
Consolidated regulatory capital ratios: *(b)*				
Advanced Approaches:				
CET1 ratio	N/A *(c)*	8.5%	**11.0%**	11.2%
Tier 1 capital ratio	6%	10	**13.9**	14.1
Total capital ratio	10	12	**14.7**	14.9
Standardized Approach:				
CET1 ratio	N/A *(c)*	8.5%	**11.4%**	11.3%
Tier 1 capital ratio	6%	10	**14.4**	14.4
Total capital ratio	10	12	**15.4**	15.3
Tier 1 leverage ratio	N/A *(c)*	4	**5.8**	5.8
SLR *(d)*	N/A *(c)*	5	**6.9**	6.8
The Bank of New York Mellon regulatory capital ratios: *(b)*				
Advanced Approaches:				
CET1 ratio	6.5%	7%	**15.4%**	15.6%
Tier 1 capital ratio	8	8.5	**15.4**	15.6
Total capital ratio	10	10.5	**15.5**	15.7
Tier 1 leverage ratio	5	4	**6.3**	6.2
SLR *(d)*	6	3	**7.8**	7.7

(a) Minimum requirements for March 31, 2023 include minimum thresholds plus currently applicable buffers. The U.S. global systemically important banks ("G-SIB") surcharge is 1.5%. The countercyclical capital buffer is currently set to 0%. The stress capital buffer ("SCB") requirement is 2.5%, equal to the regulatory minimum for Standardized Approach capital ratios.
(b) For our CET1, Tier 1 capital and Total capital ratios, our effective capital ratios under U.S. capital rules are the lower of the ratios as calculated under the Standardized and Advanced Approaches. The Tier 1 leverage ratio is based on Tier 1 capital and quarterly average total assets.
(c) The Federal Reserve's regulations do not establish well capitalized thresholds for these measures for BHCs.
(d) The SLR is based on Tier 1 capital and total leverage exposure, which includes certain off-balance sheet exposures.

Our CET1 ratio under the Advanced Approaches was 11.0% at March 31, 2023 and 11.2% at Dec. 31, 2022. The decrease was primarily driven by capital deployed through common stock repurchases and common dividends and higher RWAs, partially offset by capital generated through earnings and unrealized gains in the first quarter on securities available-for-sale.

The Tier 1 leverage ratio was 5.8% at March 31, 2023 and Dec. 31, 2022, as a slight decrease in capital was offset by a decrease in average assets.

Risk-based capital ratios vary depending on the size of the balance sheet at period end and the levels and types of investments in assets, and leverage ratios vary based on the average size of the balance sheet over the quarter. The balance sheet size fluctuates from period to period based on levels of customer and market activity. In general, when servicing clients are more actively trading securities, deposit balances and the balance sheet as a whole are higher. In addition, when markets experience significant volatility or stress, our balance sheet size may increase considerably as client deposit levels increase.

Our capital ratios are necessarily subject to, among other things, anticipated compliance with all necessary enhancements to model calibration, approval by regulators of certain models used as part of RWA calculations, other refinements, further implementation guidance from regulators, market practices and standards and any changes BNY Mellon may make to its businesses. As a consequence of these factors, our capital ratios may materially change, and may be volatile over time and from period to period.

Under the Advanced Approaches, our operational loss risk model is informed by external losses, including fines and penalties levied against institutions in the financial services industry, particularly those that relate to businesses in which we operate, and as a result, external losses have impacted and could in the future impact the amount of capital that we are required to hold.

The following table presents our capital components and RWAs.

Capital components and risk-weighted assets *(in millions)*	**March 31, 2023**	Dec. 31, 2022
CET1:		
Common shareholders' equity	**$ 35,796**	$ 35,896
Adjustments for:		
Goodwill and intangible assets *(a)*	**(17,235)**	(17,210)
Net pension fund assets	**(347)**	(317)
Embedded goodwill	**(277)**	(279)
Deferred tax assets	**(57)**	(56)
Other	**(4)**	(2)
Total CET1	**17,876**	18,032
Other Tier 1 capital:		
Preferred stock	**4,838**	4,838
Other	**(4)**	(14)
Total Tier 1 capital	**$ 22,710**	$ 22,856
Tier 2 capital:		
Subordinated debt	**$ 1,248**	$ 1,248
Allowance for credit losses	**319**	291
Other	**(1)**	(11)
Total Tier 2 capital – Standardized Approach	**1,566**	1,528
Excess of expected credit losses	**48**	50
Less: Allowance for credit losses	**319**	291
Total Tier 2 capital – Advanced Approaches	**$ 1,295**	$ 1,287
Total capital:		
Standardized Approach	**$ 24,276**	$ 24,384
Advanced Approaches	**$ 24,005**	$ 24,143
Risk-weighted assets:		
Standardized Approach	**$ 157,399**	$ 159,096
Advanced Approaches:		
Credit Risk	**$ 91,142**	$ 90,243
Market Risk	**3,238**	2,979
Operational Risk	**68,525**	68,450
Total Advanced Approaches	**$ 162,905**	$ 161,672
Average assets for Tier 1 leverage ratio	**$ 389,581**	$ 396,643
Total leverage exposure for SLR	**$ 330,501**	$ 336,049

(a) Reduced by deferred tax liabilities associated with intangible assets and tax-deductible goodwill.

The table below presents the factors that impacted CET1 capital.

CET1 generation *(in millions)*	**1Q23**
CET1 – Beginning of period	$ **18,032**
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**905**
Goodwill and intangible assets, net of related deferred tax liabilities	**(25)**
Gross CET1 generated	**880**
Capital deployed:	
Common stock repurchases	**(1,256)**
Common stock dividends *(a)*	**(304)**
Total capital deployed	**(1,560)**
Other comprehensive gain:	
Unrealized gain on assets available-for-sale	**318**
Foreign currency translation	**103**
Unrealized gain on cash flow hedges	**5**
Defined benefit plans	**(3)**
Total other comprehensive gain	**423**
Additional paid-in capital *(b)*	**142**
Other (deductions) additions:	
Net pension fund assets	**(30)**
Embedded goodwill	**2**
Deferred tax assets	**(1)**
Other	**(12)**
Total other deductions	**(41)**
Net CET1 deployed	**(156)**
CET1 – End of period	$ **17,876**

(a) Includes dividend equivalents on share-based awards.
(b) Primarily related to stock awards and stock issued for employee benefit plans.

The following table shows the impact on the consolidated capital ratios at March 31, 2023 of a $100 million increase or decrease in common equity, or a $1 billion increase or decrease in RWAs, quarterly average assets or total leverage exposure.

Sensitivity of consolidated capital ratios at March 31, 2023	Increase or decrease of	
(in basis points)	$100 million in common equity	$1 billion in RWA, quarterly average assets or total leverage exposure
CET1:		
Standardized Approach	6 bps	7 bps
Advanced Approaches	6	7
Tier 1 capital:		
Standardized Approach	6	9
Advanced Approaches	6	9
Total capital:		
Standardized Approach	6	10
Advanced Approaches	6	9
Tier 1 leverage	3	2
SLR	3	2

Stress capital buffer

In August 2022, the Federal Reserve announced that BNY Mellon's SCB requirement would be 2.5%, equal to the regulatory floor, effective as of Oct. 1, 2022. The SCB replaced the static 2.5% capital conservation buffer for Standardized Approach capital ratios for CCAR BHCs. The SCB does not apply to bank subsidiaries, which remain subject to the static 2.5% capital conservation buffer. See "Supervision and Regulation" in our 2022 Annual Report for additional information.

The SCB final rule generally eliminates the requirement for prior approval of common stock repurchases in excess of the distributions in a firm's capital plan, provided that such distributions are consistent with applicable capital requirements and buffers, including the SCB.

Total Loss-Absorbing Capacity ("TLAC")

The following summarizes the minimum requirements for BNY Mellon's external TLAC and external long-term debt ("LTD") ratios, plus currently applicable buffers.

	As a % of RWAs *(a)*	**As a % of total leverage exposure**
Eligible external TLAC ratios	Regulatory minimum of 18% plus a buffer *(b)* equal to the sum of 2.5%, the method 1 G-SIB surcharge (currently 1%), and the countercyclical capital buffer, if any	Regulatory minimum of 7.5% plus a buffer *(c)* equal to 2%
Eligible external LTD ratios	Regulatory minimum of 6% plus the greater of the method 1 or method 2 G-SIB surcharge (currently 1.5%)	4.5%

(a) RWA is the greater of Standardized Approach and Advanced Approaches.
(b) Buffer to be met using only CET1.
(c) Buffer to be met using only Tier 1 capital.

External TLAC consists of the Parent's Tier 1 capital and eligible unsecured LTD issued by it that has a remaining term to maturity of at least one year and satisfies certain other conditions. Eligible LTD consists of the unpaid principal balance of eligible unsecured debt securities, subject to haircuts for amounts due to be paid within two years, that satisfy certain other conditions. Debt issued prior to Dec. 31, 2016 has been permanently grandfathered to the extent these instruments otherwise would be ineligible only due to containing impermissible acceleration rights or being governed by foreign law.

The following table presents our external TLAC and external LTD ratios.

TLAC and LTD ratios	March 31, 2023		
	Minimum required	Minimum ratios with buffers	Ratios
Eligible external TLAC:			
As a percentage of RWA	18.0%	21.5%	30.2%
As a percentage of total leverage exposure	7.5%	9.5%	14.9%
Eligible external LTD:			
As a percentage of RWA	7.5%	N/A	14.7%
As a percentage of total leverage exposure	4.5%	N/A	7.3%

N/A – Not applicable.

If BNY Mellon maintains risk-based ratio or leverage TLAC measures above the minimum required level, but with a risk-based ratio or leverage below the minimum level with buffers, we will face constraints on dividends, equity repurchases and discretionary executive compensation based on the amount of the shortfall and eligible retained income.

Trading activities and risk management

Our trading activities are focused on acting as a market-maker for our customers, facilitating customer trades and risk-mitigating hedging in compliance with the Volcker Rule. The risk from market-making activities for customers is managed by our traders and limited in total exposure through a system of position limits, value-at-risk ("VaR") methodology and other market sensitivity measures. VaR is the potential loss in value due to adverse market movements over a defined time horizon with a specified confidence level. The calculation of our VaR used by management and presented below assumes a one-day holding period, utilizes a 99% confidence level and incorporates non-linear product characteristics. VaR facilitates comparisons across portfolios of different risk characteristics. VaR also captures the diversification of aggregated risk at the firm-wide level.

VaR represents a key risk management measure, and it is important to note the inherent limitations to VaR, which include:

- VaR does not estimate potential losses over longer time horizons where moves may be extreme;
- VaR does not take into account the potential variability of market liquidity; and
- Previous moves in market risk factors may not produce accurate predictions of all future market moves.

See Note 17 of the Notes to Consolidated Financial Statements for additional information on the VaR methodology.

The following tables indicate the calculated VaR amounts for the trading portfolio for the designated periods using the historical simulation VaR model.

VaR *(a)*	**1Q23**			**March 31,**
(in millions)	**Average**	**Minimum**	**Maximum**	**2023**
Interest rate	**$ 3.8**	**$ 2.1**	**$ 7.6**	**$ 4.4**
Foreign exchange	**3.6**	**2.4**	**5.7**	**3.1**
Equity	**0.1**	**—**	**0.3**	**0.2**
Credit	**1.8**	**0.7**	**3.5**	**1.9**
Diversification	**(5.3)**	**N/M**	**N/M**	**(4.9)**
Overall portfolio	**4.0**	**2.2**	**8.9**	**4.7**

VaR *(a)*	4Q22			Dec. 31,
(in millions)	Average	Minimum	Maximum	2022
Interest rate	$ 2.9	$ 1.7	$ 5.1	$ 2.3
Foreign exchange	4.2	2.0	7.0	3.0
Equity	0.2	—	0.4	0.1
Credit	2.6	1.5	4.1	1.8
Diversification	(5.4)	N/M	N/M	(3.5)
Overall portfolio	4.5	3.1	6.7	3.7

VaR *(a)*	1Q22			March 31,
(in millions)	Average	Minimum	Maximum	2022
Interest rate	$ 3.4	$ 1.6	$ 6.9	$ 4.3
Foreign exchange	3.3	2.2	6.0	3.6
Equity	0.2	—	0.5	0.2
Credit	2.2	1.5	3.3	2.0
Diversification	(4.2)	N/M	N/M	(3.9)
Overall portfolio	4.9	2.8	8.1	6.2

(a) VaR exposure does not include the impact of the Company's consolidated investment management funds and seed capital investments.

N/M – Because the minimum and maximum may occur on different days for different risk components, it is not meaningful to compute a minimum and maximum portfolio diversification effect.

The interest rate component of VaR represents instruments whose values are predominantly driven by interest rate levels. These instruments include, but are not limited to, U.S. Treasury securities, swaps, swaptions, forward rate agreements, exchange-traded futures and options, and other interest rate derivative products.

The foreign exchange component of VaR represents instruments whose values predominantly vary with the level or volatility of currency exchange rates or interest rates. These instruments include, but are not limited to, currency balances, spot and forward transactions, currency options and other currency derivative products.

The equity component of VaR consists of instruments that represent an ownership interest in the form of domestic and foreign common stock or other equity-linked instruments. These instruments include, but are not limited to, common stock, exchange-traded funds, preferred stock, listed equity options (puts and calls), OTC equity options, equity total return swaps, equity index futures and other equity derivative products.

The credit component of VaR represents instruments whose values are predominantly driven by credit spread levels, i.e., idiosyncratic default risk. These instruments include, but are not limited to, single issuer credit default swaps, and securities with exposures from corporate and municipal credit spreads.

The diversification component of VaR is the risk reduction benefit that occurs when combining portfolios and offsetting positions, and from the correlated behavior of risk factor movements.

During the first quarter of 2023, interest rate risk generated 41% of average gross VaR, foreign exchange risk generated 39% of average gross VaR, equity risk generated 1% of average gross VaR and credit risk generated 19% of average gross VaR. During the first quarter of 2023, our daily trading loss did not exceed our calculated VaR amount of the overall portfolio.

The following table of total daily trading revenue or loss illustrates the number of trading days in which our trading revenue or loss fell within particular ranges during the past five quarters.

Distribution of trading revenue (loss) *(a)*

	Quarter ended				
(dollars in millions)	**March 31, 2023**	Dec. 31, 2022	Sept. 30, 2022	June 30, 2022	March 31, 2022
Revenue range:	Number of days				
Less than $(2.5)	—	2	—	1	1
$(2.5) – $0	**1**	4	3	4	8
$0 – $2.5	**20**	13	10	10	12
$2.5 – $5.0	**26**	24	32	24	23
More than $5.0	**15**	20	19	24	18

(a) *Trading revenue (loss) includes realized and unrealized gains and losses primarily related to spot and forward foreign exchange transactions, derivatives and securities trades for our customers and excludes any associated commissions, underwriting fees and net interest revenue.*

Trading assets include debt and equity instruments and derivative assets, primarily foreign exchange and interest rate contracts, not designated as hedging instruments. Trading assets were $9.0 billion at March 31, 2023 and $9.9 billion at Dec. 31, 2022.

Trading liabilities include debt and equity instruments and derivative liabilities, primarily foreign exchange and interest rate contracts, not designated as hedging instruments. Trading liabilities were $5.7 billion at March 31, 2023 and $5.4 billion at Dec. 31, 2022.

Under our fair value methodology for derivative contracts, an initial "risk-neutral" valuation is performed on each position assuming time discounting based on a AA credit curve. In addition, we consider credit risk in arriving at the fair value of our derivatives.

We reflect external credit ratings as well as observable credit default swap spreads for both ourselves and our counterparties when measuring the fair value of our derivative positions. Accordingly, the valuation of our derivative positions is sensitive to the current changes in our own credit spreads, as well as those of our counterparties.

At March 31, 2023, our OTC derivative assets, including those in hedging relationships, of $1.7 billion included a credit valuation adjustment ("CVA") deduction of $18 million. Our OTC derivative liabilities, including those in hedging relationships, of $3.0 billion included a debit valuation adjustment ("DVA") of $4 million related to our own credit spread. Net of hedges, the CVA was unchanged and the DVA increased by $1 million in the first quarter of 2023, which increased investment and other revenue – other trading revenue by $1 million. The net impact decreased investment and other revenue – other trading revenue by $2 million in the fourth quarter of 2022 and by less than $1 million in the first quarter of 2022.

The table below summarizes our exposure, net of collateral related to our derivative counterparties, as determined on an internal risk management basis. Significant changes in counterparty credit ratings could alter the level of credit risk faced by BNY Mellon.

Foreign exchange and other trading counterparty risk-rating profile

	March 31, 2023		Dec. 31, 2022	
(dollars in millions)	Exposure, net of collateral	Percentage of exposure, net of collateral	Exposure, net of collateral	Percentage of exposure, net of collateral
Investment grade	**$ 1,417**	**95%**	$ 2,553	98%
Non-investment grade	**77**	**5%**	63	2%
Total	**$ 1,494**	**100%**	$ 2,616	100%

Asset/liability management

Our diversified business activities include processing securities, accepting deposits, investing in securities, lending, raising money as needed to fund assets and other transactions. The market risks from these activities include interest rate risk and foreign exchange risk. Our primary market risk is exposure to movements in U.S. dollar interest rates and certain foreign currency interest rates. We actively manage interest rate sensitivity and use earnings simulation and discounted cash flow models to identify interest rate exposures.

An earnings simulation model is the primary tool used to assess changes in pre-tax net interest revenue between a baseline scenario and hypothetical interest rate scenarios. Interest rate sensitivity is quantified by calculating the change in pre-tax net interest revenue between the scenarios over a 12-month measurement period.

The baseline scenario incorporates the market's forward rate expectations and management's assumptions regarding client deposit rates, credit spreads, changes in the prepayment behavior of loans and securities and the impact of derivative financial instruments used for interest rate risk management purposes as of March 31, 2023. These assumptions have been developed through a combination of historical analysis and future expected pricing behavior and are inherently uncertain. Actual results may differ materially from projected results due to timing, magnitude and frequency of interest rate changes, and changes in market conditions and management's strategies, among other factors. Client deposit levels and mix are key assumptions impacting net interest revenue in the baseline as well as the hypothetical interest rate scenarios. The earnings simulation model assumes static deposit levels and mix, and it also assumes that no management actions will be taken to mitigate the effects of interest rate changes. Typically, the baseline scenario uses the average deposit balances of the quarter.

In the table below, we use the earnings simulation model to assess the impact of various hypothetical interest rate scenarios compared to the baseline scenario. In each of the scenarios, all currencies' interest rates are instantaneously shifted higher or lower at the start of the forecast. Long-term interest rates are defined as all tenors equal to or greater than three years and short-term interest rates are defined as all tenors equal to or less than three months. Interim term points are interpolated where applicable. The impact of interest rate shifts may not be linear. The results of this earnings simulation should therefore not be extrapolated for more severe interest rate scenarios than those presented in the table below.

The following table shows net interest revenue sensitivity for BNY Mellon.

Estimated changes in net interest revenue *(in millions)*	**March 31, 2023**	Dec. 31, 2022	March 31, 2022
Up 100 bps rate shock vs. baseline	**$ 441**	$ 214	$ 268
Long-term up 100 bps, short-term unchanged	**109**	30	24
Short-term up 100 bps, long-term unchanged	**332**	184	245
Long-term down 50 bps, short-term unchanged	**(61)**	(20)	(20)
Down 100 bps rate shock vs. baseline	**(463)**	(281)	(315)

At March 31, 2023, the impact of a 100 bps upward shift in rates on net interest revenue rose compared with Dec. 31, 2022. The drivers were lower expected deposit interest expense in rising rate scenarios, driven by changes in the forward rate curve to be more downward sloping and lower deposit rate sensitivity.

While the net interest revenue sensitivity scenario calculations assume static deposit balances to facilitate consistent period-over-period comparisons, net interest revenue is impacted by changes in deposit balances. Noninterest-bearing deposits are particularly sensitive to changes in short-term rates.

To illustrate the net interest revenue sensitivity to deposit run-off, we estimate that a $5 billion instantaneous reduction of U.S. dollar-denominated noninterest-bearing deposits would reduce the net interest revenue sensitivity results in the up 100 basis point scenario in the table above by approximately $290 million. The impact would be smaller if the run-off was assumed to be a mixture of interest-bearing and noninterest-bearing deposits.

Additionally, during periods of low short-term interest rates, money market mutual fund fees and other similar fees are typically waived to protect investors from negative returns. See “Fee and other revenue” in the 2022 Annual Report for additional details on money market fee waivers.

For a discussion of factors impacting the growth or contraction of deposits, see “Risk Factors – Capital and Liquidity Risk – Our business, financial condition and results of operations could be adversely affected if we do not effectively manage our liquidity” in our 2022 Annual Report.

Supplemental information – Explanation of GAAP and Non-GAAP financial measures

BNY Mellon has included in this Form 10-Q certain Non-GAAP financial measures on a tangible basis as a supplement to GAAP information, which exclude goodwill and intangible assets, net of deferred tax liabilities. We believe that the return on tangible common equity – Non-GAAP is additional useful information for investors because it presents a measure of those assets that can generate income, and the tangible book value per common share – Non-GAAP is additional useful information because it presents the level of tangible assets in relation to shares of common stock outstanding.

The presentation of the growth rates of investment management and performance fees on a constant currency basis permits investors to assess the significance of changes in foreign currency exchange rates. Growth rates on a constant currency basis were determined by applying the current period foreign currency exchange rates to the prior period revenue. We believe that this presentation, as a supplement to GAAP information, gives investors a clearer picture of the related revenue results without the variability caused by fluctuations in foreign currency exchange rates.

BNY Mellon has also included the adjusted pre-tax operating margin – Non-GAAP, which is the pre-tax operating margin for the Investment and Wealth Management business segment, net of distribution and servicing expense that was passed to third parties who distribute or service our managed funds. We believe that this measure is useful when evaluating the performance of the Investment and Wealth Management business segment relative to industry competitors.

The following table presents the reconciliation of the return on common equity and tangible common equity.

Return on common equity and tangible common equity reconciliation *(dollars in millions)*	**1Q23**	4Q22	1Q22
Net income applicable to common shareholders of The Bank of New York Mellon Corporation – GAAP	**$ 905**	$ 509	$ 699
Add: Amortization of intangible assets	**14**	16	17
Less: Tax impact of amortization of intangible assets	**3**	4	4
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation, excluding amortization of intangible assets – Non-GAAP	**$ 916**	$ 521	$ 712
Average common shareholders' equity	**$ 35,604**	$ 35,259	$ 37,363
Less: Average goodwill	**16,160**	16,229	17,490
Average intangible assets	**2,899**	2,905	2,979
Add: Deferred tax liability – tax deductible goodwill	**1,187**	1,181	1,184
Deferred tax liability – intangible assets	**660**	660	673
Average tangible common shareholders' equity – Non-GAAP	**$ 18,392**	$ 17,966	$ 18,751
Return on common equity *(annualized)* – GAAP	**10.3%**	5.7%	7.6%
Return on tangible common equity *(annualized)* – Non-GAAP	**20.2%**	11.5%	15.4%

The following table presents the reconciliation of book value and tangible book value per common share.

Book value and tangible book value per common share reconciliation *(dollars in millions, except per share amounts and unless otherwise noted)*	**March 31, 2023**	Dec. 31, 2022	March 31, 2022
BNY Mellon shareholders' equity at period end – GAAP	**$ 40,634**	$ 40,734	$ 41,799
Less: Preferred stock	**4,838**	4,838	4,838
BNY Mellon common shareholders' equity at period end – GAAP	**35,796**	35,896	36,961
Less: Goodwill	**16,192**	16,150	17,462
Intangible assets	**2,890**	2,901	2,968
Add: Deferred tax liability – tax deductible goodwill	**1,187**	1,181	1,184
Deferred tax liability – intangible assets	**660**	660	673
BNY Mellon tangible common shareholders' equity at period end – Non-GAAP	**$ 18,561**	$ 18,686	$ 18,388
Period-end common shares outstanding *(in thousands)*	**789,134**	808,445	807,798
Book value per common share – GAAP	**$ 45.36**	$ 44.40	$ 45.76
Tangible book value per common share – Non-GAAP	**$ 23.52**	$ 23.11	$ 22.76

The following table presents the impact of changes in foreign currency exchange rates on our consolidated investment management and performance fees.

Constant currency reconciliation – Consolidated *(dollars in millions)*	**1Q23**	1Q22	**1Q23 vs. 1Q22**
Investment management and performance fees – GAAP	**$ 776**	$ 883	**(12)%**
Impact of changes in foreign currency exchange rates	**—**	(28)	
Adjusted investment management and performance fees – Non-GAAP	**$ 776**	$ 855	**(9)%**

The following table presents the impact of changes in foreign currency exchange rates on investment management and performance fees reported in the Investment and Wealth Management business segment.

Constant currency reconciliation – Investment and Wealth Management business segment *(dollars in millions)*	**1Q23**	1Q22	**1Q23 vs. 1Q22**
Investment management and performance fees – GAAP	**$ 774**	$ 882	**(12)%**
Impact of changes in foreign currency exchange rates	**—**	(28)	
Adjusted investment management and performance fees – Non-GAAP	**$ 774**	$ 854	**(9)%**

The following tables present the reconciliations of income before income taxes and the pre-tax operating margin for the Investment and Wealth Management business segment.

Reconciliation of Non-GAAP measures – Investment and Wealth Management business segment *(dollars in millions)*	3Q22
(Loss) before income taxes – GAAP	$ (497)
Impact of notable items *(a)*	(679)
Adjusted income before income taxes – Non-GAAP	$ 182
Total revenue – GAAP	$ 862
Less: Distribution and servicing expense	88
Adjusted total revenue, net of distribution and servicing expense – Non-GAAP	$ 774
Pre-tax operating margin – GAAP *(b)*	(57)%
Adjusted pre-tax operating margin, net of distribution and servicing expense – Non-GAAP *(b)*	(64)%
Adjusted pre-tax operating margin, net of distribution and servicing expense and excluding notable items – Non-GAAP *(b)*	24%

(a) Notable items in the third quarter of 2022 include goodwill impairment and severance expense.
(b) Income before income taxes divided by total revenue.

Pre-tax operating margin reconciliation – Investment and Wealth Management business segment *(dollars in millions)*		**1Q23**		4Q22		2Q22		1Q22
Income before income taxes – GAAP	**$**	**93**	$	125	$	208	$	212
Total revenue – GAAP	**$**	**827**	$	825	$	899	$	964
Less: Distribution and servicing expense		**86**		87		91		79
Adjusted total revenue, net of distribution and servicing expense – Non-GAAP	**$**	**741**	$	738	$	808	$	885
Pre-tax operating margin – GAAP *(a)*		**11%**		15%		23%		22%
Adjusted pre-tax operating margin, net of distribution and servicing expense – Non-GAAP *(a)*		**13%**		17%		26%		24%

(a) Income before income taxes divided by total revenue.

Recent accounting and regulatory developments

Recent accounting developments

The following accounting guidance issued by the Financial Accounting Standards Board ("FASB") has not yet been adopted as of March 31, 2023.

Accounting Standards Update ("ASU") 2023-02, Investments—Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method

In March 2023, the FASB issued ASU 2023-02, *Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method*, which permits reporting entities to elect to account for their tax equity investments, regardless of the tax credit program from which the income tax credits are received, using the proportional amortization method if certain conditions are met. Under the proportional amortization method, an entity amortizes the initial cost of the investment in proportion to the income tax credits and other income tax benefits received, and recognizes the net amortization and income tax credits and other income tax benefits in the income statement as a component of the provision for income taxes.

This ASU is effective Jan. 1, 2024 with early adoption permitted. BNY Mellon is currently evaluating this guidance with respect to our investments in renewable energy projects, which historically have not been eligible to apply the proportional amortization method. These investments currently generate losses in investment and other revenue that are more than offset by benefits and credits recorded to the provision for income taxes. The impact of adopting this new guidance for our renewable energy investments that meet the eligibility criteria would be an increase in investment and other revenue and an increase in the provision for income taxes on the consolidated income statement.

Recent regulatory and other developments

For a summary of additional regulatory matters relevant to our operations, see "Supervision and Regulation" in our 2022 Annual Report. The following discussion summarizes certain regulatory, legislative and other developments that may affect BNY Mellon.

Recent bank failures

On March 12 and 13, 2023, following the closures of Silicon Valley Bank ("SVB") and Signature Bank and the appointment of the Federal Deposit Insurance Corporation ("FDIC") as the receiver for those banks, the FDIC announced that, under the systemic risk exception set forth in the Federal Deposit Insurance Act ("FDIA"), all insured and uninsured deposits of those banks were transferred to the respective bridge banks for SVB and Signature Bank.

The FDIC also announced that, as required by the FDIA, any losses to the Deposit Insurance Fund ("DIF") to support uninsured depositors would be recovered by a special assessment. Under the FDIA, the assessment may be on insured depository institutions, depository institution holding companies (with the concurrence of the Treasury Secretary), or both, as the FDIC determines to be appropriate. In March 2023 testimony before Congress, the Chairman of the FDIC stated that the FDIC then preliminarily estimated the losses to the DIF of resolving SVB and Signature Bank to be $22.5 billion in the aggregate. The FDIA provides that the special assessment will be prescribed through regulation. The FDIC has discretion with respect to the design and time frame for any special assessment, and, under the FDIA, the FDIC may consider the types of entities that benefit from the action taken, economic conditions, the effects on the industry, and such other factors as the FDIC deems appropriate. The timing, amount and allocation of the special assessment that will be imposed on banking organizations is uncertain, but the impact of the special assessment on our noninterest expense and results of operations may be material.

On May 1, 2023, the FDIC released a comprehensive overview of the deposit insurance system and options for reform to address financial stability concerns stemming from recent bank failures. The FDIC evaluated three primary options: limited coverage, unlimited coverage and targeted coverage. The proposed options would require Congressional action, though some aspects of the report lie within the scope of the FDIC's rulemaking authority. We are evaluating the impact of the proposed reforms.

The closures of SVB and Signature Bank and adverse developments affecting other banks in March 2023 resulted in heightened levels of market activity and volatility. We experienced increased deposit balances, which resulted in deposits increasing slightly at March 31, 2023 compared to Dec. 31, 2022, and we experienced elevated transaction volumes in parts of the business in the days following the closure of SVB and Signature Bank. On March 16, 2023, BNY Mellon and other large U.S. financial institutions made uninsured deposits into another U.S. financial institution, First Republic Bank. BNY Mellon's deposit in First Republic Bank totaled $1 billion and had a minimum term of 120 days. On May 1, 2023, the FDIC was appointed as receiver for First Republic Bank. Also on May 1, 2023, JPMorgan Chase acquired the substantial majority of assets and assumed the deposits and certain other liabilities of First Republic Bank from the FDIC receivership, including our deposit with First Republic Bank. The FDIC has indicated that the estimated losses to the DIF of resolving First Republic Bank are expected to be $13 billion, which is expected to result in increased FDIC assessments and increase our noninterest expense in future periods.

These recent bank failures and other developments in the banking industry may result in increased regulatory activity and restrictions on banks. In addition, these recent developments have highlighted that social media and technology have the potential to accelerate the speed of declines in deposit levels when there is a reduction of confidence in a banking institution.

U.S. debt ceiling

In January 2023, the outstanding national debt of the U.S. government reached its statutory limit. The U.S. Treasury Department has announced that, since then, it has been using extraordinary measures to prevent the U.S. government's default on its payment obligations, and to extend the time that the U.S. government has to raise its statutory debt limit or otherwise resolve its funding situation. Further delays to raise the Federal debt ceiling could have severe repercussions within the U.S. and to global credit and financial markets and could exacerbate concerns over the sovereign debt of other countries. If the U.S. government does not raise the debt ceiling, it could default on its payment obligations, or experience delays in making payments when due, including in respect of U.S. Treasury securities that play an integral role in financial markets. A payment default or delay by the U.S. government, or continued uncertainty surrounding the U.S. debt ceiling, could result in a variety of adverse effects for financial markets and market participants, as well as for our business, results of operations, liquidity and financial condition.

SEC cybersecurity proposals

On March 15, 2023, the SEC proposed a new rule regarding cybersecurity risk management for entities including broker-dealers, security-based swap dealers, and transfer agents. The proposed rule would require such entities to maintain written policies and procedures to address their cybersecurity risk, immediately notify the SEC of significant cybersecurity incidents, and publicly disclose descriptions of their cybersecurity risks and significant cybersecurity incidents.

The SEC also proposed amendments to Regulation S-P, including a requirement for broker-dealers, investment companies, registered investment advisers, and transfer agents to adopt written policies and procedures for an incident response program with respect to unauthorized access to or use of customer information. The proposal would require these entities to notify individuals whose sensitive customer information was accessed or used without authorization not later than 30 days after becoming aware that the information has been compromised. BNY Mellon is evaluating the potential impact of the proposals.

Website information

Our website is www.bnymellon.com. We currently make available the following information under the Investor Relations portion of our website. With respect to filings with the Securities and Exchange Commission ("SEC"), we post such information as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC.

- All of our SEC filings, including annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to these reports, as well as proxy statements and SEC Forms 3, 4 and 5;
- Our earnings materials and selected management conference calls and presentations;
- Other regulatory disclosures, including: Pillar 3 Disclosures (and Market Risk Disclosure contained therein); Liquidity Coverage Ratio Disclosures; Federal Financial Institutions Examination Council – Consolidated Reports of Condition and Income for a Bank With Domestic and Foreign Offices; Consolidated Financial Statements for Bank Holding Companies; and the Dodd-Frank Act Stress Test Results for BNY Mellon and The Bank of New York Mellon; and
- Our Corporate Governance Guidelines, Amended and Restated By-laws, Directors' Code of Conduct and the Charters of the Audit, Finance, Corporate Governance, Nominating and Social Responsibility, Human Resources and Compensation, Risk and Technology Committees of our Board of Directors.

We may use our website, our Twitter account (@BNYMellon) and other social media channels as additional means of disclosing information to the public. The information disclosed through those channels may be considered to be material. The contents of our website or social media channels referenced herein are not incorporated by reference into this Quarterly Report on Form 10-Q.

Consolidated Income Statement (unaudited)

(in millions)	Quarter ended March 31, 2023	Dec. 31, 2022	March 31, 2022
Fee and other revenue			
Investment services fees	**$ 2,119**	$ 2,173	$ 1,993
Investment management and performance fees	**776**	783	883
Foreign exchange revenue	**176**	190	207
Financing-related fees	**52**	43	45
Distribution and servicing fees	**33**	33	30
Total fee revenue	**3,156**	3,222	3,158
Investment and other revenue	**79**	(360)	70
Total fee and other revenue	**3,235**	2,862	3,228
Net interest revenue			
Interest revenue	**3,942**	3,197	778
Interest expense	**2,814**	2,141	80
Net interest revenue	**1,128**	1,056	698
Total revenue	**4,363**	3,918	3,926
Provision for credit losses	**27**	20	2
Noninterest expense			
Staff	**1,791**	1,802	1,702
Software and equipment	**429**	432	399
Professional, legal and other purchased services	**375**	415	370
Net occupancy	**119**	143	122
Sub-custodian and clearing	**118**	112	118
Distribution and servicing	**85**	86	79
Bank assessment charges	**40**	19	35
Business development	**39**	45	30
Amortization of intangible assets	**14**	16	17
Other	**90**	143	134
Total noninterest expense	**3,100**	3,213	3,006
Income			
Income before income taxes	**1,236**	685	918
Provision for income taxes	**260**	142	153
Net income	**976**	543	765
Net loss attributable to noncontrolling interests related to consolidated investment management funds	**—**	—	8
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**976**	543	773
Preferred stock dividends	**(71)**	(34)	(74)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 905**	$ 509	$ 699

Consolidated Income Statement (unaudited) (continued)

Net income applicable to common shareholders of The Bank of New York Mellon Corporation used for the earnings per share calculation *(in millions)*	Quarter ended **March 31, 2023**	Dec. 31, 2022	March 31, 2022
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 905**	$ 509	$ 699
Less: Earnings allocated to participating securities	**—**	—	—
Net income applicable to common shareholders of The Bank of New York Mellon Corporation after required adjustment for the calculation of basic and diluted earnings per common share	**$ 905**	$ 509	$ 699

Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(in thousands)*	Quarter ended **March 31, 2023**	Dec. 31, 2022	March 31, 2022
Basic	**803,340**	811,669	809,469
Common stock equivalents	**4,473**	4,275	4,878
Less: Participating securities	**(95)**	(98)	(361)
Diluted	**807,718**	815,846	813,986
Anti-dilutive securities *(a)*	**4,872**	2,170	2,647

(a) Represents stock options, restricted stock, restricted stock units and participating securities outstanding but not included in the computation of diluted average common shares because their effect would be anti-dilutive.

Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation *(in dollars)*	Quarter ended **March 31, 2023**	Dec. 31, 2022	March 31, 2022
Basic	**$ 1.13**	$ 0.63	$ 0.86
Diluted	**$ 1.12**	$ 0.62	$ 0.86

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Comprehensive Income Statement (unaudited)

	Quarter ended		
(in millions)	**March 31, 2023**	Dec. 31, 2022	March 31, 2022
Net income	**$ 976**	$ 543	$ 765
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	**103**	547	(153)
Unrealized gain (loss) on assets available-for-sale:			
Unrealized gain (loss) arising during the period	**317**	76	(1,531)
Reclassification adjustment	**1**	342	(3)
Total unrealized gain (loss) on assets available-for-sale	**318**	418	(1,534)
Defined benefit plans:			
Net (loss) arising during the period	**—**	(306)	—
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost	**(3)**	12	18
Total defined benefit plans	**(3)**	(294)	18
Net unrealized gain (loss) on cash flow hedges	**5**	2	(2)
Total other comprehensive income (loss), net of tax *(a)*	**423**	673	(1,671)
Total comprehensive income (loss)	**1,399**	1,216	(906)
Net loss attributable to noncontrolling interests	**—**	—	8
Other comprehensive (income) loss attributable to noncontrolling interests	**—**	(12)	3
Comprehensive income (loss) applicable to shareholders of The Bank of New York Mellon Corporation	**$ 1,399**	$ 1,204	$ (895)

(a) Other comprehensive income (loss) attributable to The Bank of New York Mellon Corporation shareholders was $423 million for the quarter ended March 31, 2023, $661 million for the quarter ended Dec. 31, 2022 and $(1,668) million for the quarter ended March 31, 2022.

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Balance Sheet (unaudited)

(dollars in millions, except per share amounts)	**March 31, 2023**	Dec. 31, 2022
Assets		
Cash and due from banks, net of allowance for credit losses of $33 and $29	**$ 5,564**	$ 5,030
Interest-bearing deposits with the Federal Reserve and other central banks	**117,042**	91,655
Interest-bearing deposits with banks, net of allowance for credit losses of $28 and $4 (includes restricted of $4,459 and $6,499)	**15,114**	17,169
Federal funds sold and securities purchased under resale agreements	**26,894**	24,298
Securities:		
Held-to-maturity, at amortized cost, net of allowance for credit losses of $1 and less than $1 (fair value of $49,067 and $49,992)	**54,561**	56,194
Available-for-sale, at fair value (amortized cost of $88,872 and $92,484, net of allowance for credit losses of less than $1 and $1)	**84,117**	86,622
Total securities	**138,678**	142,816
Trading assets	**9,024**	9,908
Loans	**62,323**	66,063
Allowance for credit losses	**(170)**	(176)
Net loans	**62,153**	65,887
Premises and equipment	**3,248**	3,256
Accrued interest receivable	**978**	858
Goodwill	**16,192**	16,150
Intangible assets	**2,890**	2,901
Other assets, net of allowance for credit losses on accounts receivable of $5 and $4 (includes $1,074 and $971, at fair value)	**27,335**	25,855
Total assets	**$ 425,112**	$ 405,783
Liabilities		
Deposits:		
Noninterest-bearing (principally U.S. offices)	**$ 70,246**	$ 78,017
Interest-bearing deposits in U.S. offices	**120,207**	108,362
Interest-bearing deposits in non-U.S. offices	**90,841**	92,591
Total deposits	**281,294**	278,970
Federal funds purchased and securities sold under repurchase agreements	**26,540**	12,335
Trading liabilities	**5,705**	5,385
Payables to customers and broker-dealers	**22,598**	23,435
Other borrowed funds	**2,538**	397
Accrued taxes and other expenses	**4,732**	5,410
Other liabilities (including allowance for credit losses on lending-related commitments of $83 and $78, also includes $314 and $221, at fair value)	**10,414**	8,543
Long-term debt	**30,489**	30,458
Total liabilities	**384,310**	364,933
Temporary equity		
Redeemable noncontrolling interests	**96**	109
Permanent equity		
Preferred stock – par value $0.01 per share; authorized 100,000,000 shares; issued 48,826 and 48,826 shares	**4,838**	4,838
Common stock – par value $0.01 per share; authorized 3,500,000,000 shares; issued 1,401,562,581 and 1,395,725,198 shares	**14**	14
Additional paid-in capital	**28,650**	28,508
Retained earnings	**38,465**	37,864
Accumulated other comprehensive loss, net of tax	**(5,543)**	(5,966)
Less: Treasury stock of 612,428,769 and 587,280,598 common shares, at cost	**(25,790)**	(24,524)
Total The Bank of New York Mellon Corporation shareholders' equity	**40,634**	40,734
Nonredeemable noncontrolling interests of consolidated investment management funds	**72**	7
Total permanent equity	**40,706**	40,741
Total liabilities, temporary equity and permanent equity	**$ 425,112**	$ 405,783

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Statement of Cash Flows (unaudited)

(in millions)	Three months ended March 31, 2023	2022
Operating activities		
Net income	**$ 976**	$ 765
Net loss attributable to noncontrolling interests	**—**	8
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**976**	773
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		
Provision for credit losses	**27**	2
Pension plan contributions	**(1)**	(1)
Depreciation and amortization	**351**	437
Deferred tax (benefit)	**2**	36
Net securities losses (gains)	**1**	(4)
Change in trading assets and liabilities	**989**	2,251
Change in accruals and other, net	**(553)**	(65)
Net cash provided by operating activities	**1,792**	3,429
Investing activities		
Change in interest-bearing deposits with banks	**(25)**	(2,068)
Change in interest-bearing deposits with the Federal Reserve and other central banks	**(24,908)**	(34,733)
Purchases of securities held-to-maturity	**(273)**	(1,299)
Paydowns of securities held-to-maturity	**1,063**	2,198
Maturities of securities held-to-maturity	**811**	400
Purchases of securities available-for-sale	**(8,917)**	(10,902)
Sales of securities available-for-sale	**6,581**	6,315
Paydowns of securities available-for-sale	**904**	1,754
Maturities of securities available-for-sale	**5,229**	3,303
Net change in loans	**3,714**	(497)
Change in federal funds sold and securities purchased under resale agreements	**(2,599)**	2,501
Net change in seed capital investments	**6**	(8)
Purchases of premises and equipment/capitalized software	**(261)**	(271)
Proceeds from the sale of premises and equipment	**—**	45
Other, net	**923**	(639)
Net cash (used for) investing activities	**(17,752)**	(33,901)
Financing activities		
Change in deposits	**760**	27,557
Change in federal funds purchased and securities sold under repurchase agreements	**14,231**	1,618
Change in payables to customers and broker-dealers	**(826)**	1,652
Change in other borrowed funds	**2,141**	(441)
Net proceeds from the issuance of long-term debt	**1,498**	1,295
Repayments of long-term debt	**(1,750)**	(1,250)
Proceeds from the exercise of stock options	**—**	9
Issuance of common stock	**3**	130
Treasury stock acquired	**(1,256)**	(118)
Common cash dividends paid	**(304)**	(278)
Preferred cash dividends paid	**(71)**	(74)
Other, net	**(13)**	(5)
Net cash provided by financing activities	**14,413**	30,095
Effect of exchange rate changes on cash	**41**	38
Change in cash and due from banks and restricted cash		
Change in cash and due from banks and restricted cash	**(1,506)**	(339)
Cash and due from banks and restricted cash at beginning of period	**11,529**	9,883
Cash and due from banks and restricted cash at end of period	**$ 10,023**	$ 9,544
Cash and due from banks and restricted cash		
Cash and due from banks at end of period (unrestricted cash)	**$ 5,564**	$ 6,143
Restricted cash at end of period	**4,459**	3,401
Cash and due from banks and restricted cash at end of period	**$ 10,023**	$ 9,544
Supplemental disclosures		
Interest paid	**$ 2,671**	$ 107
Income taxes paid	**160**	125
Income taxes refunded	**2**	5

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Statement of Changes in Equity (unaudited)

	The Bank of New York Mellon Corporation shareholders								
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock	Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable non-controlling interests/ temporary equity
Balance at Dec. 31, 2022	$ 4,838	$ 14	$ 28,508	$ 37,864	$ (5,966)	$(24,524)	$ 7	$ 40,741 *(a)*	$ 109
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	**10**
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	**(34)**
Other net changes in noncontrolling interests	—	—	**(8)**	—	—	—	**65**	**57**	**9**
Net income	—	—	—	**976**	—	—	—	**976**	—
Other comprehensive (loss)	—	—	—	—	**423**	—	—	**423**	—
Dividends:									
Common stock at $0.37 per share *(b)*	—	—	—	**(304)**	—	—	—	**(304)**	—
Preferred stock	—	—	—	**(71)**	—	—	—	**(71)**	—
Repurchase of common stock	—	—	—	—	—	**(1,256)**	—	**(1,256)**	—
Common stock issued under employee benefit plans	—	—	**5**	—	—	—	—	**5**	—
Stock-based compensation	—	—	**145**	—	—	—	—	**145**	—
Excise tax on share repurchases	—	—	—	—	—	**(10)**	—	**(10)**	—
Other	—	—	—	—	—	—	—	—	**2**
Balance at March 31, 2023	**$ 4,838**	**$ 14**	**$ 28,650**	**$ 38,465**	**$ (5,543)**	**$(25,790)**	**$ 72**	**$ 40,706** *(a)*	**$ 96**

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $35,896 million at Dec. 31, 2022 and $35,796 million at March 31, 2023.
(b) Includes dividend equivalents on share-based awards.

	The Bank of New York Mellon Corporation shareholders								
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock	Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable non-controlling interests/ temporary equity
Balance at Sept. 30, 2022	$ 4,838	$ 14	$ 28,374	$ 37,660	$ (6,627)	$(24,522)	$ 7	$ 39,744 *(a)*	$ 152
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	5
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	(16)
Other net changes in noncontrolling interests	—	—	47	—	—	—	—	47	(42)
Net income (loss)	—	—	—	543	—	—	—	543	—
Other comprehensive (loss)	—	—	—	—	661	—	—	661	12
Dividends:									
Common stock at $0.37 per share *(b)*	—	—	—	(305)	—	—	—	(305)	—
Preferred stock	—	—	—	(34)	—	—	—	(34)	—
Repurchase of common stock	—	—	—	—	—	(2)	—	(2)	—
Common stock issued under employee benefit plans	—	—	5	—	—	—	—	5	—
Stock-based compensation	—	—	82	—	—	—	—	82	—
Other	—	—	—	—	—	—	—	—	(2)
Balance at Dec. 31, 2022	$ 4,838	$ 14	$ 28,508	$ 37,864	$ (5,966)	$(24,524)	$ 7	$ 40,741 *(a)*	$ 109

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $34,899 million at Sept. 30, 2022 and $35,896 million at Dec. 31, 2022.
(b) Includes dividend equivalents on share-based awards.

Consolidated Statement of Changes in Equity (unaudited) (continued)

	The Bank of New York Mellon Corporation shareholders									
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss) income, net of tax	Treasury stock	Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity		Redeemable non-controlling interests/ temporary equity
Balance at Dec. 31, 2021	$ 4,838	$ 14	$ 28,128	$ 36,667	$ (2,213)	$(24,400)	$ 196	$ 43,230	*(a)*	$ 161
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—		7
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—		(14)
Other net changes in noncontrolling interests	—	—	(5)	—	—	—	10	5		4
Net income (loss)	—	—	—	773	—	—	(8)	765		—
Other comprehensive (loss)	—	—	—	—	(1,668)	—	—	(1,668)		(3)
Dividends:										
Common stock at $0.34 per share *(b)*	—	—	—	(278)	—	—	—	(278)		—
Preferred stock	—	—	—	(74)	—	—	—	(74)		—
Repurchase of common stock	—	—	—	—	—	(118)	—	(118)		—
Common stock issued under employee benefit plans	—	—	5	—	—	—	—	5		—
Stock awards and options exercised	—	—	130	—	—	—	—	130		—
Balance at March 31, 2022	$ 4,838	$ 14	$ 28,258	$ 37,088	$ (3,881)	$(24,518)	$ 198	$ 41,997	*(a)*	$ 155

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $38,196 million at December 31, 2021 and $36,961 million at March 31, 2022.

(b) Includes dividend equivalents on share-based awards.

See accompanying unaudited Notes to Consolidated Financial Statements.

Note 1–Basis of presentation

In this Quarterly Report on Form 10-Q, references to "our," "we," "us," "BNY Mellon," the "Company" and similar terms refer to The Bank of New York Mellon Corporation and its consolidated subsidiaries. The term "Parent" refers to The Bank of New York Mellon Corporation but not to its subsidiaries.

Basis of presentation

The accounting and financial reporting policies of BNY Mellon, a global financial services company, conform to U.S. generally accepted accounting principles ("GAAP") and prevailing industry practices. For information on our significant accounting and reporting policies, see Note 1 of the Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended Dec. 31, 2022 (the "2022 Annual Report").

The accompanying consolidated financial statements are unaudited. In the opinion of management, all adjustments necessary, consisting of normal recurring adjustments, for a fair presentation of financial position, results of operations and cash flows for the periods presented have been made. These financial statements should be read in conjunction with our Consolidated Financial Statements included in our 2022 Annual Report. Certain additional immaterial reclassifications have been made to prior periods to place them on a basis comparable with the current period presentation.

Use of estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates based upon assumptions about future economic and market conditions which affect reported amounts and related disclosures in our financial statements. Although our current estimates contemplate current conditions and how we expect them to change in the future, it is reasonably possible that actual conditions could be worse than anticipated in those estimates, which could materially affect our results of operations and financial condition.

Note 2–New accounting guidance

The following accounting guidance was adopted in the first quarter of 2023.

Accounting Standards Update ("ASU") 2022-01, Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method

In March 2022, the FASB issued ASU 2022-01, *Derivatives and Hedging (Topic 815): Fair Value Hedging – Portfolio Layer Method*, which provides guidance that expands the ability to hedge interest rate risk by permitting the use of multiple hedged layers of a single closed portfolio of assets and will (1) Allow multiple layer hedging within the same closed portfolio, (2) Expand the scope of the portfolio layer method to include non-prepayable assets, (3) Expand the eligible hedging instruments to be utilized in a single-layer hedge, and (4) Permit held-to-maturity debt securities to be transferred to available-for-sale at the date of adoption, provided such transferred securities are designated in a portfolio layer method hedge within 30 days of the adoption date.

The standard also provides further guidance and disclosure requirements with respect to hedge basis adjustments related to portfolio layer method hedges.

We adopted this guidance as of Jan. 1, 2023. The Company did not choose to make the one-time election to reclassify securities classified as held-to-maturity to available-for-sale as of Jan. 1, 2023 and can choose to prospectively apply portfolio layer method hedging.

ASU 2022-02, Financial Instruments – Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures

In March 2022, the FASB issued ASU 2022-02, *Financial Instruments – Credit Losses (Topic 326): Troubled Debt Restructurings and Vintage Disclosures*, which provides post-implementation guidance related to the adoption of ASU 2016-13, *Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments*, which was effective Jan. 1, 2020. This ASU amends the guidance related to two issues: Troubled Debt Restructurings ("TDRs") and disclosure requirements for the credit profile of the loan portfolio. This ASU eliminates the accounting guidance for TDRs by creditors, while enhancing disclosure requirements for certain loan refinancings and restructurings by creditors when a borrower is experiencing financial difficulty. An entity must apply the loan refinancing and restructuring guidance to determine whether a modification results in a new loan or a continuation of an existing loan.

This ASU also requires that an entity disclose current-period gross write-offs by year of origination for financing receivables and net investments in leases within the scope of Subtopic 326-20, *Financial Instruments – Credit Losses – Measured at Amortized Cost.*

We adopted the revised guidance related to loan modifications on Jan.1, 2023. The impact was immaterial. The updated disclosures are included in Note 5.

Note 3–Acquisitions and dispositions

We sometimes structure our acquisitions and divestitures with both an initial payment or receipt and later contingent payments or receipts tied to post-closing revenue or income growth. Contingent payments totaled $5 million in the first three months of 2023. There were no contingent receipts in the first three months of 2023. At March 31, 2023, we are potentially obligated to pay additional consideration which, using reasonable assumptions and estimates, could range from $25 million to $40 million over the next two years. At March 31, 2023, we could potentially receive additional consideration which, using reasonable assumptions and estimates, could be up to $390 million over the next five years.

See Note 3 of the Notes to Consolidated Financial Statements in our 2022 Annual Report for information related to the 2022 transactions.

Note 4–Securities

The following tables present the amortized cost, the gross unrealized gains and losses and the fair value of securities at March 31, 2023 and Dec. 31, 2022.

Securities at March 31, 2023		Gross unrealized		
(in millions)	Amortized cost	Gains	Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 26,578	$ 84	$ 1,957	$ 24,705
Sovereign debt/sovereign guaranteed	10,759	7	475	10,291
Agency residential mortgage-backed securities (“RMBS”)	10,575	110	487	10,198
Agency commercial mortgage-backed securities (“MBS”)	8,560	86	584	8,062
Supranational	8,242	8	339	7,911
Foreign covered bonds	6,234	6	261	5,979
Collateralized loan obligations (“CLOs”)	5,797	2	92	5,707
Non-agency commercial MBS	3,358	—	351	3,007
U.S. government agencies	2,945	52	192	2,805
Foreign government agencies	2,454	2	107	2,349
Non-agency RMBS	2,117	36	196	1,957
Other asset-backed securities (“ABS”)	1,252	—	107	1,145
Other debt securities	1	—	—	1
Total securities available-for-sale *(a)(b)*	**$ 88,872**	**$ 393**	**$ 5,148**	**$ 84,117**
Held-to-maturity:				
Agency RMBS	$ 33,116	$ 1	$ 3,795	$ 29,322
U.S. Treasury	10,084	1	750	9,335
U.S. government agencies	4,204	—	468	3,736
Agency commercial MBS	3,969	—	356	3,613
Sovereign debt/sovereign guaranteed	1,503	—	71	1,432
CLOs	983	—	26	957
Supranational	593	—	24	569
Foreign government agencies	67	—	4	63
Non-agency RMBS	29	2	2	29
State and political subdivisions	13	—	2	11
Total securities held-to-maturity	**$ 54,561**	**$ 4**	**$ 5,498**	**$ 49,067**
Total securities	**$ 143,433**	**$ 397**	**$10,646**	**$ 133,184**

(a) *The amortized cost of available-for-sale is net of the allowance for credit loss of less than $1 million. The allowance for credit loss related to available-for-sale securities primarily relates to non-agency RMBS.*

(b) *Includes gross unrealized gains of $323 million and gross unrealized losses of $171 million recorded in accumulated other comprehensive income related to securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains primarily relate to agency RMBS, U.S. Treasury securities and agency commercial MBS. The unrealized losses primarily relate to agency RMBS and U.S. Treasury securities. The unrealized gains and losses will be amortized into net interest revenue over the contractual lives of the securities.*

Securities at Dec. 31, 2022 (in millions)	Amortized cost	Gross unrealized Gains	Gross unrealized Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 32,103	$ 93	$ 2,663	$ 29,533
Sovereign debt/sovereign guaranteed	10,906	5	547	10,364
Agency RMBS	9,388	113	544	8,957
Agency commercial MBS	8,656	89	685	8,060
Supranational	8,129	4	399	7,734
Foreign covered bonds	6,041	3	286	5,758
CLOs	5,446	1	104	5,343
Non-agency commercial MBS	3,334	—	357	2,977
U.S. government agencies	2,465	52	223	2,294
Foreign government agencies	2,363	1	123	2,241
Non-agency RMBS	2,197	43	211	2,029
Other ABS	1,443	—	124	1,319
State and political subdivisions	12	—	—	12
Other debt securities	1	—	—	1
Total securities available-for-sale *(a)(b)*	$ 92,484	$ 404	$ 6,266	$ 86,622
Held-to-maturity:				
Agency RMBS	$ 34,188	$ 1	$ 4,229	$ 29,960
U.S. Treasury	10,863	—	895	9,968
U.S. government agencies	4,206	—	534	3,672
Agency commercial MBS	4,014	—	411	3,603
Sovereign debt/sovereign guaranteed	1,388	—	76	1,312
CLOs	983	—	26	957
Supranational	443	—	25	418
Foreign government agencies	66	—	6	60
Non-agency RMBS	30	2	1	31
State and political subdivisions	13	—	2	11
Total securities held-to-maturity	$ 56,194	$ 3	$ 6,205	$ 49,992
Total securities	$ 148,678	$ 407	$12,471	$136,614

(a) The amortized cost of available-for-sale securities is net of the allowance for credit loss of $1 million. The allowance for credit loss primarily relates to non-agency RMBS.
(b) Includes gross unrealized gains of $347 million and gross unrealized losses of $179 million recorded in accumulated other comprehensive income related to securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains primarily relate to agency RMBS, U.S. Treasury securities and agency commercial MBS. The unrealized losses primarily relate to agency RMBS and U.S. Treasury securities. The unrealized gains and losses will be amortized into net interest revenue over the contractual lives of the securities.

The following table presents the realized gains and losses, on a gross basis.

Net securities gains (losses) (in millions)	**1Q23**	4Q22	1Q22
Realized gross gains	**$ 14**	$ 3	$ 73
Realized gross losses	**(15)**	(451)	(69)
Total net securities (losses) gains	**$ (1)**	$ (448)	$ 4

The following table presents pre-tax net securities gains (losses) by type.

Net securities gains (losses) (in millions)	**1Q23**	4Q22	1Q22
Non-agency RMBS	**$ 2**	$ —	$ 49
U.S. Treasury	**(8)**	—	11
State and political subdivisions	**—**	(324)	(13)
Corporate bonds	**—**	(126)	(47)
Other	**5**	2	4
Total net securities (losses) gains	**$ (1)**	$ (448)	$ 4

Allowance for credit losses – Securities

The allowance for credit losses related to securities was $1 million at March 31, 2023 and $1 million at Dec. 31, 2022, and relates to non-agency RMBS and state and political subdivision securities.

Credit quality indicators – Securities

At March 31, 2023, the gross unrealized losses on the securities portfolio were primarily attributable to an increase in interest rates from the date of purchase, and for certain securities that were transferred from available-for-sale to held-to-maturity, an increase in interest rates through the date they were transferred. Specifically, $171 million of the unrealized losses at March 31, 2023 and $179 million at Dec. 31, 2022 reflected in the tables below relate to certain securities that were previously transferred from available-for-sale to held-to-maturity. The unrealized losses will be amortized into net interest revenue over the contractual lives of the securities. The transfer created a new cost basis for the securities. As a result, if these securities have experienced unrealized losses since the date of transfer, the corresponding unrealized losses would be reflected in the held-to-maturity securities portfolio in the following tables. We do not intend to sell these securities, and it is not more likely than not that we will have to sell these securities.

The following tables show the aggregate fair value of available-for-sale securities with a continuous unrealized loss position for less than 12 months and those that have been in a continuous unrealized loss position for 12 months or more without an allowance for credit losses.

Available-for-sale securities in an unrealized loss position without an allowance for credit losses at March 31, 2023 *(in millions)*	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
U.S. Treasury	$ 5,176	$ 259	$ 19,529	$ 1,698	$ 24,705	$ 1,957
Agency RMBS	4,488	128	4,618	359	9,106	487
Sovereign debt/sovereign guaranteed	2,189	53	5,581	422	7,770	475
Agency commercial MBS	3,271	125	4,382	459	7,653	584
Supranational	2,771	31	3,778	308	6,549	339
CLOs	1,381	17	3,842	75	5,223	92
Foreign covered bonds	1,415	27	3,180	234	4,595	261
Non-agency commercial MBS	453	8	2,479	343	2,932	351
Foreign government agencies	605	5	1,579	102	2,184	107
U.S. government agencies	1,235	62	940	130	2,175	192
Non-agency RMBS	221	5	1,394	191	1,615	196
Other ABS	59	—	1,047	107	1,106	107
Total securities available-for-sale *(a)*	**$ 23,264**	**$ 720**	**$ 52,349**	**$ 4,428**	**$ 75,613**	**$ 5,148**

(a) Includes $59 million gross unrealized losses for less than 12 months and $112 million of gross unrealized losses for 12 months or more recorded in accumulated other comprehensive income related to securities that were transferred from available-for-sale to held-to-maturity. The unrealized losses are primarily related to agency RMBS and U.S. Treasury securities and will be amortized into net interest revenue over the contractual lives of the securities.

Available-for-sale securities in an unrealized loss position without an allowance for credit losses at Dec. 31, 2022 *(in millions)*	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
U.S. Treasury	$ 14,058	$ 824	$ 15,236	$ 1,839	$ 29,294	$ 2,663
Agency RMBS	7,929	376	789	168	8,718	544
Agency commercial MBS	6,088	389	1,878	296	7,966	685
Sovereign debt/sovereign guaranteed	4,176	184	3,788	363	7,964	547
Supranational	3,451	109	2,571	290	6,022	399
CLOs	4,806	94	403	10	5,209	104
Foreign covered bonds	2,830	83	1,977	203	4,807	286
Non-agency commercial MBS	1,914	201	932	156	2,846	357
Foreign government agencies	1,148	43	1,013	80	2,161	123
U.S. government agencies	1,710	186	208	37	1,918	223
Non-agency RMBS	588	16	1,148	193	1,736	209
Other ABS	333	18	876	106	1,209	124
State and political subdivisions	—	—	12	—	12	—
Total securities available-for-sale *(a)*	$ 49,031	$ 2,523	$ 30,831	$ 3,741	$ 79,862	$ 6,264

(a) Includes $120 million of gross unrealized losses for less than 12 months and $59 million of gross unrealized losses for 12 months or more recorded in accumulated other comprehensive income related to securities that were transferred from available-for-sale to held-to-maturity. The unrealized losses are primarily related to agency RMBS and U.S. Treasury securities and will be amortized into net interest revenue over the contractual lives of the securities.

The following tables show the credit quality of the held-to-maturity securities. We have included certain credit ratings information because the information can indicate the degree of credit risk to which we are exposed. Significant changes in ratings classifications could indicate increased credit risk for us and could be accompanied by an increase in the allowance for credit losses and/or a reduction in the fair value of our securities portfolio.

Held-to-maturity securities portfolio at March 31, 2023				Ratings *(a)*				
(dollars in millions)	Amortized cost	Net unrealized gain (loss)	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Not rated
Agency RMBS	$ 33,116	$ (3,794)	100%	—%	—%	—%	—%
U.S. Treasury	10,084	(749)	100	—	—	—	—
U.S. government agencies	4,204	(468)	100	—	—	—	—
Agency commercial MBS	3,969	(356)	100	—	—	—	—
Sovereign debt/sovereign guaranteed *(b)*	1,503	(71)	100	—	—	—	—
CLOs	983	(26)	100	—	—	—	—
Supranational	593	(24)	100	—	—	—	—
Foreign government agencies	67	(4)	100	—	—	—	—
Non-agency RMBS	29	—	21	59	2	16	2
State and political subdivisions	13	(2)	1	2	2	—	95
Total held-to-maturity securities	**$ 54,561**	**$ (5,494)**	**100%**	**—%**	**—%**	**—%**	**—%**

(a) Represents ratings by Standard & Poor's ("S&P") or the equivalent.
(b) Primarily consists of exposure to Germany, France and UK.

Held-to-maturity securities portfolio at Dec. 31, 2022			Ratings *(a)*				
(dollars in millions)	Amortized cost	Net unrealized gain (loss)	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Not rated
Agency RMBS	$ 34,188	$ (4,228)	100%	—%	—%	—%	—%
U.S. Treasury	10,863	(895)	100	—	—	—	—
U.S. government agencies	4,206	(534)	100	—	—	—	—
Agency commercial MBS	4,014	(411)	100	—	—	—	—
Sovereign debt/sovereign guaranteed *(b)*	1,388	(76)	100	—	—	—	—
CLOs	983	(26)	100	—	—	—	—
Supranational	443	(25)	100	—	—	—	—
Foreign government agencies	66	(6)	100	—	—	—	—
Non-agency RMBS	30	1	22	58	2	17	1
State and political subdivisions	13	(2)	2	2	3	—	93
Total held-to-maturity securities	$ 56,194	$ (6,202)	100%	—%	—%	—%	—%

(a) Represents ratings by S&P or the equivalent.
(b) Primarily consists of exposure to Germany, UK and France.

Maturity distribution

The following table shows the maturity distribution by carrying amount and yield (on a tax equivalent basis) of our securities portfolio.

Maturity distribution and yields on securities at March 31, 2023	Within 1 year		1-5 years		5-10 years		After 10 years		Total	
(dollars in millions)	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*
Available-for-sale:										
U.S. Treasury	$ 7,681	1.15%	$ 10,680	1.12%	$ 4,230	1.24%	$ 2,114	2.92%	**$ 24,705**	**1.31%**
Sovereign debt/sovereign guaranteed	3,950	2.57	5,371	1.59	918	1.07	52	3.13	**10,291**	**1.91**
Supranational	851	1.23	5,364	2.74	1,696	2.77	—	—	**7,911**	**2.59**
Foreign covered bonds	956	1.80	4,563	2.89	460	0.78	—	—	**5,979**	**2.54**
Foreign government agencies	439	2.13	1,862	2.18	48	0.93	—	—	**2,349**	**2.14**
U.S. government agencies	20	2.99	1,448	3.26	1,167	2.99	170	2.54	**2,805**	**3.10**
Other debt securities	—	—	—	—	—	—	1	3.90	**1**	**3.90**
Mortgage-backed securities:										
Agency RMBS									**10,198**	**4.45**
Non-agency RMBS									**1,957**	**4.19**
Agency commercial MBS									**8,062**	**2.92**
Non-agency commercial MBS									**3,007**	**3.39**
CLOs									**5,707**	**6.07**
Other ABS									**1,145**	**2.13**
Total securities available-for-sale	$ 13,897	1.63%	$ 29,288	1.94%	$ 8,519	1.71%	$ 2,337	2.89%	**$ 84,117**	**2.67%**
Held-to-maturity:										
U.S. Treasury	$ 1,313	1.53%	$ 7,523	1.31%	$ 1,248	1.24%	$ —	—%	**$ 10,084**	**1.33%**
U.S. government agencies	50	0.74	2,779	1.41	1,114	1.63	261	1.90	**4,204**	**1.49**
Sovereign debt/sovereign guaranteed	—	—	1,416	1.07	87	0.83	—	—	**1,503**	**1.06**
Supranational	71	1.05	522	1.42	—	—	—	—	**593**	**1.38**
Foreign government agencies	—	—	67	0.79	—	—	—	—	**67**	**0.79**
State and political subdivisions	1	5.59	—	—	4	4.65	8	4.80	**13**	**4.83**
Mortgage-backed securities:										
Agency RMBS									**33,116**	**2.31**
Non-agency RMBS									**29**	**2.52**
Agency commercial MBS									**3,969**	**2.37**
CLOs									**983**	**5.95**
Total securities held-to-maturity	$ 1,435	1.48%	$ 12,307	1.31%	$ 2,453	1.41%	$ 269	1.98%	**$ 54,561**	**2.09%**
Total securities	$ 15,332	1.62%	$ 41,595	1.76%	$ 10,972	1.65%	$ 2,606	2.81%	**$138,678**	**2.45%**

(a) *Yields are based upon the amortized cost of securities and consider the contractual coupon, amortization of premiums and accretion of discounts, excluding the effect of related hedging derivatives.*

Pledged assets

At March 31, 2023, BNY Mellon had pledged assets of $135 billion, including $87 billion pledged as collateral for potential borrowings at the Federal Reserve Discount Window and $8 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at March 31, 2023 included $117 billion of securities, $12 billion of loans, $5 billion of trading assets and $1 billion of interest-bearing deposits with banks.

If there has been no borrowing at the Federal Reserve Discount Window, the Federal Reserve generally allows banks to freely move assets in and out of their pledged assets account to sell or repledge the assets for other purposes. BNY Mellon regularly moves assets in and out of its pledged assets account at the Federal Reserve.

At Dec. 31, 2022, BNY Mellon had pledged assets of $138 billion, including $106 billion pledged as collateral for potential borrowing at the Federal Reserve Discount Window and $8 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at Dec. 31, 2022 included $121 billion of securities, $12 billion of loans, $4 billion of trading assets and $1 billion of interest-bearing deposits with banks.

At March 31, 2023 and Dec. 31, 2022, pledged assets included $39 billion and $24 billion, respectively, for which the recipients were permitted to sell or repledge the assets delivered.

We also obtain securities as collateral, including receipts under resale agreements, securities borrowed, derivative contracts and custody agreements, on terms which permit us to sell or repledge the securities to others. At March 31, 2023 and Dec. 31, 2022, the market value of the securities received that can be sold or repledged was $140 billion and $115 billion, respectively. We routinely sell or repledge these securities through delivery to third parties. As of March 31, 2023 and Dec. 31, 2022, the market value of securities collateral sold or repledged was $109 billion and $78 billion, respectively.

Restricted cash and securities

Cash and securities may be segregated under federal and other regulations or requirements. At March 31, 2023 and Dec. 31, 2022, cash segregated under federal and other regulations or requirements was $4 billion and $7 billion, respectively. Restricted cash is primarily included in interest-bearing deposits with banks on the consolidated balance sheet. Securities segregated under federal and other regulations or requirements were $6 billion at March 31, 2023 and $3 billion at Dec. 31, 2022. Restricted securities were sourced from securities purchased under resale agreements and are included in federal funds sold and securities purchased under resale agreements on the consolidated balance sheet.

Note 5–Loans and asset quality

Loans

The table below provides the details of our loan portfolio.

Loans *(in millions)*	**March 31, 2023**	Dec. 31, 2022
Commercial	**$ 1,784**	$ 1,732
Commercial real estate	**6,337**	6,226
Financial institutions	**9,348**	9,684
Lease financings	**640**	657
Wealth management loans	**10,005**	10,302
Wealth management mortgages	**8,948**	8,966
Other residential mortgages	**1,025**	345
Capital call financing	**3,343**	3,438
Other	**2,754**	2,941
Overdrafts	**2,444**	4,839
Margin loans	**15,695**	16,933
Total loans *(a)*	**$ 62,323**	$ 66,063

(a) Net of unearned income of $269 million at March 31, 2023 and $225 million at Dec. 31, 2022 primarily related to lease financings.

We disclose information related to our loans and asset quality by the class of the financing receivable in the following tables.

Allowance for credit losses

Activity in the allowance for credit losses on loans and lending-related commitments is presented below. This does not include activity in the allowance for credit losses related to other financial instruments, including cash and due from banks, interest-bearing deposits with banks, federal funds sold and securities purchased under resale agreements, available-for-sale securities, held-to-maturity securities and accounts receivable.

Allowance for credit losses activity for the quarter ended March 31, 2023

(in millions)	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans	Wealth management mortgages	Other residential mortgages	Capital call financing	Total
Beginning balance	$ 18	$ 184	$ 24	$ 1	$ 1	$ 12	$ 8	$ 6	$ 254
Charge-offs	—	—	—	—	—	—	—	—	—
Recoveries	1	—	—	—	—	—	—	—	1
Net recoveries	1	—	—	—	—	—	—	—	1
Provision *(a)*	2	(7)	—	—	—	2	1	—	(2)
Ending balance	**$ 21**	**$ 177**	**$ 24**	**$ 1**	**$ 1**	**$ 14**	**$ 9**	**$ 6**	**$ 253**
Allowance for:									
Loan losses	$ 4	$ 130	$ 8	$ 1	$ 1	$ 13	$ 9	$ 4	$ 170
Lending-related commitments	17	47	16	—	—	1	—	2	83
Individually evaluated for impairment:									
Loan balance *(b)*	$ —	$ 54	$ —	$ —	$ —	$ 13	$ 1	$ —	$ 68
Allowance for loan losses	—	—	—	—	—	—	—	—	—

(a) Does not include the provision for credit losses related to other financial instruments of $29 million for the quarter ended March 31, 2023.
(b) Includes collateral-dependent loans of $68 million with $103 million of collateral at fair value.

Allowance for credit losses activity for the quarter ended Dec. 31, 2022

(in millions)	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans	Wealth management mortgages	Other residential mortgages	Capital call financing	Total
Beginning balance	$ 17	$ 176	$ 20	$ 1	$ 1	$ 9	$ 8	$ 4	$ 236
Charge-offs	—	—	—	—	—	—	—	—	—
Recoveries	—	—	—	—	—	—	1	—	1
Net recoveries	—	—	—	—	—	—	1	—	1
Provision *(a)*	1	8	4	—	—	3	(1)	2	17
Ending balance	$ 18	$ 184	$ 24	$ 1	$ 1	$ 12	$ 8	$ 6	$ 254
Allowance for:									
Loan losses	$ 4	$ 137	$ 10	$ 1	$ 1	$ 11	$ 8	$ 4	$ 176
Lending-related commitments	14	47	14	—	—	1	—	2	78
Individually evaluated for impairment:									
Loan balance *(b)*	$ —	$ 62	$ —	$ —	$ —	$ 16	$ 1	$ —	$ 79
Allowance for loan losses	—	—	—	—	—	—	—	—	—

(a) Does not include the provision for credit losses related to other financial instruments of $3 million for the quarter ended Dec. 31, 2022.
(b) Includes collateral-dependent loans of $79 million with $126 million of collateral at fair value.

Allowance for credit losses activity for the quarter ended March 31, 2022

(in millions)	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans	Wealth management mortgages	Other residential mortgages	Capital call financing	Total
Beginning balance	$ 12	$ 199	$ 13	$ 1	$ 1	$ 6	$ 7	$ 2	$ 241
Charge-offs	—	—	—	—	—	—	—	—	—
Recoveries	—	—	—	—	—	—	1	—	1
Net recoveries	—	—	—	—	—	—	1	—	1
Provision *(a)*	—	(23)	2	—	—	3	(1)	1	(18)
Ending balance	$ 12	$ 176	$ 15	$ 1	$ 1	$ 9	$ 7	$ 3	$ 224
Allowance for:									
Loan losses	$ 2	$ 142	$ 7	$ 1	$ 1	$ 8	$ 7	$ 3	$ 171
Lending-related commitments	10	34	8	—	—	1	—	—	53
Individually evaluated for impairment:									
Loan balance *(b)*	$ —	$ 121	$ —	$ —	$ —	$ 18	$ 1	$ —	$ 140
Allowance for loan losses	—	1	—	—	—	1	—	—	2

(a) Does not include the provision for credit losses related to other financial instruments of $20 million for the quarter ended March 31, 2022.
(b) Includes collateral-dependent loans of $140 million with $183 million of collateral at fair value.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets	**March 31, 2023**			Dec. 31, 2022		
	Recorded investment			Recorded investment		
(in millions)	With an allowance	Without an allowance	Total	With an allowance	Without an allowance	Total
Nonperforming loans:						
Commercial real estate	**$ —**	**$ 54**	**$ 54**	$ —	$ 54	$ 54
Other residential mortgages	**29**	**1**	**30**	30	1	31
Wealth management mortgages	**7**	**12**	**19**	8	14	22
Total nonperforming loans	**36**	**67**	**103**	38	69	107
Other assets owned	**—**	**2**	**2**	—	2	2
Total nonperforming assets	**$ 36**	**$ 69**	**$ 105**	$ 38	$ 71	$ 109

Past due loans

The table below presents our past due loans.

Past due loans and still accruing interest	**March 31, 2023**				Dec. 31, 2022			
	Days past due			Total	Days past due			Total
(in millions)	30-59	60-89	≥90	past due	30-59	60-89	≥90	past due
Wealth management loans	**$ 90**	**$ —**	**$ —**	**$ 90**	$ 43	$ 1	$ —	$ 44
Wealth management mortgages	**22**	**—**	**—**	**22**	54	1	—	55
Other residential mortgages	**19**	**2**	**—**	**21**	5	—	—	5
Margin loans	**9**	**—**	**—**	**9**	—	—	—	—
Commercial real estate	**3**	**—**	**—**	**3**	11	—	—	11
Total past due loans	**$ 143**	**$ 2**	**$ —**	**$ 145**	$ 113	$ 2	$ —	$ 115

Loan modifications

Modified loans are evaluated to determine whether a modification or restructuring with a borrower experiencing financial difficulty results in principal forgiveness, an interest rate reduction, an other-than-insignificant payment delay, or a term extension. The modification could result in a new loan or a continuation of the existing loan.

We modified one commercial real estate loan in the first quarter of 2023, with an aggregate recorded investment of $12 million, by extending the maturity dates.

Loans modified prior to 2023 are considered a troubled debt restructuring (“TDR”) if the debtor is experiencing financial difficulties and the creditor grants a concession to the debtor that would not otherwise be considered. A TDR may include a transfer of real estate or other assets from the debtor to the creditor, or a modification of the term of the loan. Not all modified loans are considered TDRs. We modified two loans in the fourth quarter of 2022 with an aggregate recorded investment of $1 million. There were no loans modified in the first quarter of 2022.

Credit quality indicators

Our credit strategy is to focus on investment-grade clients that are active users of our non-credit services. Each customer is assigned an internal credit rating, which is mapped to an external rating agency grade equivalent, if possible, based upon a number of dimensions, which are continually evaluated and may change over time.

The tables below provide information about the credit profile of the loan portfolio by the period of origination.

Credit profile of the loan portfolio							**March 31, 2023**			
							Revolving loans			
	Originated, at amortized cost									
(in millions)	**1Q23**	2022	2021	2020	2019	Prior to 2019	Amortized cost	Converted to term loans – Amortized cost	Total *(a)*	Accrued interest receivable
Commercial:										
Investment grade	**$ 64**	$ 162	$ 105	$ —	$ —	$ 93	**$ 1,215**	**$ —**	**$ 1,639**	
Non-investment grade	**58**	19	6	—	—	—	**62**	**—**	**145**	
Total commercial	**122**	181	111	—	—	93	**1,277**	**—**	**1,784**	**$ 2**
Commercial real estate:										
Investment grade	**914**	1,041	545	356	385	963	**223**	**—**	**4,427**	
Non-investment grade	**320**	450	524	131	349	83	**31**	**22**	**1,910**	
Total commercial real estate	**1,234**	1,491	1,069	487	734	1,046	**254**	**22**	**6,337**	**26**
Financial institutions:										
Investment grade	**216**	129	186	—	—	20	**6,929**	**—**	**7,480**	
Non-investment grade	**50**	10	—	—	—	—	**1,808**	**—**	**1,868**	
Total financial institutions	**266**	139	186	—	—	20	**8,737**	**—**	**9,348**	**89**
Wealth management loans:										
Investment grade	**38**	37	57	22	43	192	**9,597**	**—**	**9,986**	
Non-investment grade	**1**	—	—	—	—	—	**18**	**—**	**19**	
Total wealth management loans	**39**	37	57	22	43	192	**9,615**	**—**	**10,005**	**58**
Wealth management mortgages	**167**	1,716	1,969	903	763	3,411	**19**	**—**	**8,948**	**18**
Lease financings	**16**	—	—	47	10	567	**—**	**—**	**640**	**—**
Other residential mortgages *(b)*	**1**	574	204	5	—	241	**—**	**—**	**1,025**	**5**
Capital call financing	**—**	—	—	—	—	—	**3,343**	**—**	**3,343**	**15**
Other loans	**—**	—	—	—	—	—	**2,754**	**—**	**2,754**	**6**
Margin loans	**5,384**	500	—	—	—	—	**9,811**	**—**	**15,695**	**33**
Total loans	**$ 7,229**	$ 4,638	$ 3,596	$ 1,464	$ 1,550	$ 5,570	**$ 35,810**	**$ 22**	**$ 59,879**	**$ 252**

(a) Excludes overdrafts of $2,444 million. Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.

(b) The gross write-offs related to other residential mortgage loans were less than $1 million in the first quarter of 2023.

Credit profile of the loan portfolio							Dec. 31, 2022			
							Revolving loans			
	Originated, at amortized cost									
(in millions)	2022	2021	2020	2019	2018	Prior to 2018	Amortized cost	Converted to term loans – Amortized cost	Total *(a)*	Accrued interest receivable
Commercial:										
Investment grade	$ 379	$ 148	$ —	$ —	$ 43	$ 45	$ 963	$ —	$ 1,578	
Non-investment grade	78	6	—	—	—	—	70	—	154	
Total commercial	457	154	—	—	43	45	1,033	—	1,732	$ 2
Commercial real estate:										
Investment grade	1,265	973	407	739	204	904	183	—	4,675	
Non-investment grade	431	511	145	323	93	6	20	22	1,551	
Total commercial real estate	1,696	1,484	552	1,062	297	910	203	22	6,226	25
Financial institutions:										
Investment grade	126	389	—	—	—	25	7,216	—	7,756	
Non-investment grade	20	—	—	—	—	—	1,896	12	1,928	
Total financial institutions	146	389	—	—	—	25	9,112	12	9,684	78
Wealth management loans:										
Investment grade	45	57	22	45	—	217	9,887	—	10,273	
Non-investment grade	—	—	—	—	—	—	29	—	29	
Total wealth management loans	45	57	22	45	—	217	9,916	—	10,302	49
Wealth management mortgages	1,775	1,976	918	775	485	3,012	25	—	8,966	20
Lease financings	17	—	49	11	7	573	—	—	657	—
Other residential mortgages	27	70	—	—	—	248	—	—	345	1
Capital call financing	—	—	—	—	—	—	3,438	—	3,438	17
Other loans	—	—	—	—	—	—	2,941	—	2,941	6
Margin loans	5,984	—	—	—	—	—	10,949	—	16,933	33
Total loans	$ 10,147	$ 4,130	$ 1,541	$ 1,893	$ 832	$ 5,030	$ 37,617	$ 34	$ 61,224	$ 231

(a) *Excludes overdrafts of $4,839 million. Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.*

Commercial loans

The commercial loan portfolio is divided into investment grade and non-investment grade categories based on the assigned internal credit ratings, which are generally consistent with those of the public rating agencies. Customers with ratings consistent with BBB- (S&P)/Baa3 (Moody's) or better are considered to be investment grade. Those clients with ratings lower than this threshold are considered to be non-investment grade.

Commercial real estate

Our income-producing commercial real estate facilities are focused on experienced owners and are structured with moderate leverage based on existing cash flows. Our commercial real estate lending activities also include construction and renovation facilities.

Financial institutions

Financial institution exposures are high quality, with 95% of the exposures meeting the investment grade equivalent criteria of our internal credit rating classification at March 31, 2023. In addition, 64% of the financial institutions exposure is secured. For example, securities industry clients and asset managers often borrow against marketable securities held in custody. The exposure to financial institutions is generally short term, with 84% expiring within one year.

Wealth management loans

Wealth management loans are not typically rated by external rating agencies. A majority of the wealth management loans are secured by the customers' investment management accounts or custody accounts. Eligible assets pledged for these loans are typically investment grade fixed-income securities, equities and/or mutual funds. Internal ratings for this portion of the wealth management loan portfolio, therefore, would equate to investment grade external ratings. Wealth management loans are provided to select customers based on the pledge of other types of assets. For the loans collateralized by other assets, the credit quality of the obligor is carefully analyzed, but we do not consider this portion of our wealth management loan portfolio to be investment grade.

Wealth management mortgages

Credit quality indicators for wealth management mortgages are not correlated to external ratings. Wealth management mortgages are typically loans to high-net-worth individuals, which are secured primarily by residential property. These loans are primarily interest-only, adjustable-rate mortgages with a weighted-average loan-to-value ratio of 61% at origination. Delinquency rate is a key indicator of credit quality in our wealth management portfolio. At March 31, 2023, less than 1% of the mortgages were past due.

At March 31, 2023, the wealth management mortgage portfolio consisted of the following geographic concentrations: California – 21%; New York – 14%; Florida – 11%; Massachusetts – 8%; and other – 46%.

Lease financings

At March 31, 2023, the lease financings portfolio consisted of exposures backed by well-diversified assets, primarily real estate and large-ticket transportation equipment. The largest components of our lease residual value exposure relate to freight-related rail cars and aircraft. Assets are both domestic and foreign-based, with primary concentrations in Germany and the U.S.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled $1.0 billion at March 31, 2023 and $345 million at Dec. 31, 2022. Included in this portfolio at March 31, 2023 were $784 million of fixed-rate jumbo mortgage loans, purchased primarily in the first quarter of 2023, with a weighted-average loan-to-value ratio of 73% at origination. These loans are not typically correlated to external ratings.

Capital call financing

Capital call financing includes loans to private equity funds that are secured by the fund investors' capital commitments and the funds' right to call capital.

Other loans

Other loans primarily include loans to consumers that are fully collateralized with equities, mutual funds and fixed-income securities.

Margin loans

We had $15.7 billion of secured margin loans at March 31, 2023, compared with $16.9 billion at Dec. 31, 2022. Margin loans are collateralized with marketable securities, and borrowers are required to maintain a daily collateral margin in excess of 100% of the value of the loan. We have rarely suffered a loss on these types of loans.

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients and totaled $2.4 billion at March 31, 2023 and $4.8 billion at Dec. 31, 2022. Overdrafts occur on a daily basis and are generally repaid within two business days.

Reverse repurchase agreements

Reverse repurchase agreements at March 31, 2023 and Dec. 31, 2022 were fully secured with high-quality collateral. As a result, there was no allowance for credit losses related to these assets at March 31, 2023 and Dec. 31, 2022.

Note 6–Goodwill and intangible assets

Goodwill

The tables below provide a breakdown of goodwill by business segment.

Goodwill by business segment *(in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management	Consolidated
Balance at Dec. 31, 2022				
Goodwill	$ 6,973	$ 1,424	$ 8,433	$ 16,830
Accumulated impairment losses	—	—	(680)	(680)
	$ 6,973	$ 1,424	$ 7,753	$ 16,150
Foreign currency translation	12	2	28	42
Balance at March 31, 2023				
Goodwill	$ 6,985	$ 1,426	$ 8,461	$ 16,872
Accumulated impairment losses	—	—	(680)	(680)
	$ 6,985	**$ 1,426**	**$ 7,781**	**$ 16,192**

Goodwill by business segment *(in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management	Consolidated
Balance at Dec. 31, 2021	$ 7,062	$ 1,435	$ 9,015	$ 17,512
Foreign currency translation	(18)	(3)	(29)	(50)
Balance at March 31, 2022	$ 7,044	$ 1,432	$ 8,986	$ 17,462

Goodwill impairment testing

The goodwill impairment test is performed at least annually at the reporting unit level. An interim test is performed when events or circumstances occur that may indicate that it is more likely than not that the fair value of any reporting unit may be less than its carrying value.

In the first quarter of 2023, due to the results of the fourth quarter 2022 interim impairment test and macroeconomic conditions, we performed an interim goodwill impairment test of the Investment Management reporting unit, which had $6.0 billion of allocated goodwill. No additional goodwill impairment was recognized.

Intangible assets

The tables below provide a breakdown of intangible assets by business segment.

Intangible assets – net carrying amount by business segment *(in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management	Other	Consolidated
Balance at Dec. 31, 2022	$ 193	$ 384	$ 1,475	$ 849	$ 2,901
Amortization	(8)	(1)	(5)	—	(14)
Foreign currency translation	—	—	3	—	3
Balance at March 31, 2023	**$ 185**	**$ 383**	**$ 1,473**	**$ 849**	**$ 2,890**

Intangible assets – net carrying amount by business segment *(in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management	Other	Consolidated
Balance at Dec. 31, 2021	$ 230	$ 392	$ 1,520	$ 849	$ 2,991
Amortization	(8)	(2)	(7)	—	(17)
Foreign currency translation	(1)	—	(5)	—	(6)
Balance at March 31, 2022	$ 221	$ 390	$ 1,508	$ 849	$ 2,968

The table below provides a breakdown of intangible assets by type.

Intangible assets	**March 31, 2023**				Dec. 31, 2022		
(dollars in millions)	Gross carrying amount	Accumulated amortization	Net carrying amount	Remaining weighted-average amortization period	Gross carrying amount	Accumulated amortization	Net carrying amount
Subject to amortization: *(a)*							
Customer contracts – Securities Services	**$ 729**	**$ (544)**	**$ 185**	**10 years**	$ 731	$ (539)	$ 192
Customer contracts – Market and Wealth Services	**280**	**(268)**	**12**	**3 years**	280	(267)	13
Customer relationships – Investment and Wealth Management	**553**	**(466)**	**87**	**8 years**	553	(461)	92
Other	**41**	**(10)**	**31**	**14 years**	41	(9)	32
Total subject to amortization	**$ 1,603**	**$ (1,288)**	**$ 315**	**10 years**	$ 1,605	$ (1,276)	$ 329
Not subject to amortization: *(b)*							
Tradename	**$ 1,291**	**N/A**	**$ 1,291**	**N/A**	$ 1,290	N/A	$ 1,290
Customer relationships	**1,284**	**N/A**	**1,284**	**N/A**	1,282	N/A	1,282
Total not subject to amortization	**$ 2,575**	**N/A**	**$ 2,575**	**N/A**	$ 2,572	N/A	$ 2,572
Total intangible assets	**$ 4,178**	**$ (1,288)**	**$ 2,890**	**N/A**	$ 4,177	$ (1,276)	$ 2,901

(a) Excludes fully amortized intangible assets.
(b) Intangible assets not subject to amortization have an indefinite life.
N/A – Not applicable.

Estimated annual amortization expense for current intangibles for the next five years is as follows:

For the year ended Dec. 31,	Estimated amortization expense *(in millions)*
2023	**$ 57**
2024	**49**
2025	**43**
2026	**34**
2027	**28**

Intangible asset impairment testing

Intangible assets not subject to amortization are tested for impairment annually or more often if events or circumstances indicate they may be impaired.

Note 7–Other assets

The following table provides the components of other assets presented on the consolidated balance sheet.

Other assets *(in millions)*	**March 31, 2023**	Dec. 31, 2022
Accounts receivable	**$ 6,106**	$ 4,924
Corporate/bank-owned life insurance	**5,425**	5,417
Fails to deliver	**3,279**	2,569
Software	**2,275**	2,260
Prepaid pension assets	**1,809**	1,651
Qualified affordable housing project investments	**1,272**	1,298
Prepaid expense	**818**	764
Equity method investments	**812**	803
Renewable energy investments	**809**	871
Other equity investments *(a)*	**685**	695
Federal Reserve Bank stock	**480**	478
Assets of consolidated investment management funds	**436**	209
Cash collateral receivable on derivative transactions	**421**	1,014
Income taxes receivable	**375**	481
Seed capital *(b)*	**233**	218
Fair value of hedging derivatives	**177**	319
Other *(c)*	**1,923**	1,884
Total other assets	**$ 27,335**	$ 25,855

(a) Includes strategic equity, private equity and other investments.
(b) Includes investments in BNY Mellon funds that hedge deferred incentive awards.
(c) At March 31, 2023 and Dec. 31, 2022, other assets include $86 million and $6 million, respectively, of Federal Home Loan Bank stock, at cost.

Non-readily marketable equity securities

Non-readily marketable equity securities do not have readily determinable fair values. These investments are valued using a measurement alternative where the investments are carried at cost, less any impairment, and plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment of the same issuer. The observable price changes are recorded in investment and other revenue on the consolidated income statement. Our non-readily marketable equity securities totaled $428 million at March 31, 2023 and $445 million at Dec. 31, 2022, and are included in other equity investments in the table above.

The following table presents the adjustments on the non-readily marketable equity securities.

Adjustments on non-readily marketable equity securities *(in millions)*	**1Q23**	4Q22	1Q22	Life-to-date
Upward adjustments	**$ —**	$ —	$ 46	$ 283
Downward adjustments	**(18)**	(1)	—	(30)
Net adjustments	**$ (18)**	$ (1)	$ 46	$ 253

Qualified affordable housing project investments

We invest in affordable housing projects primarily to satisfy the Company's requirements under the Community Reinvestment Act. Our total investment in qualified affordable housing projects totaled $1.3 billion at March 31, 2023 and $1.3 billion at Dec. 31, 2022. Commitments to fund future investments in qualified affordable housing projects totaled $622 million at March 31, 2023 and $614 million at Dec. 31, 2022 and are recorded in other liabilities on the consolidated balance sheet. A summary of the commitments to fund future investments is as follows: remainder of 2023 – $236 million; 2024 – $145 million; 2025 – $173 million; 2026 – $24 million; 2027 – $1 million; and 2028 and thereafter – $43 million.

Tax credits and other tax benefits recognized were $45 million in the first quarter of 2023, $31 million in the fourth quarter of 2022 and $38 million in the first quarter of 2022.

Amortization expense included in the provision for income taxes was $38 million in the first quarter of 2023, $26 million in the fourth quarter of 2022 and $32 million in the first quarter of 2022.

Investments valued using net asset value ("NAV") per share

In our Investment and Wealth Management business segment, we make seed capital investments in certain funds we manage. We also hold private equity investments, primarily small business investment companies ("SBICs"), which are compliant with the Volcker Rule, and certain other corporate investments. Seed capital, private equity and other corporate investments are included in other assets on the consolidated balance sheet. The fair value of certain of these investments was estimated using the NAV per share for our ownership interest in the funds.

The table below presents information on our investments valued using NAV.

Investments valued using NAV	**March 31, 2023**		Dec. 31, 2022	
(in millions)	Fair value	Unfunded commitments	Fair value	Unfunded commitments
Seed capital *(a) (b)*	**$ 3**	**$ —**	$ 3	$ —
Private equity investments *(c)*	**132**	**49**	130	53
Other	**5**	**—**	5	—
Total	**$ 140**	**$ 49**	$ 138	$ 53

(a) Seed capital investments at March 31, 2023 are generally redeemable on request. Distributions are received as the underlying investments in the funds, which have redemption notice periods of seven days, are liquidated.

(b) Includes investments in funds that relate to deferred compensation arrangements with employees.

(c) Private equity investments primarily include Volcker Rule-compliant investments in SBICs that invest in various sectors of the economy. Private equity investments do not have redemption rights. Distributions from such investments will be received as the underlying investments in the private equity investments, which have a life of 10 years, are liquidated.

Note 8–Contract revenue

Fee and other revenue in the Securities Services, Market and Wealth Services and Investment and Wealth Management business segments is primarily variable, based on levels of assets under custody and/or administration, assets under management and the level of client-driven transactions, as specified in the fee schedules. See Note 10 of the Notes to Consolidated Financial Statements in our 2022 Annual Report for information on the nature of our services and revenue recognition. See Note 24 of the Notes to Consolidated Financial Statements in our 2022 Annual Report for additional information on our principal business segments — Securities Services, Market and Wealth Services and Investment and Wealth Management — and the primary services provided.

Disaggregation of contract revenue

Contract revenue is included in fee and other revenue on the consolidated income statement. The following tables present fee and other revenue related to contracts with customers, disaggregated by type of fee revenue, for each business segment. Business segment data has been determined on an internal management basis of accounting, rather than GAAP, which is used for consolidated financial reporting.

Disaggregation of contract revenue by business segment

	Quarter ended									
	March 31, 2023					March 31, 2022				
(in millions)	Securities Services	Market and Wealth Services	Investment and Wealth Management	Other	Total	Securities Services	Market and Wealth Services	Investment and Wealth Management	Other	Total
Fee and other revenue – contract revenue:										
Investment services fees	**$ 1,176**	**$ 925**	**$ 24**	**$ (15)**	**$ 2,110**	$ 1,130	$ 846	$ 25	$ (17)	$ 1,984
Investment management and performance fees	**—**	**5**	**781**	**(3)**	**783**	—	6	887	(6)	887
Financing-related fees	**13**	**5**	**—**	**—**	**18**	3	14	—	—	17
Distribution and servicing fees	**—**	**(23)**	**55**	**1**	**33**	1	(4)	32	1	30
Investment and other revenue	**60**	**50**	**(80)**	**1**	**31**	47	9	(27)	(1)	28
Total fee and other revenue – contract revenue	**1,249**	**962**	**780**	**(16)**	**2,975**	1,181	871	917	(23)	2,946
Fee and other revenue – not in scope of Accounting Standards Codification (“ASC”) 606 *(a)(b)*	**201**	**52**	**2**	**5**	**260**	222	35	(10)	43	290
Total fee and other revenue	**$ 1,450**	**$ 1,014**	**$ 782**	**$ (11)**	**$ 3,235**	$ 1,403	$ 906	$ 907	$ 20	$ 3,236

(a) Primarily includes investment services fees, foreign exchange revenue, financing-related fees and investment and other revenue, all of which are accounted for using other accounting guidance.

(b) The Investment and Wealth Management business segment is net of (loss) attributable to noncontrolling interests related to consolidated investment management funds of $— million in the first quarter of 2023 and $(8) million in the first quarter of 2022.

Disaggregation of contract revenue by business segment

	Quarter ended				
	Dec. 31, 2022				
(in millions)	Securities Services	Market and Wealth Services	Investment and Wealth Management	Other	Total
Fee and other revenue – contract revenue:					
Investment services fees	$ 1,233	$ 917	$ 24	$ (15)	$ 2,159
Investment management and performance fees	—	6	781	(3)	784
Financing-related fees	9	2	1	—	12
Distribution and servicing fees	1	(22)	54	—	33
Investment and other revenue	58	47	(76)	2	31
Total fee and other revenue – contract revenue	1,301	950	784	(16)	3,019
Fee and other revenue – not in scope of ASC 606 *(a)(b)*	215	53	(11)	(414)	(157)
Total fee and other revenue	$ 1,516	$ 1,003	$ 773	$ (430)	$ 2,862

(a) Primarily includes investment services fees, foreign exchange revenue, financing-related fees and investment and other revenue, all of which are accounted for using other accounting guidance.

(b) The Investment and Wealth Management business segment is net of (loss) attributable to noncontrolling interests related to consolidated investment management funds of $— million in the fourth quarter of 2022.

Contract balances

Our clients are billed based on fee schedules that are agreed upon in each customer contract. Receivables from customers were $2.6 billion at March 31, 2023 and Dec. 31, 2022.

Contract assets represent accrued revenues that have not yet been billed to customers due to certain contractual terms other than the passage of time and were $50 million at March 31, 2023 and $48 million at Dec. 31, 2022. Accrued revenues recorded as contract assets are usually billed on an annual basis.

Both receivables from customers and contract assets are included in other assets on the consolidated balance sheet.

Contract liabilities represent payments received in advance of providing services under certain contracts and were $196 million at March 31, 2023 and $164 million at Dec. 31, 2022. Contract liabilities are included in other liabilities on the consolidated balance sheet. Revenue recognized in the first quarter of 2023 relating to contract liabilities as of Dec. 31, 2022 was $53 million.

Changes in contract assets and liabilities primarily relate to either party's performance under the contracts.

Contract costs

Incremental costs for obtaining contracts that are deemed recoverable are capitalized as contract costs. Such costs result from the payment of sales incentives, primarily in the Wealth Management business, and totaled $57 million at March 31, 2023 and $58 million at Dec. 31, 2022. Capitalized sales incentives are amortized based on the transfer of goods or services to which the assets relate. The amortization of capitalized sales incentives, which is included in staff expense on the consolidated income statement, totaled $4 million in the first quarter of 2023 and $5 million in the first quarter of 2022 and fourth quarter of 2022.

Costs to fulfill a contract are capitalized when they relate directly to an existing contract or a specific anticipated contract, generate or enhance resources that will be used to fulfill performance obligations, and are recoverable. Such costs generally represent set-up costs, which include any direct cost incurred at the inception of a contract which enables the fulfillment of the performance obligation, and totaled $81 million at March 31, 2023 and $77 million at Dec. 31, 2022. These capitalized costs are amortized on a straight-line basis over the expected contract period.

Unsatisfied performance obligations

We do not have any unsatisfied performance obligations other than those that are subject to a practical expedient election under ASC 606, *Revenue From Contracts With Customers*. The practical expedient election applies to (i) contracts with an original expected length of one year or less, and (ii) contracts for which we recognize revenue at the amount to which we have the right to invoice for services performed.

Note 9–Net interest revenue

The following table provides the components of net interest revenue presented on the consolidated income statement.

Net interest revenue	Quarter ended		
(in millions)	**March 31, 2023**	Dec. 31, 2022	March 31, 2022
Interest revenue			
Deposits with the Federal Reserve and other central banks	**$ 853**	$ 630	$ 2
Deposits with banks	**140**	107	14
Federal funds sold and securities purchased under resale agreements	**991**	726	37
Loans	**866**	788	260
Securities:			
Taxable	**1,022**	876	434
Exempt from federal income taxes	**—**	6	10
Total securities	**1,022**	882	444
Trading securities	**70**	64	21
Total interest revenue	**3,942**	3,197	778
Interest expense			
Deposits	**1,366**	1,046	(37)
Federal funds purchased and securities sold under repurchase agreements	**892**	595	12
Trading liabilities	**30**	31	4
Other borrowed funds	**3**	3	3
Customer payables	**128**	99	—
Long-term debt	**395**	367	98
Total interest expense	**2,814**	2,141	80
Net interest revenue	**1,128**	1,056	698
Provision for credit losses	**27**	20	2
Net interest revenue after provision for credit losses	**$ 1,101**	$ 1,036	$ 696

Note 10–Employee benefit plans

The components of net periodic benefit (credit) cost are presented below. The service cost component is reflected in staff expense, whereas the remaining components are reflected in other expense.

Net periodic benefit (credit) cost	Quarter ended					
	March 31, 2023			March 31, 2022		
(in millions)	Domestic pension benefits	Foreign pension benefits	Health care benefits	Domestic pension benefits	Foreign pension benefits	Health care benefits
Service cost	**$ —**	**$ 3**	**$ —**	$ —	$ 3	$ —
Interest cost	**48**	**8**	**1**	35	8	1
Expected return on assets	**(95)**	**(22)**	**(2)**	(78)	(10)	(2)
Other	**2**	**(3)**	**(3)**	17	1	(1)
Net periodic benefit (credit) cost	**$ (45)**	**$ (14)**	**$ (4)**	$ (26)	$ 2	$ (2)

Note 11–Income taxes

BNY Mellon recorded an income tax provision of $260 million (21.0% effective tax rate) in the first quarter of 2023, $153 million (16.7% effective tax rate) in the first quarter of 2022 and $142 million (20.7% effective tax rate) in the fourth quarter of 2022.

Our total tax reserves as of March 31, 2023 were $105 million, compared with $106 million at Dec. 31, 2022. If these tax reserves were unnecessary, $105 million would affect the effective tax rate in future periods. We recognize accrued interest and penalties, if applicable, related to income taxes in income tax expense. Included in the balance sheet at March 31, 2023 is accrued interest, where applicable, of $32 million. The additional tax benefit related to interest for the three months ended March 31, 2023 was $1 million, compared with $2 million of tax expense for the three months ended March 31, 2022.

It is reasonably possible the total reserve for uncertain tax positions could decrease within the next 12 months by approximately $11 million as a result of adjustments related to tax years that are still subject to examination.

Our federal income tax returns are closed to examination through 2016. Our New York State and New York City income tax returns are closed to examination through 2014. Our UK income tax returns are closed to examination through 2020.

Note 12–Variable interest entities

We have variable interests in variable interest entities ("VIEs"), which include investments in retail, institutional and alternative investment funds.

We earn management fees from these funds, as well as performance fees in certain funds, and may also provide start-up capital for new funds. The funds are primarily financed by our customers' investments in the funds' equity or debt.

Additionally, we invest in qualified affordable housing and renewable energy projects, which are designed to generate a return primarily through the realization of tax credits. The projects, which are structured as limited partnerships and limited liability companies, are also VIEs, but are not consolidated.

The following table presents the incremental assets and liabilities included on the consolidated balance sheet as of March 31, 2023 and Dec. 31, 2022. The net assets of any consolidated VIE are solely available to settle the liabilities of the VIE and to settle any investors' ownership liquidation requests, including any seed capital we invested in the VIE.

Consolidated investment management funds *(in millions)*	**March 31, 2023**	Dec. 31, 2022
Trading assets	**$ 421**	$ 203
Other assets	**15**	6
Total assets *(a)*	**$ 436**	$ 209
Other liabilities	**$ 1**	$ 1
Total liabilities *(b)*	**$ 1**	$ 1
Nonredeemable noncontrolling interests *(c)*	**$ 72**	$ 7

(a) Includes voting model entities ("VMEs") with assets of $91 million at March 31, 2023 and $86 million at Dec. 31, 2022.
(b) Includes VMEs with liabilities of $0 million at March 31, 2023 and $1 million at Dec. 31, 2022.
(c) Includes VMEs with nonredeemable noncontrolling interests of $10 million at March 31, 2023 and $7 million at Dec. 31, 2022.

We have not provided financial or other support that was not otherwise contractually required to be provided to our VIEs. Additionally, creditors of any consolidated VIEs do not have any recourse to the general credit of BNY Mellon.

Non-consolidated VIEs

As of March 31, 2023 and Dec. 31, 2022, assets and liabilities related to the VIEs where we are not the primary beneficiary were included in other assets and other liabilities on the consolidated balance sheet and primarily related to accounting for our investments in qualified affordable housing and renewable energy projects.

The maximum loss exposure indicated in the following table relates solely to our investments in, and unfunded commitments to, the VIEs.

Non-consolidated VIEs *(in millions)*	**March 31, 2023**	Dec. 31, 2022
Other assets	**$ 2,150**	$ 2,235
Other liabilities	**622**	614
Maximum loss exposure	**2,772**	2,850

Note 13–Preferred stock

The Parent has 100 million authorized shares of preferred stock with a par value of $0.01 per share. The following table summarizes the Parent's preferred stock issued and outstanding at March 31, 2023 and Dec. 31, 2022.

Preferred stock summary *(a)*		Total shares issued and outstanding		Carrying value *(b)* *(in millions)*	
	Per annum dividend rate	**March 31, 2023**	Dec. 31, 2022	**March 31, 2023**	Dec. 31, 2022
Series A	Greater of (i) three-month LIBOR plus 0.565% for the related distribution period or (ii) 4.000%	**5,001**	5,001	**$ 500**	$ 500
Series D	4.500% to but excluding June 20, 2023, then a floating rate equal to the three-month LIBOR plus 2.46%	**5,000**	5,000	**494**	494
Series F	4.625% to but excluding Sept. 20, 2026, then a floating rate equal to the three-month LIBOR plus 3.131%	**10,000**	10,000	**990**	990
Series G	4.700% to but excluding Sept. 20, 2025, then a floating rate equal to the five-year treasury rate plus 4.358%	**10,000**	10,000	**990**	990
Series H	3.700% to but excluding March 20, 2026, then a floating rate equal to the five-year treasury rate plus 3.352%	**5,825**	5,825	**577**	577
Series I	3.750% to but excluding Dec. 20, 2026, then a floating rate equal to the five-year treasury rate plus 2.630%	**13,000**	13,000	**1,287**	1,287
Total		**48,826**	48,826	**$ 4,838**	$ 4,838

(a) All outstanding preferred stock is noncumulative perpetual preferred stock with a liquidation preference of $100,000 per share.
(b) The carrying value of the Series D, Series F, Series G, Series H and Series I preferred stock is recorded net of issuance costs.

The table below presents the Parent's preferred dividends.

Preferred dividends		**1Q23**		4Q22		1Q22	
(dollars in millions, except per share amounts)	Depositary shares per share	Per share	Total dividend	Per share	Total dividend	Per share	Total dividend
Series A	100 *(a)*	**$ 1,327.72**	**$ 7**	$ 1,044.05	$ 5	$ 1,011.11	$ 5
Series D	100	**—**	**—**	2,250.00	12	—	—
Series F	100	**2,312.50**	**23**	—	—	2,312.50	23
Series G	100	**2,350.00**	**24**	—	—	2,350.00	24
Series H	100	**925.00**	**5**	925.00	5	925.00	5
Series I	100	**937.50**	**12**	937.50	12	1,270.83	17
Total			**$ 71**		$ 34		$ 74

(a) Represents Normal Preferred Capital Securities.

All of the outstanding shares of the Series A preferred stock are owned by Mellon Capital IV, a 100% owned finance subsidiary of the Parent, which will pass through any dividend on the Series A preferred stock to the holders of its Normal Preferred Capital Securities. The Parent's obligations under the trust and other agreements relating to Mellon Capital IV have the effect of providing a full and unconditional guarantee, on a subordinated basis, of payments due on the Normal Preferred Capital Securities. No other subsidiary of the Parent guarantees the securities of Mellon Capital IV.

For additional information on our preferred stock, see Note 15 of the Notes to Consolidated Financial Statements in our 2022 Annual Report.

Note 14–Other comprehensive income (loss)

Components of other comprehensive income (loss)	Quarter ended								
	March 31, 2023			Dec. 31, 2022			March 31, 2022		
(in millions)	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount
Foreign currency translation:									
Foreign currency translation adjustments arising during the period *(a)*	**$ 77**	**$ 26**	**$ 103**	$ 393	$ 154	$ 547	$ (120)	$ (33)	$ (153)
Total foreign currency translation	**77**	**26**	**103**	393	154	547	(120)	(33)	(153)
Unrealized (loss) gain on assets available-for-sale:									
Unrealized (loss) gain arising during period	**419**	**(102)**	**317**	101	(25)	76	(2,021)	490	(1,531)
Reclassification adjustment *(b)*	**1**	**—**	**1**	448	(106)	342	(4)	1	(3)
Net unrealized (loss) gain on assets available-for-sale	**420**	**(102)**	**318**	549	(131)	418	(2,025)	491	(1,534)
Defined benefit plans:									
Net gain arising during the period	**—**	**—**	**—**	(400)	94	(306)	—	—	—
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost *(b)*	**(4)**	**1**	**(3)**	17	(5)	12	17	1	18
Total defined benefit plans	**(4)**	**1**	**(3)**	(383)	89	(294)	17	1	18
Unrealized (loss) gain on cash flow hedges:									
Unrealized hedge (loss) gain arising during period	**4**	**(1)**	**3**	—	—	—	(3)	1	(2)
Reclassification of net loss (gain) to net income:									
Foreign exchange (“FX”) contracts – staff expense	**3**	**(1)**	**2**	5	(1)	4	—	—	—
FX contracts – investment and other revenue	**—**	**—**	**—**	(2)	—	(2)	—	—	—
Total reclassifications to net income	**3**	**(1)**	**2**	3	(1)	2	—	—	—
Net unrealized (loss) gain on cash flow hedges	**7**	**(2)**	**5**	3	(1)	2	(3)	1	(2)
Total other comprehensive (loss)	**$ 500**	**$ (77)**	**$ 423**	$ 562	$ 111	$ 673	$ (2,131)	$ 460	$ (1,671)

(a) Includes the impact of hedges of net investments in foreign subsidiaries. See Note 17 for additional information.
(b) The reclassification adjustment related to the unrealized gain (loss) on assets available-for-sale is recorded as net securities gains (losses), which is included in investment and other revenue on the consolidated income statement. The amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost is recorded as other expense on the consolidated income statement.

Note 15–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. A three-level hierarchy for fair value measurements is utilized based upon the transparency of inputs to the valuation of an asset or liability as of the measurement date. BNY Mellon’s own creditworthiness is considered when valuing liabilities. See Note 20 of the Notes to Consolidated Financial Statements in our 2022 Annual Report for information on how we determine fair value and the fair value hierarchy.

The following tables present the financial instruments carried at fair value at March 31, 2023 and Dec. 31, 2022, by caption on the consolidated balance sheet and by the three-level valuation hierarchy. We have included credit ratings information in certain of the tables because the information indicates the degree of credit risk to which we are exposed, and significant changes in ratings classifications could result in increased risk for us.

Assets measured at fair value on a recurring basis at March 31, 2023 *(dollars in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Available-for-sale securities:					
U.S. Treasury	$ 24,705	$ —	$ —	$ —	$ 24,705
Sovereign debt/sovereign guaranteed	3,970	6,321	—	—	10,291
Agency RMBS	—	10,198	—	—	10,198
Agency commercial MBS	—	8,062	—	—	8,062
Supranational	—	7,911	—	—	7,911
Foreign covered bonds	—	5,979	—	—	5,979
CLOs	—	5,707	—	—	5,707
Non-agency commercial MBS	—	3,007	—	—	3,007
U.S. government agencies	—	2,805	—	—	2,805
Foreign government agencies	—	2,349	—	—	2,349
Non-agency RMBS	—	1,957	—	—	1,957
Other ABS	—	1,145	—	—	1,145
Other debt securities	—	1	—	—	1
Total available-for-sale securities	28,675	55,442	—	—	84,117
Trading assets:					
Debt instruments	2,500	1,818	—	—	4,318
Equity instruments	3,212	—	—	—	3,212
Derivative assets not designated as hedging:					
Interest rate	6	1,279	—	(870)	415
Foreign exchange	—	5,821	—	(4,743)	1,078
Equity and other contracts	—	14	—	(13)	1
Total derivative assets not designated as hedging	6	7,114	—	(5,626)	1,494
Total trading assets	5,718	8,932	—	(5,626)	9,024
Other assets:					
Derivative assets designated as hedging:					
Interest rate	—	148	—	—	148
Foreign exchange	—	29	—	—	29
Total derivative assets designated as hedging	—	177	—	—	177
Other assets *(b)*	399	358	—	—	757
Total other assets	399	535	—	—	934
Assets measured at NAV *(b)*					140
Total assets	**$ 34,792**	**$ 64,909**	**$ —**	**$ (5,626)**	**$ 94,215**
Percentage of total assets prior to netting	35%	65%	—%		
Liabilities					
Trading liabilities:					
Debt instruments	$ 2,913	$ 35	$ —	$ —	$ 2,948
Equity instruments	15	—	—	—	15
Derivative liabilities not designated as hedging:					
Interest rate	8	1,614	—	(799)	823
Foreign exchange	—	5,915	—	(4,044)	1,871
Equity and other contracts	12	49	—	(13)	48
Total derivative liabilities not designated as hedging	20	7,578	—	(4,856)	2,742
Total trading liabilities	2,948	7,613	—	(4,856)	5,705
Other liabilities:					
Derivative liabilities designated as hedging:					
Foreign exchange	—	313	—	—	313
Total derivative liabilities designated as hedging	—	313	—	—	313
Other liabilities	—	1	—	—	1
Total other liabilities	—	314	—	—	314
Total liabilities	**$ 2,948**	**$ 7,927**	**$ —**	**$ (4,856)**	**$ 6,019**
Percentage of total liabilities prior to netting	27%	73%	—%		

(a) *ASC 815, Derivatives and Hedging, permits the netting of derivative receivables and derivative payables under legally enforceable master netting agreements and permits the netting of cash collateral. Netting is applicable to derivatives not designated as hedging instruments included in trading assets or trading liabilities and derivatives designated as hedging instruments included in other assets or other liabilities. Netting is allocated to the derivative products based on the net fair value of each product.*

(b) *Includes seed capital, private equity investments and other assets.*

Assets and liabilities measured at fair value on a recurring basis at Dec. 31, 2022 *(dollars in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Assets					
Available-for-sale securities:					
U.S. Treasury	$ 29,533	$ —	$ —	$ —	$ 29,533
Sovereign debt/sovereign guaranteed	4,237	6,127	—	—	10,364
Agency RMBS	—	8,957	—	—	8,957
Agency commercial MBS	—	8,060	—	—	8,060
Supranational	—	7,734	—	—	7,734
Foreign covered bonds	—	5,758	—	—	5,758
CLOs	—	5,343	—	—	5,343
Non-agency commercial MBS	—	2,977	—	—	2,977
U.S. government agencies	—	2,294	—	—	2,294
Foreign government agencies	—	2,241	—	—	2,241
Non-agency RMBS	—	2,029	—	—	2,029
Other ABS	—	1,319	—	—	1,319
State and political subdivisions	—	12	—	—	12
Other debt securities	—	1	—	—	1
Total available-for-sale securities	33,770	52,852	—	—	86,622
Trading assets:					
Debt instruments	1,590	1,901	—	—	3,491
Equity instruments	3,791	—	—	—	3,791
Derivative assets not designated as hedging:					
Interest rate	10	1,287	—	(986)	311
Foreign exchange	—	9,433	—	(7,215)	2,218
Equity and other contracts	4	98	—	(5)	97
Total derivative assets not designated as hedging	14	10,818	—	(8,206)	2,626
Total trading assets	5,395	12,719	—	(8,206)	9,908
Other assets:					
Derivative assets designated as hedging:					
Interest rate	—	205	—	—	205
Foreign exchange	—	114	—	—	114
Total derivative assets designated as hedging	—	319	—	—	319
Other assets *(b)*	294	220	—	—	514
Total other assets	294	539	—	—	833
Assets measured at NAV *(b)*					138
Total assets	$ 39,459	$ 66,110	$ —	$ (8,206)	$ 97,501
Percentage of total assets prior to netting	37%	63%	—%		
Liabilities					
Trading liabilities:					
Debt instruments	$ 2,373	$ 101	$ —	$ —	$ 2,474
Equity instruments	97	—	—	—	97
Derivative liabilities not designated as hedging:					
Interest rate	6	1,578	—	(798)	786
Foreign exchange	—	9,456	—	(7,444)	2,012
Equity and other contracts	—	17	—	(1)	16
Total derivative liabilities not designated as hedging	6	11,051	—	(8,243)	2,814
Total trading liabilities	2,476	11,152	—	(8,243)	5,385
Other liabilities:					
Derivative liabilities designated as hedging:					
Foreign exchange	—	220	—	—	220
Total derivative liabilities designated as hedging	—	220	—	—	220
Other liabilities	—	1	—	—	1
Total other liabilities	—	221	—	—	221
Total liabilities	$ 2,476	$ 11,373	$ —	$ (8,243)	$ 5,606
Percentage of total liabilities prior to netting	18%	82%	—%		

(a) *ASC 815, Derivatives and Hedging, permits the netting of derivative receivables and derivative payables under legally enforceable master netting agreements and permits the netting of cash collateral. Netting is applicable to derivatives not designated as hedging instruments included in trading assets or trading liabilities and derivatives designated as hedging instruments included in other assets or other liabilities. Netting is allocated to the derivative products based on the net fair value of each product.*

(b) *Includes seed capital, private equity investments and other assets.*

Details of certain available-for-sale securities measured at fair value on a recurring basis (dollars in millions)	March 31, 2023						Dec. 31, 2022					
	Total carrying value *(b)*	Ratings *(a)* AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Not rated	Total carrying value *(b)*	Ratings *(a)* AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Not rated
Non-agency RMBS, originated in:												
2008-2023	**$ 1,679**	**100%**	**—%**	**—%**	**—%**	**—%**	$ 1,728	100%	—%	—%	—%	—%
2007 and earlier	**278**	**5**	**14**	**1**	**42**	**38**	301	5	13	1	45	36
Total non-agency RMBS	**$ 1,957**	**87%**	**2%**	**—%**	**6%**	**5%**	$ 2,029	86%	2%	—%	7%	5%
Non-agency commercial MBS originated in:												
2009-2023	**$ 3,007**	**100%**	**—%**	**—%**	**—%**	**—%**	$ 2,977	100%	—%	—%	—%	—%
Foreign covered bonds:												
Canada	**$ 2,456**	**100%**	**—%**	**—%**	**—%**	**—%**	$ 2,384	100%	—%	—%	—%	—%
UK	**1,142**	**100**	**—**	**—**	**—**	**—**	1,215	100	—	—	—	—
Australia	**716**	**100**	**—**	**—**	**—**	**—**	696	100	—	—	—	—
Germany	**587**	**100**	**—**	**—**	**—**	**—**	542	100	—	—	—	—
Norway	**385**	**100**	**—**	**—**	**—**	**—**	377	100	—	—	—	—
Other	**693**	**100**	**—**	**—**	**—**	**—**	544	100	—	—	—	—
Total foreign covered bonds	**$ 5,979**	**100%**	**—%**	**—%**	**—%**	**—%**	$ 5,758	100%	—%	—%	—%	—%
Sovereign debt/sovereign guaranteed:												
Germany	**$ 2,984**	**100%**	**—%**	**—%**	**—%**	**—%**	$ 3,103	100%	—%	—%	—%	—%
UK	**2,201**	**100**	**—**	**—**	**—**	**—**	2,225	100	—	—	—	—
France	**1,671**	**100**	**—**	**—**	**—**	**—**	1,665	100	—	—	—	—
Singapore	**820**	**100**	**—**	**—**	**—**	**—**	797	100	—	—	—	—
Canada	**746**	**100**	**—**	**—**	**—**	**—**	702	100	—	—	—	—
Japan	**486**	**—**	**100**	**—**	**—**	**—**	475	—	100	—	—	—
Italy	**365**	**—**	**—**	**100**	**—**	**—**	390	—	—	100	—	—
Austria	**272**	**100**	**—**	**—**	**—**	**—**	177	100	—	—	—	—
Hong Kong	**201**	**100**	**—**	**—**	**—**	**—**	273	100	—	—	—	—
Spain	**200**	**—**	**40**	**60**	**—**	**—**	214	—	40	60	—	—
Other *(c)*	**345**	**60**	**10**	**—**	**30**	**—**	343	55	9	—	36	—
Total sovereign debt/sovereign guaranteed	**$ 10,291**	**88%**	**6%**	**5%**	**1%**	**—%**	$ 10,364	88%	6%	5%	1%	—%
Foreign government agencies:												
Canada	**$ 687**	**84%**	**16%**	**—%**	**—%**	**—%**	$ 652	83%	17%	—%	—%	—%
Norway	**431**	**100**	**—**	**—**	**—**	**—**	427	100	—	—	—	—
Netherlands	**316**	**100**	**—**	**—**	**—**	**—**	363	100	—	—	—	—
Sweden	**292**	**100**	**—**	**—**	**—**	**—**	260	100	—	—	—	—
France	**245**	**100**	**—**	**—**	**—**	**—**	240	100	—	—	—	—
Other	**378**	**89**	**11**	**—**	**—**	**—**	299	100	—	—	—	—
Total foreign government agencies	**$ 2,349**	**94%**	**6%**	**—%**	**—%**	**—%**	$ 2,241	95%	5%	—%	—%	—%

(a) Represents ratings by S&P or the equivalent.

(b) At March 31, 2023 and Dec. 31, 2022, sovereign debt/sovereign guaranteed securities were included in Level 1 and Level 2 in the valuation hierarchy. All other assets in the table are Level 2 assets in the valuation hierarchy.

(c) Includes non-investment grade sovereign debt/sovereign guaranteed securities related to Brazil of $103 million at March 31, 2023 and $123 million at Dec. 31, 2022.

Assets and liabilities measured at fair value on a nonrecurring basis

Under certain circumstances, we make adjustments to the fair value of our assets, liabilities and unfunded lending-related commitments, although they are not measured at fair value on an ongoing basis. The following table presents the carrying value as of March 31, 2023 and Dec. 31, 2022 of financial instruments for which nonrecurring adjustments to fair value have been recorded during 2023 and/or 2022 and all non-readily marketable equity securities carried at cost with upward or downward adjustments by balance sheet caption and level in the fair value hierarchy.

Assets measured at fair value on a nonrecurring basis	**March 31, 2023**				Dec. 31, 2022			
(in millions)	Level 1	Level 2	Level 3	Total carrying value	Level 1	Level 2	Level 3	Total carrying value
Loans *(a)*	**$ —**	**$ 33**	**$ —**	**$ 33**	$ —	$ 33	$ —	$ 33
Other assets *(b)*	**—**	**430**	**—**	**430**	—	448	—	448
Total assets at fair value on a nonrecurring basis	**$ —**	**$ 463**	**$ —**	**$ 463**	$ —	$ 481	$ —	$ 481

(a) The fair value of these loans decreased less than $1 million in the first quarter of 2023 and was unchanged in the fourth quarter of 2022, based on the fair value of the underlying collateral, as required by guidance in ASC 326, Financial Instruments – Credit Losses, with an offset to the allowance for credit losses.

(b) Includes non-readily marketable equity securities carried at cost with upward or downward adjustments and other assets received in satisfaction of debt.

Estimated fair value of financial instruments

The following tables present the estimated fair value and the carrying amount of financial instruments not carried at fair value on the consolidated balance sheet at March 31, 2023 and Dec. 31, 2022, by caption on the consolidated balance sheet and by the valuation hierarchy.

Summary of financial instruments	**March 31, 2023**				
(in millions)	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	$ —	$ 117,042	$ —	$ 117,042	$ 117,042
Interest-bearing deposits with banks	—	15,131	—	15,131	15,114
Federal funds sold and securities purchased under resale agreements	—	26,894	—	26,894	26,894
Securities held-to-maturity	10,336	38,731	—	49,067	54,561
Loans *(a)*	—	61,118	—	61,118	61,513
Other financial assets	5,564	2,003	—	7,567	7,567
Total	**$ 15,900**	**$ 260,919**	**$ —**	**$ 276,819**	**$ 282,691**
Liabilities:					
Noninterest-bearing deposits	$ —	$ 70,246	$ —	$ 70,246	$ 70,246
Interest-bearing deposits	—	206,827	—	206,827	211,048
Federal funds purchased and securities sold under repurchase agreements	—	26,540	—	26,540	26,540
Payables to customers and broker-dealers	—	22,598	—	22,598	22,598
Borrowings	—	3,195	—	3,195	3,195
Long-term debt	—	29,293	—	29,293	30,489
Total	**$ —**	**$ 358,699**	**$ —**	**$ 358,699**	**$ 364,116**

(a) Does not include the leasing portfolio.

Summary of financial instruments	Dec. 31, 2022				
(in millions)	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	$ —	$ 91,655	$ —	$ 91,655	$ 91,655
Interest-bearing deposits with banks	—	17,167	—	17,167	17,169
Federal funds sold and securities purchased under resale agreements	—	24,298	—	24,298	24,298
Securities held-to-maturity	10,948	39,044	—	49,992	56,194
Loans *(a)*	—	64,668	—	64,668	65,230
Other financial assets	5,030	1,817	—	6,847	6,847
Total	$ 15,978	$ 238,649	$ —	$ 254,627	$ 261,393
Liabilities:					
Noninterest-bearing deposits	$ —	$ 78,017	$ —	$ 78,017	$ 78,017
Interest-bearing deposits	—	196,258	—	196,258	200,953
Federal funds purchased and securities sold under repurchase agreements	—	12,335	—	12,335	12,335
Payables to customers and broker-dealers	—	23,435	—	23,435	23,435
Borrowings	—	911	—	911	911
Long-term debt	—	28,977	—	28,977	30,458
Total	$ —	$ 339,933	$ —	$ 339,933	$ 346,109

(a) Does not include the leasing portfolio.

Note 16–Fair value option

We elected fair value as an alternative measurement for selected financial assets and liabilities that are not otherwise required to be measured at fair value, including the assets and liabilities of consolidated investment management funds and subordinated notes associated with certain equity investments.

The following table presents the assets and liabilities of consolidated investment management funds, at fair value.

Assets and liabilities of consolidated investment management funds, at fair value		
(in millions)	**March 31, 2023**	Dec. 31, 2022
Assets of consolidated investment management funds:		
Trading assets	**$ 421**	$ 203
Other assets	**15**	6
Total assets of consolidated investment management funds	**$ 436**	$ 209
Liabilities of consolidated investment management funds:		
Other liabilities	**$ 1**	$ 1
Total liabilities of consolidated investment management funds	**$ 1**	$ 1

The assets and liabilities of the consolidated investment management funds are included in other assets and other liabilities on the consolidated balance sheet. We value the assets and liabilities of consolidated investment management funds using quoted prices for identical assets or liabilities in active markets or observable inputs such as quoted prices for similar assets or liabilities. Quoted prices for either identical or similar assets or liabilities in inactive markets may also be used. Accordingly, fair value best reflects the interests BNY Mellon holds in the economic performance of the consolidated investment management funds. Changes in the fair value of the assets and liabilities are recorded as income (loss) from consolidated investment management funds, which is included in investment and other revenue on the consolidated income statement.

We elected the fair value option on subordinated notes associated with certain equity investments. The fair value of these subordinated notes was $10 million at March 31, 2023 and $10 million at Dec. 31, 2022. The subordinated notes were valued using observable market inputs and included in Level 2 of the valuation hierarchy.

Note 17–Derivative instruments

We use derivatives to manage exposure to market risk, including interest rate risk, equity price risk and foreign currency risk, as well as credit risk. Our trading activities are focused on acting as a market-maker for our customers and facilitating customer trades in compliance with the Volcker Rule.

The notional amounts for derivative financial instruments express the dollar volume of the transactions; however, credit risk is much smaller.

We perform credit reviews and enter into netting agreements and collateral arrangements to minimize the credit risk of derivative financial instruments. We enter into offsetting positions to reduce exposure to foreign currency, interest rate and equity price risk.

Use of derivative financial instruments involves reliance on counterparties. Failure of a counterparty to honor its obligation under a derivative contract is a risk we assume whenever we engage in a derivative contract. There were no counterparty default losses recorded in the first quarter of 2023.

Hedging derivatives

We utilize interest rate swap agreements to manage our exposure to interest rate fluctuations. We enter into fair value hedges as an interest rate risk management strategy to reduce fair value variability by converting certain fixed rate interest payments associated with available-for-sale securities and long-term debt to floating interest rates. We also utilize interest rate swaps and forward exchange contracts as cash flow hedges to manage our exposure to interest rate and foreign exchange rate changes.

The available-for-sale securities hedged consist of U.S. Treasury, agency and non-agency commercial MBS, sovereign debt/sovereign guaranteed and foreign covered bonds. At March 31, 2023, $29.7 billion par value of available-for-sale securities were hedged with interest rate swaps designated as fair value hedges that had notional values of $29.7 billion.

The fixed rate long-term debt instruments hedged generally have original maturities of five to 30 years. In fair value hedging relationships, fixed rate debt is hedged with "receive fixed rate, pay variable rate" swaps. At March 31, 2023, $24.7 billion par value of debt was hedged with interest rate swaps designated as fair value hedges that had notional values of $24.7 billion.

In addition, we utilize forward foreign exchange contracts as hedges to mitigate foreign exchange exposures. We use forward foreign exchange contracts as cash flow hedges to convert certain forecasted non-U.S. dollar revenue and expenses into U.S. dollars. We use forward foreign exchange contracts with maturities of 15 months or less as cash flow hedges to hedge our foreign exchange exposure to currencies such as the Indian rupee, Polish zloty, Hong Kong dollar, Singapore dollar, British pound and euro used in revenue and expense transactions for entities that have the U.S. dollar as their functional currency. As of March 31, 2023, the hedged forecasted foreign currency transactions and designated forward foreign exchange contract hedges were $493 million (notional), with a net pre-tax gain of $1 million recorded in accumulated other comprehensive income ("OCI"). This gain will be reclassified to earnings over the next 12 months.

In 2022, we utilized forward foreign exchange contracts as fair value hedges of the foreign exchange risk associated with available-for-sale securities. At March 31, 2023, there were no remaining foreign exchange contracts. Forward points are designated as an excluded component and amortized into earnings over the hedge period.

Forward foreign exchange contracts are also used to hedge the value of our net investments in foreign subsidiaries. These forward foreign exchange contracts have maturities of less than one year. The derivatives employed are designated as hedges of changes in value of our foreign investments due to exchange rates. The change in fair market value of these forward foreign exchange contracts is reported within foreign currency translation adjustments in shareholders' equity, net of tax. At March 31, 2023, forward foreign exchange contracts with notional amounts totaling $10.1 billion were designated as net investment hedges.

From time to time, we also designate non-derivative financial instruments as hedges of our net investments in foreign subsidiaries. At March 31, 2023, there were no non-derivative financial instruments hedging our net investments in foreign subsidiaries.

The following table presents the pre-tax gains (losses) related to our fair value and cash flow hedging activities recognized in the consolidated income statement.

Income statement impact of fair value and cash flow hedges *(in millions)*	Location of gains (losses)	**1Q23**	4Q22	1Q22
Interest rate fair value hedges of available-for-sale securities				
Derivative	Interest revenue	**$ (435)**	$ (114)	$ 1,484
Hedged item	Interest revenue	**434**	113	(1,480)
Interest rate fair value hedges of long-term debt				
Derivative	Interest expense	**279**	132	(741)
Hedged item	Interest expense	**(279)**	(132)	740
Foreign exchange fair value hedges of available-for-sale securities				
Derivative *(a)*	Foreign exchange revenue	**—**	2	(1)
Hedged item	Foreign exchange revenue	**—**	(1)	1
Cash flow hedges of forecasted FX exposures				
(Loss) reclassified from OCI into income	Staff expense	**(3)**	(5)	—
Gain reclassified from OCI into income	Investment and other revenue	**—**	2	—
(Loss) gain recognized in the consolidated income statement due to fair value and cash flow hedging relationships		**$ (4)**	$ (3)	$ 3

(a) There was no amortization associated with the excluded component in the first quarter of 2023. Includes gains of less than $1 million in the fourth quarter of 2022 and first quarter of 2022 associated with the amortization of the excluded component.

The following table presents the impact of hedging derivatives used in net investment hedging relationships.

Impact of derivative instruments used in net investment hedging relationships *(in millions)*	Gain or (loss) recognized in accumulated OCI on derivatives			Location of gain or (loss) reclassified from accumulated OCI into income	Gain or (loss) reclassified from accumulated OCI into income		
Derivatives in net investment hedging relationships	**1Q23**	4Q22	1Q22		**1Q23**	4Q22	1Q22
FX contracts	**$ (111)**	$ (648)	$ 143	Net interest revenue	**$ —**	$ —	$ —

The following table presents information on the hedged items in fair value hedging relationships.

Hedged items in fair value hedging relationships	Carrying amount of hedged asset or liability		Hedge accounting basis adjustment increase (decrease) *(a)*	
(in millions)	**March 31, 2023**	Dec. 31, 2022	**March 31, 2023**	Dec. 31, 2022
Available-for-sale securities *(b)*	**$ 29,682**	$ 31,370	**$ (1,979)**	$ (2,678)
Long-term debt	**$ 23,790**	$ 23,510	**$ (949)**	$ (1,232)

(a) Includes $320 million and less than $1 million of basis adjustment increases on discontinued hedges associated with available-for-sale securities at March 31, 2023 and Dec. 31, 2022, respectively, and $61 million and $48 million of basis adjustment decreases on discontinued hedges associated with long-term debt at March 31, 2023 and Dec. 31, 2022, respectively.

(b) Carrying amount represents the amortized cost.

The following table summarizes the notional amount and carrying values of our total derivative portfolio.

Impact of derivative instruments on the balance sheet	Notional value		Asset derivatives fair value		Liability derivatives fair value	
(in millions)	**March 31, 2023**	Dec. 31, 2022	**March 31, 2023**	Dec. 31, 2022	**March 31, 2023**	Dec. 31, 2022
Derivatives designated as hedging instruments: *(a)(b)*						
Interest rate contracts	**$ 54,443**	$ 56,142	**$ 148**	$ 205	**$ —**	$ —
Foreign exchange contracts	**10,544**	10,096	**29**	114	**313**	220
Total derivatives designated as hedging instruments			**$ 177**	$ 319	**$ 313**	$ 220
Derivatives not designated as hedging instruments: *(b)(c)*						
Interest rate contracts	**$ 177,775**	$ 190,917	**$ 1,285**	$ 1,297	**$ 1,622**	$ 1,584
Foreign exchange contracts	**868,433**	880,948	**5,821**	9,433	**5,915**	9,456
Equity contracts	**2,991**	2,993	**14**	102	**55**	13
Credit contracts	**220**	200	**—**	—	**6**	4
Total derivatives not designated as hedging instruments			**$ 7,120**	$ 10,832	**$ 7,598**	$ 11,057
Total derivatives fair value *(d)*			**$ 7,297**	$ 11,151	**$ 7,911**	$ 11,277
Effect of master netting agreements *(e)*			**(5,626)**	(8,206)	**(4,856)**	(8,243)
Fair value after effect of master netting agreements			**$ 1,671**	$ 2,945	**$ 3,055**	$ 3,034

(a) The fair value of asset derivatives and liability derivatives designated as hedging instruments is recorded as other assets and other liabilities, respectively, on the consolidated balance sheet.

(b) For derivative transactions settled at clearing organizations, cash collateral exchanged is deemed a settlement of the derivative each day. The settlement reduces the gross fair value of derivative assets and liabilities and results in a corresponding decrease in the effect of master netting agreements, with no impact to the consolidated balance sheet.

(c) The fair value of asset derivatives and liability derivatives not designated as hedging instruments is recorded as trading assets and trading liabilities, respectively, on the consolidated balance sheet.

(d) Fair values are on a gross basis, before consideration of master netting agreements, as required by ASC 815, Derivatives and Hedging.

(e) Effect of master netting agreements includes cash collateral received and paid of $1,414 million and $644 million, respectively, at March 31, 2023, and $1,786 million and $1,823 million, respectively, at Dec. 31, 2022.

Trading activities (including trading derivatives)

Our trading activities are focused on acting as a market-maker for our customers, facilitating customer trades and risk-mitigating economic hedging in compliance with the Volcker Rule. The change in the fair value of the derivatives utilized in our trading activities is recorded in foreign exchange revenue and investment and other revenue on the consolidated income statement.

The following table presents our foreign exchange revenue and other trading revenue.

Foreign exchange revenue and other trading revenue			
(in millions)	**1Q23**	4Q22	1Q22
Foreign exchange revenue	**$ 176**	$ 190	$ 207
Other trading revenue	**45**	34	5

Foreign exchange revenue includes income from purchasing and selling foreign currencies, currency forwards, futures and options as well as foreign currency remeasurement. Other trading revenue reflects results from trading in cash instruments, including fixed income and equity securities, and trading and economic hedging activity with non-foreign exchange derivatives.

We also use derivative financial instruments as risk-mitigating economic hedges, which are not formally designated as accounting hedges. This includes hedging the foreign currency, interest rate or market risks inherent in some of our balance sheet exposures, such as seed capital investments and deposits, as well as certain investment management fee revenue streams. We also use total return swaps to economically hedge obligations arising from the Company's deferred compensation plan whereby the participants defer compensation and earn a return linked to the performance of investments they select. The gains or losses on these total return swaps are recorded in staff expense on the consolidated income statement and were a gain of $7 million in the first quarter of 2023, a loss of $13 million in the first quarter of 2022 and a gain of $11 million in the fourth quarter of 2022.

We manage trading risk through a system of position limits, a value-at-risk ("VaR") methodology based on historical simulation and other market sensitivity measures. Risk is monitored and reported to senior management by a separate unit, independent from trading, on a daily basis. Based on certain assumptions, the VaR methodology is designed to capture the potential overnight pre-tax dollar loss from adverse changes in fair values of all trading positions. The calculation assumes a one-day holding period, utilizes a 99% confidence level and incorporates non-linear product characteristics. The VaR model is one of several statistical models used to develop economic capital results, which are allocated to lines of business for computing risk-adjusted performance.

VaR methodology does not evaluate risk attributable to extraordinary financial, economic or other occurrences. As a result, the risk assessment process includes a number of stress scenarios based upon the risk factors in the portfolio and management's assessment of market conditions. Additional stress scenarios based upon historical market events are also performed. Stress tests may incorporate the impact of reduced market liquidity and the breakdown of historically observed correlations and extreme scenarios. VaR and other statistical measures, stress testing and sensitivity analysis are incorporated into other risk management materials.

Counterparty credit risk and collateral

We assess the credit risk of our counterparties through regular examination of their financial statements, confidential communication with the management of those counterparties and regular monitoring of publicly available credit rating information. This and other information is used to develop proprietary credit rating metrics used to assess credit quality.

Collateral requirements are determined after a comprehensive review of the credit quality of each counterparty. Collateral is generally held or pledged in the form of cash and/or highly liquid government securities. Collateral requirements are monitored and adjusted daily.

Additional disclosures concerning derivative financial instruments are provided in Note 15.

Disclosure of contingent features in over-the-counter ("OTC") derivative instruments

Certain OTC derivative contracts and/or collateral agreements contain credit risk-contingent features triggered upon a rating downgrade in which the counterparty has the right to request additional collateral or the right to terminate the contracts in a net liability position.

The following table shows the aggregate fair value of OTC derivative contracts in net liability positions that contained credit risk-contingent features and the value of collateral that has been posted.

(in millions)	**March 31, 2023**	Dec. 31, 2022
Aggregate fair value of OTC derivatives in net liability positions *(a)*	**$ 1,343**	$ 3,069
Collateral posted	**$ 1,598**	$ 3,484

(a) Before consideration of cash collateral.

The aggregate fair value of OTC derivative contracts containing credit risk-contingent features can fluctuate from quarter to quarter due to changes in market conditions, composition of counterparty trades, new business or changes to the contingent features.

The Bank of New York Mellon, our largest banking subsidiary, enters into the substantial majority of our OTC derivative contracts and/or collateral agreements. As such, the contingent features may be triggered if The Bank of New York Mellon's long-term issuer rating were downgraded.

The following table shows the fair value of contracts falling under early termination provisions that were in net liability positions for three key ratings triggers.

Potential close-out exposures (fair value) *(a)*		
(in millions)	**March 31, 2023**	Dec. 31, 2022
If The Bank of New York Mellon's rating changed to: *(b)*		
A3/A-	**$ 18**	$ 20
Baa2/BBB	**$ 638**	$ 545
Ba1/BB+	**$ 921**	$ 1,803

(a) The amounts represent potential total close-out values if The Bank of New York Mellon's long-term issuer rating were to immediately drop to the indicated levels, and do not reflect collateral posted.
(b) Represents ratings by Moody's/S&P.

If The Bank of New York Mellon's debt rating had fallen below investment grade on March 31, 2023 and Dec. 31, 2022, existing collateral arrangements would have required us to post additional collateral of $160 million and $214 million, respectively.

Offsetting assets and liabilities

The following tables present derivative and financial instruments and their related offsets. There were no derivative instruments or financial instruments subject to a legally enforceable netting agreement for which we are not currently netting.

Offsetting of derivative assets and financial assets at March 31, 2023

(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet (a)	Net assets recognized in the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral received	Net amount
Derivatives subject to netting arrangements:						
Interest rate contracts	**$ 1,084**	**$ 870**	**$ 214**	**$ 38**	**$ —**	**$ 176**
Foreign exchange contracts	**5,447**	**4,743**	**704**	**104**	**—**	**600**
Equity and other contracts	**14**	**13**	**1**	**—**	**—**	**1**
Total derivatives subject to netting arrangements	**6,545**	**5,626**	**919**	**142**	**—**	**777**
Total derivatives not subject to netting arrangements	**752**	**—**	**752**	**—**	**—**	**752**
Total derivatives	**7,297**	**5,626**	**1,671**	**142**	**—**	**1,529**
Reverse repurchase agreements	**104,168**	**86,000** (b)	**18,168**	**18,168**	**—**	**—**
Securities borrowing	**8,726**	**—**	**8,726**	**8,313**	**—**	**413**
Total	**$ 120,191**	**$ 91,626**	**$ 28,565**	**$ 26,623**	**$ —**	**$ 1,942**

(a) Includes the effect of netting agreements and net cash collateral received. The offset related to the OTC derivatives was allocated to the various types of derivatives based on the net positions.
(b) Offsetting of reverse repurchase agreements relates to our involvement in the Fixed Income Clearing Corporation ("FICC"), where we settle government securities transactions on a net basis for payment and delivery through the Fedwire system.

Offsetting of derivative assets and financial assets at Dec. 31, 2022

(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet (a)	Net assets recognized in the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral received	Net amount
Derivatives subject to netting arrangements:						
Interest rate contracts	$ 1,208	$ 986	$ 222	$ 33	$ —	$ 189
Foreign exchange contracts	8,920	7,215	1,705	314	—	1,391
Equity and other contracts	95	5	90	—	—	90
Total derivatives subject to netting arrangements	10,223	8,206	2,017	347	—	1,670
Total derivatives not subject to netting arrangements	928	—	928	—	—	928
Total derivatives	11,151	8,206	2,945	347	—	2,598
Reverse repurchase agreements	75,614	60,322 (b)	15,292	15,182	—	110
Securities borrowing	9,006	—	9,006	8,531	—	475
Total	$ 95,771	$ 68,528	$ 27,243	$ 24,060	$ —	$ 3,183

(a) Includes the effect of netting agreements and net cash collateral received. The offset related to the OTC derivatives was allocated to the various types of derivatives based on the net positions.
(b) Offsetting of reverse repurchase agreements relates to our involvement in the FICC, where we settle government securities transactions on a net basis for payment and delivery through the Fedwire system.

Offsetting of derivative liabilities and financial liabilities at March 31, 2023					Gross amounts not offset in the balance sheet		
(in millions)	Gross liabilities recognized	Gross amounts offset in the balance sheet		Net liabilities recognized in the balance sheet	Financial instruments	Cash collateral pledged	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	**$ 1,283**	**$ 799**		**$ 484**	**$ 67**	**$ —**	**$ 417**
Foreign exchange contracts	**5,827**	**4,044**		**1,783**	**73**	**—**	**1,710**
Equity and other contracts	**58**	**13**		**45**	**—**	**—**	**45**
Total derivatives subject to netting arrangements	**7,168**	**4,856**	*(a)*	**2,312**	**140**	**—**	**2,172**
Total derivatives not subject to netting arrangements	**743**	**—**		**743**	**—**	**—**	**743**
Total derivatives	**7,911**	**4,856**		**3,055**	**140**	**—**	**2,915**
Repurchase agreements	**109,882**	**86,000**	*(b)*	**23,882**	**23,864**	**17**	**1**
Securities lending	**2,658**	**—**		**2,658**	**2,611**	**—**	**47**
Total	**$ 120,451**	**$ 90,856**		**$ 29,595**	**$ 26,615**	**$ 17**	**$ 2,963**

(a) Includes the effect of netting agreements and net cash collateral paid. The offset related to the OTC derivatives was allocated to the various types of derivatives based on the net positions.

(b) Offsetting of repurchase agreements relates to our involvement in the FICC, where we settle government securities transactions on a net basis for payment and delivery through the Fedwire system.

Offsetting of derivative liabilities and financial liabilities at Dec. 31, 2022					Gross amounts not offset in the balance sheet		
(in millions)	Gross liabilities recognized	Gross amounts offset in the balance sheet		Net liabilities recognized in the balance sheet	Financial instruments	Cash collateral pledged	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	$ 1,306	$ 798		$ 508	$ 67	$ —	$ 441
Foreign exchange contracts	9,261	7,444		1,817	51	—	1,766
Equity and other contracts	15	1		14	—	—	14
Total derivatives subject to netting arrangements	10,582	8,243	*(a)*	2,339	118	—	2,221
Total derivatives not subject to netting arrangements	695	—		695	—	—	695
Total derivatives	11,277	8,243		3,034	118	—	2,916
Repurchase agreements	70,830	60,322	*(b)*	10,508	10,476	31	1
Securities lending	1,827	—		1,827	1,754	—	73
Total	$ 83,934	$ 68,565		$ 15,369	$ 12,348	$ 31	$ 2,990

(a) Includes the effect of netting agreements and net cash collateral paid. The offset related to the OTC derivatives was allocated to the various types of derivatives based on the net positions.

(b) Offsetting of repurchase agreements relates to our involvement in the FICC, where we settle government securities transactions on a net basis for payment and delivery through the Fedwire system.

Secured borrowings

The following table presents the contract value of repurchase agreements and securities lending transactions accounted for as secured borrowings by the type of collateral provided to counterparties.

Repurchase agreements and securities lending transactions accounted for as secured borrowings

	March 31, 2023					Dec. 31, 2022				
	Remaining contractual maturity					Remaining contractual maturity				
(in millions)	Overnight and continuous	Up to 30 days	30-90 days	Over 90 days	Total	Overnight and continuous	Up to 30 days	30-90 days	Over 90 days	Total
Repurchase agreements:										
U.S. Treasury	**$ 85,200**	**$ 3,296**	**$ 3,186**	**$ 745**	**$ 92,427**	$ 62,401	$ 7	$ 827	$ 553	$ 63,788
Agency RMBS	**1,712**	**518**	**9,500**	**—**	**11,730**	1,460	493	—	—	1,953
Corporate bonds	**98**	**121**	**1,017**	**434**	**1,670**	99	88	782	306	1,275
Sovereign debt/sovereign guaranteed	**1,477**	**—**	**—**	**—**	**1,477**	1,008	—	—	—	1,008
State and political subdivisions	**34**	**48**	**384**	**144**	**610**	38	49	443	159	689
U.S. government agencies	**78**	**—**	**55**	**—**	**133**	161	—	—	—	161
Other debt securities	**28**	**71**	**81**	**2**	**182**	13	102	92	7	214
Equity securities	**—**	**46**	**1,607**	**—**	**1,653**	—	61	1,681	—	1,742
Total	**$ 88,627**	**$ 4,100**	**$15,830**	**$ 1,325**	**$109,882**	$ 65,180	$ 800	$ 3,825	$ 1,025	$ 70,830
Securities lending:										
Agency RMBS	**$ 122**	**$ —**	**$ —**	**$ —**	**$ 122**	$ 110	$ —	$ —	$ —	$ 110
Other debt securities	**47**	**—**	**—**	**—**	**47**	66	—	—	—	66
Equity securities	**2,489**	**—**	**—**	**—**	**2,489**	1,651	—	—	—	1,651
Total	**$ 2,658**	**$ —**	**$ —**	**$ —**	**$ 2,658**	$ 1,827	$ —	$ —	$ —	$ 1,827
Total secured borrowings	**$ 91,285**	**$ 4,100**	**$15,830**	**$ 1,325**	**$112,540**	$ 67,007	$ 800	$ 3,825	$ 1,025	$ 72,657

BNY Mellon's repurchase agreements and securities lending transactions primarily encounter risk associated with liquidity. We are required to pledge collateral based on predetermined terms within the agreements. If we were to experience a decline in the fair value of the collateral pledged for these transactions, we could be required to provide additional collateral to the counterparty, therefore decreasing the amount of assets available for other liquidity needs that may arise. BNY Mellon also offers tri-party collateral agency services in the tri-party repo market where we are exposed to credit risk. In order to mitigate this risk, we require dealers to fully secure intraday credit.

Note 18–Commitments and contingent liabilities

Off-balance sheet arrangements

In the normal course of business, various commitments and contingent liabilities are outstanding that are not reflected in the accompanying consolidated balance sheets.

Our significant trading and off-balance sheet risks are securities, foreign currency and interest rate risk management products, commercial lending commitments, letters of credit and securities lending indemnifications. We assume these risks to reduce interest rate and foreign currency risks, to provide customers with the ability to meet credit and liquidity needs and to hedge foreign currency and interest rate risks. These items involve, to varying degrees, credit, foreign currency and interest rate risks not recognized on the balance sheet. Our off-balance sheet risks are managed and monitored in manners similar to those used for on-balance sheet risks.

The following table presents a summary of our off-balance sheet credit risks.

Off-balance sheet credit risks *(in millions)*	**March 31, 2023**	Dec. 31, 2022
Lending commitments	**$ 49,231**	$ 49,750
Standby letters of credit ("SBLC") *(a)*	**1,965**	1,918
Commercial letters of credit	**9**	19
Securities lending indemnifications *(b)(c)*	**488,416**	491,043

(a) Net of participations totaling $176 million at March 31, 2023 and $175 million at Dec. 31, 2022.
(b) Excludes the indemnification for securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled $64 billion at March 31, 2023 and $64 billion at Dec. 31, 2022.
(c) Includes cash collateral, invested in indemnified repurchase agreements, held by us as securities lending agent of $49 billion at March 31, 2023 and $43 billion at Dec. 31, 2022.

The total potential loss on undrawn lending commitments, standby and commercial letters of credit and securities lending indemnifications is equal to the total notional amount if drawn upon, which does not consider the value of any collateral.

Since many of the lending commitments are expected to expire without being drawn upon, the total amount does not necessarily represent future cash requirements. A summary of lending commitment maturities is as follows: $29.0 billion in less than one year, $19.6 billion in one to five years and $571 million over five years.

SBLCs principally support obligations of corporate clients and were collateralized with cash and securities of $172 million at March 31, 2023 and $144 million at Dec. 31, 2022. At March 31, 2023, $1.4 billion of the SBLCs will expire within one year, $559 million in one to five years and none over five years.

We must recognize, at the inception of an SBLC and foreign and other guarantees, a liability for the fair value of the obligation undertaken in issuing the guarantee. The fair value of the liability, which was recorded with a corresponding asset in other assets, was estimated as the present value of contractual customer fees. The estimated liability for losses related to SBLCs and foreign and other guarantees, if any, is included in the allowance for lending-related commitments.

Payment/performance risk of SBLCs is monitored using both historical performance and internal ratings criteria. BNY Mellon's historical experience is that SBLCs typically expire without being funded. SBLCs below investment grade are monitored closely for payment/performance risk. The table below shows SBLCs by investment grade:

Standby letters of credit	**March 31, 2023**	Dec. 31, 2022
Investment grade	**76%**	75%
Non-investment grade	**24%**	25%

A commercial letter of credit is normally a short-term instrument used to finance a commercial contract for the shipment of goods from a seller to a buyer. Although the commercial letter of credit is contingent upon the satisfaction of specified conditions, it represents a credit exposure if the buyer defaults on the underlying transaction. As a result, the total contractual amounts do not necessarily represent future cash requirements. Commercial letters of credit totaled $9 million at March 31, 2023 and $19 million at Dec. 31, 2022.

We expect many of the lending commitments and letters of credit to expire without the need to advance any cash. The revenue associated with guarantees frequently depends on the credit rating of the obligor and the structure of the transaction, including collateral, if any. The allowance for lending-related commitments was $83 million at March 31, 2023 and $78 million at Dec. 31, 2022.

A securities lending transaction is a fully collateralized transaction in which the owner of a security agrees to lend the security (typically through an agent, in our case, The Bank of New York Mellon) to a borrower, usually a broker-dealer or bank, on an open, overnight or term basis, under the terms of a prearranged contract.

We typically lend securities with indemnification against borrower default. We generally require the borrower to provide collateral with a minimum value of 102% of the fair value of the securities borrowed, which is monitored on a daily basis, thus reducing credit risk. Market risk can also arise in securities lending transactions. These risks are controlled through policies limiting the level of risk that can be undertaken. Securities lending transactions are generally entered into only with highly rated counterparties. Securities lending indemnifications were secured by collateral of $513 billion at March 31, 2023 and $515 billion at Dec. 31, 2022.

CIBC Mellon, a joint venture between BNY Mellon and the Canadian Imperial Bank of Commerce ("CIBC"), engages in securities lending activities. CIBC Mellon, BNY Mellon and CIBC jointly and severally indemnify securities lenders against specific types of borrower default. At both March 31, 2023 and Dec. 31, 2022, $64 billion of borrowings at CIBC Mellon, for which BNY Mellon acts as agent on behalf of CIBC Mellon clients, were secured by collateral of $68 billion. If, upon a default, a borrower's collateral was not sufficient to cover its related obligations, certain losses related to the indemnification could be covered by the indemnitors.

Unsettled repurchase and reverse repurchase agreements

In the normal course of business, we enter into repurchase agreements and reverse repurchase agreements that settle at a future date. In repurchase agreements, BNY Mellon receives cash from and provides securities as collateral to a counterparty at settlement. In reverse repurchase agreements, BNY Mellon advances cash to and receives securities as collateral from the counterparty at settlement. These transactions are recorded on the consolidated balance sheet on the settlement date. At March 31, 2023, we had $1.6 billion of unsettled repurchase agreements and $24.7 billion of unsettled reverse repurchase agreements. At Dec. 31, 2022, we had $4.0 billion of unsettled repurchase agreements and $11.3 billion of unsettled reverse repurchase agreements.

Industry concentrations

We have significant industry concentrations related to credit exposure at March 31, 2023. The tables below present our credit exposure in the financial institutions and commercial portfolios.

Financial institutions portfolio exposure *(in billions)*	**March 31, 2023** Loans	Unfunded commitments	Total exposure
Securities industry	$ 1.3	$ 17.2	$ 18.5
Asset managers	1.5	7.8	9.3
Banks	6.0	1.4	7.4
Insurance	0.1	3.8	3.9
Government	—	0.2	0.2
Other	0.4	1.0	1.4
Total	**$ 9.3**	**$ 31.4**	**$ 40.7**

Commercial portfolio exposure *(in billions)*	**March 31, 2023** Loans	Unfunded commitments	Total exposure
Manufacturing	$ 0.6	$ 4.0	$ 4.6
Services and other	0.9	3.2	4.1
Energy and utilities	0.2	3.7	3.9
Media and telecom	0.1	0.7	0.8
Total	**$ 1.8**	**$ 11.6**	**$ 13.4**

Major concentrations in securities lending are primarily to broker-dealers and are generally collateralized with cash and/or securities.

Sponsored member repo program

BNY Mellon is a sponsoring member in the FICC sponsored member program, where we submit eligible repurchase and reverse repurchase transactions in U.S. Treasury and agency securities ("Sponsored Member Transactions") between BNY Mellon and our sponsored member clients for novation and clearing through FICC pursuant to the FICC Government Securities Division rulebook (the "FICC Rules"). We also guarantee to FICC the prompt and full payment and performance of our sponsored member clients' respective obligations under the FICC Rules in connection with such clients' Sponsored Member Transactions. We minimize our credit exposure under this guaranty by obtaining a security interest in our sponsored member clients' collateral and rights under Sponsored Member Transactions. See "Offsetting assets and liabilities" in Note 17 for additional information on our repurchase and reverse repurchase agreements.

Indemnification arrangements

We have provided standard representations for underwriting agreements, acquisition and divestiture agreements, sales of loans and commitments, and other similar types of arrangements and customary indemnification for claims and legal proceedings related to providing financial services that are not otherwise included above. Insurance has been purchased to mitigate certain of these risks. Generally, there are no stated or notional amounts included in these indemnifications, and the contingencies triggering the obligation for indemnification are not expected to occur. Furthermore, often counterparties to these transactions provide us with comparable indemnifications. We are unable to develop an estimate of the maximum payout under these indemnifications for several reasons. In addition to the lack of a stated or notional amount in a majority of such indemnifications, we are unable to predict the nature of events that would trigger indemnification or the level of indemnification for a certain event. We believe, however, that the possibility that we will have to make any material payments for these indemnifications is remote. At March 31, 2023 and Dec. 31, 2022, we have not recorded any material liabilities under these arrangements.

Clearing and settlement exchanges

We are a noncontrolling equity investor in, and/or member of, several industry clearing or settlement exchanges through which foreign exchange, securities, derivatives or other transactions settle. Certain of these industry clearing and settlement exchanges require their members to guarantee their obligations and liabilities and/or to provide liquidity support in the event other members do not honor their obligations. We believe the likelihood that a clearing or settlement exchange (of which we are a member) would become insolvent is remote. Additionally, certain settlement exchanges have implemented loss allocation policies that enable the exchange to allocate settlement losses to the members of the exchange. It is not possible to quantify such mark-to-market loss until the loss occurs. Any ancillary costs that occur as a result of any mark-to-market loss cannot be quantified. In addition, we also sponsor clients as members on clearing and settlement exchanges and guarantee their obligations. At March 31, 2023 and Dec. 31, 2022, we did not record any material liabilities under these arrangements.

Legal proceedings

In the ordinary course of business, The Bank of New York Mellon Corporation and its subsidiaries are routinely named as defendants in or made parties to pending and potential legal actions. We also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal). Claims for significant monetary damages are often asserted in many of these legal actions, while claims for disgorgement, restitution, penalties and/or other remedial actions or sanctions may be sought in governmental and regulatory matters. It is inherently difficult to predict the eventual outcomes of such matters given their complexity and the particular facts and circumstances at issue in each of these matters. However, on the basis of our current knowledge and understanding, we do not believe that judgments, settlements or orders, if any, arising from these matters (either individually or in the aggregate, after giving effect to applicable reserves and insurance coverage) will have a material adverse effect on the consolidated financial position or liquidity of BNY Mellon, although they could have a material effect on our results of operations in a given period.

In view of the inherent unpredictability of outcomes in litigation and regulatory matters, particularly where (i) the damages sought are substantial or indeterminate, (ii) the proceedings are in the early stages, or (iii) the matters involve novel legal theories or a large number of parties, as a matter of course there is considerable uncertainty surrounding the timing or ultimate resolution of litigation and regulatory matters, including a possible eventual loss, fine, penalty or business impact, if any, associated with each such matter. In accordance with applicable accounting guidance, we establish accruals for litigation and regulatory matters when those matters proceed to a stage where they present loss contingencies that are both probable and reasonably estimable. In such cases, there may be a possible exposure to loss in excess of any amounts accrued. We regularly monitor such matters for developments that could affect the amount of the accrual, and will adjust the accrual amount as appropriate. If the loss contingency in question is not both probable and reasonably estimable, we do not establish an accrual and the matter continues to be monitored for any developments that would make the loss contingency both probable and reasonably estimable. We believe that our accruals for legal proceedings are appropriate and, in the aggregate, are not material to the consolidated financial position of BNY Mellon, although future accruals could have a material effect on the results of operations in a given period. In addition, if we have the potential to recover a portion of an estimated loss from a third party, we record a receivable up to the amount of the accrual that is probable of recovery.

For certain of those matters described here for which a loss contingency may, in the future, be reasonably possible (whether in excess of a related accrued liability or where there is no accrued liability), BNY Mellon is currently unable to estimate a range of reasonably possible loss. For those matters described here where BNY Mellon is able to estimate a reasonably possible loss, the aggregate range of such reasonably possible loss is up to $520 million in excess of the accrued liability (if any) related to those matters. For matters where a reasonably possible loss is denominated in a foreign currency, our estimate is adjusted quarterly based on prevailing exchange rates. We do not consider potential recoveries when estimating reasonably possible losses.

The following describes certain judicial, regulatory and arbitration proceedings involving BNY Mellon:

Mortgage-Securitization Trusts Proceedings

BNY Mellon has been named as a defendant in a number of legal actions brought by MBS investors alleging that the trustee has expansive duties under the governing agreements, including the duty to investigate and pursue breach of representation and warranty claims against other parties to the MBS transactions. Three actions commenced in December 2014, December 2015 and February 2017 are pending in New York federal court. In New York state court, seven actions are pending: one case commenced in May 2016; three related cases commenced in September 2021 (two cases) and October 2022; and three related cases commenced in October 2021, December 2021 and February 2022.

Matters Related to R. Allen Stanford

In late December 2005, Pershing LLC (“Pershing”) became a clearing firm for Stanford Group Co. (“SGC”), a registered broker-dealer that was part of a group of entities ultimately controlled by R. Allen Stanford (“Stanford”). Stanford International Bank, also controlled by Stanford, issued certificates of deposit (“CDs”). Some investors allegedly wired funds from their SGC accounts to purchase CDs. In 2009, the Securities and Exchange Commission charged Stanford with operating a Ponzi scheme in connection with the sale of CDs, and SGC was placed into receivership. Alleged purchasers of CDs have filed two putative class action proceedings against Pershing: one in November 2009 in Texas federal court, and one in May 2016 in New Jersey federal court. On Nov. 5, 2021, the court dismissed the class action filed in New Jersey and that matter has concluded. Three lawsuits remain against Pershing in Louisiana and New Jersey federal courts, which were filed in January 2010, October 2015 and May 2016. The purchasers allege that Pershing, as SGC’s clearing firm, assisted Stanford in a fraudulent scheme and assert contractual, statutory and common law claims. In March 2019, a group of investors filed a putative class action against The Bank of New York Mellon in New Jersey federal court, making the same allegations as in the prior actions brought against Pershing. On Nov. 12, 2021, the court dismissed the class action against The Bank of New York Mellon; on Dec. 15, 2022, an appeals court reversed the dismissal and returned the case to the trial court for further proceedings. All the cases that have been brought in federal court against Pershing have been consolidated in Texas federal court for discovery purposes. Various alleged Stanford CD purchasers asserted similar claims in Financial Industry Regulatory Authority, Inc. (“FINRA”) arbitration proceedings.

Brazilian Postalis Litigation

BNY Mellon Servicos Financeiros DTVM S.A. (“DTVM”), a subsidiary that provides asset services in Brazil, acts as administrator for certain investment funds in which a public pension fund for postal workers called Postalis-Instituto de Seguridade Social dos Correios e Telégrafos (“Postalis”) invested. On Aug. 22, 2014, Postalis sued DTVM in Rio de Janeiro, Brazil for losses related to a Postalis fund for which DTVM is administrator. Postalis alleges that DTVM failed to properly perform duties, including to conduct due diligence of and exert control over the manager. On March 12, 2015, Postalis filed a lawsuit in Rio de Janeiro against DTVM and BNY Mellon Administração de Ativos Ltda. (“Ativos”) alleging failure to properly perform duties relating to another fund of which DTVM is administrator and Ativos is manager. On Dec. 14, 2015, Associacão dos Profissionais dos Correios (“ADCAP”), a Brazilian postal workers association, filed a lawsuit in São Paulo against DTVM and other defendants alleging that DTVM improperly contributed to Postalis investment losses. On March 20, 2017, the lawsuit was dismissed without prejudice, and ADCAP appealed. On Aug. 4, 2021, the appellate court overturned the dismissal and sent the lawsuit to a state lower court. On March 2, 2023, DTVM appealed the August 4 decision to Brazil’s Superior Court of Justice. On Dec. 17, 2015, Postalis filed three lawsuits in Rio de Janeiro against DTVM and Ativos alleging failure to properly perform duties with respect to investments in several other funds. On May 20, 2021, the court in one of those lawsuits entered a judgment of approximately $3 million against DTVM and Ativos. On Aug. 23, 2021, DTVM and Ativos filed an appeal of the May 20 decision. On June 7, 2022, the appellate court partially granted and partially denied the appeal, reducing the judgment to approximately $2 million. DTVM and Ativos intend to file a further appeal. On

Aug. 24, 2022, the court dismissed one of the other lawsuits. On Nov. 24, 2022, Postalis appealed that decision. On Feb. 4, 2016, Postalis filed a lawsuit in Brasilia against DTVM, Ativos and BNY Mellon Alocação de Patrimônio Ltda. ("Alocação de Patrimônio"), an investment management subsidiary, alleging failure to properly perform duties and liability for losses with respect to investments in various funds of which the defendants were administrator and/or manager. On Jan. 16, 2018, the Brazilian Federal Prosecution Service ("MPF") filed a civil lawsuit in São Paulo against DTVM alleging liability for Postalis losses based on alleged failures to properly perform certain duties as administrator to certain funds in which Postalis invested or as controller of Postalis's own investment portfolio. On April 18, 2018, the court dismissed the lawsuit without prejudice. On Aug. 4, 2021, the appellate court overturned the dismissal and returned the lawsuit to the lower court. On April 11, 2022, DTVM appealed the Aug. 4 decision to Brazil's Superior Court of Justice. In addition, the Tribunal de Contas da União ("TCU"), an administrative tribunal, has initiated three proceedings with the purpose of determining liability for losses to three investment funds administered by DTVM in which Postalis was an investor. On Sept. 9, 2020, TCU rendered a decision in one of the proceedings, finding DTVM and two former Postalis directors jointly and severally liable for approximately $50 million. TCU also imposed on DTVM a fine of approximately $2 million. DTVM's administrative appeal of the decision was denied. On Feb. 25, 2022, DTVM filed a lawsuit in Brazil federal court in Brasilia seeking annulment of TCU's decision and an injunction preventing TCU from enforcing the judgment. On Aug. 24, 2022, the Brazilian Federal Attorneys filed an action in Rio de Janeiro court seeking to enforce the fine portion of the judgment. On Nov. 8, 2022, the Brasilia federal court in the annulment action granted DTVM's request for an injunction, suspending the Sept. 9, 2020 TCU decision until the annulment action is decided. On Oct. 4, 2019, Postalis and another pension fund filed a request for arbitration in São Paulo against DTVM and Ativos alleging liability for losses to an investment fund for which DTVM was administrator and Ativos was manager. On March 26, 2021, DTVM and Ativos filed a lawsuit in São Paulo challenging the decision rendered by the Arbitration Court with respect to its jurisdiction over the case. On Feb. 24, 2023, the São Paulo court annulled the Arbitration Court's decision that it had jurisdiction. On Oct. 25, 2019, Postalis filed a lawsuit in Rio de Janeiro against DTVM and Alocação de Patrimônio, alleging liability for losses in another fund for which DTVM was administrator and Alocação de Patrimônio and Ativos were managers. On May 9, 2022, the court found DTVM and Alocação de Patrimônio jointly and severally liable for approximately $20 million. On Aug. 12, 2022, DTVM and Alocação de Patrimônio appealed the decision. On June 19, 2020, a lawsuit was filed in federal court in Rio de Janeiro against DTVM, Postalis, and various other defendants alleging liability against DTVM for certain Postalis losses in an investment fund of which DTVM was administrator. On Feb. 10, 2021, Postalis and another pension fund served DTVM in a lawsuit filed in Rio de Janeiro, alleging liability for losses in another investment fund for which DTVM was administrator and the other defendant was manager.

Brazilian Silverado Litigation

DTVM acts as administrator for the Fundo de Investimento em Direitos Creditórios Multisetorial Silverado Maximum ("Silverado Maximum Fund"), which invests in commercial credit receivables. On June 2, 2016, the Silverado Maximum Fund sued DTVM in its capacity as administrator, along with Deutsche Bank S.A. - Banco Alemão in its capacity as custodian and Silverado Gestão e Investimentos Ltda. in its capacity as investment manager. The Fund alleges that each of the defendants failed to fulfill its respective duty, and caused losses to the Fund for which the defendants are jointly and severally liable.

German Tax Matters

German authorities are investigating past "cum/ex" trading, which involved the purchase of equity securities on or shortly before the dividend date, but settled after that date, potentially resulting in an unwarranted refund of withholding tax. German authorities have taken the view that past cum/ex trading may have resulted in tax avoidance or evasion. European subsidiaries of BNY Mellon have been informed by German authorities about investigations into potential cum/ex trading by certain third-party investment funds, where one of the subsidiaries had acquired entities that served as depositary and/or fund manager for those third-party investment funds. We have received information requests from the authorities relating to pre-acquisition activity and are cooperating fully with those requests. In August 2019, the District Court of Bonn ordered that one of these subsidiaries be joined as a secondary party in connection with the prosecution of unrelated individual defendants. Trial commenced in September 2019. In March 2020, the court stated that it would refrain from taking action against the subsidiary in order to expedite the conclusion of the trial. The court convicted the unrelated individual defendants, and determined that the cum/ex trading activities of the relevant third-party investment funds were unlawful. In November and December 2020 and February 2023, we received secondary liability notices from the German tax authorities totaling approximately $150 million (at then-prevailing exchange rates) related to pre-acquisition activity in various funds for which the entities we acquired were depositary and/or fund manager. We have appealed the notices. In connection with the acquisition of the subject entities, we obtained an indemnity for liabilities from the sellers that we intend to pursue as necessary.

Off-Channel Business-Related Communications
The Company has been responding to a request for information from the SEC concerning compliance with recordkeeping obligations relating to business communications transmitted on unapproved electronic communication platforms. SEC Staff has stated that it is conducting similar inquiries into recordkeeping practices at other financial institutions. The Company is cooperating with the inquiry. In April 2023, the Company received a similar request from the Commodity Futures Trading Commission and is cooperating with that inquiry as well.

Note 19–Business segments

We have an internal information system that produces performance data along product and service lines for our three principal business segments and the Other segment. The primary products and services and types of revenue for our principal businesses and a description of the Other segment are presented in Note 24 of the Notes to Consolidated Financial Statements in our 2022 Annual Report.

Business accounting principles

Our business data has been determined on an internal management basis of accounting, rather than GAAP which is used for consolidated financial reporting. These measurement principles are designed so that reported results of the businesses will track their economic performance.

Business segment results are subject to reclassification when organizational changes are made, or for refinements in revenue and expense allocation methodologies. Refinements are typically reflected on a prospective basis. There were no reclassification or organization changes in the first quarter of 2023.

The accounting policies of the businesses are the same as those described in Note 1 of the Notes to Consolidated Financial Statements in our 2022 Annual Report.

The results of our business segments are presented and analyzed on an internal management reporting basis.

- Revenue amounts reflect fee and other revenue generated by each business and include revenue for services provided between the segments that are also provided to third parties. Fee and other revenue transferred between businesses under revenue transfer agreements is included within other fees in each segment.
- Revenues and expenses associated with specific client bases are included in those businesses. For example, foreign exchange activity associated with clients using custody products is included in the Securities Services segment.
- Net interest revenue is allocated to businesses based on the yields on the assets and liabilities generated by each business. We employ a funds transfer pricing system that matches funds with the specific assets and liabilities of each business based on their interest sensitivity and maturity characteristics.
- The provision for credit losses associated with the respective credit portfolios is reflected in each segment.
- Incentives expense related to restricted stock and RSUs is allocated to the segments.
- Support and other indirect expenses, including services provided between segments that are not provided to third parties or not subject to a revenue transfer agreement, are allocated to the businesses based on internally developed methodologies and reflected in noninterest expense.

- Recurring FDIC expense is allocated to the businesses based on average deposits generated within each business.
- Severance expense is recorded in the segments based on the business or function the impacted employees reside, with severance related to corporate staff, technology and operations reflected in the Other segment.
- Litigation expense is generally recorded in the business in which the charge occurs.
- Management of the securities portfolio is a shared service contained in the Other segment. As a result, gains and losses associated with the valuation of the securities portfolio are generally included in the Other segment.
- Client deposits serve as the primary funding source for our securities portfolio. We typically allocate all interest revenue to the businesses generating the deposits. Accordingly, accretion related to the portion of the securities portfolio restructured in 2009 has been included in the results of the businesses.
- Balance sheet assets and liabilities and their related income or expense are specifically assigned to each business. Segments with a net liability position have been allocated assets.
- Goodwill and intangible assets are reflected within individual businesses.

The following consolidating schedules present the contribution of our segments to our overall profitability.

For the quarter ended March 31, 2023 *(dollars in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	**$ 1,450**	**$ 1,014**	**$ 782**	*(a)*	**$ (11)**	**$ 3,235**	*(a)*
Net interest revenue (expense)	**666**	**453**	**45**		**(36)**	**1,128**	
Total revenue (loss)	**2,116**	**1,467**	**827**	*(a)*	**(47)**	**4,363**	*(a)*
Provision for credit losses	**—**	**—**	**—**		**27**	**27**	
Noninterest expense	**1,556**	**769**	**734**		**41**	**3,100**	
Income (loss) before income taxes	**$ 560**	**$ 698**	**$ 93**	*(a)*	**$ (115)**	**$ 1,236**	*(a)*
Pre-tax operating margin *(b)*	**26%**	**48%**	**11%**		**N/M**	**28%**	
Average assets	**$ 196,560**	**$ 132,143**	**$ 28,232**		**$ 50,566**	**$ 407,501**	

(a) Total fee and other revenue, total revenue and income before income taxes are net of loss attributable to noncontrolling interests related to consolidated investment management funds of $— million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

For the quarter ended Dec. 31, 2022 *(dollars in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	$ 1,516	$ 1,003	$ 773	*(a)*	$ (430)	$ 2,862	*(a)*
Net interest revenue (expense)	656	396	52		(48)	1,056	
Total revenue (loss)	2,172	1,399	825	*(a)*	(478)	3,918	*(a)*
Provision for credit losses	11	6	1		2	20	
Noninterest expense	1,576	785	699		153	3,213	
Income (loss) before income taxes	$ 585	$ 608	$ 125	*(a)*	$ (633)	$ 685	*(a)*
Pre-tax operating margin *(b)*	27%	43%	15%		N/M	17%	
Average assets	$ 206,810	$ 132,306	$ 28,488		$ 46,915	$ 414,519	

(a) Total fee and other revenue, total revenue and income before income taxes are net of loss attributable to noncontrolling interests related to consolidated investment management funds of $— million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

For the quarter ended March 31, 2022 *(dollars in millions)*	Securities Services	Market and Wealth Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	$ 1,403	$ 906	$ 907	*(a)*	$ 20	$ 3,236	*(a)*
Net interest revenue (expense)	377	296	57		(32)	698	
Total revenue (loss)	1,780	1,202	964	*(a)*	(12)	3,934	*(a)*
Provision for credit losses	(10)	(2)	(3)		17	2	
Noninterest expense	1,510	708	755		33	3,006	
Income (loss) before income taxes	$ 280	$ 496	$ 212	*(a)*	$ (62)	$ 926	*(a)*
Pre-tax operating margin *(b)*	16%	41%	22%		N/M	23%	
Average assets	$ 220,889	$ 141,183	$ 35,629		$ 42,501	$ 440,202	

(a) Total fee and other revenue, total revenue and income before income taxes are net of loss attributable to noncontrolling interests related to consolidated investment management funds of $8 million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

Note 20–Supplemental information to the Consolidated Statement of Cash Flows

Non-cash investing and financing transactions that, appropriately, are not reflected in the consolidated statement of cash flows are listed below.

Non-cash investing and financing transactions *(in millions)*	Three months ended March 31, **2023**	2022
Change in assets of consolidated investment management funds	**$ 227**	$ 19
Change in liabilities of consolidated investment management funds	**—**	2
Change in nonredeemable noncontrolling interests of consolidated investment management funds	**65**	2
Securities purchased not settled	**240**	760
Securities sold not settled	**(162)**	156
Available-for-sale securities transferred to held-to-maturity securities	**—**	5,160
Premises and equipment/operating lease obligations	**98**	13
Excise tax on share repurchases	**10**	—

Disclosure controls and procedures

Our management, including the Chief Executive Officer and Chief Financial Officer, with participation by the members of the Disclosure Committee, has responsibility for ensuring that there is an adequate and effective process for establishing, maintaining, and evaluating disclosure controls and procedures that are designed to ensure that information required to be disclosed by us in our SEC reports is timely recorded, processed, summarized and reported and that information required to be disclosed by BNY Mellon is accumulated and communicated to BNY Mellon's management to allow timely decisions regarding the required disclosure. In addition, our ethics hotline can also be used by employees and others for the anonymous communication of concerns about financial controls or reporting matters. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can only provide reasonable assurance of achieving their control objectives.

As of the end of the period covered by this report, an evaluation was carried out under the supervision and with the participation of our management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective.

Changes in internal control over financial reporting

In the ordinary course of business, we may routinely modify, upgrade or enhance our internal controls and procedures for financial reporting. There have not been any changes in our internal control over financial reporting as defined in Rule 13a-15(f) of the Exchange Act during the first quarter of 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Some statements in this Quarterly Report are forward-looking. These include statements about the usefulness of Non-GAAP measures, the future results of BNY Mellon, our businesses, financial, liquidity and capital condition, results of operations, liquidity, risk and capital management and processes, goals, strategies, outlook, objectives, expectations (including those regarding our performance results, expenses, nonperforming assets, products, impacts of currency fluctuations, impacts of money market fee waivers, deposits, impacts of trends on our businesses, regulatory, technology, market, economic or accounting developments and the impacts of such developments on our businesses, legal proceedings and other contingencies), human capital management (including related ambitions, objectives, aims and goals), effective tax rate, net interest revenue, estimates (including those regarding expenses, losses inherent in our credit portfolios and capital ratios), intentions (including those regarding our capital returns and expenses, including our investments in technology and pension expense), targets, opportunities, potential actions, growth and initiatives, including the potential effects of the coronavirus pandemic on any of the foregoing.

In this report, any other report, any press release or any written or oral statement that BNY Mellon or its executives may make, words, such as “estimate,” “forecast,” “project,” “anticipate,” “likely,” “target,” “expect,” “intend,” “continue,” “seek,” “believe,” “plan,” “goal,” “could,” “should,” “would,” “may,” “might,” “will,” “strategy,” “synergies,” “opportunities,” “trends,” “ambition,” “objective,” “aim,” “future,” “potentially,” “outlook” and words of similar meaning, may signify forward-looking statements.

Actual results may differ materially from those expressed or implied as a result of a number of factors, including those discussed in “Risk Factors” in our 2022 Annual Report, such as:

- errors or delays in our operational and transaction processing, or those of third parties, may materially adversely affect our business, financial condition, results of operations and reputation;
- our risk management framework, models and processes may not be effective in identifying or mitigating risk and reducing the potential for losses;
- our business may be adversely affected if we are unable to attract, retain, develop and motivate employees;
- a communications or technology disruption or failure within our infrastructure or the infrastructure of third parties that results in a loss of information, delays our ability to access information or impacts our ability to provide services to our clients may materially adversely affect our business, financial condition and results of operations;
- a cybersecurity incident, or a failure in our computer systems, networks and information, or those of third parties, could result in the theft, loss, unauthorized access to, disclosure, use or alteration of information, system or network failures, or loss of access to information. Any such incident or failure could adversely impact our ability to conduct our businesses, damage our reputation and cause losses;
- we are subject to extensive government rulemaking, policies, regulation and supervision that impact our operations. Changes to and introduction of new rules and regulations have compelled, and in the future may compel, us to change how we manage our businesses, which could have a material adverse effect on our business, financial condition and results of operations;
- regulatory or enforcement actions or litigation could materially adversely affect our results of operations or harm our businesses or reputation;
- a failure or circumvention of our controls and procedures could have a material adverse effect on our business, financial condition, results of operations and reputation;
- we are dependent on fee-based business for a substantial majority of our revenue and our fee-based revenues could be adversely affected by slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences;
- weakness and volatility in financial markets and the economy generally may materially adversely affect our business, financial condition and results of operations;
- levels of and changes in interest rates have impacted, and will in the future continue to impact, our profitability and capital levels, at times adversely;
- we have experienced, and may continue to experience, unrealized or realized losses on securities related to volatile and illiquid market conditions, reducing our capital levels and/or earnings;

- transitions away from and the replacement of LIBOR and other IBORs could adversely impact our business, financial condition and results of operations;
- the failure or perceived weakness of any of our significant clients or counterparties, many of whom are major financial institutions or sovereign entities, and our assumption of credit, counterparty and concentration risk, could expose us to loss and adversely affect our business;
- we could incur losses if our allowance for credit losses, including loan and lending-related commitment reserves, is inadequate or if our expectations of future economic conditions deteriorate;
- our business, financial condition and results of operations could be adversely affected if we do not effectively manage our liquidity;
- failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules more generally, could result in limitations on our activities and adversely affect our business and financial condition;
- the Parent is a non-operating holding company and, as a result, is dependent on dividends from its subsidiaries and extensions of credit from its IHC to meet its obligations, including with respect to its securities, and to provide funds for share repurchases and payment of dividends to its stockholders;
- our ability to return capital to shareholders is subject to the discretion of our Board of Directors and may be limited by U.S. banking laws and regulations, including those governing capital and capital planning, applicable provisions of Delaware law and our failure to pay full and timely dividends on our preferred stock;
- any material reduction in our credit ratings or the credit ratings of our principal bank subsidiaries, The Bank of New York Mellon or BNY Mellon, N.A., could increase the cost of funding and borrowing to us and our rated subsidiaries and have a material adverse effect on our business, financial condition and results of operations and on the value of the securities we issue;
- the application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect the Parent's liquidity and financial condition and the Parent's security holders;
- new lines of business, new products and services or transformational or strategic project initiatives subject us to new or additional risks, and the failure to implement these initiatives could affect our results of operations;
- we are subject to competition in all aspects of our business, which could negatively affect our ability to maintain or increase our profitability;
- our strategic transactions present risks and uncertainties and could have an adverse effect on our business, financial condition and results of operations;
- our businesses may be negatively affected by adverse events, publicity, government scrutiny or other reputational harm;
- climate change concerns could adversely affect our business, affect client activity levels and damage our reputation;
- impacts from natural disasters, climate change, acts of terrorism, pandemics, global conflicts and other geopolitical events may have a negative impact on our business and operations;
- tax law changes or challenges to our tax positions with respect to historical transactions may adversely affect our net income, effective tax rate and our overall results of operations and financial condition;
- changes in accounting standards governing the preparation of our financial statements and future events could have a material impact on our reported financial condition, results of operations, cash flows and other financial data; and
- risks relating to FDIC special deposits insurance assessments or developments relating to the U.S. debt ceiling.

Investors should consider all risk factors discussed in our 2022 Annual Report and any subsequent reports filed with the SEC by BNY Mellon pursuant to the Exchange Act. All forward-looking statements speak only as of the date on which such statements are made, and BNY Mellon undertakes no obligation to update any statement to reflect events or circumstances after the date on which such forward-looking statement is made or to reflect the occurrence of unanticipated events. The contents of BNY Mellon's website or any other website referenced herein are not part of this report.

Item 1. Legal Proceedings.

The information required by this Item is set forth in the "Legal proceedings" section in Note 18 of the Notes to Consolidated Financial Statements, which portion is incorporated herein by reference in response to this item.

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

(c) The following table discloses repurchases of our common stock made in the first quarter of 2023. All of the Company's preferred stock outstanding has preference over the Company's common stock with respect to the payment of dividends.

Issuer purchases of equity securities

Share repurchases – first quarter of 2023 *(dollars in millions, except per share amounts; common shares in thousands)*	Total shares repurchased	Average price per share	Total shares repurchased as part of a publicly announced plan or program	Maximum approximate dollar value of shares that may yet be purchased under the publicly announced plans or programs at March 31, 2023	
January 2023	4,342	$ 49.61	4,342	$ 4,785	
February 2023	11,837	50.97	11,837	4,181	
March 2023	8,969	48.75	8,969	3,744	
First quarter of 2023 *(a)*	**25,148**	**$ 49.94**	**25,148**	**$ 3,744**	*(b)*

(a) Includes 2.2 million shares repurchased at a purchase price of $112 million from employees, primarily in connection with the employees' payment of taxes upon the vesting of restricted stock. The average price per share of open market repurchases was $49.80.

(b) Represents the maximum value of the shares to be repurchased under the share repurchase plan announced in January 2023 and includes shares repurchased in connection with employee benefit plans.

In January 2023, we announced a share repurchase program approved by our Board of Directors providing for the repurchase of up to $5.0 billion of common shares beginning Jan. 1, 2023. This new share repurchase plan replaced all previously authorized share repurchase plans.

Share repurchases may be executed through open market repurchases, in privately negotiated transactions or by other means, including through repurchase plans designed to comply with Rule 10b5-1 and other derivative, accelerated share repurchase and other structured transactions. The timing and exact amount of any common stock repurchases will depend on various factors, including market conditions and the common stock trading price; the Company's capital position, liquidity and financial performance; alternative uses of capital; and legal and regulatory limitations and considerations.

Item 6. Exhibits.

The list of exhibits required to be filed as exhibits to this report appears below.

Exhibit No.	Description	Method of Filing
3.1	Restated Certificate of Incorporation of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Securities and Exchange Commission (the "Commission") on July 2, 2007, and incorporated herein by reference.
3.2	Certificate of Amendment to The Bank of New York Mellon Corporation's Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on April 9, 2019.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on April 10, 2019, and incorporated herein by reference.
3.3	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series A Noncumulative Preferred Stock, dated June 15, 2007.	Previously filed as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on July 5, 2007, and incorporated herein by reference.
3.4	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series D Noncumulative Perpetual Preferred Stock, dated May 16, 2013.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on May 16, 2013, and incorporated herein by reference.
3.5	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series F Noncumulative Perpetual Preferred Stock, dated July 29, 2016.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Aug. 1, 2016, and incorporated herein by reference.
3.6	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series G Noncumulative Perpetual Preferred Stock, dated May 15, 2020.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on May 19, 2020, and incorporated herein by reference.
3.7	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series H Noncumulative Perpetual Preferred Stock, dated Nov. 2, 2020.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Nov. 3, 2020, and incorporated herein by reference.
3.8	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series I Noncumulative Perpetual Preferred Stock, dated Nov. 16, 2021.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Nov. 18, 2021, and incorporated herein by reference.
3.9	Amended and Restated By-Laws of The Bank of New York Mellon Corporation, as amended and restated on Feb. 12, 2018.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Feb. 13, 2018, and incorporated herein by reference.

Exhibit No.	Description	Method of Filing
4.1	None of the instruments defining the rights of holders of long-term debt of the Parent or any of its subsidiaries represented long-term debt in excess of 10% of the total assets of the Company as of March 31, 2023. The Company hereby agrees to furnish to the Commission, upon request, a copy of any such instrument.	N/A
10.1	2023 Form of Restricted Stock Unit Agreement.	Filed herewith.
10.2	2023 Form of Performance Share Unit Agreement.	Filed herewith.
22.1	Subsidiary Issuer of Guaranteed Securities.	Previously filed as Exhibit 22.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) for the quarter ended March 31, 2021, and incorporated herein by reference.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
101.INS	Inline XBRL Instance Document.	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.	Filed herewith.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	Filed herewith.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.	Filed herewith.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.	Filed herewith.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.	Filed herewith.
104	The cover page of The Bank of New York Mellon Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2023, formatted in inline XBRL.	The cover page interactive data file is embedded within the inline XBRL document and included in Exhibit 101.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

THE BANK OF NEW YORK MELLON CORPORATION
(Registrant)

Date: May 5, 2023

By: /s/ Kurtis R. Kurimsky
Kurtis R. Kurimsky
Corporate Controller
(Duly Authorized Officer and
Principal Accounting Officer of
the Registrant)

Exhibit 10.1

FORM OF RESTRICTED STOCK UNIT AGREEMENT

THE BANK OF NEW YORK MELLON CORPORATION
LONG-TERM INCENTIVE PLAN
FORM OF NOTICE OF AWARD - RESTRICTED STOCK UNITS – EXECUTIVE COMMITTEE US

Subject to the terms and conditions of The Bank of New York Mellon Corporation 2019 Long-Term Incentive Plan (the "**Plan**"), this Notice of Award - Restricted Stock Units – Executive Committee US (the "**Award Notice**"), and the Terms and Conditions of Restricted Stock Units – Executive Committee US (the "**Terms and Conditions**"), The Bank of New York Mellon Corporation (the "**Corporation**") grants you restricted stock units ("**RSUs**") as reflected below and on the Corporation's equity award website (the "**Equity Website**"). Each RSU represents the opportunity to receive one (1) share of the Corporation's common stock, par value $.01 ("**Common Stock**"), upon satisfaction of the terms and conditions as set forth in the Award Notice and the Terms and Conditions (collectively, the "**Award Agreement**"), subject to the terms of the Plan.

Participant	[PARTICIPANT NAME]
Grant Date	[GRANT DATE]
Number of RSUs	[NUMBER OF SHARES GRANTED]
Vesting Schedule – Please refer to Appendix. Each date upon which all or a portion of your RSU award is scheduled to vest is referred to as a "**Vesting Date**." If the Risk Adjustment Process is applicable to your award (as indicated in the box below), a Vesting Date may be delayed if and to the extent the Risk Adjustment Process set forth in <u>Exhibit A</u> is not completed by such date subject to Section 4.1 of the Terms and Conditions.	
Risk Adjustment Process - To the extent applicable as indicated in the box to the right, unvested RSUs are subject to forfeiture based upon the Risk Adjustment Process set forth in <u>Exhibit A</u>. Is the Risk Adjustment Process applicable to your award?	[Yes / No]
Specified Age & Years of Service Rule – To the extent applicable as indicated in the box to the right, your RSUs are subject to continued vesting if you cease to be continuously employed after satisfying certain age and service requirements as set forth in Section 2.2(b) of the Terms and Conditions. Is Section 2.2(b) of the Terms and Conditions applicable to your award?	[Yes/ No]

THE CORPORATION'S GRANT OF RSUs AS REFLECTED HEREIN IS CONTINGENT UPON YOUR ACKNOWLEDGEMENT AND ACCEPTANCE OF THE AWARD AGREEMENT AND THE PLAN ELECTRONICALLY ON THE EQUITY WEBSITE ON OR BEFORE [GRANT ACCEPT BY DATE] (THE "ACCEPTANCE DEADLINE"). IF YOU FAIL TO DO SO, THE CORPORATION'S GRANT OF RSUs AS REFLECTED HEREIN SHALL BE NULL AND VOID, AND SHALL NOT BE RE-INSTATED.

BY ELECTRONICALLY ACKNOWLEDGING AND ACCEPTING THE CORPORATION'S GRANT OF RSUS, YOU AFFIRMATIVELY AND EXPRESSLY AGREE:

(1) SUCH ACKNOWLEDGEMENT AND ACCEPTANCE CONSTITUTES YOUR ELECTRONIC SIGNATURE IN EXECUTION OF THE AWARD AGREEMENT

(2) TO BE BOUND BY THE PROVISIONS OF THE AWARD AGREEMENT AND THE PLAN INCLUDING WITHOUT LIMITATION ANY LOCATION SPECIFIC SPECIAL TERMS AND

CONDITIONS SET FORTH IN THE ADDENDUM, AS DEFINED IN THE TERMS AND CONDITIONS

(3) YOU (A) HAVE REVIEWED THE AWARD AGREEMENT AND THE PLAN IN THEIR ENTIRETIES; (B) WERE GIVEN A REASONABLE TIME TO COMPLETE SUCH REVIEW; (C) HAVE BEEN ADVISED BY THE CORPORATION TO CONSULT WITH YOUR OWN ATTORNEY BEFORE ENTERING INTO THE AWARD AGREEMENT; (D) HAVE HAD AN OPPORTUNITY TO OBTAIN PROFESSIONAL LEGAL/TAX/INVESTMENT ADVICE PRIOR TO ACCEPTING THE RSUs; AND (E) FULLY UNDERSTAND ALL OF THE PROVISIONS OF THE AWARD AGREEMENT AND THE PLAN

(4) YOU HAVE BEEN PROVIDED WITH A COPY OR ELECTRONIC ACCESS TO A COPY OF THE PLAN AND THE U.S. PROSPECTUS FOR THE PLAN

(5) TO ACCEPT AS BINDING, CONCLUSIVE AND FINAL ALL DECISIONS OR INTERPRETATIONS OF THE CORPORATION UPON ANY QUESTIONS ARISING UNDER THE AWARD AGREEMENT AND THE PLAN

PARTICIPANT ACCEPTANCE DATE: [ACCEPTANCE DATE]

****

EXHIBIT A
Risk Adjustment/Forfeiture Decision Process

For any performance year in which you remain a covered employee, your risk performance will be assessed via a Risk Culture Summary Scorecard ("**RCSS**"). If, in any year, you receive an RCSS rating of "Partially Met Expectations" or "Did Not Meet Expectations," your unvested RSUs (including any accrued dividend equivalents) will be subject to review by the Human Resources and Compensation Committee of the Corporation's Board of Directors (the "**HRCC**") for consideration of forfeiture. If you are no longer a covered employee or have left the Corporation, any unvested portion of the RSUs (including any accrued dividend equivalents) will also be subject to a risk review by the HRCC.

In that event, as part of its review, the HRCC will ask –

- Did your rating reflect poor risk behavior by you in a prior year?
- Did you receive an award in that year?

If the answer to both questions is yes, the HRCC asks the following questions with respect to each of the designated prior years:

- Financial Impact: How much did/will the issue cost the Company?
- Reputational Impact: How much of a regulatory impact did/will it have on the Company?

The HRCC selects the impact answer that falls into the highest category below to determine the impact forfeiture percentage.

Criteria	Metric	None	Low	Medium	High
Financial Impact					
Reputational Impact					

As used in this Exhibit A, the term "**Company**" shall mean the Corporation and its Affiliates.

Then the HRCC asks how much, if any, control/responsibility you had regarding the situation. The answer to the last question determines the modifier to be applied to the impact forfeiture percentage.

Criteria	None	Indirect	Direct
Your role & responsibility			

Example *[Insert Example]*

THE BANK OF NEW YORK MELLON CORPORATION

**FORM OF TERMS AND CONDITIONS
OF RESTRICTED STOCK UNITS – EXECUTIVE COMMITTEE US**

The Restricted Stock Units ("**RSUs**") with respect to Common Stock of The Bank of New York Mellon Corporation (the "**Corporation**") granted to you on the Grant Date are subject to the Notice of Award - Restricted Stock Units – Executive Committee US (the "**Award Notice**"), these Terms and Conditions of Restricted Stock Units – Executive Committee US (the "**Terms and Conditions**") and all of the terms and conditions of The Bank of New York Mellon Corporation 2019 Long-Term Incentive Plan (the "**Plan**"), which is incorporated herein by reference. In the case of a conflict between the Award Notice, these Terms and Conditions and the terms of the Plan, the provisions of the Plan shall govern. A copy of the Plan can be found on the Corporation's equity award website (the "**Award Website**"), NetBenefits.com, under "Quick Links." Capitalized terms used but not defined herein shall have the same meaning as provided or reflected in the Award Notice or the Plan, as applicable. For purposes of these Terms and Conditions, "**Employer**" means the Corporation or any Affiliate that employs or employed you on the applicable date.

SECTION 1: <u>Restricted Stock Unit Award</u>

1.1 <u>Grant of Award</u>. Subject to these Terms and Conditions and the terms of the Plan, the Corporation grants you the number of RSUs as reflected in the Award Notice. The RSUs shall vest in accordance with the Vesting Schedule and shall be subject to the Risk Adjustment Process (if any) as reflected in the Award Notice.

1.2 <u>Dividend Equivalents</u>. Upon the payment of any dividend on the Common Stock occurring during the period preceding the settlement of your RSUs pursuant to these Terms and Conditions, your Employer will accrue an amount in cash equal to the value of the dividends you otherwise would have received had you actually been the shareholder of record of the number of shares of Common Stock underlying your RSUs, which dividend equivalents will also be subject to the Risk Adjustment Process if applicable to your award (as indicated in the Award Notice). Your Employer will pay you such dividend equivalents in cash without interest pursuant to Section 4 of these Terms and Conditions if and to the extent that the underlying RSUs become vested as provided in the Award Agreement.

1.3 <u>No Voting Rights</u>. Prior to the settlement of your RSUs pursuant to these Terms and Conditions, you shall not be entitled to vote the shares of Common Stock underlying the RSUs.

1.4 <u>Nontransferable</u>. The RSUs shall be transferable only by will or the laws of descent and distribution. Any other attempt to transfer the RSUs shall be null and void.

SECTION 2: <u>Vesting, Forfeiture, Termination of Employment and Disability</u>

2.1 <u>Vesting and Forfeiture</u>.

(a) *Vesting*. Subject to Sections 3 and 5.4 of these Terms and Conditions, if you remain continuously employed with your Employer through the close of business on the applicable Vesting Date reflected in the Award Notice, the number of RSUs corresponding to such Vesting Date will vest and the Corporation will issue you the underlying shares of Common Stock in accordance with Section 4 of these Terms and Conditions. Notwithstanding anything to the contrary contained in the Award Agreement and in accordance with Section 4.1, a vesting may be delayed if, on the Vesting Date, you are the subject of ongoing disciplinary or performance management investigations or proceedings concerning the circumstances under which forfeiture or clawback of this award could apply. In such cases, the applicable portion of the award, if any, will vest following the completion of such investigations and proceedings to the extent the Corporation determines that forfeiture and/or clawback does not apply.

(b) *Forfeiture upon Termination of Employment*. Subject to Sections 2.2 and 2.3 of these Terms and Conditions, if you cease to be continuously employed with your Employer prior to the date that your RSUs become fully vested, you shall cease vesting in your RSUs as of your Termination Date and any unvested RSUs, including any dividend equivalent rights, immediately shall terminate and be forfeited; provided, however, if the Risk Adjustment Process applies to your award (as indicated in the Award Notice), in situations where vesting would have otherwise occurred but for the fact that a determination has not yet been made as to whether a risk adjustment pursuant to Exhibit A is required, vesting shall occur in accordance with the terms of the Award Agreement provided that the Committee determines the effect, if any of a risk adjustment. As used herein, "**Termination Date**" shall mean the last day on which you are an employee of your Employer.

(c) *Forfeiture upon Termination of Employment for Cause*. Notwithstanding anything to the contrary contained in these Terms and Conditions, if your Employer terminates your employment for Cause, your RSUs, whether vested (but unsettled) or unvested, and including any dividend equivalent rights, immediately shall terminate and be forfeited. For purposes of these Terms and Conditions, "**Cause**" shall mean:

(i) you have been convicted of, or have entered into a pretrial diversion or entered a plea of guilty or nolo contendere (plea of no contest) to a crime or offense constituting a felony (or its equivalent under applicable laws outside of the United States), or to any other crime or offense involving moral turpitude, dishonesty, fraud, breach of trust, money laundering, or any other offense that may preclude you from being employed with a financial institution;

(ii) you are grossly negligent in the performance of your duties or have failed to perform the duties of your employment, including, without limitation, failure to comply with any lawful directive from your Employer or the Corporation, other than by reason of incapacity due to disability or from any permitted leave of absence required by law;

(iii) you have violated the Corporation's Code of Conduct or any of the policies of the Corporation or your Employer governing the conduct of business or your employment, including without limitation, those relating to discrimination and retaliation;

(iv) you have engaged in any misconduct which has the effect or potential of being injurious to the Corporation, any Affiliate or your Employer, including, but not limited to, its reputation;

(v) you have engaged in an act of fraud or dishonesty, including, but not limited to, taking or failing to take actions intending to result in personal gain; or

(vi) if you are employed outside the United States, any other circumstances (beyond those listed above) that permit the immediate termination of your employment without notice or payment in accordance with the terms of your employment agreement or Applicable Laws (as defined in Section 5.2).

The determination of whether your actions will be considered Cause for purposes of these Terms and Conditions will be determined by the Corporation or any of its Affiliates, at its or their sole discretion, as applicable. Any determinations of Cause will be considered conclusive and binding on you.

2.2 <u>Specified Terminations of Employment</u>.

(a) *Death*. If you cease to be continuously employed with your Employer by reason of your death prior to the date that your RSUs become fully vested (or if your death occurs following termination of employment during a period in which you have outstanding RSUs), your unvested RSUs including any dividend equivalent rights, will become fully vested as of your date of death (such date then being the final Vesting Date) and the Corporation will issue your legal representative or your estate the underlying shares of Common Stock in accordance with Section 4.

[(b) *Specified Age & Years of Service Rule.* If you cease to be continuously employed with your Employer (i) on or after your attainment of age 60 and (ii) the combination of your age and years of credited employment with your Employer (in both instances, full and partial years) on your Termination Date equals or exceeds 65 (satisfaction of (i) and (ii) being a "**Retirement-Eligible Event**"), you will continue to vest in your RSUs, including any dividend equivalent rights, in accordance with the Vesting Schedule set forth in the Award Notice so long as you fully comply with the applicable covenants provided in Section 3 hereof and provided that, if requested by your Employer (to the extent not prohibited by Applicable Laws), you execute and do not revoke a Transition/Separation Agreement and Release acceptable to your Employer. As a condition for continued vesting of your RSUs, including any dividend equivalent rights, following a Retirement-Eligible Event, your Employer may require you to periodically certify your compliance with the covenants set forth in Section 3 of these Terms and Conditions as more fully described in such Section. For purposes of the foregoing, partial years shall be determined based upon the number of days since your prior birthday or the number of days of credited employment since your prior employment anniversary, as the case may be. Notwithstanding the foregoing, (x) this subsection (b) will not apply to your award if the Award Notice provides that Section 2.2(b) is not applicable; and (y) in the case of continued vesting following a Retirement-Eligible Event, if you commence employment with a new employer that grants you a new award that replaces all or any portion of this award, any portion of this award that has been replaced by your new employer will be forfeited and will no longer vest and, where relevant, will be promptly repaid by you if the award or any portion of this award has already vested.]

(c) *Termination Providing Transition/Separation Pay*. Provided that you execute and do not revoke a Transition/Separation Agreement and Release acceptable to your Employer, if you cease to be continuously employed with your Employer by reason of a termination by your Employer and in connection with such termination you receive transition/separation pay from the Corporation or your Employer, you will continue to vest in your RSUs, including any dividend equivalent rights, in accordance with the Vesting Schedule set forth in the Award Notice so long as you fully comply with the applicable covenants provided in Section 3 hereof. For purposes of the foregoing, "**transition/separation pay**" means any severance, redundancy or ex-gratia compensation payment to you from the Corporation or your Employer in connection with your termination of employment that is in excess of the amount payable to you on account of any notice period to which you are entitled pursuant to the terms of your contract of employment or otherwise (or payment in lieu of such notice).

(d) *Sale of Business*. If you cease to be continuously employed with your Employer due to a sale of a business unit or your Employer and you are not otherwise entitled to transition/separation pay, you will continue to vest in your RSUs, including any dividend equivalent rights, in accordance with the Vesting Schedule set forth in the Award Notice so long as you fully comply with the applicable covenants provided in Section 3 hereof.

(e) *Change in Control*. If your employment is terminated by your Employer without Cause within two (2) years after a Change in Control occurring after the Grant Date, you will continue to vest in your RSUs, including any dividend equivalent rights, in accordance with the Vesting Schedule set forth in the Award Notice so long as you fully comply with the applicable covenants provided in Section 3 hereof.

(f) *Termination of Employment Prior to the Grant Date*. If your Termination Date (as defined in Section 2.1(b) above) occurred prior to the Grant Date for this award, you agree that any references to you as an "employee" and "employment" in the Award Agreement means the period of time during which you were still an employee of the Corporation or any of its Affiliates.

[Additional Vesting Provisions, if any.]

2.3 Disability. If you receive current benefits under a long-term disability plan maintained by the Corporation or your Employer while any portion of your RSUs remains unvested, you will continue to vest in your RSUs during the period you are eligible to receive such benefits, including any dividend equivalent rights, in accordance with the Vesting Schedule set forth in the Award Notice so long as you fully comply with the applicable covenants provided in Section 3 hereof.

SECTION 3: Notice of Resignation, Non-Solicitation, Non-Competition, Confidential Information, Non-Disparagement and Cooperation

3.1 Notice of Resignation. As consideration for this award, you will provide your Employer with 90 days' advance written notice of any voluntary termination of your employment with your Employer.

3.2 Non-Solicitation of Clients, Contractors and Employees; Non-Competition.

To protect the Corporation's and its Affiliates' legitimate business interests, including its confidential information and goodwill, and for the good and valuable consideration offered pursuant to the Award Agreement, which is in excess of any consideration you are otherwise entitled to receive, and to the maximum extent permitted by Applicable Laws, you agree as follows:

(a) *Non-Solicitation of Clients, Contractors and Employees*. Your RSUs, whether vested (but unsettled) or unvested, and including any dividend equivalent rights, shall be immediately forfeited if, prior to one (1) year from the Termination Date or, if later, the final vesting date set forth in the Award Notice (the "**Restricted Period**"), you directly or indirectly (i) solicit or induce or attempt to solicit or induce any current or prospective client of the Corporation or an Affiliate known to you, to initiate or continue a client relationship with you other than with the Corporation or Affiliate or to terminate or reduce its client relationship with the Corporation or Affiliate, or (ii) hire or employ any employee or contractor of the Corporation or an Affiliate, or recruit, solicit or induce such an individual to terminate or reduce their employment or engagement, whichever is applicable, with the Corporation or Affiliate. During the Restricted Period, you agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above.

(b) *Non-Competition*. Your RSUs, whether vested (but unsettled) or unvested, and including any dividend equivalent rights, shall be immediately forfeited if, after your separation from employment with the Corporation or its Affiliates by reason of your (i) Retirement-Eligible Event or (ii) termination providing transition/separation pay as specified in Sections 2.2(b) and 2.2(c) respectively, and before the end of the

Restricted Period, you, directly or indirectly (without the prior written consent of the Corporation), (i) associate (including as a director, officer, employee, partner, consultant, agent or advisor) with a Competitive Enterprise, or (ii) transact business on behalf of a Competitive Enterprise. For purposes of the Award Agreement, "**Competitive Enterprise**" means any business enterprise that either (A) is a member of the Corporation's competitive peer group as disclosed in the Corporation's proxy statement that was most recently filed with the Securities and Exchange Commission preceding the Termination Date; or (B) is any other business enterprise for whom you would be performing services similar to those performed at the Corporation or any Affiliate within the twelve (12) months preceding the Termination Date.

For the sake of clarity, the foregoing non-compete restriction does not prohibit you from being employed by the government or a not-for profit organization (i.e. an organization exempt from local and national tax laws). In view of the limited scope of the non-compete obligation assumed under this Section, which does not prevent you from working in other entities that are not affected by it, you acknowledge and agree that:(i) the foregoing non-compete obligation is reasonable and necessary to protect the Corporation's and its Affiliates' legitimate business interests including its confidential information and goodwill, and (ii) the continued vesting in your RSUs, including any dividend equivalent rights, following a Retirement-Eligible Event or termination providing transition/separation pay is fair and reasonable consideration for the foregoing non-compete obligation. During the Restricted Period, you further agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above (i.e., if you begin to associate with or transact business on behalf of a Competitive Enterprise).

3.3 Confidential Information.

(a) Except as may be permitted in accordance with Section 3.6 below, during the course of your employment with the Corporation or any Affiliate and continuing thereafter, you will not, either directly or indirectly, at any time, while an employee of the Corporation or any Affiliate or thereafter, make known, divulge, reveal, furnish, make available, or use (except for use in the regular course of your duties for the Corporation or its Affiliates) any Confidential Information (as defined below) without the written consent of the Corporation. You also agree that this obligation is in addition to, and not in limitation or preemption of, all other obligations of confidentiality that you may have to the Corporation or its Affiliates under the Code of Conduct, Securities Trading Policy or other rules or policies governing the conduct of their respective businesses, or general or specific legal or equitable principles.

(b) As used herein, "**Confidential Information**" means the information you have been given or to which you have access or become informed of which the Corporation or its Affiliates possess or have access and which relates to the Corporation or its Affiliates, is not generally known to the public or in the trade or is a competitive asset and/or otherwise constitutes a "trade secret," as that term is defined by Applicable Laws, of the Corporation or its Affiliates, including without limitation, non- public: (i) planning data and marketing strategies; (ii) terms of any new products and investment strategies; (iii) information relating to other officers and employees of the Corporation or its Affiliates; (iv) financial results and information about the business condition of the Corporation or its Affiliates; (v) terms of any investment, management or advisory agreement or other material contract; (vi) proprietary software and related documents; (vii) customer and potential customer information (for example, client lists, prospecting lists, information about client accounts, pricing strategies, and current or proposed transactions and contact persons at such customers and customer prospects); and (viii) material information or internal analyses concerning customers or customer prospects of the Corporation or its Affiliates or their respective operations, condition (financial or otherwise) or plans.

3.4 Non-Disparagement. Subject to Section 3.6 below, during the course of your employment with the Corporation or any Affiliate and continuing thereafter, you will not, directly or indirectly make, issue, authorize or publish any comments or statements (orally or in writing) to the media, including without limitation traditional vehicles and social media, to any individual or entity with whom or which the Corporation, or any of its Affiliates, has a business relationship, or to any other individual or entity, which disparages, criticizes or otherwise reflects adversely upon the Corporation, any of its Affiliates or any of their respective employees, officers or directors.

3.5 Cooperation. Upon the termination of your employment for any reason or no reason, including but not limited to resignation of employment, you will fully cooperate with the Corporation and its Affiliates upon reasonable notice and at reasonable times, in the prosecution and defense of complaints, investigations, litigation, arbitration and mediation of any complaints, claims or actions now in existence or that may be threatened or brought in the future relating to events or occurrences that transpired while employed by the Corporation or any Affiliate.

3.6 Governmental Authorities. Nothing in the Award Agreement prohibits or interferes with your right to disclose any relevant and necessary information in any action or proceeding relating to the Award Agreement or as otherwise required by law or legal process. In addition, nothing in the Award Agreement prohibits or interferes with your or your attorney's right: (a) to initiate communications directly with or report or disclose possible violations of law or regulation to, any governmental agency or entity, legislative body, or any self-regulatory organization, including but not limited to the U.S. Department of Justice ("**DOJ**"), the U.S. Securities and Exchange Commission ("**SEC**"), the U.S. Financial Industry Regulatory Authority ("**FINRA**"), the U.S. Equal Employment Opportunity Commission ("**EEOC**"), or U.S. Congress, and such reports or disclosures do not require prior notice to, or authorization from, the Corporation; (b) to participate, cooperate, or testify in any action, investigation or proceeding with, provide information to, or respond to any inquiry from any governmental agency or legislative body, any self-regulatory organization, including but not limited to the IRS, SEC, FINRA, the EEOC, DOJ, U.S. Congress ("**Governmental Authorities**"), or the Corporation's Legal or Compliance Departments and such communications do not require prior notice to, or authorization from the Corporation. However, with respect to such communications, reports, participation, cooperation or testimony to the Governmental Authorities, as set forth above in clauses (a) and (b) of this Section, you may not disclose privileged communications with the Corporation's counsel. To the extent permitted by law, upon receipt of a subpoena, court order or other legal process compelling the disclosure of any information, you will give prompt written notice to the Corporation so as to provide the Corporation ample opportunity to protect its interests in confidentiality to the fullest extent possible unless the subpoena, court order or other legal process pertains to an action described above in clauses (a) or (b) of this Section, in which event no such notice is required. Notwithstanding any confidentiality and non-disclosure obligations you may have, you are hereby advised as follows pursuant to the U.S. Federal Defend Trade Secrets Act of 2016: "An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order."

3.7 Periodic Certification of Compliance. In connection with your separation from employment with the Corporation or its Affiliates by reason of your Retirement-Eligible Event , upon request by your Employer, you agree to periodically certify your compliance with the covenants set forth in this Section 3 through the end of the Restricted Period. If you fail to provide any such certification(s) as requested by your Employer, the RSUs whether vested (but unsettled) or unvested, and including any dividend equivalent rights, shall be immediately forfeited.

3.8 Existing Obligations. The terms of the Award Agreement shall not in any way (a) limit your obligations pursuant to any other agreements with the Corporation or any of its Affiliates or other corporate plans or policies applicable to you; or (b) limit the Corporation's or your Employer's rights to exercise any remedies it may have under Applicable Laws or under the terms of such other agreements, plans or policies.

3.9 Failure to Comply with Covenants. If you fail to comply with any of the foregoing applicable covenants, the RSUs, whether vested (but unsettled) or unvested, and including any dividend equivalent rights, shall be immediately forfeited and may be subject to repayment as provided in Section 5.4 of these Terms and Conditions.

SECTION 4: Settlement

4.1 Time of Settlement.

(a) *Time of Settlement*. Vested RSUs shall be settled as soon as administratively practicable following the applicable Vesting Date as reflected in the Award Notice or Section 2.2(a); *provided,* if you are a "specified employee" under Section 409A of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"), upon separation from service and if such settlement is deferred compensation conditioned upon a separation from service and not compensation you could receive without separating from service, then settlement shall not be made until the first day following the six (6) month anniversary of your separation from service (or upon your death, if earlier).

(b) *Acceleration Due to Conflicts of Interest or Ethics Laws (Governmental Service).* Notwithstanding Section 4.1(a), the Corporation may accelerate the vesting and settlement of all or part of your outstanding RSUs if each of the following conditions are satisfied: (i) you cease to be continuously employed with your Employer by reason of an event described in Section 2.2(b), (c), (d), or (e); (ii) pursuant to such section, you continue to vest in your RSUs following your Termination Date; (iii) following your Termination Date, you become employed by a Governmental Employer; and (iv) you present the Corporation with satisfactory evidence demonstrating that as a result of such employment with a Governmental Employer, the divestiture of your RSUs is reasonably necessary to avoid the violation of United States federal, state or local conflicts of interest or ethics law applicable to you; provided that, no accelerated distribution shall occur pursuant to this Section 4.1(b) unless the Corporation determines that such acceleration is consistent with Treasury Regulation Section 1.409A-3(j)(4)(iii)(B). In the event that vesting and settlement of the RSUs are accelerated pursuant to this Section 4.1(b), you shall remain subject to these Terms and Conditions as if the RSUs had remained outstanding through the original Vesting Dates and had been settled in accordance with Section 4.1(a), including, but not limited to, for purposes of (A) determining the duration of the Restricted Period set forth in Section 3.2 (so that the Restricted Period shall be determined based on the originally scheduled Vesting Dates without regard to any acceleration) and (B) determining whether the RSUs have been settled for purposes of Section 3.9 (so that the RSUs shall not be deemed to have been vested or settled until the date on which they would have been vested or settled (as applicable) without regard to acceleration under this Section 4.1(b)). In the event that the settlement of the RSUs is accelerated in accordance with this Section 4.1(b), upon such settlement, you shall cease to have any further rights with respect to your RSUs, and for the avoidance of doubt, any RSUs which are not settled shall be deemed immediately forfeited. As a condition for acceleration pursuant to this Section 4.1(b), the Corporation may require that you sign an agreement satisfactory to the Corporation addressing the circumstances of such acceleration and acknowledging these Terms and Conditions. For purposes of this Section 4.1(b), "**Governmental Employer"** means a United States federal, state or local governmental agency, branch, department, or entity and any court or other tribunal.

4.2 Form of Settlement. Vested RSUs shall be settled in the form of Common Stock delivered in book-entry form. Notwithstanding the foregoing, the Corporation may, in its sole discretion, settle any vested RSUs in the form of a cash payment to the extent settlement of the RSUs in shares of Common Stock is prohibited under local law or would require you, your Employer, the Corporation or any Affiliate to obtain the approval of any governmental and/or regulatory body in your country of residence (or country of employment, if different). Alternatively, the Corporation may, in its sole discretion, settle the vested RSUs in the form of Common Stock but require an immediate sale of such shares of Common Stock (in which case, these Terms and Conditions shall give the Corporation the authority to issue sales instructions on your behalf). Accrued dividend equivalents corresponding to vested RSUs, if any, shall be settled in the form of cash, payable without interest, on the next administratively practicable pay date following vesting of such RSUs.

SECTION 5: Other Terms and Conditions

5.1 No Right to Employment. Neither the award of RSUs nor anything else contained in these Terms and Conditions nor the Plan shall be deemed to limit or restrict the right of your Employer to terminate your employment at any time, for any reason, with or without Cause.

5.2 Compliance with Laws. Notwithstanding any other provision of these Terms and Conditions, you agree to take any action, and consent to the taking of any action by the Corporation and your Employer with respect to the RSUs awarded hereunder necessary to achieve compliance with applicable laws, regulations or relevant regulatory requirements or interpretations in effect from time to time ("**Applicable Laws**"). Any determination by the Corporation in this regard shall be final, binding and conclusive. The Corporation shall in no event be obligated to register any securities pursuant to the U.S. Securities Act of 1933 (as the same shall be in effect from time to time) or other applicable foreign securities laws, or to take any other affirmative action in order to cause the delivery of shares in book-entry form or otherwise therefore to comply with any Applicable Laws. For the avoidance of doubt, you understand and agree that if any payment or other obligation under or arising from these Terms and Conditions, including without limitation dividend equivalent rights, or the Plan is in conflict with or is restricted by any Applicable Laws, the Corporation may reduce, revoke, cancel, clawback or impose different terms and conditions to the extent it deems necessary or appropriate, in its sole discretion, to effect such compliance. If the Corporation determines that it is necessary or appropriate for any payments under these Terms and Conditions to be delayed in order to avoid additional tax, interest and or penalties under Section 409A of the Code, then the payments would not be made before the date which is the first day following the six (6) month anniversary of the date of your termination of employment (or upon earlier death).

5.3 Tax Withholding. Regardless of any action the Corporation or your Employer take with respect to any or all income tax (including U.S. federal, state and local taxes or non-U.S. taxes), social insurance, payroll tax, payment on account or other tax-related withholding ("**Tax-Related Items**"), you acknowledge that the ultimate liability for all Tax-Related Items legally due by you is and remains your responsibility and that the Corporation and your Employer (a) make no representations or undertakings regarding the treatment of any Tax-

Related Items in connection with any aspect of the RSUs, including the grant of the RSUs, the vesting of the RSUs, the subsequent sale of any shares of Common Stock acquired pursuant to the RSUs and the receipt of any dividends or dividend equivalents, and (b) do not commit to structure the terms of the grant or any aspect of the RSUs to reduce or eliminate your liability for Tax-Related Items. Further, if you are or become subject to taxation in more than one country, you acknowledge that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one country.

Prior to the delivery of shares of Common Stock upon the vesting of your RSUs, if your country of residence (and/or the country of employment, if different) requires withholding or payment of Tax-Related Items, the Corporation shall be authorized to withhold a sufficient number of whole shares of Common Stock otherwise issuable upon the vesting of the RSUs that have an aggregate Fair Market Value sufficient to pay the Tax-Related Items required to be withheld with respect to the shares of Common Stock. The cash equivalent of the shares of Common Stock withheld will be used to settle the obligation to withhold the Tax-Related Items. In the event that withholding in shares of Common Stock is prohibited or problematic under Applicable Laws or otherwise may trigger adverse consequences to the Corporation or your Employer, your Employer is authorized to withhold the Tax-Related Items required to be withheld with respect to the shares of Common Stock in cash from your regular salary and/or wages or any other amounts payable to you. In the event the withholding requirements are not satisfied through the withholding of shares of Common Stock by the Corporation or through your regular salary and/or wages or other amounts payable to you by your Employer, no shares of Common Stock will be issued to you (or your estate) upon vesting of the RSUs unless and until satisfactory arrangements have been made by you with respect to the payment of any Tax-Related Items that the Corporation or your Employer determines, in its sole discretion, must be withheld or collected with respect to such RSUs. By accepting this grant of RSUs, you expressly consent to the withholding of shares of Common Stock and/or withholding from your regular salary and/or wages or other amounts payable to you as provided for hereunder. All other Tax-Related Items related to the RSUs and any shares of Common Stock delivered in payment thereof are your sole responsibility. Without limiting the Corporation's or your Employer's authority to satisfy their withholding obligations for Tax-Related Items as set forth herein, by accepting this grant of RSUs, you authorize the Corporation and/or your Employer to withhold shares of Common Stock otherwise deliverable to you upon vesting of your RSUs to satisfy Tax-Related Items, regardless of whether the Corporation and/or your Employer have an obligation to withhold such Tax-Related Items.

The Corporation or your Employer may withhold or account for Tax-Related Items by considering applicable statutory or other withholding rates, including minimum or maximum rates applicable in your jurisdiction(s). In the event of over-withholding, you may receive a refund of any over-withheld amount in cash (with no entitlement to the equivalent in Common Stock). In the event of under-withholding, you may be required to pay any additional Tax-Related Items directly to the applicable tax authority or to the Corporation and/or your Employer. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, you shall be deemed to have been issued the full number of shares of Common Stock subject to the vested RSUs, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items.

[5.4 Forfeiture and Repayment. If, directly or indirectly:

(a) during the course of your employment with your Employer, you violate any obligations set forth in the Award Agreement (including without limitation those obligations set forth in Section 3 of these Terms and Conditions) or engage in conduct or it is discovered that you engaged in conduct that is adverse to the interests of the Corporation or its Affiliates, including failures to comply with the Corporation's or any of its Affiliate's rules or regulations, fraud, or conduct contributing to any financial restatements or irregularities;

(b) during the course of your employment with your Employer and, unless you have post-termination obligations or duties owed to the Corporation or its Affiliates pursuant to an individual agreement set forth in subsection (d) below, for one (1) year thereafter, you engage (other than for the benefit of the Corporation or its Affiliates) in solicitation and/or diversion of customers or employees;

(c) during the course of your employment with your Employer, you engage in competition with the Corporation or its Affiliates;

(d) following termination of your employment with your Employer for any reason, with or without Cause, you violate any post-termination obligations or duties owed to the Corporation or its Affiliates under any agreement with the Corporation or its Affiliates, including without limitation, any employment, confidentiality, non-solicitation, non-competition or other agreement restricting post-employment conduct (including without limitation those obligations set forth in Section 3 of these Terms and Conditions); or

(e) any compensation that the Corporation or its Affiliates has promised or paid to you is required to be forfeited and/or repaid to the Corporation or its Affiliates pursuant to applicable regulatory requirements;

then the Corporation may cancel all or any portion of the RSUs and/or require repayment of any shares of Common Stock (or the value thereof) or other amounts which were acquired pursuant to the RSUs (including without limitation any dividends paid on the shares of Common Stock and dividend equivalents). The Corporation shall have sole discretion to determine what constitutes grounds for forfeiture and/or repayment under this Section 5.4, and, in such event, the portion of the RSUs that shall be cancelled and the sums or amounts that shall be repaid. For purposes of the foregoing, you expressly and explicitly authorize the Corporation to issue instructions, on your behalf, to any brokerage firm and/or third party administrator engaged by the Corporation to hold the shares of Common Stock and other amounts acquired pursuant to the RSUs to re-convey, transfer or otherwise return such shares and/or other amounts to the Corporation.]

5.5 Governing Law and Choice of Forum. The Award Agreement shall be construed and enforced in accordance with the laws of the State of New York, other than any choice of law provisions calling for the application of laws of another jurisdiction. For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this grant or the Award Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the State of New York and agree that such litigation shall be conducted only in the courts of New York County, New York, or the federal courts for the United States for the Southern District of New York, and no other courts, where this grant is made and/or to be performed and agree to such other choice of forum provisions as are included in the Plan.

5.6 Nature of Plan. By participating in the Plan, you acknowledge, understand and agree that:

(a) The Plan is discretionary in nature and limited in duration, and may be amended, cancelled, or terminated by the Corporation, in its sole discretion, at any time.

(b) The grant of RSUs under the Plan is a one-time benefit and does not create any contractual or other right to receive RSUs or benefits in lieu of such awards in the future. Future awards, if any, will be at the sole discretion of the Corporation, including, but not limited to, the form and timing of the award, the number of shares of Common Stock subject to the award, the vesting provisions applicable to the award and the purchase price (if any).

(c) Your participation in the Plan is voluntary, and the value of your RSUs is an extraordinary item of compensation and is outside the scope of your employment (and your employment contract, if any). As such, your RSUs are not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, dismissal, termination or end of service payments, bonuses, long-service awards, pension or retirement benefits, or similar payments.

(d) No claim or entitlement to compensation or damages shall arise from forfeiture of the RSUs resulting from the termination of your employment or other service relationship (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any). **In consideration of the grant of the RSUs, you expressly agree not to institute any such claim against the Corporation, any of its Affiliates or your Employer.**

5.7 ***Data Privacy. By accepting the RSUs, you declare that you agree with the data processing practices described herein and consent to the collection, processing and use of your Personal Data (as defined below) by the Corporation and the transfer of your Personal Data to the recipients mentioned herein, including recipients located in countries which do not adduce an adequate level of protection from a European (or other non-U.S.) data protection law perspective, for the purposes described herein.***

(a) Declaration of Consent. You understand that you need to review the following information about the processing of your personal data by or on behalf of the Corporation, your Employer and/or any of its Affiliates, as described herein, and any other RSU grant materials (the "Personal Data") and declare your consent. With regard to the processing of your Personal Data in connection with the Plan, you understand that the Corporation is the controller of the Personal Data.

(b) Data Processing and Legal Basis. The Corporation collects, uses and otherwise processes your Personal Data for the purposes of allocating shares and implementing, administering and managing the Plan. You understand that this Personal Data may include, without limitation, your name, home address and telephone number, email address, personal bank account details, date of birth, social insurance number, passport number or other identification number (e.g., resident registration number), salary, nationality, job

title, any shares of Common Stock or directorships held in the Corporation or its Affiliates, details of all RSUs or any other entitlement to shares of Common Stock or equivalent benefits awarded, canceled, purchased, vested, unvested or outstanding in your favor. The Corporation's legal basis for the processing of your Personal Data is your consent.

(c) Stock Plan Administration Service Providers. You understand that the Corporation may transfer your Personal Data, or parts thereof, to Fidelity Stock Plan Services LLC and certain of its affiliated companies ("Fidelity"), an independent service provider based in the United States which assists the Corporation with the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share your Personal Data with such different service provider that serves the Corporation in a similar manner. You understand and acknowledge that the Corporation's service provider may open an account for you to receive and trade shares acquired under the Plan and that you will be asked to agree on separate terms and data processing practices with the service provider, which is a condition of your ability to participate in the Plan.

(d) International Data Transfers. You understand that the Corporation and, as of the date hereof, certain third parties assisting in the implementation, administration and management of the Plan, such as the Corporation's service providers, are based in the United States. If you are located outside the United States, you understand and acknowledge that your country has enacted data privacy laws that are different from the laws of the United States. Transfers of personal data from the EU to the United States can be made on the basis of Standard Contractual Clauses approved by the European Commission or other appropriate safeguards permissible under the Applicable Laws. If you are located in the EU or EEA, the Corporation may receive, process and transfer your Personal Data onward to third-party service providers solely on the basis of appropriate data transfer agreements or other appropriate safeguards permissible under Applicable Laws. If applicable, you understand that you can ask for a copy of the appropriate data processing agreements underlying the transfer of your Personal Data by contacting your local human resources representative. The Corporation's legal basis for the transfer of your Personal Data is your consent.

(e) Data Retention. You understand that the Corporation will use your Personal Data only as long as is necessary to implement, administer and manage your participation in the Plan, or to comply with Applicable Laws, including under tax and securities laws. In the latter case, you understand and acknowledge that the Corporation's legal basis for the processing of your Personal Data would be compliance with the Applicable Laws or the pursuit by the Corporation of respective legitimate interests not outweighed by your interests, rights or freedoms. When the Corporation no longer needs your Personal Data for any of the above purposes, you understand the Corporation will remove it from its systems.

(f) Voluntariness and Consequences of Denial/Withdrawal of Consent. You understand that your participation in the Plan and your grant of consent is purely voluntary. You may deny or later withdraw your consent at any time, with future effect and for any or no reason. If you deny or later withdraw your consent, the Corporation can no longer offer you participation in the Plan or offer other awards to you or administer or maintain such awards and you would no longer be able to participate in the Plan. You further understand that denial or withdrawal of your consent would not affect your status or salary as an employee or your career and that you would merely forfeit the opportunities associated with the Plan.

(g) Data Subject Rights. You understand that data subject rights regarding the processing of personal data vary depending on the Applicable Laws and that, depending on where you are based and subject to the conditions set out in the Applicable Laws, you may have, without limitation, the rights to (i) inquire whether and what kind of Personal Data the Corporation holds about you and how it is processed, and to access or request copies of such Personal Data, (ii) request the correction or supplementation of Personal Data about you that is inaccurate, incomplete or out-of-date in light of the purposes underlying the processing, (iii) obtain the erasure of Personal Data no longer necessary for the purposes underlying the processing, processed based on withdrawn consent, processed for legitimate interests that, in the context of your objection, do not prove to be compelling, or processed in non-compliance with applicable legal requirements, (iv) request the Corporation to restrict the processing of your Personal Data in certain situations where you feel its processing is inappropriate, (v) object, in certain circumstances, to the processing of Personal Data for legitimate interests, and to (vi) request portability of your Personal Data that you have actively or passively provided to the Corporation (which does not include data derived or inferred from the collected data), where the processing of such Personal Data is based on consent or your employment or service contract and is carried out by automated means. In case of concerns, you understand that you may also have the right to lodge a complaint with the competent local data protection authority. Further, to receive clarification of, or to exercise any of your rights, you should contact your local human resources representative.

5.8 Insider Trading/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the shares of Common Stock are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of shares of Common Stock, rights to shares of Common Stock (e.g., RSUs) or rights linked to the value of shares of Common Stock under the Plan during such times as you are considered to have "inside information" regarding the Corporation (as defined by the laws in the applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you placed before you possessed inside information. Furthermore, you could be prohibited from (a) disclosing the inside information to any third party and (b) "tipping" third parties or causing them otherwise to buy or sell securities (third parties include fellow employees). Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable insider trading policy of the Corporation. You acknowledge that it is your responsibility to comply with any applicable restrictions, and you should speak to your personal advisor on this matter.

5.9 Electronic Delivery and Acceptance. The Corporation may, in its sole discretion, deliver any documents related to current or future participation in the Plan by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Corporation or a third party designated by the Corporation.

5.10 Severability. The provisions of these Terms and Conditions are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable. Alternatively, the Corporation, in its sole discretion, shall have the power and authority to revise or strike such provision to the minimum extent necessary to render it valid and enforceable to the full extent permitted under Applicable Laws.

5.11 Liability for Breach. You shall indemnify the Corporation and hold it harmless from and against any and all damages or liabilities incurred by the Corporation (including liabilities for attorneys' fees and disbursements) arising out of any breach by you of these Terms and Conditions, including, without limitation, any attempted transfer of RSUs in violation of Section 1.4 of these Terms and Conditions.

5.12 Waiver. You acknowledge that a waiver by the Corporation of any provision of these Terms and Conditions shall not operate or be construed as a waiver of any other provision of these Terms and Conditions, or of any subsequent breach of these Terms and Conditions.

5.13 Addendum. The grant of your RSUs shall be subject to any special terms and conditions set forth in any Addendum to these Terms and Conditions (the "**Addendum**") for your state of residence (and your state of employment, if different). If you relocate your residency or employment to one of the states included in the Addendum, the special terms and conditions for such state will apply to you, to the extent the Corporation determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Addendum shall constitute part of the Award Agreement.

5.14 Additional Requirements. The Corporation reserves the right to impose other requirements on the RSUs, any payment made pursuant to the RSUs, and your participation in the Plan, to the extent the Corporation determines, in its sole discretion, that such other requirements are necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring you to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

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THE BANK OF NEW YORK MELLON CORPORATION

FORM OF ADDENDUM TO TERMS AND CONDITIONS OF RESTRICTED STOCK UNITS

This Addendum includes additional terms and conditions that govern the RSUs granted to you if you reside in or are employed in one of the locations listed herein. These terms and conditions are in addition to, or, if so indicated, in place of, the terms and conditions set forth in the main body of the Award Agreement. All capitalized terms as contained in this Addendum shall have the same meaning as set forth in the Award Notice, the Terms and Conditions and the Plan. If you transfer your residence and/or employment to one of the locations included in this Addendum, the special terms and conditions for such location will apply to you to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable for legal or administrative reasons (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate your transfer).

CALIFORNIA

1. Non-Solicitation of Clients, Contractors and Employees; Non-Competition. The following provision shall replace Section 3.2 of the Terms and Conditions in its entirety:

3.2 Non-Solicitation of Clients, Contractors and Employees; Non-Competition.

(a) *Non-Solicitation of Clients, Contractors and Employees*. To protect the Corporation's and its Affiliates' trade secrets and for the good and valuable consideration offered pursuant to the Award Agreement, which is in excess of any consideration you are otherwise entitled to receive, you agree that until one (1) year from the Termination Date or, if later, the final vesting date set forth in the Award Notice (the "**Restricted Period**"), to the maximum extent permitted by Applicable Laws, you will not directly or indirectly use any trade secrets of the Corporation or its Affiliates to (i) solicit or induce or attempt to solicit or induce any current or prospective client of the Corporation or an Affiliate known to you, to initiate or continue a client relationship with you other than with the Corporation or Affiliate, or to terminate or reduce its client relationship with the Corporation or Affiliate, or (ii) solicit any employee or contractor to terminate or reduce their employment or engagement, whichever is applicable, with the Corporation or Affiliate. Even at the conclusion of the Restricted Period, you are still not permitted to use the Corporation's or its Affiliates' trade secrets for any purpose. During the Restricted Period, you agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above.

(b) *Non-Competition*. Intentionally Omitted.

MASSACHUSETTS

1. Non-Competition. The following provision shall replace Section 3.2(b) of the Terms and Conditions in its entirety:

(b) *Non-Competition*. Your RSUs, whether vested (but unsettled) or unvested, and including any dividend equivalent rights, shall be immediately forfeited if, after your separation from employment with the Corporation or its Affiliates by reason of your (i) Retirement-Eligible Event or (ii) termination providing transition/separation pay, as specified in Sections 2.2(b) and 2.2(c) respectively, and before the end of the Restricted Period, you directly or indirectly (without the prior written consent of the Corporation), (i) associate (including as a director, officer, employee, partner, consultant, agent or advisor) with a Competitive Enterprise in a Restricted Territory, or (ii) transact business on behalf of a Competitive Enterprise in a Restricted Territory. For purposes of the Award Agreement, "**Competitive Enterprise**" means any business enterprise that either (A) is a member of the Corporation's competitive peer group as disclosed in the Corporation's proxy statement that was most recently filed with the Securities and Exchange Commission preceding the Termination Date; or (B) is any other business enterprise for whom you would be performing services similar to those performed at the Corporation or any Affiliate within the twelve (12) months preceding the Termination Date. For the purposes of the Award Agreement, "**Restricted Territory**" means all geographic areas in which you, during any time within the last 24 months preceding the end of your employment with the Corporation, provided services or had a material presence or influence, which given your current senior role in the Corporation shall be presumed to mean the entire world.

For the sake of clarity, the foregoing non-compete restriction does not prohibit you from being employed by the government or a not-for profit organization (i.e. an organization exempt from local and national tax laws). In view of the limited scope of the non-compete obligation assumed under this Section, which does not prevent you from working in other entities that are not affected by it, you acknowledge and agree that: (i) the foregoing non-compete obligation is reasonable and necessary to protect the Corporation's legitimate business interests including its confidential information and goodwill, and (ii) the continued vesting in your RSUs, including any dividend equivalent rights, following a Retirement-Eligible Event or termination providing transition/separation pay is fair and reasonable consideration for the foregoing non-compete obligation. During the Restricted Period, you further agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above (i.e., if you begin to associate with or transact business on behalf of a Competitive Enterprise). You have seven business days from the date you electronically acknowledge and accept the terms of the Award Agreement to rescind your acceptance of the Award Agreement. You may rescind your acceptance of the Award Agreement by sending written notice to Human Resources equity administration at BNYMellonEquity@bnymellon.com.

Exhibit 10.2

FORM OF PERFORMANCE SHARE UNIT AGREEMENT

THE BANK OF NEW YORK MELLON CORPORATION
LONG-TERM INCENTIVE PLAN
FORM OF NOTICE OF AWARD – PERFORMANCE SHARE UNITS – EXECUTIVE COMMITTEE US

Subject to the terms and conditions of The Bank of New York Mellon Corporation 2019 Long-Term Incentive Plan (the "**Plan**"), this Notice of Award - Performance Share Units – Executive Committee US (the "**Award Notice**"), and the Terms and Conditions of Performance Share Units – Executive Committee US (the "**Terms and Conditions**"), The Bank of New York Mellon Corporation (the "**Corporation**") grants you performance share units ("**PSUs**") as reflected below and on the Corporation's equity award website (the "**Equity Website**"). Each PSU represents the opportunity to receive one (1) share of the Corporation's common stock, par value $.01 ("**Common Stock**"), upon satisfaction of the terms and conditions as set forth in the Award Notice and the Terms and Conditions (collectively, the "**Award Agreement**"), subject to the terms of the Plan. The purpose of the award is to incentivize you to align your interests with that of the Corporation and to reward your future contribution to the performance of the Corporation's business.

Participant	[PARTICIPANT NAME]
Grant Date	[GRANT DATE]
Number of PSUs **The "Grant Amount" of "PSUs" (assuming achievement of 100% earnout)**	[NUMBER OF SHARES GRANTED]

Vesting Schedule – Please refer to Appendix. The vesting date may be delayed if and to the extent the Risk Adjustment Process set forth in Exhibit A is not completed by such date or achievement of performance as set forth on Attachment A have not been determined by such date, in each case, subject to Section 4.1 of the Terms and Conditions.
Risk Adjustment Process - Unvested PSUs are subject to forfeiture based upon the Risk Adjustment Process set forth in Exhibit A.

THE CORPORATION'S GRANT OF PSUs AS REFLECTED HEREIN IS CONTINGENT UPON YOUR ACKNOWLEDGEMENT AND ACCEPTANCE OF THE AWARD AGREEMENT AND THE PLAN ELECTRONICALLY ON THE EQUITY WEBSITE ON OR BEFORE [GRANT ACCEPT BY DATE] (THE "ACCEPTANCE DEADLINE"). IF YOU FAIL TO DO SO, THE CORPORATION'S GRANT OF PSUs AS REFLECTED HEREIN SHALL BE NULL AND VOID, AND SHALL NOT BE RE-INSTATED.

BY ELECTRONICALLY ACKNOWLEDGING AND ACCEPTING THE CORPORATION'S GRANT OF PSUS, YOU AFFIRMATIVELY AND EXPRESSLY AGREE:

(1) SUCH ACKNOWLEDGEMENT AND ACCEPTANCE CONSTITUTES YOUR ELECTRONIC SIGNATURE IN EXECUTION OF THE AWARD AGREEMENT

(2) TO BE BOUND BY THE PROVISIONS OF THE AWARD AGREEMENT AND THE PLAN INCLUDING WITHOUT LIMITATION ANY LOCATION SPECIFIC SPECIAL TERMS AND CONDITIONS SET FORTH IN THE ADDENDUM, AS DEFINED IN THE TERMS AND CONDITIONS

(3) YOU (A) HAVE REVIEWED THE AWARD AGREEMENT AND THE PLAN IN THEIR ENTIRETIES; (B) WERE GIVEN A REASONABLE TIME TO COMPLETE SUCH REVIEW; (C) HAVE BEEN ADVISED BY THE CORPORATION TO CONSULT WITH YOUR OWN ATTORNEY BEFORE ENTERING INTO THE AWARD AGREEMENT; (D) HAVE HAD AN OPPORTUNITY TO OBTAIN PROFESSIONAL LEGAL/TAX/INVESTMENT ADVICE PRIOR TO ACCEPTING THE PSUs; AND (E) FULLY UNDERSTAND ALL OF THE PROVISIONS OF THE AWARD AGREEMENT AND THE PLAN

(4) YOU HAVE BEEN PROVIDED WITH A COPY OR ELECTRONIC ACCESS TO A COPY OF THE PLAN AND THE U.S. PROSPECTUS FOR THE PLAN

(5) TO ACCEPT AS BINDING, CONCLUSIVE AND FINAL ALL DECISIONS OR INTERPRETATIONS OF THE CORPORATION UPON ANY QUESTIONS ARISING UNDER THE AWARD AGREEMENT AND THE PLAN

PARTICIPANT ACCEPTANCE DATE: [ACCEPTANCE DATE]

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EXHIBIT A
Risk Adjustment/Forfeiture Decision Process

For any performance year in which you remain a covered employee, your risk performance will be assessed via a Risk Culture Summary Scorecard ("**RCSS**"). If, in any year, you receive an RCSS Rating of "Partially Met Expectations" or "Did Not Meet Expectations," your unvested PSUs (including any PSUs resulting from dividend equivalents) will be subject to review by the Human Resources and Compensation Committee of the Corporation's Board of Directors (the "**HRCC**") for consideration of forfeiture. If you are no longer a covered employee or have left the Corporation, any unvested portion of the PSUs (including any PSUs resulting from dividend equivalents) will also be subject to a risk review by the HRCC.

In that event, as part of its review, the HRCC will ask –

- Did your rating reflect poor risk behavior by you in a prior year?
- Did you receive an award in that year?

If the answer to both questions is yes, the HRCC asks the following questions with respect to each of the designated prior years:

- Financial Impact: How much did/will the issue cost the Company?
- Reputational Impact: How much of a regulatory impact did/will it have on the Company?

The HRCC selects the impact answer that falls into the highest category below to determine the impact forfeiture percentage.

Criteria	Metric	None	Low	Medium	High
Financial Impact					
Reputational Impact					

As used in this Exhibit A, the term "**Company**" shall mean the Corporation and its Affiliates.

Then the HRCC asks how much, if any, control/responsibility you had regarding the situation. The answer to the last question determines the modifier to be applied to the impact forfeiture percentage.

Criteria	None	Indirect	Direct
Your role & responsibility			

Example *[Insert Example]*

THE BANK OF NEW YORK MELLON CORPORATION

FORM OF TERMS AND CONDITIONS
OF PERFORMANCE SHARE UNITS – EXECUTIVE COMMITTEE US

The Performance Share Units ("**PSUs**") with respect to Common Stock of The Bank of New York Mellon Corporation (the "**Corporation**") granted to you on the Grant Date are subject to the Notice of Award - Performance Share Units – Executive Committee US (the "**Award Notice**"), these Terms and Conditions of Performance Share Units – Executive Committee US (the "**Terms and Conditions**") and all of the terms and conditions of The Bank of New York Mellon Corporation 2019 Long-Term Incentive Plan (the "**Plan**"), which is incorporated herein by reference. In the case of a conflict between the Award Notice, these Terms and Conditions and the terms of the Plan, the provisions of the Plan shall govern. A copy of the Plan can be found on the Corporation's equity award website (the "**Award Website**"), NetBenefits.com, under "Quick Links." Capitalized terms used but not defined herein shall have the same meaning as provided or reflected in the Award Notice or the Plan, as applicable. For purposes of these Terms and Conditions, "**Employer**" means the Corporation or any Affiliate that employs or employed you on the applicable date.

SECTION 1: Performance Share Unit Award

1.1 Grant of Award. Subject to these Terms and Conditions and the terms of the Plan, the Corporation grants you the number of PSUs as reflected in the Award Notice. The PSUs shall vest in accordance with the Vesting Schedule and shall be subject to the Risk Adjustment Process as reflected in the Award Notice.

1.2 Dividend Equivalents. During the period prior to vesting, dividend equivalents shall be determined with respect to the PSUs as if reinvested as additional PSUs on the dividend payment date and shall be paid to you pursuant to Section 4 of these Terms and Conditions only if and to the extent that the underlying PSUs become vested as provided in the Award Agreement, and any remaining dividend equivalents (including any PSUs resulting from dividend equivalents) shall be forfeited. In the event that you receive any additional PSUs as an adjustment with respect to the Grant Amount, such additional PSUs will be subject to the same restrictions as if granted under the Award Agreement as of the Grant Date and paid pursuant to Section 4 of this Agreement.

1.3 No Voting Rights. Prior to the settlement of your PSUs pursuant to these Terms and Conditions, you shall not be entitled to vote the shares of Common Stock underlying the PSUs.

1.4 Nontransferable. The PSUs shall be transferable only by will or the laws of descent and distribution. Any other attempt to transfer the PSUs shall be null and void.

SECTION 2: Vesting, Performance Period, Forfeiture, Termination of Employment and Disability

2.1 Vesting, Performance Period and Forfeiture.

(a) *Vesting*. Subject to Sections 3 and 5.4 of these Terms and Conditions, PSUs (as may be adjusted from the Grant Amount by reference to the performance goals and the Risk Adjustment Process) may be earned as set forth in Attachment A for the period *[Insert Performance Period]* (the "**Performance Period**"); provided that you remain continuously employed with your Employer through the end of the Performance Period; and provided further that unvested PSUs (including any PSUs arising from dividend equivalents) are subject to forfeiture based upon the Risk Adjustment Process each year and following completion of the Performance Period as set forth on Exhibit A. Notwithstanding anything to the contrary contained in the Award Agreement and in accordance with Section 4.1, a vesting may be delayed if, on the vesting date, you are the subject of ongoing disciplinary or performance management investigations or proceedings concerning the circumstances under which forfeiture or clawback of this award could apply. In such cases, the applicable portion of the award, if any, will vest following the completion of such investigations and proceedings to the extent the Corporation determines that forfeiture and/or clawback does not apply.

(b) *Forfeiture upon Termination of Employment*. Subject to Sections 2.2 and 2.3 of these Terms and Conditions, if you cease to be continuously employed with your Employer through the end of the Performance Period, you shall cease vesting in your PSUs as of your Termination Date and any unvested PSUs (including any PSUs resulting from dividend equivalents) immediately shall terminate and be forfeited, **except** in situations where vesting would have occurred but for the fact that a determination has not yet been made as to whether a risk adjustment pursuant to Exhibit A is required, in which case vesting shall occur in accordance with the terms of the Award Agreement provided that the Committee determines the effect, if any, of a risk adjustment. As used herein, "**Termination Date**" shall mean the last day on which you are an employee of your Employer.

(c) *Forfeiture upon Termination of Employment for Cause*. Notwithstanding anything to the contrary contained in these Terms and Conditions, if your Employer terminates your employment for Cause, your PSUs, whether vested (but unsettled) or unvested, and including any dividend equivalent rights (including any PSUs resulting from dividend equivalents), immediately shall terminate and be forfeited. For purposes of these Terms and Conditions, "**Cause**" shall mean:

(i) you have been convicted of, or have entered into a pretrial diversion or entered a plea of guilty or nolo contendere (plea of no contest) to a crime or offense constituting a felony (or its equivalent under applicable laws outside of the United States), or to any other crime or offense involving moral turpitude, dishonesty, fraud, breach of trust, money laundering, or any other offense that may preclude you from being employed with a financial institution;

(ii) you are grossly negligent in the performance of your duties or have failed to perform the duties of your employment, including, without limitation, failure to comply with any lawful directive from your Employer or the Corporation, other than by reason of incapacity due to disability or from any permitted leave of absence required by law;

(iii) you have violated the Corporation's Code of Conduct or any of the policies of the Corporation or your Employer governing the conduct of business or your employment, including without limitation, those relating to discrimination and retaliation;

(iv) you have engaged in any misconduct which has the effect or potential of being injurious to the Corporation, any Affiliate or your Employer, including, but not limited to, its reputation;

(v) you have engaged in an act of fraud or dishonesty, including, but not limited to, taking or failing to take actions intending to result in personal gain; or

(vi) if you are employed outside the United States, any other circumstances (beyond those listed above) that permit the immediate termination of your employment without notice or payment in accordance with the terms of your employment agreement or Applicable Laws (as defined in Section 5.2).

The determination of whether your actions will be considered Cause for purposes of these Terms and Conditions will be determined by the Corporation or any of its Affiliates, at its or their sole discretion, as applicable. Any determinations of Cause will be considered conclusive and binding on you.

2.2 Specified Terminations of Employment.

(a) *Death*. If you cease to be continuously employed with your Employer by reason of your death prior to the date that your PSUs become fully vested, all unvested PSUs may vest as provided in Section 2.1(a) above following completion of the Performance Period and the balance of the PSUs that do not vest with respect to the Performance Period shall be deemed forfeited at the end of the Performance Period. In such case, the Corporation will issue your legal representative or your estate the vested PSUs settled in shares of Common Stock in accordance with Section 4.

(b) *Specified Age & Years of Service Rule.* If you cease to be continuously employed with your Employer (i) on or after your attainment of age 60, and (ii) the combination of your age and years of credited employment with your Employer (in both instances, full and partial years) on your Termination Date equals or exceeds 65 (satisfaction of (i) and (ii) being a "**Retirement-Eligible Event**"), all unvested PSUs may vest as provided in Section 2.1(a) above following completion of the Performance Period, so long as you fully comply with the applicable covenants provided in Section 3 hereof and provided that, if requested by your Employer, you execute and do not revoke a Transition/Separation Agreement and Release acceptable to your Employer. The balance of the PSUs that do not vest with respect to the Performance Period shall be deemed forfeited at the end of the Performance Period. As a condition for continued vesting of your PSUs (including any PSUs resulting from dividend equivalent rights) following a Retirement-Eligible Event, your Employer may require you to periodically certify your compliance with the covenants set forth in Section 3 of these Terms and Conditions as more fully described in such Section. For purposes of the foregoing, partial years shall be determined based upon the number of days since your prior birthday or the number of days of credited employment since your prior employment anniversary, as the case may be. Notwithstanding the foregoing, in the case of continued vesting following a Retirement-Eligible Event, if you commence employment with a new employer that grants you a new award that replaces all or any portion of this award, any portion of this award that has been replaced by your new employer will be forfeited and will no longer vest and, where relevant, will be promptly repaid by you if the award or any portion of this award has already vested.

(c) *Termination Providing Transition/Separation Pay.* Provided that you execute and do not revoke a Transition/Separation Agreement and Release acceptable to your Employer, if you cease to be continuously employed with your Employer by reason of a termination by your Employer and in connection with such termination you receive transition/separation pay from the Corporation or your Employer, all unvested PSUs may vest as provided in Section 2.1(a) above following completion of the Performance Period so long as you fully comply with the applicable covenants provided in Section 3 hereof. The balance of the PSUs that do not vest with respect to the Performance Period shall be deemed forfeited at the end of the Performance Period. For purposes of the foregoing, "**transition/separation pay**" means any severance, redundancy or ex-gratia compensation payment to you from the Corporation or your Employer in connection with your termination of employment that is in excess of the amount payable to you on account of any notice period to which you are entitled pursuant to the terms of your contract of employment or otherwise (or payment in lieu of such notice).

(d) *Sale of Business*. If you cease to be continuously employed with your Employer due to a sale of a business unit or your Employer and you are not otherwise entitled to transition/separation pay, all unvested PSUs may vest as provided in Section 2.1(a) above following completion of the Performance Period so long as you fully comply with the applicable covenants provided in Section 3 hereof. The balance of the PSUs that do not vest with respect to the Performance Period shall be deemed forfeited at the end of the Performance Period.

(e) *Change in Control*. If your employment is terminated by your Employer without Cause within two (2) years after a Change in Control occurring after the Grant Date, all unvested PSUs may vest as provided in Section 2.1(a) above following completion of the Performance Period so long as you fully comply with the applicable covenants provided in Section 3 hereof. The balance of the PSUs that do not vest with respect to the Performance Period shall be deemed forfeited at the end of the Performance Period.

(f) *Termination of Employment Prior to the Grant Date*. If your Termination Date (as defined in Section 2.1(b) above) occurred prior to the Grant Date for this award, you agree that any references to you as an "employee" and "employment" in the Award Agreement means the period of time during which you were still an employee of the Corporation or any of its Affiliates.

[Additional Vesting Provisions, if any.]

2.3 Disability. If you receive current benefits under a long-term disability plan maintained by the Corporation or your Employer while any portion of your PSUs remains unvested, all unvested PSUs will remain eligible to vest as provided in Section 2.1(a) above following completion of the Performance Period so long as you are eligible to receive such benefits provided you fully comply with the applicable covenants provided in Section 3 hereof. The balance of the PSUs that do not vest with respect to the Performance Period shall be deemed forfeited at the end of the Performance Period.

SECTION 3: Notice of Resignation, Non-Solicitation, Non-Competition, Confidential Information, Non-Disparagement and Cooperation

3.1 Notice of Resignation. As consideration for this award, you will provide your Employer with 90 days' advance written notice of any voluntary termination of your employment with your Employer.

3.2 Non-Solicitation of Clients, Contractors and Employees; Non-Competition.

To protect the Corporation's and its Affiliates' legitimate business interests, including its confidential information and goodwill, and for the good and valuable consideration offered pursuant to the Award Agreement, which is in excess of any consideration you are otherwise entitled to receive, and to the maximum extent permitted by Applicable Laws, you agree as follows:

(a) *Non-Solicitation of Clients, Contractors and Employees*. Your PSUs, whether vested (but unsettled) or unvested, and including any PSUs resulting from dividend equivalent rights, shall be immediately forfeited if, prior to one (1) year from the Termination Date or, if later, the final vesting date set forth in the Award Notice (the "**Restricted Period**"), you directly or indirectly (i) solicit or induce or attempt to solicit or induce any current or prospective client of the Corporation or an Affiliate known to you, to initiate or continue a client relationship with you other than with the Corporation or Affiliate or to terminate or reduce its client relationship with the Corporation or Affiliate, or (ii) hire or employ any employee or contractor of the Corporation or an Affiliate, or recruit, solicit or induce such an individual to terminate their employment or engagement, whichever is applicable, with the Corporation or Affiliate. During the Restricted Period, you agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above.

(b) *Non-Competition*. Your PSUs, whether vested (but unsettled) or unvested, and including any PSUs resulting from dividend equivalent rights, shall be immediately forfeited if, after your separation from employment with the Corporation or its Affiliates by reason of your (i) Retirement-Eligible Event, or (ii) termination providing transition/separation pay, as specified in Sections 2.2(b)and 2.2(c) respectively, and before the end of the Restricted Period, you, directly or indirectly (without the prior written consent of the Corporation), (i) associate (including as a director, officer, employee, partner, consultant, agent or advisor) with a Competitive Enterprise, or (ii) transact business on behalf of a Competitive Enterprise. For purposes of the Award Agreement, "**Competitive Enterprise**" means any business enterprise that either (A) is a member of the Corporation's competitive peer group as disclosed in the Corporation's proxy statement that was most recently filed with the Securities and Exchange Commission preceding the Termination Date; or (B) is any other business enterprise for whom you would be performing services similar to those performed at the Corporation or any Affiliate within the twelve (12) months preceding the Termination Date.

For the sake of clarity, the foregoing non-compete restriction does not prohibit you from being employed by the government or a not-for profit organization (i.e. an organization exempt from local and national tax laws). In view of the limited scope of the non-compete obligation assumed under this Section, which does not prevent you from working in other entities that are not affected by it, you acknowledge and agree that: (i) the foregoing non-compete obligation is reasonable and necessary to protect the Corporation's and its Affiliates' legitimate business interests including its confidential information and goodwill, and (ii) the ability to continue to vest in your PSUs, including any PSUs resulting from dividend equivalent rights, following a Retirement-Eligible Event or termination providing transition/separation pay is fair and reasonable consideration for the foregoing non-compete obligation. During the Restricted Period, you further agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above (i.e., if you begin to associate with or transact business on behalf of a Competitive Enterprise).

3.3 Confidential Information.

(a) Except as may be permitted in accordance with Section 3.6 below, during the course of your employment with the Corporation or any Affiliate and continuing thereafter, you will not, either directly or indirectly, at any time, while an employee of the Corporation or any Affiliate or thereafter, make known, divulge, reveal, furnish, make available, or use (except for use in the regular course of your duties for the Corporation or its Affiliates) any Confidential Information (as defined below) without the written consent of the Corporation. You also agree that this obligation is in addition to, and not in limitation or preemption of, all other obligations of confidentiality that you may have to the Corporation or its Affiliates under the Code of Conduct, Securities Trading Policy or other rules or policies governing the conduct of their respective businesses, or general or specific legal or equitable principles.

(b) As used herein, "**Confidential Information**" means the information you have been given or to which you have access or become informed of which the Corporation or its Affiliates possess or have access and which relates to the Corporation or its Affiliates, is not generally known to the public or in the trade or is a competitive asset and/or otherwise constitutes a "trade secret," as that term is defined by Applicable Laws, of the Corporation or its Affiliates, including without limitation, non- public: (i) planning data and marketing strategies; (ii) terms of any new products and investment strategies; (iii) information relating to other officers and employees of the Corporation or its Affiliates; (iv) financial results and information about the business condition of the Corporation or its Affiliates; (v) terms of any investment, management or advisory agreement or other material contract; (vi) proprietary software and related documents; (vii) customer and potential customer information (for example, client lists, prospecting lists, information about client accounts, pricing strategies, and current or proposed transactions and contact persons at such customers and customer prospects); and (viii) material information or internal analyses concerning customers or customer prospects of the Corporation or its Affiliates or their respective operations, condition (financial or otherwise) or plans.

3.4 Non-Disparagement. Subject to Section 3.6 below, during the course of your employment with the Corporation or any Affiliate and continuing thereafter, you will not, directly or indirectly make, issue, authorize or publish any comments or statements (orally or in writing) to the media, including without limitation traditional vehicles and social media, to any individual or entity with whom or which the Corporation, or any of its Affiliates, has a business relationship, or to any other individual or entity, which disparages, criticizes or otherwise reflects adversely upon the Corporation, any of its Affiliates or any of their respective employees, officers or directors.

3.5 Cooperation. Upon the termination of your employment for any reason or no reason, including but not limited to resignation of employment, you will fully cooperate with the Corporation and its Affiliates upon reasonable notice and at reasonable times, in the prosecution and defense of complaints, investigations, litigation, arbitration and mediation of any complaints, claims or actions now in existence or that may be threatened or brought in the future relating to events or occurrences that transpired while employed by the Corporation or any Affiliate.

3.6 Governmental Authorities. Nothing in the Award Agreement prohibits or interferes with your right to disclose any relevant and necessary information in any action or proceeding relating to the Award Agreement or as otherwise required by law or legal process. In addition, nothing in the Award Agreement prohibits or interferes with your or your attorney's right: (a) to initiate communications directly with or report or disclose possible violations of law or regulation to, any governmental agency or entity, legislative body, or any self-regulatory organization, including but not limited to the U.S. Department of Justice ("**DOJ**"), the U.S. Securities and Exchange Commission ("**SEC**"), the U.S. Financial Industry Regulatory Authority ("**FINRA**"), the U.S. Equal Employment Opportunity Commission ("**EEOC**"), or U.S. Congress, and such reports or disclosures do not require prior notice to, or authorization from, the Corporation; (b) to participate, cooperate, or testify in any action, investigation or proceeding with, provide information to, or respond to any inquiry from any governmental agency or legislative body, any self-regulatory organization, including but not limited to the IRS, SEC, FINRA, the EEOC, DOJ, U.S. Congress ("**Governmental Authorities**"), or the Corporation's Legal or Compliance Departments and such communications do not require prior notice to, or authorization from the Corporation. However, with respect to such communications, reports, participation, cooperation or testimony to the Governmental Authorities, as set forth above in clauses (a) and (b) of this Section, you may not disclose privileged communications with the Corporation's counsel. To the extent permitted by law, upon receipt of a subpoena, court order or other legal process compelling the disclosure of any information, you will give prompt written notice to the Corporation so as to provide the Corporation ample opportunity to protect its interests in confidentiality to the fullest extent possible unless the subpoena, court order or other legal process pertains to an action described above in clauses (a) or (b) of this Section, in which event no such notice is required. Notwithstanding any confidentiality and non-disclosure obligations you may have, you are hereby advised as follows pursuant to the U.S. Federal Defend Trade Secrets Act of 2016: "An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order."

3.7 Periodic Certification of Compliance. In connection with your separation from employment with the Corporation or its Affiliates by reason of your Retirement-Eligible Event, upon request by your Employer, you agree to periodically certify your compliance with the covenants set forth in this Section 3 through the end of the Restricted Period. If you fail to provide any such certification(s) as requested by your Employer, the PSUs whether vested (but unsettled) or unvested, and including any PSUs resulting from dividend equivalent rights, shall be immediately forfeited.

3.8 Existing Obligations. The terms of the Award Agreement shall not in any way (a) limit your obligations pursuant to any other agreements with the Corporation or any of its Affiliates or other corporate plans or policies applicable to you; or (b) limit the Corporation's or your Employer's rights to exercise any remedies it may have under Applicable Laws or under the terms of such other agreements, plans or policies.

3.9 Failure to Comply with Covenants. If you fail to comply with any of the foregoing applicable covenants, the PSUs, whether vested (but unsettled) or unvested, and including any PSUs resulting from dividend equivalent rights, shall be immediately forfeited and may be subject to repayment as provided in Section 5.4 of these Terms and Conditions.

SECTION 4: Settlement

4.1 Time of Settlement.

(a) *Time of Settlement*. Vested PSUs shall be settled within two and one-half (2 ½) months following the end of the Performance Period, contingent upon the Committee's determination of the earnout achieved and subject to the individual per-employee limitations included in the Plan; *provided,* if you are a "specified employee" under Section 409A of the U.S. Internal Revenue Code of 1986, as amended (the "**Code**"), upon separation from service and if such settlement is deferred compensation conditioned upon a separation from service and not compensation you could receive without separating from service, then settlement shall not be made until the first day following the six (6) month anniversary of your separation from service (or upon your death, if earlier).

(b) *Acceleration Due to Conflicts of Interest or Ethics Laws (Governmental Service).* Notwithstanding Section 4.1(a), the Corporation may accelerate the vesting and settlement of all or part of your outstanding RSUs if each of the following conditions are satisfied: (i) you cease to be continuously employed with your Employer by reason of an event described in Section 2.2(b), (c), (d), or (e); (ii) pursuant to such section, you continue to vest in your PSUs following your Termination Date; (iii) following your Termination Date, you become employed by a Governmental Employer; and (iv) you present the Corporation with satisfactory evidence demonstrating that as a result of such employment with a Governmental Employer, the divestiture of your PSUs is reasonably necessary to avoid the violation of United States federal, state or local conflicts of interest or ethics law applicable to you; provided that, no accelerated distribution shall occur pursuant to this Section 4.1(b) unless the Corporation determines that such acceleration is consistent with Treasury Regulation Section 1.409A-3(j)(4)(iii)(B). In the event that the Corporation determines to accelerate the vesting and settlement of your PSUs in accordance with this Section 4.1(b), the number of PSUs which shall be vested and settled shall be equal to the lesser of (I) the number of PSUs that would have vested in accordance with the applicable subsection of Section 2.2 if Performance Goals were achieved resulting in a final earnout percentage of 100% (target), (II) the number of PSUs that would have vested in accordance with the applicable subsection of Section 2.2 if the Performance Period ended with the last Corporation quarter ending simultaneously with or before your commencement of employment at a Governmental Employer for which the respective Form 10-K or Form 10-Q has been filed with the SEC (or such other date as determined by the Corporation in its discretion for which performance results are readily ascertainable), subject to any adjustments as determined by the Corporation in its discretion in light of the truncated Performance Period, or (III) such other amount as determined by the Corporation in its sole discretion. In the event that vesting and settlement of the PSUs are accelerated pursuant to this Section 4.1(b), you shall remain subject to these Terms and Conditions as if the PSUs had remained outstanding through the original vesting date and had been settled in accordance with Section 4.1(a), including, but not limited to, for purposes of (A) determining the duration of the Restricted Period set forth in Section 3.2 (so that the Restricted Period shall be determined based on the originally scheduled vesting date without regard to any acceleration) and (B) determining whether the PSUs have been settled for purposes of Section 3.9 (so that the PSUs shall not be deemed to have been vested or settled until the date on which they would have been vested or settled (as applicable) without regard to acceleration under this Section 4.1(b)). In the event that the settlement of the PSUs is accelerated in accordance with this Section 4.1(b), upon such settlement, you shall cease to have any further rights with respect to your PSUs, and for the avoidance of doubt, any PSUs which are not settled shall be deemed immediately forfeited. As a condition for acceleration pursuant to this Section 4.1(b), the Corporation may require that you sign an agreement satisfactory to the Corporation addressing the circumstances of such acceleration and acknowledging these Terms and Conditions. For purposes of this Section 4.1(b), "Governmental Employer" means a United States federal, state or local governmental agency, branch, department, or entity and any court or other tribunal.

4.2 Form of Settlement. PSUs, including any PSUs resulting from dividend equivalents, shall be settled in the form of Common Stock delivered in book-entry form.

SECTION 5: Other Terms and Conditions

5.1 No Right to Employment. Neither the award of PSUs nor anything else contained in these Terms and Conditions nor the Plan shall be deemed to limit or restrict the right of your Employer to terminate your employment at any time, for any reason, with or without Cause.

5.2 Compliance with Laws. Notwithstanding any other provision of these Terms and Conditions, you agree to take any action, and consent to the taking of any action by the Corporation and your Employer with respect to the PSUs awarded hereunder necessary to achieve compliance with applicable laws, regulations or relevant regulatory requirements or interpretations in effect from time to time ("**Applicable Laws**"). Any determination by the Corporation in this regard shall be final, binding and conclusive. The Corporation shall in no event be obligated to register any securities pursuant to the U.S. Securities Act of 1933 (as the same shall be in effect from time to time) or other applicable foreign securities laws, or to take any other affirmative action in order to cause the delivery of shares in book-entry form or otherwise therefore to comply with any Applicable Laws. For the avoidance of doubt, you understand and agree that if any payment or other obligation under or arising from these Terms and Conditions, including without limitation dividend equivalent rights, or the Plan is in conflict with or is restricted by any Applicable Laws, the Corporation may reduce, revoke, cancel, clawback or impose different terms and conditions to the extent it deems necessary or appropriate, in its sole discretion, to effect such compliance. If the Corporation determines that it is necessary or appropriate for any payments under these Terms and Conditions to be delayed in order to avoid additional tax, interest and or penalties under Section

409A of the Code, then the payments would not be made before the date which is the first day following the six (6) month anniversary of the date of your termination of employment (or upon earlier death).

5.3 Tax Withholding. Regardless of any action the Corporation or your Employer take with respect to any or all income tax (including U.S. federal, state and local taxes or non-U.S. taxes), social insurance, payroll tax, payment on account or other tax-related withholding ("**Tax-Related Items**"), you acknowledge that the ultimate liability for all Tax-Related Items legally due by you is and remains your responsibility and that the Corporation and your Employer (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the PSUs, including the grant of the PSUs, the vesting of the PSUs, the subsequent sale of any shares of Common Stock acquired pursuant to the PSUs and the receipt of any dividends or dividend equivalents (including any PSUs resulting from dividend equivalents), and (b) do not commit to structure the terms of the grant or any aspect of the PSUs to reduce or eliminate your liability for Tax-Related Items. Further, if you are or become subject to taxation in more than one country you acknowledge that the Corporation and/or the Employer (or former employer, as applicable) may be required to withhold or account for Tax-Related Items in more than one country.

Prior to the delivery of shares of Common Stock upon the vesting of your PSUs, if your country of residence (and/or the country of employment, if different) requires withholding or payment of Tax-Related Items, the Corporation shall be authorized to withhold a sufficient number of whole shares of Common Stock otherwise issuable upon the vesting of the PSUs that have an aggregate Fair Market Value sufficient to pay the Tax-Related Items required to be withheld with respect to the shares of Common Stock. The cash equivalent of the shares of Common Stock withheld will be used to settle the obligation to withhold the Tax-Related Items. In the event that withholding in shares of Common Stock is prohibited or problematic under Applicable Laws or otherwise may trigger adverse consequences to the Corporation or your Employer, your Employer is authorized to withhold the Tax-Related Items required to be withheld with respect to the shares of Common Stock in cash from your regular salary and/or wages or any other amounts payable to you. In the event the withholding requirements are not satisfied through the withholding of shares of Common Stock by the Corporation or through your regular salary and/or wages or other amounts payable to you by your Employer, no shares of Common Stock will be issued to you (or your estate) upon vesting of the PSUs unless and until satisfactory arrangements have been made by you with respect to the payment of any Tax-Related Items that the Corporation or your Employer determines, in its sole discretion, must be withheld or collected with respect to such PSUs. By accepting this grant of PSUs, you expressly consent to the withholding of shares of Common Stock and/or withholding from your regular salary and/or wages or other amounts payable to you as provided for hereunder. All other Tax-Related Items related to the PSUs and any shares of Common Stock delivered in payment thereof are your sole responsibility. Without limiting the Corporation's or your Employer's authority to satisfy their withholding obligations for Tax-Related Items as set forth herein, by accepting this grant of PSUs, you authorize the Corporation and/or your Employer to withhold shares of Common Stock otherwise deliverable to you upon vesting of your PSUs to satisfy Tax-Related Items, regardless of whether the Corporation and/or your Employer have an obligation to withhold such Tax-Related Items.

The Corporation or your Employer may withhold or account for Tax-Related Items by considering applicable statutory or other withholding rates, including minimum or maximum rates applicable in your jurisdiction(s). In the event of over-withholding, you may receive a refund of any over-withheld amount in cash (with no entitlement to the equivalent in Common Stock). In the event of under-withholding, you may be required to pay any additional Tax-Related Items directly to the applicable tax authority or to the Corporation and/or your Employer. If the obligation for Tax-Related Items is satisfied by withholding in shares of Common Stock, you shall be deemed to have been issued the full number of shares of Common Stock subject to the vested PSUs, notwithstanding that a number of the shares of Common Stock are held back solely for the purpose of paying the Tax-Related Items.

5.4 Forfeiture and Repayment. If, directly or indirectly:

(a) during the course of your employment with your Employer, you violate any obligations set forth in the Award Agreement (including without limitation those obligations set forth in Section 3 of these Terms and Conditions) or engage in conduct or it is discovered that you engaged in conduct that is adverse to the interests of the Corporation or its Affiliates, including failures to comply with the Corporation's or any of its Affiliate's rules or regulations, fraud, or conduct contributing to any financial restatements or irregularities;

(b) during the course of your employment with your Employer and, unless you have post-termination obligations or duties owed to the Corporation or its Affiliates pursuant to an individual agreement set forth in subsection (d) below, for one (1) year thereafter, you engage (other than for the benefit of the Corporation or its Affiliates) in solicitation and/or diversion of customers or employees;

(c) during the course of your employment with your Employer, you engage in competition with the Corporation or its Affiliates;

(d) following termination of your employment with your Employer for any reason, with or without Cause, you violate any post-termination obligations or duties owed to the Corporation or its Affiliates under any agreement with the Corporation or its Affiliates, including without limitation, any employment, confidentiality, non-solicitation, non-competition or other agreement restricting post-employment conduct (including without limitation those obligations set forth in Section 3 of these Terms and Conditions); or

(e) any compensation that the Corporation or its Affiliates has promised or paid to you is required to be forfeited and/or repaid to the Corporation or its Affiliates pursuant to applicable regulatory requirements;

then the Corporation may cancel all or any portion of the PSUs and/or require repayment of any shares of Common Stock (or the value thereof) or other amounts which were acquired pursuant to the PSUs (including without limitation any dividends paid on the shares of Common Stock and dividend equivalents). The Corporation shall have sole discretion to determine what constitutes grounds for forfeiture and/or repayment under this Section 5.4, and, in such event, the portion of the PSUs that shall be cancelled and the sums or amounts that shall be repaid. For purposes of the foregoing, you expressly and explicitly authorize the Corporation to issue instructions, on your behalf, to any brokerage firm and/or third party administrator engaged by the Corporation to hold the shares of Common Stock and other amounts acquired pursuant to the PSUs to re-convey, transfer or otherwise return such shares and/or other amounts to the Corporation.

5.5 Governing Law and Choice of Forum. The Award Agreement shall be construed and enforced in accordance with the laws of the State of New York, other than any choice of law provisions calling for the application of laws of another jurisdiction. For purposes of litigating any dispute that arises directly or indirectly from the relationship of the parties evidenced by this grant or the Award Agreement, the parties hereby submit to and consent to the exclusive jurisdiction of the State of New York and agree that such litigation shall be conducted only in the courts of New York County, New York, or the federal courts for the United States for the Southern District of New York, and no other courts, where this grant is made and/or to be performed and agree to such other choice of forum provisions as are included in the Plan.

5.6 Nature of Plan. By participating in the Plan, you acknowledge, understand and agree that:

(a) The Plan is discretionary in nature and limited in duration, and may be amended, cancelled, or terminated by the Corporation, in its sole discretion, at any time.

(b) The grant of PSUs under the Plan is a one-time benefit and does not create any contractual or other right to receive PSUs or benefits in lieu of such awards in the future. Future awards, if any, will be at the sole discretion of the Corporation, including, but not limited to, the form and timing of the award, the number of shares of Common Stock subject to the award, the vesting provisions applicable to the award and the purchase price (if any).

(c) Your participation in the Plan is voluntary, and the value of your PSUs is an extraordinary item of compensation and is outside the scope of your employment (and your employment contract, if any). As such, your PSUs are not part of normal or expected compensation for purposes of calculating any severance, resignation, redundancy, dismissal, termination or end of service payments, bonuses, long-service awards, pension or retirement benefits, or similar payments.

(d) No claim or entitlement to compensation or damages shall arise from forfeiture of the PSUs resulting from the termination of your employment or other service relationship (for any reason whatsoever, whether or not later found to be invalid or in breach of employment laws in the jurisdiction where you are employed or the terms of your employment agreement, if any). **In consideration of the grant of the PSUs, you expressly agree not to institute any such claim against the Corporation, any of its Affiliates or your Employer.**

5.7 ***Data Privacy. By accepting the PSUs, you declare that you agree with the data processing practices described herein and consent to the collection, processing and use of your Personal Data (as defined below) by the Corporation and the transfer of your Personal Data to the recipients mentioned herein, including recipients located in countries which do not adduce an adequate level of protection from a European (or other non-U.S.) data protection law perspective, for the purposes described herein.***

(a) Declaration of Consent. You understand that you need to review the following information about the processing of your personal data by or on behalf of the Corporation, your Employer and/or any of its

Affiliates, as described herein, and any other PSU grant materials (the "Personal Data") and declare your consent. With regard to the processing of your Personal Data in connection with the Plan, you understand that the Corporation is the controller of the Personal Data.

(b) Data Processing and Legal Basis. The Corporation collects, uses and otherwise processes your Personal Data for the purposes of allocating shares and implementing, administering and managing the Plan. You understand that this Personal Data may include, without limitation, your name, home address and telephone number, email address, personal bank account details, date of birth, social insurance number, passport number or other identification number (e.g., resident registration number), salary, nationality, job title, any shares of Common Stock or directorships held in the Corporation or its Affiliates, details of all PSUs or any other entitlement to shares of Common Stock or equivalent benefits awarded, canceled, purchased, vested, unvested or outstanding in your favor. The Corporation's legal basis for the processing of your Personal Data is your consent.

(c) Stock Plan Administration Service Providers. You understand that the Corporation may transfer your Personal Data, or parts thereof, to Fidelity Stock Plan Services LLC and certain of its affiliated companies ("Fidelity"), an independent service provider based in the United States which assists the Corporation with the implementation, administration and management of the Plan. In the future, the Corporation may select a different service provider and share your Personal Data with such different service provider that serves the Corporation in a similar manner. You understand and acknowledge that the Corporation's service provider may open an account for you to receive and trade shares acquired under the Plan and that you will be asked to agree on separate terms and data processing practices with the service provider, which is a condition of your ability to participate in the Plan.

(d) International Data Transfers. You understand that the Corporation and, as of the date hereof, certain third parties assisting in the implementation, administration and management of the Plan, such as the Corporation's service providers, are based in the United States. If you are located outside the United States, you understand and acknowledge that your country has enacted data privacy laws that are different from the laws of the United States. Transfers of personal data from the EU to the United States can be made on the basis of Standard Contractual Clauses approved by the European Commission or other appropriate safeguards permissible under the Applicable Laws. If you are located in the EU or EEA, the Corporation may receive, process and transfer your Personal Data onward to third-party service providers solely on the basis of appropriate data transfer agreements or other appropriate safeguards permissible under Applicable Laws. If applicable, you understand that you can ask for a copy of the appropriate data processing agreements underlying the transfer of your Personal Data by contacting your local human resources representative. The Corporation's legal basis for the transfer of your Personal Data is your consent.

(e) Data Retention. You understand that the Corporation will use your Personal Data only as long as is necessary to implement, administer and manage your participation in the Plan, or to comply with Applicable Laws, including under tax and securities laws. In the latter case, you understand and acknowledge that the Corporation's legal basis for the processing of your Personal Data would be compliance with the Applicable Laws or the pursuit by the Corporation of respective legitimate interests not outweighed by your interests, rights or freedoms. When the Corporation no longer needs your Personal Data for any of the above purposes, you understand the Corporation will remove it from its systems.

(f) Voluntariness and Consequences of Denial/Withdrawal of Consent. You understand that your participation in the Plan and your grant of consent is purely voluntary. You may deny or later withdraw your consent at any time, with future effect and for any or no reason. If you deny or later withdraw your consent, the Corporation can no longer offer you participation in the Plan or offer other awards to you or administer or maintain such awards and you would no longer be able to participate in the Plan. You further understand that denial or withdrawal of your consent would not affect your status or salary as an employee or your career and that you would merely forfeit the opportunities associated with the Plan.

(g) Data Subject Rights. You understand that data subject rights regarding the processing of personal data vary depending on the Applicable Laws and that, depending on where you are based and subject to the conditions set out in the Applicable Laws, you may have, without limitation, the rights to (i) inquire whether and what kind of Personal Data the Corporation holds about you and how it is processed, and to access or request copies of such Personal Data, (ii) request the correction or supplementation of Personal Data about you that is inaccurate, incomplete or out-of-date in light of the purposes underlying the processing, (iii) obtain the erasure of Personal Data no longer necessary for the purposes underlying the processing, processed based on withdrawn consent, processed for legitimate interests that, in the context of your objection, do not prove to be compelling, or processed in non-compliance with applicable legal requirements, (iv) request the Corporation to restrict the processing of your Personal Data in certain situations where you feel its processing

is inappropriate, (v) object, in certain circumstances, to the processing of Personal Data for legitimate interests, and to (vi) request portability of your Personal Data that you have actively or passively provided to the Corporation (which does not include data derived or inferred from the collected data), where the processing of such Personal Data is based on consent or your employment or service contract and is carried out by automated means. In case of concerns, you understand that you may also have the right to lodge a complaint with the competent local data protection authority. Further, to receive clarification of, or to exercise any of your rights, you should contact your local human resources representative.

5.8 Insider Trading/Market Abuse Laws. You may be subject to insider trading restrictions and/or market abuse laws based on the exchange on which the shares of Common Stock are listed and in applicable jurisdictions including the United States and your country or your broker's country, if different, which may affect your ability to accept, acquire, sell or otherwise dispose of shares of Common Stock, rights to shares of Common Stock (e.g., PSUs) or rights linked to the value of shares of Common Stock under the Plan during such times as you are considered to have "inside information" regarding the Corporation (as defined by the laws in the applicable jurisdictions). Local insider trading laws and regulations may prohibit the cancellation or amendment of orders you placed before you possessed inside information. Furthermore, you could be prohibited from (a) disclosing the inside information to any third party and (b) "tipping" third parties or causing them otherwise to buy or sell securities (third parties include fellow employees). Any restrictions under these laws or regulations are separate from and in addition to any restrictions that may be imposed under any applicable insider trading policy of the Corporation. You acknowledge that it is your responsibility to comply with any applicable restrictions, and you should speak to your personal advisor on this matter.

5.9 Electronic Delivery and Acceptance. The Corporation may, in its sole discretion, deliver any documents related to current or future participation in the Plan by electronic means. You hereby consent to receive such documents by electronic delivery and agree to participate in the Plan through an on-line or electronic system established and maintained by the Corporation or a third party designated by the Corporation.

5.10 Severability. The provisions of these Terms and Conditions are severable and if any one or more provisions are determined to be illegal or otherwise unenforceable, in whole or in part, the remaining provisions shall nevertheless be binding and enforceable. Alternatively, the Corporation, in its sole discretion, shall have the power and authority to revise or strike such provision to the minimum extent necessary to render it valid and enforceable to the full extent permitted under Applicable Laws.

5.11 Liability for Breach. You shall indemnify the Corporation and hold it harmless from and against any and all damages or liabilities incurred by the Corporation (including liabilities for attorneys' fees and disbursements) arising out of any breach by you of these Terms and Conditions, including, without limitation, any attempted transfer of PSUs in violation of Section 1.4 of these Terms and Conditions.

5.12 Waiver. You acknowledge that a waiver by the Corporation of any provision of these Terms and Conditions shall not operate or be construed as a waiver of any other provision of these Terms and Conditions, or of any subsequent breach of these Terms and Conditions.

5.13 Addendum. The grant of your PSUs shall be subject to any special terms and conditions set forth in any Addendum to these Terms and Conditions (the "**Addendum**") for your state of residence (and your state of employment, if different). If you relocate your residency or employment to one of the states included in the Addendum, the special terms and conditions for such state will apply to you, to the extent the Corporation determines that the application of such terms and conditions is necessary or advisable for legal or administrative reasons. The Addendum shall constitute part of the Award Agreement.

5.14 Additional Requirements. The Corporation reserves the right to impose other requirements on the PSUs, any payment made pursuant to the PSUs, and your participation in the Plan, to the extent the Corporation determines, in its sole discretion, that such other requirements are necessary or advisable for legal or administrative reasons. Such requirements may include (but are not limited to) requiring you to sign any agreements or undertakings that may be necessary to accomplish the foregoing.

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Attachment A
Performance Goals

[Complete as appropriate]

THE BANK OF NEW YORK MELLON CORPORATION

FORM OF ADDENDUM TO TERMS AND CONDITIONS OF PERFORMANCE SHARE UNITS

This Addendum includes additional terms and conditions that govern the PSUs granted to you if you reside in or are employed in one of the locations listed herein. These terms and conditions are in addition to, or, if so indicated, in place of, the terms and conditions set forth in the main body of the Award Agreement. All capitalized terms as contained in this Addendum shall have the same meaning as set forth in the Award Notice, the Terms and Conditions and the Plan. If you transfer your residence and/or employment to one of the locations included in this Addendum, the special terms and conditions for such location will apply to you to the extent the Corporation determines, in its sole discretion, that the application of such terms and conditions is necessary or advisable for legal or administrative reasons (or the Corporation may establish alternative terms and conditions as may be necessary or advisable to accommodate your transfer).

CALIFORNIA

1. Non-Solicitation of Clients, Contractors and Employees; Non-Competition. The following provision shall replace Section 3.2 of the Terms and Conditions in its entirety:

3.2 Non-Solicitation of Clients, Contractors and Employees; Non-Competition.

(a) *Non-Solicitation of Clients, Contractors and Employees*. To protect the Corporation's and its Affiliates' trade secrets and for the good and valuable consideration offered pursuant to the Award Agreement, which is in excess of any consideration you are otherwise entitled to receive, you agree that until one (1) year from the Termination Date or, if later, the final vesting date set forth in the Award Notice (the "**Restricted Period**"), to the maximum extent permitted by Applicable Laws, you will not directly or indirectly use any trade secrets of the Corporation or its Affiliates to (i) solicit or induce or attempt to solicit or induce any current or prospective client of the Corporation or an Affiliate known to you, to initiate or continue a client relationship with you other than with the Corporation or Affiliate, or to terminate or reduce its client relationship with the Corporation or Affiliate, or (ii) solicit any employee or contractor to terminate or reduce their employment or engagement, whichever is applicable, with the Corporation or Affiliate. Even at the conclusion of the Restricted Period, you are still not permitted to use the Corporation's or its Affiliates' trade secrets for any purpose. During the Restricted Period, you agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above.

(b) *Non-Competition*. Intentionally Omitted.

MASSACHUSETTS

1. Non-Competition. The following provision shall replace Section 3.2(b) of the Terms and Conditions in its entirety:

(b) *Non-Competition*. Your PSUs, whether vested (but unsettled) or unvested, and including any PSUs resulting from dividend equivalent rights, shall be immediately forfeited if, after your separation from employment with the Corporation or its Affiliates by reason of your (i) Retirement-Eligible Event, or (ii) termination providing transition/separation pay, as specified in Sections 2.2(b) and 2.2(c) respectively, and before the end of the Restricted Period, you directly or indirectly (without the prior written consent of the Corporation), (i) associate (including as a director, officer, employee, partner, consultant, agent or advisor) with a Competitive Enterprise in a Restricted Territory, or (ii) transact business on behalf of a Competitive Enterprise in a Restricted Territory. For purposes of the Award Agreement, "**Competitive Enterprise**" means any business enterprise that either (A) is a member of the Corporation's competitive peer group as disclosed in the Corporation's proxy statement that was most recently filed with the Securities and Exchange Commission preceding the Termination Date; or (B) is any other business enterprise for whom you would be performing services similar to those performed at the Corporation or any Affiliate within the twelve (12) months preceding the Termination Date. For the purposes of the Award Agreement, "**Restricted Territory**" means all geographic areas in which you, during any time within the last 24 months preceding the end of your employment with the Corporation, provided services or had a material presence or influence, which given your current senior role in the Corporation shall be presumed to mean the entire world.

For the sake of clarity, the foregoing non-compete restriction does not prohibit you from being employed by the government or a not-for profit organization (i.e. an organization exempt from local and national tax laws). In view of the limited scope of the non-compete obligation assumed under this Section, which does not prevent you from working in other entities that are not affected by it, you acknowledge and agree that: (i) the foregoing non-compete obligation is reasonable and necessary to protect the Corporation's legitimate business interests including its confidential information and goodwill, and (ii) the continued vesting in your PSUs, including any PSUs resulting from dividend equivalent rights, following a Retirement-Eligible Event or termination providing transition/separation pay is fair and reasonable consideration for the foregoing non-compete obligation. During the Restricted Period, you further agree to (i) advise any person or entity that seeks to employ you of the terms of these covenants; and (ii) immediately notify Human Resources equity administration if you are not in compliance with your obligations above (i.e., if you begin to associate with or transact business on behalf of a Competitive Enterprise). You have seven business days from the date you electronically acknowledge and accept the terms of the Award Agreement to rescind your acceptance of the Award Agreement. You may rescind your acceptance of the Award Agreement by sending written notice to Human Resources equity administration at BNYMellonEquity@bnymellon.com.

Exhibit 31.1

CERTIFICATION

I, Robin Vince, certify that:

1. I have reviewed this quarterly report on Form 10-Q of The Bank of New York Mellon Corporation (the "registrant");

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

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

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

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

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

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

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

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

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

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

Date: May 5, 2023

/s/ Robin Vince

Name: Robin Vince
Title: Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Dermot McDonogh, certify that:

1. I have reviewed this quarterly report on Form 10-Q of The Bank of New York Mellon Corporation (the "registrant");

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

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

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

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

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

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

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

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

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

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

Date: May 5, 2023

/s/ Dermot McDonogh

Name: Dermot McDonogh
Title: Chief Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation ("BNY Mellon"), hereby certifies, to his knowledge, that BNY Mellon's Quarterly Report on Form 10-Q for the quarter ended March 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of BNY Mellon.

Dated: May 5, 2023

/s/ Robin Vince

Name: Robin Vince

Title: Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation ("BNY Mellon"), hereby certifies, to his knowledge, that BNY Mellon's Quarterly Report on Form 10-Q for the quarter ended March 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934 and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of BNY Mellon.

Dated: May 5, 2023

/s/ Dermot McDonogh
Name: Dermot McDonogh
Title: Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.