

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, 2021

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

(State or other jurisdiction of incorporation or organization)

13-2614959

(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

Non-accelerated filer

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, 2021, 875,480,847 shares of the registrant's common stock, \$0.01 par value per share, were outstanding.

THE BANK OF NEW YORK MELLON CORPORATION

**First Quarter 2021 Form 10-Q
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The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Financial Highlights (unaudited)

<i>(dollars in millions, except per share amounts and unless otherwise noted)</i>	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
Results applicable to common shareholders of The Bank of New York Mellon Corporation:			
Net income	\$ 858	\$ 702	\$ 944
Basic earnings per share	\$ 0.97	\$ 0.79	\$ 1.05
Diluted earnings per share	\$ 0.97	\$ 0.79	\$ 1.05
Fee and other revenue <i>(a)</i>	\$ 3,266	\$ 3,163	\$ 3,294
Net interest revenue	655	680	814
Total revenue	\$ 3,921	\$ 3,843	\$ 4,108
Return on common equity <i>(annualized)</i>	8.5%	6.9%	10.1%
Return on tangible common equity <i>(annualized)</i> – Non-GAAP <i>(b)</i>	16.1%	13.0%	20.4%
Return on average assets <i>(annualized)</i>	0.76%	0.64%	0.99%
Fee revenue as a percentage of total revenue <i>(a)</i>	83%	81%	79%
Non-U.S. revenue as a percentage of total revenue	37%	38%	36%
Pre-tax operating margin	29%	24%	30%
Net interest margin	0.66%	0.72%	1.01%
Net interest margin on a fully taxable equivalent (“FTE”) basis – Non-GAAP <i>(c)</i>	0.67%	0.72%	1.01%
Assets under custody and/or administration (“AUC/A”) at period end <i>(in trillions)</i> <i>(d)</i>	\$ 41.7	\$ 41.1	\$ 35.2
Assets under management (“AUM”) at period end <i>(in billions)</i> <i>(e)</i>	\$ 2,214	\$ 2,211	\$ 1,796
Market value of securities on loan at period end <i>(in billions)</i> <i>(f)</i>	\$ 445	\$ 435	\$ 389
Average common shares and equivalents outstanding <i>(in thousands)</i>:			
Basic	882,558	889,928	894,122
Diluted	885,655	891,846	896,689
Selected average balances:			
Interest-earning assets	\$397,297	\$ 378,674	\$ 323,936
Total assets	\$460,379	\$ 437,488	\$ 385,278
Interest-bearing deposits	\$245,115	\$ 231,318	\$ 197,632
Noninterest-bearing deposits	\$ 83,429	\$ 75,840	\$ 60,577
Long-term debt	\$ 26,199	\$ 25,704	\$ 27,231
Preferred stock	\$ 4,541	\$ 4,827	\$ 3,542
Total The Bank of New York Mellon Corporation common shareholders’ equity	\$ 40,720	\$ 40,712	\$ 37,664
Other information at period end:			
Cash dividends per common share	\$ 0.31	\$ 0.31	\$ 0.31
Common dividend payout ratio	32%	39%	30%
Common dividend yield <i>(annualized)</i>	2.7%	2.9%	3.7%
Closing stock price per common share	\$ 47.29	\$ 42.44	\$ 33.68
Market capitalization	\$ 41,401	\$ 37,634	\$ 29,822
Book value per common share	\$ 46.16	\$ 46.53	\$ 42.47
Tangible book value per common share – Non-GAAP <i>(b)</i>	\$ 24.88	\$ 25.44	\$ 21.53
Full-time employees	48,000	48,500	47,900
Common shares outstanding <i>(in thousands)</i>	875,481	886,764	885,443

Consolidated Financial Highlights (unaudited) (continued)

Regulatory capital and other ratios	March 31, 2021	Dec. 31, 2020
Average liquidity coverage ratio (“LCR”)	110%	110%
Regulatory capital ratios: (g)		
Advanced:		
Common Equity Tier 1 (“CET1”) ratio	12.6%	13.1%
Tier 1 capital ratio	15.3	15.8
Total capital ratio	16.1	16.7
Standardized:		
CET1 ratio	12.6%	13.4%
Tier 1 capital ratio	15.2	16.1
Total capital ratio	16.2	17.1
Tier 1 leverage ratio	5.8%	6.3%
Supplementary leverage ratio (“SLR”) (h)	8.1	8.6
BNY Mellon shareholders’ equity to total assets ratio	9.7%	9.8%
BNY Mellon common shareholders’ equity to total assets ratio	8.7	8.8

- (a) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with current period presentation. See Note 1 of the Notes to Consolidated Financial Statements for additional information.
- (b) 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 42 for the reconciliation of Non-GAAP measures.
- (c) See “Net interest revenue” on page 10 for a reconciliation of this Non-GAAP measure.
- (d) Consists of AUC/A primarily from the Asset Servicing business and, to a lesser extent, the Clearance and Collateral Management, Issuer Services, Pershing and Wealth Management businesses. Includes the AUC/A of CIBC Mellon Global Securities Services Company (“CIBC Mellon”), a joint venture with the Canadian Imperial Bank of Commerce, of \$1.6 trillion at March 31, 2021, \$1.5 trillion at Dec. 31, 2020 and \$1.2 trillion at March 31, 2020.
- (e) Excludes securities lending cash management assets and assets managed in the Investment Services business.
- (f) Represents the total amount of securities on loan in our agency securities lending program managed by the Investment Services business. Excludes securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled \$64 billion at March 31, 2021, \$68 billion at Dec. 31, 2020 and \$59 billion at March 31, 2020.
- (g) 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 34.
- (h) The SLR at March 31, 2021 and Dec. 31, 2020 reflect the exclusion of certain central bank placements and the temporary exclusion of U.S. Treasury securities from the leverage exposure. The temporary exclusion increased our consolidated SLR by 68 basis points at March 31, 2021 and 72 basis points at Dec. 31, 2020. The temporary exclusion ceased to apply beginning April 1, 2021. See “Capital” beginning on page 34 for additional information.

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, 2020 (“2020 Annual Report”).

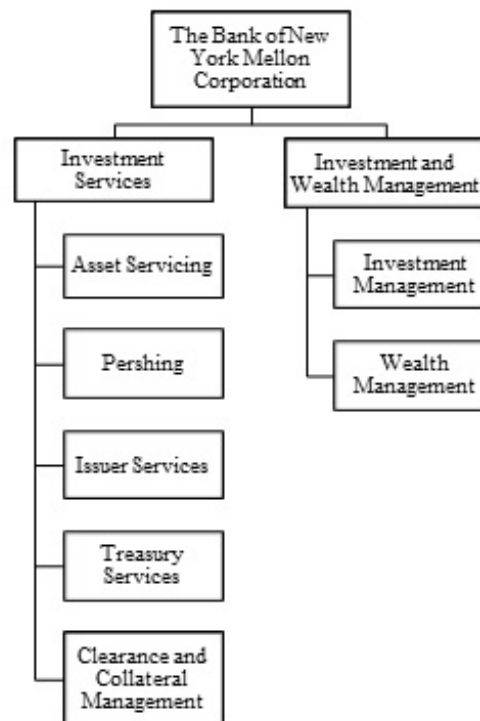
The following should be read in conjunction with the Consolidated Financial Statements included in this report. Investors should also read the section titled “Forward-looking Statements.”

Overview

Established in 1784 by Alexander Hamilton, we were the first company listed on the New York Stock Exchange (NYSE: BK). With a history of more than 235 years, BNY Mellon is a global company that manages and services assets for financial institutions, corporations and individual investors in 35 countries.

BNY Mellon has two business segments, Investment Services and Investment and Wealth Management, which offer a comprehensive set of capabilities and deep expertise across the investment lifecycle, 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 two business segments and lines of business, with the remaining operations in the Other segment.



Highlights of first quarter 2021 results

Net income applicable to common shareholders was \$858 million, or \$0.97 per diluted common share, in the first quarter of 2021. Net income applicable to common shareholders was \$944 million, or \$1.05 per diluted common share, in the first quarter of 2020. The highlights below are based on the first quarter of 2021 compared with the first quarter of 2020, unless otherwise noted.

- Total revenue of \$3.9 billion decreased 5%, primarily reflecting:
 - Fee revenue increased 1%, primarily reflecting the positive impact of higher markets, higher client volumes and balances and the favorable impact of a weaker U.S. dollar, partially offset by higher money market fee waivers. (See “Fee and other revenue” beginning on page 7.)

- Other revenue includes a \$39 million impairment for a renewable energy investment. (See “Fee and other revenue” beginning on page 7.)
- Net interest revenue decreased 20%, primarily reflecting lower interest rates on interest-earning assets. This was partially offset by the benefit of lower deposit and funding rates, higher deposit balances and a larger securities portfolio. (See “Net interest revenue” on page 10.)
- Provision for credit losses was a benefit of \$83 million primarily driven by an improvement in the macroeconomic forecast. (See “Consolidated balance sheet review – Allowance for credit losses” beginning on page 27.)
- Noninterest expense increased 5%, primarily reflecting higher staff expense, the unfavorable impact of a weaker U.S. dollar and higher technology-related expenses, partially offset by lower business development (travel and marketing) and distribution and servicing expenses. (See “Noninterest expense” on page 12.)
- Effective tax rate of 19.2%. (See “Income taxes” on page 12.)

Capital and liquidity

- CET1 ratio was 12.6% under the Standardized Approach at March 31, 2021, compared with 13.1% under the Advanced Approaches at Dec.

31, 2020. The decrease in the CET1 ratio primarily reflects unrealized losses on securities available-for-sale, capital deployed through common stock repurchases and dividends and an increase in risk-weighted assets (“RWAs”) under the Standardized Approach, partially offset by capital generated through earnings. (See “Capital” beginning on page 34.)

- Repurchased 16.8 million common shares for \$699 million.

Highlights of our principal businesses

Investment Services

- Total revenue decreased 8%.
- Income before income taxes decreased 12%.
- AUC/A of \$41.7 trillion increased 18%, primarily reflecting higher market values, net new business and the favorable impact of a weaker U.S. dollar.

Investment and Wealth Management

- Total revenue increased 10%.
- Income before income taxes increased 43%.
- AUM of \$2.2 trillion increased 23%, primarily reflecting higher market values, the favorable impact of a weaker U.S. dollar (principally versus the British pound) and net inflows.

See “Review of businesses” and Note 18 of the Notes to Consolidated Financial Statements for additional information on our businesses.

Impact of coronavirus pandemic on our business

See “Impact of coronavirus pandemic on our business” in our 2020 Annual Report for the areas of our business that have been impacted and could continue to be impacted by the coronavirus pandemic and its effect on the global macroeconomic environment. The following updates those disclosures.

Short-term interest rates have remained low through the first quarter of 2021, which has continued to result in lower net interest revenue and higher money market fee waivers. This has been partially offset by higher deposit balances and higher money market balances.

Equity markets and activity improved in the first quarter of 2021, resulting in increased volumes compared to the fourth quarter of 2020 in most of our Investment Services businesses and increased asset-based fees in Investment Services and Investment and Wealth Management.

The macroeconomic outlook also improved as of the end of the first quarter of 2021, resulting in a decrease in the allowance for credit losses and a benefit of \$83 million to the provision for credit losses.

We suspended common stock repurchases for most of 2020, beginning in March 2020, while maintaining our quarterly common stock dividend of \$0.31 per share. In June 2020, the Federal Reserve announced that participating Comprehensive Capital Analysis and Review (“CCAR”) bank holding companies (“BHCs”), including us, must update and resubmit their capital plans and that, as a result, CCAR BHCs were not permitted to conduct open market common stock repurchases in the third quarter of 2020, a

restriction subsequently extended through the fourth quarter of 2020. For the first and second quarters of 2021, the Federal Reserve permitted common stock dividends and repurchases subject to the limitations that the aggregate amounts per quarter not exceed average net income over the prior four quarters and that common stock dividends not be increased. If a CCAR BHC ceases to be subject to temporary restrictions on distributions beginning in the third quarter of 2021, it will continue to be subject to the normal constraints under the stress capital buffer (“SCB”) framework. See “Recent regulatory developments” for additional information related to the temporary restrictions on capital distributions.

It is difficult to forecast the impact of the coronavirus, together with related public health measures, on our results with certainty because so much depends on how the health crisis evolves and its impact on the global economy, as well as actions taken by central banks and governments to support the economy and the availability, use and effectiveness of vaccines.

The current macroeconomic environment has also resulted in responses by governmental and regulatory bodies. See “Supervision and Regulation – Pandemic-Related Measures” in our 2020 Annual Report for additional information on legislative and regulatory developments in response to the coronavirus pandemic.

For further discussion of the current and potential impact of the coronavirus pandemic, see “Risk Factors – The coronavirus pandemic is adversely affecting us and creates significant risks and uncertainties for our business, and the ultimate impact of the pandemic on us will depend on future developments, which are highly uncertain and cannot be predicted,” in our 2020 Annual Report.

Fee and other revenue

Fee and other revenue	1Q21	4Q20	1Q20	1Q21 vs.	
				4Q20	1Q20
<i>(dollars in millions, unless otherwise noted)</i>					
Investment services fees:					
Asset servicing fees (a)	\$ 1,199	\$ 1,138	\$ 1,159	5%	3%
Clearing services fees (b)	455	418	470	9	(3)
Issuer services fees	245	257	263	(5)	(7)
Treasury services fees	157	156	149	1	5
Total investment services fees	2,056	1,969	2,041	4	1
Investment management and performance fees	890	884	862	1	3
Foreign exchange revenue (c)	231	187	245	24	(6)
Financing-related fees	51	46	59	11	(14)
Distribution and servicing	29	28	31	4	(6)
Total fee revenue (c)	3,257	3,114	3,238	5	1
Investment and other income (c)	9	43	47	N/M	N/M
Net securities gains	—	6	9	N/M	N/M
Total other revenue	9	49	56	N/M	N/M
Total fee and other revenue (c)	\$ 3,266	\$ 3,163	\$ 3,294	3%	(1)%
Fee revenue as a percentage of total revenue (c)	83%	81%	79%		
AUC/A at period end (in trillions) (d)	\$ 41.7	\$ 41.1	\$ 35.2	1%	18%
AUM at period end (in billions) (e)	\$ 2,214	\$ 2,211	\$ 1,796	—%	23%

- (a) Asset servicing fees include the fees from the Clearance and Collateral Management business and also include securities lending revenue of \$45 million in the first quarter of 2021, \$39 million in the fourth quarter of 2020 and \$51 million in the first quarter of 2020.
- (b) Clearing services fees are almost entirely earned by our Pershing business.
- (c) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with the current period presentation. See Note 1 of the Notes to Consolidated Financial Statements for additional information.
- (d) Consists of AUC/A primarily from the Asset Servicing business and, to a lesser extent, the Clearance and Collateral Management, Issuer Services, Pershing and Wealth Management businesses. Includes the AUC/A of CIBC Mellon of \$1.6 trillion at March 31, 2021, \$1.5 trillion at Dec. 31, 2020 and \$1.2 trillion at March 31, 2020.
- (e) Excludes securities lending cash management assets and assets managed in the Investment Services business.
- N/M – Not meaningful.

Fee revenue increased 1% compared with the first quarter of 2020 and 5% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily reflects higher investment management and performance fees, asset servicing fees, clearing services fees and the favorable impact of a weaker U.S. dollar, partially offset by higher money market fee waivers and lower foreign exchange revenue. The increase compared with the fourth quarter of 2020 primarily reflects higher asset servicing fees, clearing services fees, foreign exchange revenue and investment management and performance fees, partially offset by higher money market fee waivers.

Other revenue decreased \$47 million compared with the first quarter of 2020. The decrease primarily reflects a \$39 million impairment related to a renewable energy investment.

Money market fee waivers

Given the recent levels of short-term interest rates, money market mutual fund fees and other similar fees are being waived to protect investors from negative returns. The fee waivers have primarily impacted fee revenues in Pershing and Investment Management, but also resulted in lower distribution and servicing expense. The fee waivers also began to impact fee revenues in our other businesses in the second half of 2020. Money market fee waivers are highly sensitive to changes in short-term interest rates and are difficult to predict. Assuming no change in money market balances, we expect to recover over 50% of the pre-tax income related to fee waivers with a 25 basis point increase in the Fed Funds rate and we expect to recover nearly 100% of the pre-tax income related to fee waivers when the Fed Funds rate increases 100 basis points.

The following table presents the impact of money market fee waivers on our consolidated fee revenue, net of distribution and servicing expense. In the first quarter of 2021, the net impact of money market fee waivers was \$188 million, up from \$134 million in the fourth quarter of 2020, driven by low short-term interest rates and higher money market balances.

Money market fee waivers <i>(in millions)</i>	1Q21	4Q20	1Q20
Investment services fees:			
Asset servicing fees	\$ (22)	\$ (13)	\$ —
Clearing services fees	(74)	(64)	(9)
Issuer services fees	(10)	(6)	—
Treasury services fees	(3)	(2)	—
Total investment services fees	(109)	(85)	(9)
Investment management and performance fees	(89)	(56)	(14)
Distribution and servicing revenue	(13)	(8)	—
Total fee revenue	(211)	(149)	(23)
Less: Distribution and servicing expense	23	15	—
Net impact of money market fee waivers	\$ (188)	\$ (134)	\$ (23)

Impact to revenue by line of business <i>(a)</i> :			
Asset Servicing	\$ (29)	\$ (13)	\$ —
Pershing	(94)	(85)	(9)
Issuer Services	(15)	(10)	—
Treasury Services	(9)	(5)	—
Investment Management	(61)	(34)	(14)
Wealth Management	(3)	(2)	—
Total impact to revenue by line of business	\$ (211)	\$ (149)	\$ (23)

(a) The line of business revenue for management reporting purposes reflects the impact of revenue transferred between the businesses.

We expect the impact from money market fee waivers, net of distribution and servicing expense, to approximate \$220 million in the second quarter of 2021, based on implied forward rates and money market balances as of the end of the first quarter of 2021. Fee waivers in subsequent periods will continue to be dependent on the level of short-term interest rates and money market balances.

Investment services fees

Investment services fees increased 1% compared with the first quarter of 2020 and 4% compared with the fourth quarter of 2020, reflecting the following:

- Asset servicing fees increased 3% compared with the first quarter of 2020 and 5% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily

reflects higher client volumes and market values, partially offset by higher money market fee waivers. The increase compared with the fourth quarter of 2020 primarily reflects higher client volumes, partially offset by higher money market fee waivers.

- Clearing services fees decreased 3% compared with the first quarter of 2020 and increased 9% compared with the fourth quarter of 2020. The decrease compared with the first quarter of 2020 primarily reflects the impact of money market fee waivers, partially offset by higher market values and client volumes. The increase compared with the fourth quarter of 2020 primarily reflects higher clearance volumes and market values.
- Issuer services fees decreased 7% compared with the first quarter of 2020 and 5% compared with the fourth quarter of 2020. Both decreases primarily reflect higher money market fee waivers in Corporate Trust and lower Depository Receipts revenue.
- Treasury services fees increased 5% compared with the first quarter of 2020 and 1% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily reflects higher payment volumes.

See “Investment Services business” in “Review of businesses” for additional details.

Investment management and performance fees

Investment management and performance fees increased 3% compared with the first quarter of 2020 and 1% compared with the fourth quarter of 2020. Both increases primarily reflect the impact of higher market values and the favorable impact of a weaker U.S. dollar, partially offset by the impact of money market fee waivers. Performance fees were \$40 million in the first quarter of 2021, \$50 million in the first quarter of 2020 and \$45 million in the fourth quarter of 2020. On a constant currency basis (Non-GAAP), investment management and performance fees increased 1% compared with the first quarter of 2020.

AUM was \$2.2 trillion at March 31, 2021, an increase of 23% compared with March 31, 2020, primarily reflecting higher market values, the favorable impact of a weaker U.S. dollar (principally versus the British pound) and net inflows.

See “Investment and Wealth Management business” in “Review of businesses” 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). In the first quarter of 2021, foreign exchange revenue totaled \$231 million, a decrease of 6% compared with the first quarter of 2020 and an increase of 24% compared with the fourth quarter of 2020. The decrease compared with the first quarter of 2020 primarily reflects lower volatility, partially offset by the positive impact of foreign currency hedging. The increase compared with the fourth quarter of 2020 primarily reflects higher volumes. Foreign exchange revenue is primarily reported in the Investment Services business and, to a lesser extent, the Investment and Wealth Management business and the Other segment.

Financing-related fees

Financing-related fees, which are primarily reported in the Investment Services business, include capital market fees, loan commitment fees and credit-related fees. Financing-related fees totaled \$51 million in the first quarter of 2021, \$59 million in the first quarter of 2020 and \$46 million in the fourth quarter of 2020. The decrease compared with the first quarter of 2020 primarily reflects lower underwriting fees. The increase compared with the fourth quarter of 2020 primarily reflects higher underwriting fees.

Investment and other income

Investment and other income includes income or loss from consolidated investment management funds, seed capital gains or losses, other trading revenue or loss, renewable energy investments losses, 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 and other income or loss. 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 other income 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 equity securities, 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 or loss includes various miscellaneous revenues.

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

Investment and other income (a) <i>(in millions)</i>	1Q21	4Q20	1Q20
Income (loss) from consolidated investment management funds	\$ 17	\$ 41	\$ (38)
Seed capital gains (losses) (b)	3	22	(31)
Other trading (loss) revenue	(7)	(31)	66
Renewable energy investment (losses)	(81)	(27)	(34)
Corporate/bank-owned life insurance	33	43	36
Other investments gains (losses) (c)	11	18	(7)
Disposal (losses)	—	(61)	—
Expense reimbursements from joint venture	23	22	21
Other income	10	16	34
Total investment and other income	\$ 9	\$ 43	\$ 47

(a) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with the current period presentation. See Note 1 of the Notes to Consolidated Financial Statements for additional information.

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

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

Investment and other income was \$9 million in the first quarter of 2021 compared with \$47 million in the first quarter of 2020 and \$43 million in the fourth quarter of 2020. The decrease compared with the first quarter of 2020 and fourth quarter of 2020 primarily reflects the \$39 million impairment related to a renewable energy investment. The decrease compared with the first quarter of 2020 also reflects lower derivative and fixed income trading results and a one-time fee in Pershing recorded in the first quarter of 2020, partially offset by higher investment income

(from consolidated investment management funds, seed capital and other investments), net of hedging reflected in other trading revenue.

The decrease compared with the fourth quarter of 2020 also reflects lower investment income (from

consolidated investment management funds, seed capital, corporate/bank-owned life insurance and other investments), net of hedging reflected in other trading revenue, partially offset by losses on business sales recorded in the fourth quarter of 2020.

Net interest revenue

Net interest revenue	1Q21 vs.					
	1Q21		4Q20		1Q20	
<i>(dollars in millions)</i>						
Net interest revenue – GAAP	\$ 655	\$ 680	\$ 814	(4)%	(20)%	
Add: Tax equivalent adjustment	3	3	2	N/M	N/M	
Net interest revenue (FTE) – Non-GAAP (a)	\$ 658	\$ 683	\$ 816	(4)%	(19)%	
Average interest-earning assets	\$ 397,297	\$ 378,674	\$ 323,936	5%	23%	
Net interest margin – GAAP	0.66%	0.72%	1.01%	(6) bps	(35) bps	
Net interest margin (FTE) – Non-GAAP (a)	0.67%	0.72%	1.01%	(5) bps	(34) 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 decreased 20% compared with the first quarter of 2020 and 4% compared with the fourth quarter of 2020. The decrease compared with the first quarter of 2020 primarily reflects lower interest rates on interest-earning assets, partially offset by the benefit of lower deposit and funding rates, higher deposit balances and a larger securities portfolio. The decrease compared with the fourth quarter of 2020 was primarily driven by lower interest rates on interest-earning assets, partially offset by the benefit of lower deposit and funding rates, and higher deposit and loan balances.

Net interest margin decreased 35 basis points compared with the first quarter of 2020 and 6 basis points compared with the fourth quarter of 2020. The decreases primarily reflect the factors mentioned above.

Average interest-earning assets increased 23% compared with the first quarter of 2020 and 5% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily reflects higher interest-bearing deposits

with the Federal Reserve and other central banks and a larger securities portfolio. The increase compared with the fourth quarter of 2020 primarily reflects higher interest-bearing deposits with the Federal Reserve and other central banks, interest-bearing deposits with banks (primarily foreign banks) and margin loans.

Average non-U.S. dollar deposits comprised approximately 25% of our average total deposits in the first quarter of 2021. Approximately 40% of the average non-U.S. dollar deposits in the first quarter of 2021 were euro denominated.

Net interest revenue in future periods will depend on the level and mix of client deposits and deposit rates, as well as the level and shape of the yield curve, which may result in lower yields on interest-earning assets.

Due to lower interest rates, net interest revenue has been trending lower and we expect net interest revenue to decrease in 2021 compared with 2020.

Average balances and interest rates	Quarter ended								
	March 31, 2021			Dec. 31, 2020			March 31, 2020		
	Average balance	Interest	Average rates	Average balance	Interest	Average rates	Average balance	Interest	Average rates
<i>(dollars in millions; average rates annualized)</i>									
Assets									
Interest-earning assets:									
Interest-bearing deposits with the Federal Reserve and other central banks	\$ 125,930	\$ (16)	(0.05)%	\$ 112,274	\$ (13)	(0.04)%	\$ 80,403	\$ 80	0.39%
Interest-bearing deposits with banks (primarily foreign banks)	21,313	14	0.27	19,281	16	0.32	17,081	58	1.37
Federal funds sold and securities purchased under resale agreements (a)	29,186	32	0.44	28,389	40	0.55	34,109	396	4.67
Margin loans	15,891	45	1.14	14,097	43	1.23	12,984	87	2.69
Non-margin loans:									
Domestic offices	31,218	157	2.02	30,855	161	2.08	31,720	238	3.02
Foreign offices	9,680	28	1.18	9,776	32	1.31	11,170	71	2.55
Total non-margin loans	40,898	185	1.82	40,631	193	1.90	42,890	309	2.89
Securities:									
U.S. government obligations	28,759	101	1.43	27,783	102	1.46	23,175	108	1.87
U.S. government agency obligations	77,623	291	1.50	79,712	311	1.56	69,046	400	2.32
State and political subdivisions (b)	2,526	12	1.92	2,104	12	2.01	1,033	8	3.06
Other securities (b)	47,030	58	0.50	46,280	56	0.48	36,375	86	0.95
Total investment securities (b)	155,938	462	1.19	155,879	481	1.23	129,629	602	1.86
Trading securities (b)	8,141	19	0.95	8,123	19	0.95	6,840	40	2.36
Total securities (b)	164,079	481	1.18	164,002	500	1.22	136,469	642	1.88
Total interest-earning assets (c)	\$ 397,297	\$ 741	0.75%	\$ 378,674	\$ 779	0.82%	\$ 323,936	\$ 1,572	1.95%
Noninterest-earning assets	63,082			58,814			61,342		
Total assets	\$ 460,379			\$ 437,488			\$ 385,278		
Liabilities									
Interest-bearing liabilities:									
Interest-bearing deposits:									
Domestic offices	\$ 128,543	\$ (7)	(0.02)%	\$ 119,012	\$ (5)	(0.02)%	\$ 99,915	\$ 170	0.69%
Foreign offices	116,572	(30)	(0.10)	112,306	(28)	(0.10)	97,717	70	0.29
Total interest-bearing deposits	245,115	(37)	(0.06)	231,318	(33)	(0.06)	197,632	240	0.49
Federal funds purchased and securities sold under repurchase agreements (a)	15,288	(3)	(0.07)	14,452	1	0.01	13,919	275	7.96
Trading liabilities	2,227	3	0.53	2,408	4	0.72	1,626	7	1.61
Other borrowed funds	331	2	2.01	338	2	1.71	719	4	2.27
Commercial paper	—	—	—	275	—	0.10	1,581	6	1.56
Payables to customers and broker-dealers	17,691	(1)	(0.01)	17,521	(1)	(0.01)	16,386	30	0.73
Long-term debt	26,199	119	1.81	25,704	123	1.88	27,231	194	2.83
Total interest-bearing liabilities	\$ 306,851	\$ 83	0.11%	\$ 292,016	\$ 96	0.13%	\$ 259,094	\$ 756	1.17%
Total noninterest-bearing deposits	83,429			75,840			60,577		
Other noninterest-bearing liabilities	24,556			23,783			24,229		
Total liabilities	414,836			391,639			343,900		
Temporary equity									
Redeemable noncontrolling interests	85			74			66		
Permanent equity									
Total The Bank of New York Mellon Corporation shareholders' equity	45,261			45,539			41,206		
Noncontrolling interests	197			236			106		
Total permanent equity	45,458			45,775			41,312		
Total liabilities, temporary equity and permanent equity	\$ 460,379			\$ 437,488			\$ 385,278		
Net interest revenue (FTE) – Non-GAAP (c)	\$ 658			\$ 683			\$ 816		
Net interest margin (FTE) – Non-GAAP (b)(c)			0.67%			0.72%			1.01%
Less: Tax equivalent adjustment (b)	3			3			2		
Net interest revenue – GAAP	\$ 655			\$ 680			\$ 814		
Net interest margin – GAAP			0.66%			0.72%			1.01%

(a) Includes the average impact of offsetting under enforceable netting agreements of approximately \$37 billion for the first quarter of 2021, \$41 billion for the fourth quarter of 2020 and \$80 billion for the first quarter of 2020. 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 0.19% for the first quarter of 2021, 0.23% for the fourth quarter of 2020 and 1.39% for the first quarter of 2020. 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 (0.02)% for the first quarter of 2021, 0.00% for the fourth quarter of 2020 and 1.18% for the first quarter of 2020. 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 10 for the reconciliation of this Non-GAAP measure.

Noninterest expense

Noninterest expense				1Q21 vs.	
	1Q21	4Q20	1Q20	4Q20	1Q20
<i>(dollars in millions)</i>					
Staff	\$ 1,602	\$ 1,554	\$ 1,482	3%	8%
Software and equipment	362	359	326	1	11
Professional, legal and other purchased services	343	381	330	(10)	4
Sub-custodian and clearing	124	116	105	7	18
Net occupancy	123	173	135	(29)	(9)
Distribution and servicing	74	75	91	(1)	(19)
Bank assessment charges	34	24	35	42	(3)
Amortization of intangible assets	24	26	26	(8)	(8)
Business development	19	26	42	(27)	(55)
Other	146	191	140	(24)	4
Total noninterest expense	\$ 2,851	\$ 2,925	\$ 2,712	(3)%	5%
Full-time employees at period end	48,000	48,500	47,900	(1)%	—%

Total noninterest expense increased 5% compared with the first quarter of 2020 and decreased 3% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily reflects higher staff expense, the unfavorable impact of a weaker U.S. dollar and higher technology-related expenses, partially offset by lower business development (travel and marketing) and distribution and servicing expenses. Staff expense includes the impact of an incentive reversal in the first quarter of 2020, the impact of a higher share price on share-based awards and increased expense for awards to retirement eligible employees. The technology-related expenses are included in staff, software and equipment, and professional, legal and other purchased services expenses. The decrease compared with the fourth quarter of 2020 primarily reflects lower severance, litigation and professional, legal and other purchased services expenses and real estate charges recorded in the fourth quarter of 2020, partially offset by higher other staff expense.

As we continue to manage overall expenses, we expect total reported noninterest expense to increase slightly for the full-year 2021 compared to 2020. This includes an unfavorable impact of foreign exchange rates which is expected to offset the impact of 2020 notable items, which were litigation expense, severance and real estate charges. Expenses could be impacted if foreign exchange rates change from March 31, 2021 levels, revenue-related or volume-related expenses increase or there are unexpected charges or expenses.

Income taxes

BNY Mellon recorded an income tax provision of \$221 million (19.2% effective tax rate) in the first quarter of 2021, \$265 million (21.6% effective tax rate) in the first quarter of 2020 and \$148 million (16.4% effective tax rate) in the fourth quarter of 2020. For additional information, see Note 10 of the Notes to Consolidated Financial Statements.

Review of businesses

We have an internal information system that produces performance data along product and service lines for our two principal businesses, Investment Services and Investment and Wealth Management, and the Other segment.

Business accounting principles

Our business 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 businesses, see Note 18 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 business and how our businesses are presented and analyzed, see Note 24 of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

Business 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 2021.

The results of our businesses 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 third quarter, Depository Receipts revenue is typically higher due to an increased level of client dividend payments. Also in the third quarter, volume-related fees may decline

due to reduced client activity, and staff expense typically increases reflecting the annual employee merit increase. In the fourth quarter, we typically incur higher business development and marketing expenses; however, 2020 was an exception given the impact of the coronavirus pandemic. In our Investment and Wealth Management business, 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 businesses 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 Investment Services business, we typically have more foreign currency-denominated expenses than revenues. However, our Investment and Wealth Management business 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 more than the Investment Services business. However, currency fluctuations, in isolation, are not expected to significantly impact net income on a consolidated basis.

Fee revenue in Investment and Wealth Management, and to a lesser extent in Investment Services, is impacted by the value of market indices. At March 31, 2021, 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 \$0.03 to \$0.06.

See Note 18 of the Notes to Consolidated Financial Statements for the consolidating schedules which show the contribution of our businesses to our overall profitability.

Investment Services business

(dollars in millions)	1Q21	4Q20	3Q20	2Q20	1Q20	1Q21 vs.	
						4Q20	1Q20
Revenue:							
Investment services fees:							
Asset servicing fees (a)	\$ 1,191	\$ 1,130	\$ 1,156	\$ 1,164	\$ 1,147	5%	4%
Clearing services fees (b)	455	418	397	431	470	9	(3)
Issuer services fees	245	257	295	277	263	(5)	(7)
Treasury services fees	157	156	152	144	149	1	5
Total investment services fees	2,048	1,961	2,000	2,016	2,029	4	1
Foreign exchange revenue (c)	193	163	126	164	228	18	(15)
Other (c)(d)	104	111	120	159	179	(6)	(42)
Total fee and other revenue	2,345	2,235	2,246	2,339	2,436	5	(4)
Net interest revenue	645	670	681	768	806	(4)	(20)
Total revenue	2,990	2,905	2,927	3,107	3,242	3	(8)
Provision for credit losses	(79)	31	(10)	145	149	N/M	N/M
Noninterest expense (excluding amortization of intangible assets)	2,084	2,157	2,002	1,971	1,969	(3)	6
Amortization of intangible assets	17	17	18	18	18	—	(6)
Total noninterest expense	2,101	2,174	2,020	1,989	1,987	(3)	6
Income before income taxes	\$ 968	\$ 700	\$ 917	\$ 973	\$ 1,106	38%	(12)%
Pre-tax operating margin	32%	24%	31%	31%	34%		
Securities lending revenue	\$ 41	\$ 36	\$ 37	\$ 51	\$ 46	14%	(11)%
Total revenue by line of business:							
Asset Servicing	\$ 1,424	\$ 1,357	\$ 1,354	\$ 1,463	\$ 1,531	5%	(7)%
Pershing	605	563	538	578	653	7	(7)
Issuer Services	363	385	435	431	419	(6)	(13)
Treasury Services	317	325	323	340	339	(2)	(6)
Clearance and Collateral Management	281	275	277	295	300	2	(6)
Total revenue by line of business	\$ 2,990	\$ 2,905	\$ 2,927	\$ 3,107	\$ 3,242	3%	(8)%
Average balances:							
Average loans	\$ 43,468	\$ 41,437	\$ 40,308	\$ 43,113	\$ 41,789	5%	4%
Average deposits	\$315,088	\$292,631	\$263,621	\$268,467	\$242,187	8%	30%

(a) Asset servicing fees include the fees from the Clearance and Collateral Management business.

(b) Clearing services fees are almost entirely earned by our Pershing business.

(c) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with the current period presentation. See Note 1 of the Notes to Consolidated Financial Statements for additional information.

(d) Other revenue includes investment management and performance fees, financing-related fees, distribution and servicing revenue, securities gains and losses and investment and other income.

N/M – Not meaningful.

Investment Services business metrics							1Q21 vs.	
<i>(dollars in millions, unless otherwise noted)</i>							4Q20	1Q20
	1Q21	4Q20	3Q20	2Q20	1Q20			
AUC/A at period end <i>(in trillions) (a)</i>	\$ 41.7	\$ 41.1	\$ 38.6	\$ 37.3	\$ 35.2	1%	18%	
Market value of securities on loan at period end <i>(in billions) (b)</i>	\$ 445	\$ 435	\$ 378	\$ 384	\$ 389	2%	14%	
Pershing:								
Net new assets (U.S. platform) <i>(in billions) (c)</i>	\$ 28	\$ 28	\$ 12	\$ 11	\$ 31	N/M	N/M	
Average active clearing accounts (U.S. platform) <i>(in thousands)</i>	6,757	6,635	6,556	6,507	6,437	2%	5%	
Average long-term mutual fund assets (U.S. platform)	\$678,556	\$630,086	\$597,312	\$547,579	\$549,206	8%	24%	
Average investor margin loans (U.S. platform)	\$ 10,937	\$ 10,097	\$ 9,350	\$ 9,235	\$ 9,419	8%	16%	
Clearance and Collateral Management:								
Average tri-party collateral management balances <i>(in billions)</i>	\$ 3,638	\$ 3,555	\$ 3,417	\$ 3,573	\$ 3,724	2%	(2)%	

(a) Consists of AUC/A primarily from the Asset Servicing business and, to a lesser extent, the Clearance and Collateral Management, Issuer Services, Pershing and Wealth Management businesses. Includes the AUC/A of CIBC Mellon of \$1.6 trillion at March 31, 2021, \$1.5 trillion at Dec. 31, 2020, \$1.4 trillion at Sept. 30, 2020, \$1.3 trillion at June 30, 2020 and \$1.2 trillion at March 31, 2020.

(b) Represents the total amount of securities on loan in our agency securities lending program managed by the Investment Services business. Excludes securities for which BNY Mellon acts as agent on behalf of CIBC Mellon clients, which totaled \$64 billion at March 31, 2021, \$68 billion at Dec. 31, 2020, \$62 billion at Sept. 30, 2020 and June 30, 2020 and \$59 billion at March 31, 2020.

(c) Net new assets represent net flows of assets excluding dividends and interest (e.g., net cash deposits and net securities transfers) in customer accounts in Pershing LLC, a U.S. broker-dealer.

N/M – Not meaningful.

Business description

BNY Mellon Investment Services provides business services and technology solutions to entities including financial institutions, corporations, foundations and endowments, public funds and government agencies. Our lines of business include: Asset Servicing, Pershing, Issuer Services, Treasury Services and Clearance and Collateral Management. For information on the drivers of the Investment Services fee revenue, see Note 10 of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

We are one of the leading global investment services providers with \$41.7 trillion of AUC/A at March 31, 2021.

The Asset Servicing business provides a comprehensive suite of solutions. As one of the largest global custody and fund accounting providers and a trusted partner, we offer services for the safekeeping of assets in capital markets globally as well as alternative investment and structured product strategies. We provide custody and foreign exchange services, support exchange-traded funds and unit investment trusts and provide our clients outsourcing capabilities. Our robust digital and data offerings enable us to provide fully integrated technology solutions for our clients. We deliver 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 \$4.7 trillion in 34 separate markets. Our market-leading liquidity services portal enables cash investments for institutional clients and includes fund research and analytics.

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

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.

Our Treasury Services business is a leading provider of 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 liquidity, financing, risk and balance sheet challenges. We are a leading provider of tri-party collateral management services with an average of \$3.6 trillion serviced globally, including approximately \$2.5 trillion of the U.S. tri-party repo market at March 31, 2021.

Review of financial results

AUC/A of \$41.7 trillion increased 18% compared with March 31, 2020, primarily reflecting higher market values, net new business and the favorable impact of a weaker U.S. dollar. AUC/A consisted of 38% equity securities and 62% fixed-income securities at March 31, 2021 and 31% equity securities and 69% fixed-income securities at March 31, 2020.

Total revenue of \$3.0 billion decreased 8% compared with the first quarter of 2020 and increased 3% compared with the fourth quarter of 2020. The drivers of total revenue by line of business are indicated below.

Asset Servicing revenue of \$1.4 billion decreased 7% compared with the first quarter of 2020 and increased 5% compared with the fourth quarter of 2020. The decrease compared with the first quarter of 2020 primarily reflects lower interest rates and foreign exchange revenue and higher money market fee waivers, partially offset by higher client volumes and market values. The increase compared with the fourth quarter of 2020 primarily reflects higher client and foreign exchange volumes, partially offset by higher money market fee waivers.

Pershing revenue of \$605 million decreased 7% compared with the first quarter of 2020 and increased 7% compared with the fourth quarter of 2020. The decrease compared with the first quarter of 2020

primarily reflects the impact of money market fee waivers and a one-time fee recorded in the first quarter of 2020, partially offset by higher market values and client volumes. The increase compared with the fourth quarter of 2020 primarily reflects higher clearance volumes and market values.

Issuer Services revenue of \$363 million decreased 13% compared with the first quarter of 2020 and 6% compared with the fourth quarter of 2020. Both decreases primarily reflect lower interest rates and higher money market fee waivers in Corporate Trust and lower Depositary Receipts revenue.

Treasury Services revenue of \$317 million decreased 6% compared with the first quarter of 2020 and 2% compared with the fourth quarter of 2020. Both decreases primarily reflect lower interest rates and higher money market fee waivers. The decrease compared with the first quarter of 2020 was partially offset by higher payment volumes and deposit levels.

Clearance and Collateral Management revenue of \$281 million decreased 6% compared with the first quarter of 2020 and increased 2% compared with the fourth quarter of 2020. The decrease compared with the first quarter of 2020 primarily reflects lower interest rates and intraday credit fees. The increase compared with the fourth quarter of 2020 primarily reflects higher clearance volumes.

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 \$2.1 billion increased 6% compared with the first quarter of 2020 and decreased 3% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 was primarily driven by technology-related expense, higher staff, volume-related and litigation expenses and the unfavorable impact of a weaker U.S. dollar. The decrease compared with the fourth quarter of 2020 primarily reflects lower litigation and severance expenses.

Investment and Wealth Management business

<i>(dollars in millions)</i>	1Q21	4Q20	3Q20	2Q20	1Q20	1Q21 vs.	
						4Q20	1Q20
Revenue:							
Investment management fees <i>(a)</i>	\$ 850	\$ 839	\$ 828	\$ 782	\$ 812	1%	5%
Performance fees	40	45	7	5	50	N/M	(20)
Investment management and performance fees <i>(b)</i>	890	884	835	787	862	1	3
Distribution and servicing	28	29	31	34	43	(3)	(35)
Other <i>(a)</i>	25	27	5	17	(59)	N/M	N/M
Total fee and other revenue <i>(a)</i>	943	940	871	838	846	—	11
Net interest revenue	48	50	47	48	52	(4)	(8)
Total revenue	991	990	918	886	898	—	10
Provision for credit losses	4	(8)	12	7	9	N/M	N/M
Noninterest expense (excluding amortization of intangible assets)	702	678	653	650	687	4	2
Amortization of intangible assets	7	9	8	8	8	(22)	(13)
Total noninterest expense	709	687	661	658	695	3	2
Income before income taxes	\$ 278	\$ 311	\$ 245	\$ 221	\$ 194	(11)%	43%
Pre-tax operating margin	28%	32%	27%	25%	22%		
Adjusted pre-tax operating margin – Non-GAAP <i>(c)</i>	30%	34%	29%	28%	24%		
Total revenue by line of business:							
Investment Management	\$ 698	\$ 714	\$ 641	\$ 621	\$ 620	(2)%	13%
Wealth Management	293	276	277	265	278	6	5
Total revenue by line of business	\$ 991	\$ 990	\$ 918	\$ 886	\$ 898	—%	10%
Average balances:							
Average loans	\$11,610	\$ 11,497	\$ 11,503	\$ 11,791	\$ 12,124	1%	(4)%
Average deposits	\$19,177	\$ 18,144	\$ 17,570	\$ 17,491	\$ 16,144	6%	19%

(a) Total fee and other revenue includes the impact of the consolidated investment management funds, net of noncontrolling interests. Additionally, other revenue includes asset servicing fees, treasury services fees, foreign exchange revenue and investment and other income.

(b) On a constant currency basis, investment management and performance fees increased 1% (Non-GAAP) compared with the first quarter of 2020. See “Supplemental information – Explanation of GAAP and Non-GAAP financial measures” beginning on page 42 for the reconciliation of this Non-GAAP measure.

(c) Net of distribution and servicing expense. See “Supplemental information – Explanation of GAAP and Non-GAAP financial measures” beginning on page 42.

N/M – Not meaningful.

AUM trends							1Q21 vs.	
<i>(dollars in billions)</i>	1Q21	4Q20	3Q20	2Q20	1Q20	4Q20	1Q20	
AUM at period end, by product type: (a)								
Equity	\$ 173	\$ 170	\$ 149	\$ 141	\$ 120	2%	44%	
Fixed income	261	259	241	224	211	1	24	
Index	419	393	350	333	274	7	53	
Liability-driven investments	802	855	788	752	705	(6)	14	
Multi-asset and alternative investments	214	209	193	185	171	2	25	
Cash	345	325	320	326	315	6	10	
Total AUM by product type	\$ 2,214	\$ 2,211	\$ 2,041	\$ 1,961	\$ 1,796	—%	23%	
Changes in AUM: (a)								
Beginning balance of AUM	\$ 2,211	\$ 2,041	\$ 1,961	\$ 1,796	\$ 1,910			
Net inflows (outflows):								
Long-term strategies:								
Equity	—	(2)	(4)	(2)	(2)			
Fixed income	8	5	1	4	—			
Liability-driven investments	8	15	14	(2)	(5)			
Multi-asset and alternative investments	(2)	—	(3)	—	(1)			
Total long-term active strategies inflows (outflows)	14	18	8	—	(8)			
Index	3	(3)	(3)	9	3			
Total long-term strategies inflows (outflows)	17	15	5	9	(5)			
Short-term strategies:								
Cash	19	5	(10)	11	43			
Total net inflows (outflows)	36	20	(5)	20	38			
Net market impact	(36)	93	41	143	(91)			
Net currency impact	3	57	44	2	(61)			
Ending balance of AUM	\$ 2,214	\$ 2,211	\$ 2,041	\$ 1,961	\$ 1,796	—%	23%	
Wealth Management client assets (b)	\$ 292	\$ 286	\$ 265	\$ 254	\$ 236	2%	24%	

(a) Excludes securities lending cash management assets and assets managed in the Investment Services business.

(b) Includes AUM and AUC/A in the Wealth Management business.

Business description

Our Investment and Wealth Management business 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 2020 Annual Report for additional information on our Investment and Wealth Management business.

Review of financial results

AUM increased 23% compared with March 31, 2020 primarily reflecting higher market values, the favorable impact of a weaker U.S. dollar (principally versus the British pound) and net inflows.

Net long-term strategy inflows were \$17 billion in the first quarter of 2021, driven by fixed income and liability-driven investments. Short-term strategy inflows were \$19 billion in the first quarter of 2021. Market and regulatory trends have resulted in increased demand for lower fee asset management products and for performance-based fees.

Total revenue of \$991 million increased 10% compared with the first quarter of 2020 and increased slightly compared with the fourth quarter of 2020.

Investment Management revenue of \$698 million increased 13% compared with the first quarter of 2020 and decreased 2% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily reflects the impact of higher market values, equity investment gains, including seed capital, and the favorable impact of a weaker U.S. dollar, partially offset by the impact of money market fee waivers. The decrease compared with the fourth quarter of 2020 primarily reflects the impact of money market fee waivers and lower equity

investment gains, including seed capital, partially offset by higher market values and the favorable impact of a weaker U.S. dollar.

Wealth Management revenue of \$293 million increased 5% compared with the first quarter of 2020 and 6% compared with the fourth quarter of 2020. Both increases reflect the impact of higher market values. The increase compared with the fourth quarter of 2020 also reflects a loss on a business sale recorded in the fourth quarter of 2020.

Revenue generated in the Investment and Wealth Management business included 38% from non-U.S.

Other segment

<i>(in millions)</i>	1Q21	4Q20	3Q20	2Q20	1Q20
Fee revenue (a)	\$ 9	\$ 11	\$ 7	\$ 10	\$ 6
Other revenue (a)	(36)	(28)	13	28	24
Total fee and other revenue	(27)	(17)	20	38	30
Net interest (expense)	(38)	(40)	(25)	(36)	(44)
Total revenue	(65)	(57)	(5)	2	(14)
Provision for credit losses	(8)	(8)	7	(9)	11
Noninterest expense	41	64	—	39	30
(Loss) before income taxes	\$ (98)	\$ (113)	\$ (12)	\$ (28)	\$ (55)
Average loans and leases	\$ 1,711	\$ 1,794	\$ 1,805	\$ 1,815	\$ 1,961

(a) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with the current period presentation. See Note 1 of the Notes to Consolidated Financial Statements for additional information.

See page 21 of our 2020 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 offsets between fee and other revenue and net interest expense.

Other revenue decreased \$60 million compared with the first quarter of 2020 and \$8 million compared with the fourth quarter of 2020. Both decreases

sources in the first quarter of 2021, compared with 42% in the first quarter of 2020 and 41% in the fourth quarter of 2020.

Noninterest expense of \$709 million increased 2% compared with the first quarter of 2020 and 3% compared with the fourth quarter of 2020. The increase compared with the first quarter of 2020 primarily reflects higher staff expense and the unfavorable impact of a weaker dollar, partially offset by lower distribution and servicing and other expenses. The increase compared with the fourth quarter of 2020 primarily reflects timing of other staff expense, partially offset by lower severance expense.

primarily reflect an impairment of a renewable energy investment. The decrease compared with the fourth quarter of 2020 was partially offset by a loss on a sale of a business recorded in the fourth quarter of 2020.

Noninterest expense increased \$11 million compared with the first quarter of 2020, primarily reflecting higher staff expense. Noninterest expense decreased \$23 million compared with the fourth quarter of 2020, primarily reflecting real estate charges and severance expense both recorded in the fourth quarter of 2020, partially offset by higher other staff expense.

Critical accounting estimates

Our significant accounting policies are described in Note 1 of the Notes to Consolidated Financial Statements in our 2020 Annual Report. Our critical accounting estimates are those related to the allowance for credit losses, fair value of financial instruments and derivatives, goodwill and other intangibles and litigation and regulatory contingencies, as referenced below.

Critical accounting estimates	Reference
Allowance for credit losses	2020 Annual Report, pages 24-26, and “Allowance for credit losses.”
Fair value of financial instruments and derivatives	2020 Annual Report, pages 26-28.
Goodwill and other intangibles	2020 Annual Report, pages 28-29.
Litigation and regulatory contingencies	“Legal proceedings” in Note 17 of the Notes to Consolidated Financial Statements.

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, 2021, total assets were \$465 billion, compared with \$470 billion at Dec. 31, 2020. The decrease in total assets was primarily driven by lower interest-bearing deposits with the Federal Reserve and other central banks. Deposits totaled \$337 billion at March 31, 2021, compared with \$342 billion at

Dec. 31, 2020. The decrease reflects lower interest-bearing deposits in non-U.S. offices, partially offset by higher noninterest-bearing deposits (principally U.S. offices). Total interest-bearing deposits as a percentage of total interest-earning assets were 60% at March 31, 2021 and 63% at Dec. 31, 2020.

At March 31, 2021, available funds totaled \$184 billion, which include 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 \$196 billion at Dec. 31, 2020. Total available funds as a percentage of total assets were 39% at March 31, 2021 and 42% at Dec. 31, 2020. For additional information on our available funds, see “Liquidity and dividends.”

Securities were \$155.8 billion, or 34% of total assets, at March 31, 2021, compared with \$156.4 billion, or 33% of total assets, at Dec. 31, 2020. The decrease primarily reflects lower agency residential mortgage-backed securities (“RMBS”), foreign government agency, and U.S. government agency securities and a decrease in unrealized pre-tax gain, partially offset by increases in U.S. treasury and sovereign debt/sovereign guaranteed securities. For additional information on our securities portfolio, see “Securities” and Note 3 of the Notes to Consolidated Financial Statements.

Loans were \$60.7 billion, or 13% of total assets, at March 31, 2021, compared with \$56.5 billion, or 12% of total assets, at Dec. 31, 2020. The increase was primarily driven by higher margin loans and overdrafts. For additional information on our loan portfolio, see “Loans” and Note 4 of the Notes to Consolidated Financial Statements.

Long-term debt totaled \$25.4 billion at March 31, 2021 and \$26.0 billion at Dec. 31, 2020. A redemption, maturity and a decrease in the fair value of hedged long-term debt were partially offset by issuances. For additional information on long-term debt, see “Liquidity and dividends.”

The Bank of New York Mellon Corporation total shareholders’ equity decreased to \$45.0 billion at March 31, 2021 from \$45.8 billion at Dec. 31, 2020. 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, 2021, as well as certain countries with higher risk profiles, and is presented on an internal risk management basis. 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, 2021 (in billions)	Interest-bearing deposits					Total exposure
	Central banks	Banks	Lending (a)	Securities (b)	Other (c)	
Top 10 country exposure:						
United Kingdom ("UK")	\$ 17.6	\$ 0.4	\$ 1.3	\$ 3.5	\$ 2.8	\$ 25.6
Germany	17.6	0.7	0.7	4.3	0.5	23.8
Japan	18.4	1.0	—	0.6	0.1	20.1
Belgium	8.6	0.9	0.1	0.2	—	9.8
Canada	—	3.9	0.1	3.7	0.9	8.6
Netherlands	4.3	0.1	0.2	1.9	0.1	6.6
Luxembourg	2.4	0.1	0.2	0.1	2.3	5.1
China	—	2.5	1.7	—	0.1	4.3
Ireland	1.7	0.3	0.3	0.2	1.8	4.3
Australia	—	2.5	0.3	0.9	0.3	4.0
Total Top 10 country exposure	\$ 70.6	\$ 12.4	\$ 4.9	\$ 15.4	\$ 8.9	\$ 112.2 (d)
Select country exposure:						
Italy	\$ 0.1	\$ 0.3	\$ —	\$ 1.8	\$ —	\$ 2.2
Brazil	—	—	1.0	0.1	0.1	1.2
Total select country exposure	\$ 0.1	\$ 0.3	\$ 1.0	\$ 1.9	\$ 0.1	\$ 3.4

(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 75% of our total non-U.S. exposure.

Events in recent years have resulted in increased focus on Italy and Brazil. The country risk exposure to Italy primarily consists of investment grade sovereign debt. 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.

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 (dollars in millions)	Dec. 31, 2020	1Q21 change in unrealized gain (loss)	March 31, 2021		Fair value as a % of amortized cost (a)	Unrealized gain (loss)	% Floating rate (b)	Ratings (c)						
	Fair value		Amortized cost (a)	Fair value				AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/ A2 & SP-1	Not rated	
Agency RMBS	\$ 61,740	\$ (742)	\$ 58,107	\$ 58,831	101%	\$ 724	14%	100%	—%	—%	—%	—%	—%	—%
U.S. Treasury	26,958	(280)	30,412	30,595	101	183	55	100	—	—	—	—	—	—
Sovereign debt/sovereign guaranteed (d)	13,452	(83)	14,454	14,571	101	117	16	73	5	21	1	—	—	—
Agency commercial mortgage-backed securities (“MBS”)	11,685	(175)	11,484	11,730	102	246	33	100	—	—	—	—	—	—
Supranational	7,208	(31)	7,469	7,505	100	36	56	100	—	—	—	—	—	—
Foreign covered bonds (e)	6,725	(16)	6,491	6,542	101	51	34	100	—	—	—	—	—	—
U.S. government agencies	6,577	(110)	5,498	5,469	99	(29)	25	100	—	—	—	—	—	—
Collateralized loan obligations (“CLOs”)	4,703	6	4,751	4,754	100	3	100	99	—	—	—	—	—	1
Non-agency commercial MBS	2,992	(87)	2,907	2,948	101	41	24	99	1	—	—	—	—	—
Foreign government agencies (f)	4,132	(27)	2,678	2,697	101	19	14	92	8	—	—	—	—	—
State and political subdivisions	2,324	(55)	2,665	2,649	99	(16)	—	74	8	1	—	17	—	—
Other asset-backed securities (“ABS”)	3,164	(18)	2,617	2,628	100	11	19	100	—	—	—	—	—	—
Non-agency RMBS (g)	2,387	(7)	2,365	2,509	106	144	53	71	4	1	13	—	—	11
Corporate bonds	1,994	(100)	2,289	2,238	98	(51)	—	15	68	17	—	—	—	—
Commercial paper/ certificates of deposit (“CDs”)	249	—	—	—	—	—	—	—	—	—	—	—	—	—
Other	1	—	1	1	100	—	—	—	—	—	—	—	—	100
Total securities	\$ 156,291	(h) \$ (1,725)	\$ 154,188	\$ 155,667	(h) 101%	\$ 1,479	(h)(i) 30%	95%	2%	3%	—%	—%	—%	—%

(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, France, Italy, Spain, UK and Singapore.

(e) Primarily consists of exposure to Canada, UK, Australia and Norway.

(f) Primarily consists of exposure to the Netherlands, Canada, France and Sweden.

(g) Includes RMBS that were included in the former Grantor Trust of \$487 million at Dec. 31, 2020 and \$451 million at March 31, 2021.

(h) Includes net unrealized losses on derivatives hedging securities available-for-sale (including terminated hedges) of \$1,428 million at Dec. 31, 2020 and \$634 million at March 31, 2021.

(i) Includes unrealized gains of \$1,022 million at March 31, 2021 related to available-for-sale securities, net of hedges, and \$457 million related to held-to-maturity securities.

The fair value of our securities portfolio, including related hedges, was \$155.7 billion at March 31, 2021, compared with \$156.3 billion at Dec. 31, 2020. The decrease primarily reflects lower agency RMBS, foreign government agency, and U.S. government agency securities and a decrease in unrealized pre-tax gain, partially offset by increases in U.S. treasury and sovereign debt/sovereign guaranteed securities.

At March 31, 2021, the securities portfolio had a net unrealized gain, including the impact of related hedges, of \$1.5 billion, compared with \$3.2 billion at Dec. 31, 2020. The decrease in the net unrealized gain was primarily driven by higher market interest rates.

The fair value of the available-for-sale securities totaled \$107.2 billion at March 31, 2021, net of hedges, or 69% of the securities portfolio, net of hedges. The fair value of the held-to-maturity

securities totaled \$48.5 billion at March 31, 2021, or 31% of the securities portfolio, net of hedges.

The unrealized gain (after-tax) on our available-for-sale securities portfolio, net of hedges, included in accumulated other comprehensive income was \$776 million at March 31, 2021, compared with \$1.5 billion at Dec. 31, 2020. The decrease in the unrealized gain, net of tax, was primarily driven by higher market interest rates.

At March 31, 2021, 95% of the securities in our portfolio were rated AAA/AA-, unchanged compared with Dec. 31, 2020.

See Note 3 of the Notes to Consolidated Financial Statements for the pre-tax net securities gains (losses) by security type. See Note 14 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) related to the securities portfolio and accretible discount related to the 2009 restructuring of the securities portfolio.

Net premium amortization and discount accretion of securities (a)					
<i>(dollars in millions)</i>	1Q21	4Q20	3Q20	2Q20	1Q20
Amortizable purchase premium (net of discount) relating to securities:					
Balance at period-end	\$ 2,195	\$ 2,283	\$ 2,050	\$ 1,693	\$ 1,555
Estimated average life remaining at period-end <i>(in years)</i>	4.3	3.9	3.8	3.7	3.8
Amortization	\$ 189	\$ 181	\$ 161	\$ 125	\$ 101
Accretible discount related to the prior restructuring of the securities portfolio:					
Balance at period-end	\$ 121	\$ 130	\$ 133	\$ 145	\$ 159
Estimated average life remaining at period-end <i>(in years)</i>	5.9	5.6	5.7	5.8	6.1
Accretion	\$ 12	\$ 8	\$ 9	\$ 10	\$ 11

(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, 2021			Dec. 31, 2020		
	Loans	Unfunded commitments	Total exposure	Loans	Unfunded commitments	Total exposure
<i>(in billions)</i>						
Non-margin loans:						
Financial institutions	\$ 11.0	\$ 32.8	\$ 43.8	\$ 11.2	\$ 32.8	\$ 44.0
Commercial	1.4	12.3	13.7	1.4	12.7	14.1
Subtotal institutional	12.4	45.1	57.5	12.6	45.5	58.1
Wealth management loans and mortgages	16.6	1.4	18.0	16.4	1.1	17.5
Commercial real estate	5.9	3.5	9.4	6.1	3.2	9.3
Lease financings	1.0	—	1.0	1.0	—	1.0
Other residential mortgages	0.4	—	0.4	0.4	—	0.4
Overdrafts	4.8	—	4.8	2.7	—	2.7
Other	1.7	—	1.7	1.9	—	1.9
Subtotal non-margin loans	42.8	50.0	92.8	41.1	49.8	90.9
Margin loans	17.9	0.1	18.0	15.4	0.1	15.5
Total	\$ 60.7	\$ 50.1	\$ 110.8	\$ 56.5	\$ 49.9	\$ 106.4

At March 31, 2021, total lending-related exposure of \$110.8 billion increased 4% compared with Dec. 31, 2020, primarily reflecting higher margin loans and overdrafts.

Our financial institutions and commercial portfolios comprise our largest concentrated risk. These portfolios comprised 52% of our total exposure at March 31, 2021 and 55% at Dec. 31, 2020. 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, 2021						Dec. 31, 2020		
	Loans	Unfunded commitments	Total exposure	% Inv. grade	% due <1 yr.	Loans	Unfunded commitments	Total exposure	
Securities industry	\$ 2.3	\$ 21.3	\$ 23.6	98%	99%	\$ 2.3	\$ 21.6	\$ 23.9	
Asset managers	1.4	6.5	7.9	98	85	1.4	6.4	7.8	
Banks	6.4	1.1	7.5	85	96	6.7	1.1	7.8	
Insurance	0.1	3.0	3.1	100	19	0.1	2.8	2.9	
Government	0.1	0.2	0.3	100	44	0.1	0.2	0.3	
Other	0.7	0.7	1.4	96	65	0.6	0.7	1.3	
Total	\$ 11.0	\$ 32.8	\$ 43.8	96%	89%	\$ 11.2	\$ 32.8	\$ 44.0	

The financial institutions portfolio exposure was \$43.8 billion at March 31, 2021, a slight decrease compared with Dec. 31, 2020, primarily reflecting lower loans to the banks portfolio and lower unfunded commitments to the securities industry portfolio, partially offset by a higher unfunded commitments to the insurance portfolio.

Financial institution exposures are high-quality, with 96% of the exposures meeting the investment grade equivalent criteria of our internal credit rating classification at March 31, 2021. 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.

In addition, 73% 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 89% of the exposures expiring within one year. At both March 31, 2021 and Dec. 31, 2020, 18% of the exposure to financial institutions had an expiration within 90 days.

At March 31, 2021 and Dec. 31, 2020, the secured intraday credit provided to dealers in connection with their tri-party repo activity totaled \$18.2 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.

Our banks exposure primarily relates to our global trade finance. These exposures are short-term in nature, with 96% due in less than one year. The investment grade percentage of our banks exposure was 85% at both March 31, 2021 and Dec. 31, 2020. Our non-investment grade exposures are primarily trade finance loans in Brazil.

The asset managers portfolio exposure is high-quality, with 98% of the exposures meeting our investment grade equivalent ratings criteria as of March 31, 2021. These exposures are generally short-term liquidity facilities, with the majority to regulated mutual funds.

Commercial

The commercial portfolio is presented below.

Commercial portfolio exposure <i>(dollars in billions)</i>	March 31, 2021						Dec. 31, 2020		
	Loans	Unfunded commitments	Total exposure	% Inv. grade	% due <1 yr.	Loans	Unfunded commitments	Total exposure	
Manufacturing	\$ 0.4	\$ 4.0	\$ 4.4	95%	22%	\$ 0.5	\$ 4.1	\$ 4.6	
Energy and utilities	0.3	4.0	4.3	88	5	0.3	3.9	4.2	
Services and other	0.7	3.5	4.2	94	40	0.6	3.8	4.4	
Media and telecom	—	0.8	0.8	92	4	—	0.9	0.9	
Total	\$ 1.4	\$ 12.3	\$ 13.7	92%	21%	\$ 1.4	\$ 12.7	\$ 14.1	

The commercial portfolio exposure was \$13.7 billion at March 31, 2021, a decrease of 3% from Dec. 31, 2020, primarily driven by lower exposure to the manufacturing and services and other portfolios.

We have \$725 million of total direct exposure to the oil and gas industry at March 31, 2021, most of which is reflected in the energy and utilities portfolio in the table above. This exposure is to exploration and production, refining and integrated companies and was 66% investment grade at March 31, 2021 and Dec. 31, 2020.

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, 2021	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020
Financial institutions	96%	95%	95%	95%	96%
Commercial	92%	92%	93%	92%	94%

Wealth management loans and mortgages

Our wealth management exposure was \$18.0 billion at March 31, 2021, compared with \$17.5 billion at Dec. 31, 2020. Wealth management loans and mortgages primarily consist of loans to high-net-worth individuals, which are secured by marketable securities and/or residential property. Wealth management mortgages are primarily interest-only, adjustable-rate mortgages with a weighted-average loan-to-value ratio of 62% at origination. Less than 1% of the mortgages were past due at March 31, 2021.

At March 31, 2021, the wealth management mortgage portfolio consisted of the following geographic concentrations: California – 22%; New York – 16%; Massachusetts – 10%; Florida – 8%; and other – 44%.

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 <i>(in billions)</i>	March 31, 2021		Dec. 31, 2020	
	Total exposure	Percentage secured <i>(a)</i>	Total exposure	Percentage secured <i>(a)</i>
Residential	\$ 3.2	86%	\$ 3.3	86%
Office	2.7	76	2.8	75
Retail	0.9	58	1.0	52
Mixed-use	0.7	22	0.7	22
Hotels	0.6	20	0.6	20
Healthcare	0.5	22	0.4	25
Other	0.8	14	0.5	23
Total commercial real estate	\$ 9.4	63%	\$ 9.3	64%

(a) Represents the amount of secured exposure in each asset class.

Our commercial real estate exposure totaled \$9.4 billion at March 31, 2021 and \$9.3 billion at Dec. 31, 2020. 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, 2021, the unsecured portfolio consisted of real estate investment trusts (“REITs”) and real estate operating companies, which are both primarily investment grade.

At March 31, 2021, our commercial real estate portfolio consisted of the following concentrations: New York metro – 39%; REITs and real estate operating companies – 37%; and other – 24%.

Lease financings

The lease financings portfolio exposure totaled \$1.0 billion at both March 31, 2021 and Dec. 31, 2020. At March 31, 2021, approximately 98% of leasing exposure was investment grade, or investment grade equivalent and consisted of exposures backed by well-diversified assets, primarily large-ticket transportation equipment and real estate. The largest component of our lease residual value exposure is

freight-related rail cars. Assets are both domestic and foreign-based, with primary concentrations in the U.S. and Germany.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled \$364 million at March 31, 2021 and \$389 million at Dec. 31, 2020. Included in this portfolio at March 31, 2021 were \$63 million of mortgage loans purchased in 2005, 2006 and the first quarter of 2007.

Overdrafts

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

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 \$18.0 billion at March 31, 2021 and \$15.5 billion at Dec. 31, 2020 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 \$6.1 billion at March 31, 2021 and \$4.6 billion at Dec. 31, 2020 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 <i>(dollars in millions)</i>	March 31, 2021	Dec. 31, 2020	March 31, 2020
Beginning balance of allowance for credit losses	\$ 501	\$ 486	\$ 216
Impact of adopting ASU 2016-13	N/A	N/A	(55) <i>(a)</i>
Provision for credit losses	(83)	15	169
Net recoveries (charge-offs):			
Loans:			
Other residential mortgages	2	—	—
Wealth management loans and mortgages	(1)	—	—
Other financial instruments	—	—	(1)
Net recoveries (charge-offs)	1	—	(1)
Ending balance of allowance for credit losses	\$ 419	\$ 501	\$ 329
Allowance for loan losses	\$ 327	\$ 358	\$ 140
Allowance for lending-related commitments	73	121	148
Allowance for financial instruments <i>(b)</i>	19	22	41
Total allowance for credit losses	\$ 419	\$ 501	\$ 329
Non-margin loans	\$42,839	\$ 41,053	\$ 49,253
Margin loans	17,893	15,416	13,115
Total loans	\$60,732	\$ 56,469	\$ 62,368
Allowance for loan losses as a percentage of total loans	0.54%	0.63%	0.22%
Allowance for loan losses as a percentage of non-margin loans	0.76	0.87	0.28
Allowance for loan losses and lending-related commitments as a percentage of total loans	0.66	0.85	0.46
Allowance for loan losses and lending-related commitments as a percentage of non-margin loans	0.93	1.17	0.58

(a) In 2020, we adopted new accounting guidance included in ASU 2016-13, Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments. Includes the reclassification of credit-related reserves on accounts receivable of \$4 million.

(b) 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.

N/A – Not applicable.

The provision for credit losses was a benefit of \$83 million in the first quarter of 2021, primarily driven by an improved macroeconomic forecast.

We had \$17.9 billion of secured margin loans on our balance sheet at March 31, 2021 compared with \$15.4 billion at Dec. 31, 2020. We have rarely suffered a loss on these types of loans. As a result, we believe that the ratio of allowance for loan losses and lending-related commitments as a percentage of non-margin loans is a more appropriate metric to measure the adequacy of the reserve.

The allowance for loan losses and 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 2020 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	March 31, 2021	Dec. 31, 2020	March 31, 2020
Commercial real estate	91%	89%	72%
Commercial	2	3	9
Financial institutions	2	2	6
Other residential mortgages	2	3	5
Wealth management (a)	2	2	3
Lease financings	1	1	5
Total	100%	100%	100%

(a) Includes the allowance for credit losses on wealth management mortgages.

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 in 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 each credit were rated one grade better, the quantitative allowance would have decreased by \$123 million, and if each credit were rated one grade worse, the quantitative allowance would have increased by \$139 million. Our multi-scenario based macroeconomic forecast used in determining the March 31, 2021 allowance for credit losses consisted of three scenarios. The baseline scenario reflects moderate and flat GDP growth and unemployment recovery but with declining commercial real estate prices that begin to recover later in 2021. The upside scenario reflects faster GDP growth and unemployment recovery and less severe commercial real estate declines than the baseline. The downside scenario contemplates negative GDP growth and increasing unemployment throughout 2021 and steeper declines in commercial real estate prices than the baseline. Consistent with the fourth quarter of 2020, we placed the most weight on our baseline scenario, with the remaining weighting resulting in slightly more weight placed on the downside scenario than the upside scenario. From a sensitivity perspective, at March 31, 2021, if we had

applied 100% weighting to the downside scenario, the quantitative allowance for credit losses would have been approximately \$190 million higher.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets (dollars in millions)	March 31, 2021	Dec. 31, 2020
Nonperforming loans:		
Other residential mortgages	\$ 56	\$ 57
Wealth management loans and mortgages	28	30
Commercial real estate	26	1
Total nonperforming loans	110	88
Other assets owned	2	1
Total nonperforming assets	\$ 112	\$ 89
Nonperforming assets ratio	0.18%	0.16%
Nonperforming assets ratio, excluding margin loans	0.26	0.22
Allowance for loan losses/nonperforming loans	297.3	406.8
Allowance for loan losses/nonperforming assets	292.0	402.2
Total allowance for credit losses/nonperforming loans	363.6	544.3
Total allowance for credit losses/nonperforming assets	357.1	538.2

Nonperforming assets increased \$23 million compared with Dec. 31, 2020, primarily reflecting an increase in nonperforming loans in the commercial real estate portfolio.

Lost interest

Interest revenue would have increased by \$1 million in the first quarter of 2021, fourth quarter of 2020 and first quarter of 2020, if nonperforming loans at period-end had been performing for the entire respective periods.

Loan modifications

Due to the coronavirus pandemic, there have been two forms of relief provided for classifying loans as troubled debt restructurings ("TDRs"): The Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act"), the relevant provisions of which were extended by the Consolidated Appropriations Act, 2021, and the Interagency Guidance. See Note 1 of the Notes to Consolidated Financial Statements of our 2020 Annual Report for additional details on this guidance. Financial institutions may account for eligible loan modifications either under the CARES

Act or the Interagency Guidance and we have elected to apply both, as applicable, in providing borrowers with loan modification relief in response to the coronavirus pandemic. We modified loans of \$6 million in the first quarter of 2021, less than \$1 million in the first quarter of 2020 and \$16 million in the fourth quarter of 2020. Nearly all of the modifications were short-term loan payment forbearances or modified principal and/or interest payments. These loans were primarily residential mortgage and commercial real estate loans. We also modified \$14 million of commercial real estate loans in the first quarter of 2021 by providing payment modifications and an extension of maturity. We did not identify any of the modifications as TDRs. At March 31, 2021, the unpaid principal balance of the loans modified under the CARES Act or Interagency Guidance was \$91 million.

Deposits

Total deposits were \$336.8 billion at March 31, 2021, a decrease of 1%, compared with \$341.5 billion at Dec. 31, 2020. The decrease primarily reflects lower interest-bearing deposits in non-U.S. offices, partially offset by higher noninterest-bearing deposits (principally U.S. offices).

Noninterest-bearing deposits were \$95.3 billion at March 31, 2021 compared with \$83.8 billion at Dec. 31, 2020. Interest-bearing deposits were \$241.5 billion at March 31, 2021, compared with \$257.7 billion at Dec. 31, 2020.

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.

Information related to federal funds purchased and securities sold under repurchase agreements is presented below.

<i>(dollars in millions)</i>	Federal funds purchased and securities sold under repurchase agreements		
	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
Maximum month-end balance during the quarter	\$15,863	\$15,479	\$16,644
Average daily balance (a)	\$15,288	\$14,452	\$13,919
Weighted-average rate during the quarter (a)	(0.07)%	0.01%	7.96%
Ending balance (b)	\$15,150	\$11,305	\$13,128
Weighted-average rate at period end (b)	(0.12)%	(0.03)%	3.93%

- (a) Includes the average impact of offsetting under enforceable netting agreements of \$37,377 million in the first quarter of 2021, \$40,641 million in the fourth quarter of 2020 and \$80,216 million in the first quarter of 2020. On a Non-GAAP basis, excluding the impact of offsetting, the weighted-average rates would have been (0.02)% for the first quarter of 2021, 0.00% for the fourth quarter of 2020 and 1.18% for the first quarter of 2020. We believe providing the rates excluding the impact of netting is useful to investors as it is more reflective of the actual rates paid.
- (b) Includes the impact of offsetting under enforceable netting agreements of \$33,544 million at March 31, 2021, \$59,561 million at Dec. 31, 2020 and \$80,203 million at March 31, 2020.

Fluctuations of federal funds purchased and securities sold under repurchase agreements reflect changes in overnight borrowing opportunities. The decrease of the weighted-average rates compared with March 31, 2020 primarily reflects lower interest rates and repurchase agreement activity with the Fixed Income Clearing Corporation (the "FICC"), where we record interest expense gross, 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.

Information related to payables to customers and broker-dealers is presented below.

Payables to customers and broker-dealers	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
<i>(dollars in millions)</i>			
Maximum month-end balance during the quarter	\$25,124	\$25,085	\$24,016
Average daily balance (a)	\$24,772	\$23,589	\$20,629
Weighted-average rate during the quarter (a)	(0.01)%	(0.01)%	0.73%
Ending balance	\$23,827	\$25,085	\$24,016
Weighted-average rate at period end	(0.01)%	(0.01)%	0.28%

(a) The weighted-average rate is calculated based on, and is applied to, the average interest-bearing payables to customers and broker-dealers, which were \$17,691 million in the first quarter of 2021, \$17,521 million in the fourth quarter of 2020 and \$16,386 million in the first quarter of 2020.

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.

Information related to commercial paper is presented below.

Commercial paper	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
<i>(dollars in millions)</i>			
Maximum month-end balance during the quarter	\$ —	\$ 450	\$ 3,379
Average daily balance	\$ —	\$ 275	\$ 1,581
Weighted-average rate during the quarter	—%	0.10%	1.56%
Ending balance	\$ —	\$ —	\$ 1,121
Weighted-average rate at period end	—%	—%	1.57%

The Bank of New York Mellon is authorized to 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. The decrease in the commercial paper compared with March 31, 2020 primarily reflects the continuation of elevated deposit levels.

Information related to other borrowed funds is presented below.

Other borrowed funds	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
<i>(dollars in millions)</i>			
Maximum month-end balance during the quarter	\$ 348	\$ 505	\$ 1,544
Average daily balance	\$ 331	\$ 338	\$ 719
Weighted-average rate during the quarter	2.01%	1.71%	2.27%
Ending balance	\$ 348	\$ 350	\$ 1,544
Weighted-average rate at period end	2.05%	0.79%	2.01%

Other borrowed funds primarily include overdrafts of sub-custodian account balances in our Investment Services businesses, finance lease liabilities, borrowings under lines of credit by our Pershing subsidiaries and borrowings from the Federal Home Loan Bank. Borrowings from the Federal Reserve Bank of Boston under the Money Market Mutual Fund Liquidity Facility (the “MMLF”) program are also included in other borrowed funds at Dec. 31, 2020 and March 31, 2020. Overdrafts typically relate to timing differences for settlements. The decreases in other borrowed funds compared with March 31, 2020 and Dec. 31, 2020 reflect lower overdrafts of sub-custodian account balances in our Investment Services businesses. The decrease in other borrowed funds compared with March 31, 2020 also reflects a decline in borrowings from the Federal Reserve Bank of Boston under the MMLF program and the Federal Home Loan Bank.

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 2020 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, 2021, 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, 2021	Dec. 31, 2020	Average		
			1Q21	4Q20	1Q20
Cash and due from banks	\$ 5,991	\$ 6,252	\$ 5,720	\$ 4,993	\$ 4,595
Interest-bearing deposits with the Federal Reserve and other central banks	125,524	141,775	125,930	112,274	80,403
Interest-bearing deposits with banks	23,763	17,300	21,313	19,281	17,081
Federal funds sold and securities purchased under resale agreements	28,263	30,907	29,186	28,389	34,109
Total available funds	\$183,541	\$196,234	\$182,149	\$164,937	\$136,188
Total available funds as a percentage of total assets	39%	42%	40%	38%	35%

Total available funds were \$183.5 billion at March 31, 2021, compared with \$196.2 billion at Dec. 31, 2020. The decrease was primarily due to lower interest-bearing deposits with the Federal Reserve and other central banks.

Average non-core sources of funds, such as federal funds purchased and securities sold under repurchase agreements, trading liabilities, commercial paper and other borrowed funds, were \$17.8 billion for both the first three months of 2021 and the first three months of 2020.

Average foreign deposits, primarily from our European-based Investment Services business, were \$116.6 billion for the first three months of 2021, compared with \$97.7 billion for the first three months of 2020. Average interest-bearing domestic deposits were \$128.5 billion for the first three months of 2021 and \$99.9 billion for the first three months of 2020.

The increase primarily reflects increased client activity.

Average payables to customers and broker-dealers were \$17.7 billion for the first three months of 2021 and \$16.4 billion for the first three months of 2020. Payables to customers and broker-dealers are driven by customer trading activity and market volatility.

Average long-term debt was \$26.2 billion for the first three months of 2021 and \$27.2 billion for the first three months of 2020.

Average noninterest-bearing deposits increased to \$83.4 billion for the first three months of 2021 from \$60.6 billion for the first three months of 2020, primarily reflecting client activity.

A significant reduction in our Investment Services business 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, 2021				
	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 \$25.4 billion at March 31, 2021 and \$26.0 billion at Dec. 31, 2020. A redemption of \$1.0 billion, a maturity of \$500 million and a decrease in the fair value of hedged long-term debt were partially offset by issuances of \$1.2 billion. The Parent has \$2.75 billion of long-term debt that will mature in the remainder of 2021.

In April 2021, the Parent redeemed \$1.25 billion of the outstanding 2.050% senior notes due May 2021 at par plus accrued and unpaid interest.

In April 2021, the Parent issued \$600 million of fixed rate senior notes maturing in 2024 at an annual interest rate of 0.50%, \$500 million of fixed rate senior notes maturing in 2028 at an annual interest rate of 1.65% and \$400 million of floating rate senior notes maturing in 2024 at an annual interest rate of the compounded secured overnight financing rate (“SOFR”) plus 26 basis points.

The Bank of New York Mellon may issue notes and CDs. At March 31, 2021 and Dec. 31, 2020, \$30 million of notes were outstanding. There were no CDs outstanding at March 31, 2021 and \$100 million outstanding at Dec. 31, 2020.

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, 2021 and Dec. 31, 2020. The average commercial paper outstanding was \$1.6 billion for the first three months of 2020.

Subsequent to March 31, 2021, our U.S. bank subsidiaries could declare dividends to the Parent of approximately \$1.9 billion, without the need for a regulatory waiver. In addition, at March 31, 2021, non-bank subsidiaries of the Parent had liquid assets of approximately \$3.6 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 2020 Annual Report.

Pershing LLC has uncommitted lines of credit in place for liquidity purposes which are guaranteed by the Parent. Pershing LLC has two separate uncommitted lines of credit amounting to \$350 million in aggregate. There were no borrowings under these lines in the first quarter of 2021. Pershing Limited, an indirect UK-based subsidiary of BNY Mellon, has two separate uncommitted lines of credit amounting to \$267 million in aggregate. Average borrowings under these lines were \$71 million, in aggregate, in the first quarter of 2021.

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 83% of total revenue in the first quarter of 2021, and the dividend capacity of our banking subsidiaries. Our double leverage ratio was 115.7% at March 31, 2021 and 114.3% at Dec. 31, 2020, 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 2021, a quarterly dividend of \$0.31 per common share was paid to common shareholders. Our common stock dividend payout ratio was 32% for the first quarter of 2021.

In the first quarter of 2021, we repurchased 16.8 million common shares at an average price of \$41.68 per common share, for a total cost of \$699 million.

See “Recent regulatory developments” for additional information on the modified restrictions on common stock repurchases and common stock dividends applicable to the first and second quarters of 2021. Also see “Supervision and Regulation – Capital Planning and Stress Testing – Payment of Dividends, Stock Repurchases and Other Capital Distributions” in our 2020 Annual Report for additional information related to the 2020 CCAR.

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, 2021, and the average HQLA and average LCR for the first quarter of 2021.

Consolidated HQLA and LCR <i>(dollars in billions)</i>	March 31, 2021
Securities (a)	\$ 120
Cash (b)	126
Total consolidated HQLA (c)	\$ 246
Total consolidated HQLA – average (c)	\$ 243
Average LCR	110%

- (a) *Primarily includes securities of U.S. government-sponsored enterprises, U.S. Treasury, sovereign securities, U.S. agency and investment-grade corporate debt.*
- (b) *Primarily includes cash on deposit with central banks.*
- (c) *Consolidated HQLA presented before adjustments. After haircuts and the impact of trapped liquidity, consolidated HQLA totaled \$182 billion at March 31, 2021 and averaged \$176 billion for the first quarter of 2021.*

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 2021.

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 used for operating activities was \$3.2 billion in the three months ended March 31, 2021, compared with \$1.7 billion in the three months ended March 31, 2020. In the three months ended March 31, 2021 cash flows used for operations primarily resulted from changes in trading assets and liabilities and change in accruals and other, net, partially offset by earnings. In the three months ended March 31, 2020, cash flows used for operations primarily resulted from changes in accruals and other, net, partially offset by earnings and changes in trading assets and liabilities.

Net cash provided by investing activities was \$4.7 billion in the three months ended March 31, 2021,

compared with net cash used for investing activities of \$78.6 billion in the three months ended March 31, 2020. In the three months ended March 31, 2021, net cash provided by investing activities primarily reflects changes in interest-bearing deposits with the Federal Reserve and other central banks, partially offset by changes in interest-bearing deposits with banks and net change in loans. In the three months ended March 31, 2020, net cash used for investing activities primarily reflects changes in interest-bearing deposits with the Federal Reserve and other central banks and net changes in securities, loans and interest-bearing deposits with banks.

Net cash used for financing activities was \$1.5 billion in the three months ended March 31, 2021, compared with net cash provided by financing activities of \$82.9 billion in the three months ended March 31, 2020. In the three months ended March 31, 2021, net cash used for financing activities primarily reflects changes in deposits, repayments of long-term debt and changes in payables to customers and broker-dealers, partially offset by changes in federal funds purchased and securities sold under repurchased agreements. In the three months ended March 31, 2020, net cash provided by financing activities primarily reflects changes in deposits.

Capital

Capital data <i>(dollars in millions, except per share amounts; common shares in thousands)</i>	March 31, 2021	Dec. 31, 2020
Average common equity to average assets	8.8%	9.3%
At period end:		
BNY Mellon shareholders' equity to total assets ratio	9.7%	9.8%
BNY Mellon common shareholders' equity to total assets ratio	8.7%	8.8%
Total BNY Mellon shareholders' equity	\$ 44,954	\$ 45,801
Total BNY Mellon common shareholders' equity	\$ 40,413	\$ 41,260
BNY Mellon tangible common shareholders' equity – Non-GAAP (a)	\$ 21,779	\$ 22,563
Book value per common share	\$ 46.16	\$ 46.53
Tangible book value per common share – Non-GAAP (a)	\$ 24.88	\$ 25.44
Closing stock price per common share	\$ 47.29	\$ 42.44
Market capitalization	\$ 41,401	\$ 37,634
Common shares outstanding	875,481	886,764
Cash dividends per common share	\$ 0.31	\$ 0.31
Common dividend payout ratio	32%	39%
Common dividend yield	2.7%	2.9%

(a) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 42 for a reconciliation of GAAP to Non-GAAP.

The Bank of New York Mellon Corporation total shareholders' equity decreased to \$45.0 billion at March 31, 2021 from \$45.8 billion at Dec. 31, 2020. The decrease primarily reflects unrealized losses on securities available-for-sale, common stock repurchases and dividends, partially offset by earnings.

The unrealized gain (after-tax) on our available-for-sale securities portfolio, net of hedges, included in accumulated other comprehensive income was \$776 million at March 31, 2021, compared with \$1.5 billion at Dec. 31, 2020. The decrease in the unrealized gain, net of tax, was primarily driven by higher market interest rates.

In the first quarter of 2021, we repurchased 16.8 million common shares at an average price of \$41.68 per common share for a total of \$699 million under the current program.

In December 2020, the Federal Reserve released the results of the second round of CCAR stress tests during 2020 and extended the restriction on common stock dividends and open market common stock repurchases applicable to participating CCAR BHCs, including us, to the first quarter of 2021, with certain modifications. In March 2021, the Federal Reserve extended these restrictions through the second quarter of 2021. Under the modified restrictions, we are authorized to conduct open market common stock repurchases in an amount up to approximately \$600 million in the second quarter of 2021. See "Recent regulatory developments" for additional information on the restrictions on capital distributions.

Capital adequacy

Regulators establish certain levels of capital for 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 ("FHC"), our U.S. bank subsidiaries and BNY Mellon must, among other things, qualify as "well capitalized." As of March 31, 2021 and Dec. 31, 2020, 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 – Operational 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 2020 Annual Report.

The U.S. banking agencies' capital rules are based on the framework adopted by the Basel Committee on Banking Supervision ("BCBS"), as amended from time to time. For additional information on these capital requirements, see "Supervision and Regulation" in our 2020 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, 2021			Dec. 31, 2020
	Well capitalized	Minimum required (a)	Capital ratios	Capital ratios
Consolidated regulatory capital ratios: (b)				
Advanced Approaches:				
CET1 ratio	N/A (c)	8.5%	12.6%	13.1%
Tier 1 capital ratio	6%	10	15.3	15.8
Total capital ratio	10	12	16.1	16.7
Standardized Approach:				
CET1 ratio	N/A (c)	8.5%	12.6%	13.4%
Tier 1 capital ratio	6%	10	15.2	16.1
Total capital ratio	10	12	16.2	17.1
Tier 1 leverage ratio	N/A (c)	4	5.8	6.3
SLR (d)(e)	N/A (c)	5	8.1	8.6
The Bank of New York Mellon regulatory capital ratios: (b)				
Advanced Approaches:				
CET1 ratio	6.5%	7%	16.8%	17.1%
Tier 1 capital ratio	8	8.5	16.8	17.1
Total capital ratio	10	10.5	17.0	17.3
Tier 1 leverage ratio	5	4	6.1	6.4
SLR (d)	6	3	8.2	8.5

(a) Minimum requirements for March 31, 2021 include minimum thresholds plus currently applicable buffers. The U.S. global systemically important banks (“G-SIB”) surcharge of 1.5% is subject to change. 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.

(e) The consolidated SLR at March 31, 2021 and Dec. 31, 2020 reflects the temporary exclusion of U.S. Treasury securities from total leverage exposure which increased our consolidated SLR by 68 basis points and 72 basis points, respectively. The temporary exclusion ceased to apply beginning April 1, 2021.

Our CET1 ratio was 12.6% at March 31, 2021 determined under the Standardized Approach and was 13.1% at Dec. 31, 2020 under the Advanced Approaches. The decrease primarily reflects unrealized losses on securities available-for-sale, capital deployed through common stock repurchases and dividends and an increase in RWAs under the Standardized Approach, partially offset by capital generated through earnings.

Capital ratios vary depending on the size of the balance sheet at period-end and the levels and types of investments in assets. 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 <i>(in millions)</i>	March 31, 2021	Dec. 31, 2020
CET1:		
Common shareholders' equity	\$ 40,413	\$ 41,260
Adjustments for:		
Goodwill and intangible assets <i>(a)</i>	(18,634)	(18,697)
Net pension fund assets	(321)	(319)
Equity method investments	(307)	(306)
Deferred tax assets	(53)	(54)
Other	(8)	(9)
Total CET1	21,090	21,875
Other Tier 1 capital:		
Preferred stock	4,541	4,541
Other	(97)	(106)
Total Tier 1 capital	\$ 25,534	\$ 26,310
Tier 2 capital:		
Subordinated debt	\$ 1,248	\$ 1,248
Allowance for credit losses	409	490
Other	(1)	(10)
Total Tier 2 capital – Standardized Approach	1,656	1,728
Excess of expected credit losses	127	247
Less: Allowance for credit losses	409	490
Total Tier 2 capital – Advanced Approaches	\$ 1,374	\$ 1,485
Total capital:		
Standardized Approach	\$ 27,190	\$ 28,038
Advanced Approaches	\$ 26,908	\$ 27,795
Risk-weighted assets:		
Standardized Approach	\$ 167,510	\$ 163,848
Advanced Approaches:		
Credit Risk	\$ 99,398	\$ 98,262
Market Risk	3,599	4,226
Operational Risk	64,038	63,938
Total Advanced Approaches	\$ 167,035	\$ 166,426

Average assets for Tier 1 leverage ratio	\$ 440,968	\$ 417,982
Total leverage exposure for SLR	\$ 314,334	\$ 304,823

(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 <i>(in millions)</i>	1Q21
CET1 – Beginning of period	\$ 21,875
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	858
Goodwill and intangible assets, net of related deferred tax liabilities	63
Gross CET1 generated	921
Capital deployed:	
Common stock dividends <i>(a)</i>	(277)
Common stock repurchases	(699)
Total capital deployed	(976)
Other comprehensive income:	
Unrealized loss on assets available-for-sale	(703)
Foreign currency translation	(150)
Unrealized loss on cash flow hedges	(3)
Defined benefit plans	22
Total other comprehensive income	(834)
Additional paid-in capital <i>(b)</i>	105
Other additions (deductions):	
Net pension fund assets	(2)
Embedded goodwill	(1)
Deferred tax assets	1
Other	1
Total other deductions	(1)
Net CET1 deployed	(785)
CET1 – End of period	\$ 21,090

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

(b) Primarily related to stock awards, the exercise of stock options and stock issued for employee benefit plans.

The following table shows the impact on the consolidated capital ratios at March 31, 2021 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, 2021 <i>(in basis points)</i>	Increase or decrease of	
	\$100 million in common equity	\$1 billion in RWA, quarterly average assets or total leverage exposure
CET1:		
Standardized Approach	6 bps	8 bps
Advanced Approaches	6	8
Tier 1 capital:		
Standardized Approach	6	9
Advanced Approaches	6	9
Total capital:		
Standardized Approach	6	10
Advanced Approaches	6	10
Tier 1 leverage	2	1
SLR	3	3

Effective April 1, 2020 and lasting through March 31, 2021, BHCs were permitted to temporarily exclude U.S. Treasury securities from total leverage exposure used in the SLR calculation. This temporary exclusion increased our consolidated SLR by 68 basis points at March 31, 2021 and 72 basis points at Dec. 31, 2020. The temporary exclusion also impacted the TLAC and LTD calculations. BNY Mellon and The Bank of New York Mellon, as custody banks, will continue to be able to exclude certain central bank placements from the total leverage exposure used in the SLR calculation, consistent with the amendments to the SLR finalized by the U.S. banking agencies in 2019 pursuant to the Economic Growth, Regulatory Relief, and Consumer Protection Act. See “Recent regulatory developments” for additional information.

Stress capital buffer

In August 2020, the Federal Reserve announced that BNY Mellon’s SCB requirement would be 2.5%, equal to the regulatory floor, effective as of Oct. 1, 2020. The SCB replaces the current 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.

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. In conjunction with the release of the 2020 CCAR results, the Federal Reserve imposed restrictions on capital distributions as described earlier in “Capital” and “Recent regulatory developments.”

Total Loss-Absorbing Capacity (“TLAC”)

The final TLAC rule establishing external TLAC, external long-term debt (“LTD”) and related requirements for U.S. G-SIBs, including BNY Mellon, at the top-tier holding company level became effective on Jan. 1, 2019. The following summarizes the minimum requirements for BNY Mellon’s external TLAC and external 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 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, 2021		
	Minimum required	Minimum ratios with buffers	Ratios
Eligible external TLAC:			
As a percentage of RWA	18.0%	21.5%	27.5%
As a percentage of total leverage exposure	7.5%	9.5%	14.6%
Eligible external LTD:			
As a percentage of RWA	7.5%	N/A	11.4%
As a percentage of total leverage exposure	4.5%	N/A	6.1%

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 account of potential variability of market liquidity; and
- Previous moves in market risk factors may not produce accurate predictions of all future market moves.

See Note 16 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) (in millions)	1Q21			March 31, 2021
	Average	Minimum	Maximum	
Interest rate	\$ 2.1	\$ 1.6	\$ 2.7	\$ 2.5
Foreign exchange	2.7	2.2	3.9	3.0
Equity	0.1	0.1	0.9	0.1
Credit	1.8	1.3	2.8	2.2
Diversification	(3.5)	N/M	N/M	(4.3)
Overall portfolio	3.2	2.5	4.9	3.5

VaR (a) (in millions)	4Q20			Dec. 31, 2020
	Average	Minimum	Maximum	
Interest rate	\$ 2.2	\$ 1.8	\$ 3.0	\$ 1.8
Foreign exchange	2.5	1.9	3.6	3.0
Equity	0.1	—	0.7	0.7
Credit	1.8	1.2	2.7	2.1
Diversification	(3.1)	N/M	N/M	(3.7)
Overall portfolio	3.5	2.3	4.7	3.9

VaR (a) (in millions)	1Q20			March 31, 2020
	Average	Minimum	Maximum	
Interest rate	\$ 4.9	\$ 3.2	\$ 11.3	\$ 5.1
Foreign exchange	3.1	1.7	6.3	4.5
Equity	1.4	0.8	2.3	0.9
Credit	3.4	1.2	12.1	9.8
Diversification	(6.4)	N/M	N/M	(9.9)
Overall portfolio	6.4	3.5	14.3	10.4

(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, 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 2021, interest rate risk generated 31% of average gross VaR, foreign exchange risk generated 40% of average gross VaR, equity risk generated 2% of average gross VaR and credit risk generated 27% of average gross VaR. During the first quarter of 2021, 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) <i>(dollars in millions)</i>	Quarter ended				
	March 31, 2021	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020
Revenue range:	Number of days				
Less than \$(2.5)	—	2	4	6	—
\$(2.5) – \$0	6	12	10	12	3
\$0 – \$2.5	17	11	23	17	19
\$2.5 – \$5.0	21	26	16	15	19
More than \$5.0	17	11	12	14	21

(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 interest rate and foreign exchange contracts, not designated as hedging instruments. Trading assets were \$16.9 billion at March 31, 2021 and \$15.3 billion at Dec. 31, 2020.

Trading liabilities include debt and equity instruments and derivative liabilities, primarily interest rate and foreign exchange contracts, not designated as hedging instruments. Trading liabilities were \$4.6 billion at March 31, 2021 and \$6.0 billion at Dec. 31, 2020.

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, 2021, our OTC derivative assets, including those in hedging relationships, of \$3.5 billion included a credit valuation adjustment (“CVA”) deduction of \$24 million. Our OTC derivative liabilities, including those in hedging relationships, of \$2.9 billion included a debit valuation adjustment (“DVA”) of \$2 million related to our own credit spread. Net of hedges, the CVA increased \$1 million and the DVA decreased by less than \$1 million in the first quarter of 2021, which decreased other trading revenue by \$1 million. The net impact increased other trading revenue by less than \$1 million in the fourth quarter of 2020 and increased other trading revenue by \$4 million in the first quarter of 2020.

The table below summarizes the distribution of credit ratings for our foreign exchange and interest rate derivative counterparties over the past five quarters, which indicates the level of counterparty credit associated with these trading activities. 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 (a)	Quarter ended				
	March 31, 2021	Dec. 31, 2020	Sept. 30, 2020	June 30, 2020	March 31, 2020
Rating:					
AAA to AA-	45%	46%	54%	56%	56%
A+ to A-	26	28	20	18	24
BBB+ to BBB-	22	18	17	18	14
BB+ and lower (b)	7	8	9	8	6
Total	100%	100%	100%	100%	100%

(a) Represents credit rating agency equivalent of internal credit ratings.

(b) Non-investment grade.

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. The model incorporates management's assumptions regarding interest rates, market spreads, changes in the prepayment behavior of loans and securities and the impact of derivative financial instruments used for interest rate risk management purposes. 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.

In the table below, we use the earnings simulation model to run various interest rate ramp scenarios from a baseline scenario. The interest rate ramp scenarios examine the impact of large interest rate movements. In each scenario, all currencies' interest rates are shifted higher or lower. Typically, the baseline scenario uses the average deposit balances of the last month of the quarter. However, during the months of December 2020 and March 2020, we experienced a significant increase in deposits and a corresponding increase in central bank placements. To normalize the analysis, we used the fourth and first quarter 2020 averages, respectively, for these balances. The 100 basis point ramp scenario assumes rates change 25 basis points above or below the yield curve in each of the next four quarters and the 200 basis point ramp scenario assumes a 50 basis point per quarter change. 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 net interest revenue sensitivity methodology assumes static deposit levels

and also assumes that no management actions will be taken to mitigate the effects of interest rate changes.

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

Estimated changes in net interest revenue (in millions)	March 31, 2021	Dec. 31, 2020	March 31, 2020
Up 200 bps parallel rate ramp vs. baseline (a)	\$ 1,024	\$ 826	\$ 557
Up 100 bps parallel rate ramp vs. baseline (a)	551	449	334
Down 100 bps parallel rate ramp vs. baseline (a)	384	411	100
Long-term up 50 bps, short-term unchanged (b)	120	125	166
Long-term down 50 bps, short-term unchanged (b)	(116)	(144)	(158)

(a) In the parallel rate ramp, both short-term and long-term rates move in four equal quarterly increments.

(b) Long-term is equal to or greater than one year.

The increases in the scenarios compared with Dec. 31, 2020 and March 31, 2020 are primarily driven by increased deposits.

While the net interest revenue sensitivity scenarios calculations assume static deposit balances to facilitate consistent period-over-period comparisons, it is likely that a portion of the recent monetary policy-driven deposit inflows would run-off in rising rate environments, such as the up 100 bps and up 200 bps parallel ramps. Noninterest-bearing deposits are particularly sensitive to changes in short-term rates.

To illustrate the net interest revenue sensitivity to deposit runoff, we note that a \$5 billion instantaneous reduction of U.S. dollar denominated noninterest-bearing deposits would reduce the net interest revenue sensitivity results in the ramp up 100 basis point and 200 basis point scenarios in the table above by approximately \$30 million and approximately \$65 million, respectively. The impact would be smaller if the runoff was assumed to be a mixture of interest-bearing and noninterest-bearing deposits.

For a discussion of factors impacting the growth or contraction of deposits, see "Risk Factors – Our business, financial condition and results of operations could be adversely affected if we do not effectively manage our liquidity," in our 2020 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 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 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, 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 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			
<i>(dollars in millions)</i>	1Q21	4Q20	1Q20
Net income applicable to common shareholders of The Bank of New York Mellon Corporation – GAAP	\$ 858	\$ 702	\$ 944
Add: Amortization of intangible assets	24	26	26
Less: Tax impact of amortization of intangible assets	6	6	6
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation, excluding amortization of intangible assets – Non-GAAP	\$ 876	\$ 722	\$ 964
Average common shareholders' equity	\$ 40,720	\$ 40,712	\$ 37,664
Less: Average goodwill	17,494	17,411	17,311
Average intangible assets	3,000	3,019	3,089
Add: Deferred tax liability – tax deductible goodwill	1,153	1,144	1,109
Deferred tax liability – intangible assets	665	667	666
Average tangible common shareholders' equity – Non-GAAP	\$ 22,044	\$ 22,093	\$ 19,039
Return on common shareholders' equity – GAAP	8.5%	6.9%	10.1%
Return on tangible common shareholders' equity – Non-GAAP	16.1%	13.0%	20.4%

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 <i>(dollars in millions, except per share amounts and unless otherwise noted)</i>	March 31, 2021	Dec. 31, 2020	March 31, 2020
BNY Mellon shareholders' equity at period end – GAAP	\$ 44,954	\$ 45,801	\$ 41,145
Less: Preferred stock	4,541	4,541	3,542
BNY Mellon common shareholders' equity at period end – GAAP	40,413	41,260	37,603
Less: Goodwill	17,469	17,496	17,240
Intangible assets	2,983	3,012	3,070
Add: Deferred tax liability – tax deductible goodwill	1,153	1,144	1,109
Deferred tax liability – intangible assets	665	667	666
BNY Mellon tangible common shareholders' equity at period end – Non-GAAP	\$ 21,779	\$ 22,563	\$ 19,068
Period-end common shares outstanding <i>(in thousands)</i>	875,481	886,764	885,443
Book value per common share – GAAP	\$ 46.16	\$ 46.53	\$ 42.47
Tangible book value per common share – Non-GAAP	\$ 24.88	\$ 25.44	\$ 21.53

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 <i>(dollars in millions)</i>	1Q21	1Q20	1Q21 vs. 1Q20
Investment management and performance fees – GAAP	\$ 890	\$ 862	3 %
Impact of changes in foreign currency exchange rates	—	23	
Adjusted investment management and performance fees – Non-GAAP	\$ 890	\$ 885	1 %

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.

Constant currency reconciliation – Investment and Wealth Management business <i>(dollars in millions)</i>	1Q21	1Q20	1Q21 vs. 1Q20
Investment management and performance fees – GAAP	\$ 890	\$ 862	3 %
Impact of changes in foreign currency exchange rates	—	23	
Adjusted investment management and performance fees – Non-GAAP	\$ 890	\$ 885	1 %

The following table presents the reconciliation of the pre-tax operating margin for the Investment and Wealth Management business.

Pre-tax operating margin reconciliation – Investment and Wealth Management business <i>(dollars in millions)</i>	1Q21	4Q20	3Q20	2Q20	1Q20
Income before income taxes – GAAP	\$ 278	\$ 311	\$ 245	\$ 221	\$ 194
Total revenue – GAAP	\$ 991	\$ 990	\$ 918	\$ 886	\$ 898
Less: Distribution and servicing expense	75	76	85	86	91
Adjusted total revenue, net of distribution and servicing expense – Non-GAAP	\$ 916	\$ 914	\$ 833	\$ 800	\$ 807
Pre-tax operating margin – GAAP <i>(a)</i>	28%	32%	27%	25%	22%
Adjusted pre-tax operating margin, net of distribution and servicing expense – Non-GAAP <i>(a)</i>	30%	34%	29%	28%	24%

(a) Income before taxes divided by total revenue.

Recent regulatory developments

For a summary of additional regulatory matters relevant to our operations, see “Supervision and Regulation” in our 2020 Annual Report. The following discussions summarize certain regulatory, legislative and other developments that may affect BNY Mellon.

End of Temporary Restrictions on Capital Distributions

On March 25, 2021, the Federal Reserve announced that the temporary restrictions on the dividends and share repurchases of certain BHCs that are subject to CCAR currently in effect will end after June 30, 2021 for the CCAR BHCs that remain above all of their minimum risk-based capital requirements after completion of the current round of stress tests. For the first quarter of 2021, CCAR BHCs, such as BNY Mellon, were generally authorized to repurchase stock in connection with employee benefit plans; pay dividends and make share repurchases that, in the aggregate, do not exceed an amount equal to the firm’s average net income for the four preceding quarters, provided that common stock dividends would not be increased; and redeem and make scheduled payments on additional Tier 1 and Tier 2 capital instruments. The Federal Reserve has announced that these restrictions will remain in place for the second quarter of 2021. The Federal Reserve has also announced that after June 30, 2021, the CCAR BHCs that are no longer subject to these temporary restrictions will continue to be subject to the normal constraints under the SCB framework. For additional information regarding the SCB framework, capital planning and stress testing, see “Supervision and Regulation – Capital Planning and Stress Testing” in our 2020 Annual Report.

Expiration of Certain Temporary Relief Measures and Facilities

On March 19, 2021, the Federal Reserve announced that the temporary exclusions of on-balance sheet amounts of U.S. Treasury securities from the SLR calculations for certain BHCs and depository institutions which were put in place by the U.S. banking agencies in 2020 expired as scheduled on March 31, 2021. BNY Mellon and The Bank of New York Mellon, as custody banks, will continue to be able to exclude certain central bank placements from the total leverage exposure used in the SLR calculation, consistent with the amendments to the

SLR finalized by the U.S. banking agencies in 2019 pursuant to the Economic Growth, Regulatory Relief, and Consumer Protection Act.

Also on March 31, 2021, the MMLF program, which was designed to provide indirect liquidity to money market mutual funds, expired as scheduled. For additional information regarding these and other temporary measures, see “Supervision and Regulation – Pandemic-Related Measures” in our 2020 Annual Report.

Other matters

On March 5, 2021, the administrator of LIBOR announced that it would cease the publication of non-U.S. dollar London Interbank Offered Rate (“LIBOR”) settings and one-week and two-month U.S. dollar LIBOR settings on Dec. 31, 2021 and would cease the publication of the other U.S. dollar LIBOR settings on June 30, 2023. On the same day, the UK Financial Conduct Authority (“FCA”) made a related announcement regarding when LIBOR settings will cease to be provided by any administrator or no longer be representative. The International Swaps and Derivatives Association (“ISDA”) also announced that the FCA’s announcement was an index cessation event under its fallbacks protocol for all LIBOR settings and that consequently, the fallback spread adjustment was fixed as of the date of the announcement.

In April 2021, New York adopted legislation that provides a statutory fallback mechanism to replace LIBOR with a benchmark rate based on SOFR for New York-law governed contracts that reference LIBOR and either have no fallback provisions or provisions that are based on LIBOR. The New York legislation also has a safe harbor regarding the selection and use of that SOFR-based benchmark rate.

The U.S. bank regulators have issued guidance strongly encouraging banking organizations to cease using U.S. dollar LIBOR as a reference rate in new contracts as soon as practicable and in any event by Dec. 31, 2021. We are continuing to work to facilitate an orderly transition from interbank offered rates, including LIBOR, to alternative reference rates for us and our clients.

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 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.

The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Income Statement (unaudited)

(in millions)	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
Fee and other revenue			
Investment services fees:			
Asset servicing fees	\$ 1,199	\$ 1,138	\$ 1,159
Clearing services fees	455	418	470
Issuer services fees	245	257	263
Treasury services fees	157	156	149
Total investment services fees	2,056	1,969	2,041
Investment management and performance fees	890	884	862
Foreign exchange revenue (a)	231	187	245
Financing-related fees	51	46	59
Distribution and servicing	29	28	31
Total fee revenue (a)	3,257	3,114	3,238
Investment and other income (a)	9	43	47
Net securities gains	—	6	9
Total other revenue (a)	9	49	56
Total fee and other revenue (a)	3,266	3,163	3,294
Net interest revenue			
Interest revenue	738	776	1,570
Interest expense	83	96	756
Net interest revenue	655	680	814
Total revenue	3,921	3,843	4,108
Provision for credit losses	(83)	15	169
Noninterest expense			
Staff	1,602	1,554	1,482
Software and equipment	362	359	326
Professional, legal and other purchased services	343	381	330
Sub-custodian and clearing	124	116	105
Net occupancy	123	173	135
Distribution and servicing	74	75	91
Bank assessment charges	34	24	35
Amortization of intangible assets	24	26	26
Business development	19	26	42
Other	146	191	140
Total noninterest expense	2,851	2,925	2,712
Income			
Income before income taxes	1,153	903	1,227
Provision for income taxes	221	148	265
Net income	932	755	962
Net (income) loss attributable to noncontrolling interests related to consolidated investment management funds	(5)	(5)	18
Net income applicable to shareholders of The Bank of New York Mellon Corporation	927	750	980
Preferred stock dividends	(69)	(48)	(36)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	\$ 858	\$ 702	\$ 944

(a) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with the current period presentation. See Note 1 of the Notes to Consolidated Financial Statements for additional information.

The Bank of New York Mellon Corporation (and its subsidiaries)

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	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
<i>(in millions)</i>			
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	\$ 858	\$ 702	\$ 944
Less: Earnings allocated to participating securities	1	1	3
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	\$ 857	\$ 701	\$ 941

Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
<i>(in thousands)</i>			
Basic	882,558	889,928	894,122
Common stock equivalents	3,824	2,654	3,941
Less: Participating securities	(727)	(736)	(1,374)
Diluted	885,655	891,846	896,689
Anti-dilutive securities (a)	4,133	1,493	2,584

(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	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
<i>(in dollars)</i>			
Basic	\$ 0.97	\$ 0.79	\$ 1.05
Diluted	\$ 0.97	\$ 0.79	\$ 1.05

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Comprehensive Income Statement (unaudited)

<i>(in millions)</i>	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
Net income	\$ 932	\$ 755	\$ 962
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments	(150)	431	(369)
Unrealized gain (loss) on assets available-for-sale:			
Unrealized (loss) gain arising during the period	(703)	33	183
Reclassification adjustment	—	(5)	(7)
Total unrealized (loss) gain on assets available-for-sale	(703)	28	176
Defined benefit plans:			
Net (loss) arising during the period	—	(107)	—
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost	22	20	18
Total defined benefit plans	22	(87)	18
Net unrealized (loss) gain on cash flow hedges	(3)	4	(11)
Total other comprehensive (loss) income, net of tax (a)	(834)	376	(186)
Total comprehensive income	98	1,131	776
Net (income) loss attributable to noncontrolling interests	(5)	(5)	18
Other comprehensive (income) loss attributable to noncontrolling interests	—	(2)	2
Comprehensive income applicable to shareholders of The Bank of New York Mellon Corporation	\$ 93	\$ 1,124	\$ 796

(a) Other comprehensive (loss) income attributable to The Bank of New York Mellon Corporation shareholders was \$(834) million for the quarter ended March 31, 2021, \$374 million for the quarter ended Dec. 31, 2020 and \$(184) million for the quarter ended March 31, 2020.

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Balance Sheet (unaudited)

<i>(dollars in millions, except per share amounts)</i>	March 31, 2021	Dec. 31, 2020
Assets		
Cash and due from banks, net of allowance for credit losses of \$3 and \$4	\$ 5,991	\$ 6,252
Interest-bearing deposits with the Federal Reserve and other central banks	125,524	141,775
Interest-bearing deposits with banks, net of allowance for credit losses of \$2 and \$3 (includes restricted of \$3,379 and \$3,167)	23,763	17,300
Federal funds sold and securities purchased under resale agreements	28,263	30,907
Securities:		
Held-to-maturity, at amortized cost, net of allowance for credit losses of less than \$1 and less than \$1 (fair value of \$48,489 and \$49,224)	48,032	47,946
Available-for-sale, at fair value (amortized cost of \$106,156 and \$105,141, net of allowance for credit losses of \$10 and \$11)	107,812	108,495
Total securities	155,844	156,441
Trading assets	16,884	15,272
Loans	60,732	56,469
Allowance for credit losses	(327)	(358)
Net loans	60,405	56,111
Premises and equipment	3,521	3,602
Accrued interest receivable	485	510
Goodwill	17,469	17,496
Intangible assets	2,983	3,012
Other assets, net of allowance for credit losses on accounts receivable of \$4 and \$4 (includes \$1,159 and \$1,009, at fair value) (a)	23,852	20,955
Total assets	\$ 464,984	\$ 469,633
Liabilities		
Deposits:		
Noninterest-bearing (principally U.S. offices)	\$ 95,306	\$ 83,854
Interest-bearing deposits in U.S. offices	132,558	133,479
Interest-bearing deposits in non-U.S. offices	108,904	124,212
Total deposits	336,768	341,545
Federal funds purchased and securities sold under repurchase agreements	15,150	11,305
Trading liabilities	4,566	6,031
Payables to customers and broker-dealers	23,827	25,085
Other borrowed funds	348	350
Accrued taxes and other expenses	4,916	5,696
Other liabilities (including allowance for credit losses on lending-related commitments of \$73 and \$121, also includes \$441 and \$1,110, at fair value) (a)	8,656	7,517
Long-term debt (includes \$400 and \$400, at fair value)	25,350	25,984
Total liabilities	419,581	423,513
Temporary equity		
Redeemable noncontrolling interests	187	176
Permanent equity		
Preferred stock – par value \$0.01 per share; authorized 100,000,000 shares; issued 45,826 and 45,826 shares	4,541	4,541
Common stock – par value \$0.01 per share; authorized 3,500,000,000 shares; issued 1,387,789,904 and 1,382,306,327 shares	14	14
Additional paid-in capital	27,928	27,823
Retained earnings	34,822	34,241
Accumulated other comprehensive loss, net of tax	(1,819)	(985)
Less: Treasury stock of 512,309,057 and 495,542,796 common shares, at cost	(20,532)	(19,833)
Total The Bank of New York Mellon Corporation shareholders' equity	44,954	45,801
Nonredeemable noncontrolling interests of consolidated investment management funds	262	143
Total permanent equity	45,216	45,944
Total liabilities, temporary equity and permanent equity	\$ 464,984	\$ 469,633

(a) In the first quarter of 2021, we reclassified the assets and liabilities of consolidated investment management funds, at fair value, to other assets and other liabilities, respectively. Prior periods have been reclassified. See Note 1 of the Notes to Consolidated Financial Statements for additional information.

See accompanying unaudited Notes to Consolidated Financial Statements.

The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Statement of Cash Flows (unaudited)

<i>(in millions)</i>	Three months ended March 31,	
	2021	2020
Operating activities		
Net income	\$ 932	\$ 962
Net (income) attributable to noncontrolling interests	(5)	18
Net income applicable to shareholders of The Bank of New York Mellon Corporation	927	980
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		
Provision for credit losses (a)	(83)	169
Pension plan contributions	(7)	(6)
Depreciation and amortization	466	354
Deferred tax (benefit)	275	(300)
Net securities (gains)	—	(9)
Change in trading assets and liabilities	(3,074)	2,419
Change in accruals and other, net	(1,678)	(5,292)
Net cash (used for) operating activities	(3,174)	(1,685)
Investing activities		
Change in interest-bearing deposits with banks	(6,385)	(6,066)
Change in interest-bearing deposits with the Federal Reserve and other central banks	13,940	(52,370)
Purchases of securities held-to-maturity	(3,425)	(5,151)
Paydowns of securities held-to-maturity	2,969	1,503
Maturities of securities held-to-maturity	161	1,310
Purchases of securities available-for-sale	(12,247)	(22,222)
Sales of securities available-for-sale	3,209	3,107
Paydowns of securities available-for-sale	3,498	2,042
Maturities of securities available-for-sale	3,878	4,727
Net change in loans	(4,254)	(7,626)
Sales of loans and other real estate	1	1
Change in federal funds sold and securities purchased under resale agreements	2,630	2,739
Net change in seed capital investments	(38)	18
Purchases of premises and equipment/capitalized software	(220)	(264)
Dispositions, net of cash	8	—
Other, net	953	(349)
Net cash provided by (used for) investing activities	4,678	(78,601)
Financing activities		
Change in deposits	(2,922)	79,678
Change in federal funds purchased and securities sold under repurchase agreements	3,936	1,775
Change in payables to customers and broker-dealers	(1,229)	5,329
Change in other borrowed funds	5	961
Change in commercial paper	—	(2,838)
Net proceeds from the issuance of long-term debt	1,196	998
Repayments of long-term debt	(1,500)	(1,750)
Proceeds from the exercise of stock options	26	30
Issuance of common stock	3	3
Treasury stock acquired	(699)	(985)
Common cash dividends paid	(277)	(282)
Preferred cash dividends paid	(69)	(36)
Other, net	10	(3)
Net cash (used for) provided by financing activities	(1,520)	82,880
Effect of exchange rate changes on cash	(33)	(56)
Change in cash and due from banks and restricted cash		
Change in cash and due from banks and restricted cash	(49)	2,538
Cash and due from banks and restricted cash at beginning of period	9,419	7,267
Cash and due from banks and restricted cash at end of period	\$ 9,370	\$ 9,805
Cash and due from banks and restricted cash		
Cash and due from banks at end of period (unrestricted cash)	\$ 5,991	\$ 5,091
Restricted cash at end of period	3,379	4,714
Cash and due from banks and restricted cash at end of period	\$ 9,370	\$ 9,805
Supplemental disclosures		
Interest paid	\$ 126	\$ 851
Income taxes paid	122	185
Income taxes refunded	4	10

See accompanying unaudited Notes to Consolidated Financial Statements.

The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Statement of Changes in Equity (unaudited)

<i>(in millions, except per share amount)</i>	The Bank of New York Mellon Corporation shareholders						Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable noncontrolling interests/temporary equity
	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock			
Balance at Dec. 31, 2020	\$ 4,541	\$ 14	\$ 27,823	\$ 34,241	\$ (985)	\$(19,833)	\$ 143	\$ 45,944	(a) \$ 176
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	23
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	(30)
Other net changes in noncontrolling interests	—	—	(33)	—	—	—	114	81	18
Net income	—	—	—	927	—	—	5	932	—
Other comprehensive income	—	—	—	—	(834)	—	—	(834)	—
Dividends:									
Common stock at \$0.31 per share (b)	—	—	—	(277)	—	—	—	(277)	—
Preferred stock	—	—	—	(69)	—	—	—	(69)	—
Repurchase of common stock	—	—	—	—	—	(699)	—	(699)	—
Common stock issued under employee benefit plans	—	—	5	—	—	—	—	5	—
Stock awards and options exercised	—	—	133	—	—	—	—	133	—
Balance at March 31, 2021	\$ 4,541	\$ 14	\$ 27,928	\$ 34,822	\$ (1,819)	\$(20,532)	\$ 262	\$ 45,216	(a) \$ 187

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of \$41,260 million at Dec. 31, 2020 and \$40,413 million at March 31, 2021.

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

<i>(in millions, except per share amount)</i>	The Bank of New York Mellon Corporation shareholders						Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable noncontrolling interests/temporary equity
	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock			
Balance at Sept. 30, 2020	\$ 4,532	\$ 14	\$ 27,741	\$ 33,821	\$ (1,359)	\$(19,832)	\$ 251	\$ 45,168	(a) \$ 179
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	25
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	(14)
Other net changes in noncontrolling interests	—	—	17	—	—	—	(113)	(96)	(16)
Net income	—	—	—	750	—	—	5	755	—
Other comprehensive income	—	—	—	—	370	—	—	370	2
Dividends:									
Common stock at \$0.31 per share	—	—	—	(278)	—	—	—	(278)	—
Preferred stock	—	—	—	(33)	—	—	—	(33)	—
Repurchase of common stock	—	—	—	—	—	(1)	—	(1)	—
Common stock issued under employee benefit plans	—	—	5	—	—	—	—	5	—
Preferred stock redemption	(583)	—	—	—	—	—	—	(583)	—
Preferred stock issued	577	—	—	—	—	—	—	577	—
Stock awards and options exercised	—	—	60	—	—	—	—	60	—
Amortization of preferred stock discount	15	—	—	(15)	—	—	—	—	—
Other	—	—	—	(4)	4	—	—	—	—
Balance at Dec. 31, 2020	\$ 4,541	\$ 14	\$ 27,823	\$ 34,241	\$ (985)	\$(19,833)	\$ 143	\$ 45,944	(a) \$ 176

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of \$40,385 million at Sept. 30, 2020 and \$41,260 million at Dec. 31, 2020.

The Bank of New York Mellon Corporation (and its subsidiaries)

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

<i>(in millions, except per share amount)</i>	The Bank of New York Mellon Corporation shareholders						Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable noncontrolling interests/ temporary equity
	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock			
Balance at Dec. 31, 2019	\$ 3,542	\$ 14	\$ 27,515	\$ 31,894	\$ (2,638)	\$(18,844)	\$ 102	\$ 41,585	(a) \$ 143
Impact of adopting ASU 2016-13, <i>Financial Instruments - Credit Losses</i>	—	—	—	45	(5)	—	—	40	—
Adjusted balance at Jan. 1, 2019	3,542	14	27,515	31,939	(2,643)	(18,844)	102	41,625	143
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	17
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	(16)
Other net changes in noncontrolling interests	—	—	(5)	—	—	—	10	5	(2)
Net income	—	—	—	980	—	—	(18)	962	—
Other comprehensive income	—	—	—	—	(184)	—	—	(184)	(2)
Dividends:									
Common stock at \$0.31 per share	—	—	—	(282)	—	—	—	(282)	—
Preferred stock	—	—	—	(36)	—	—	—	(36)	—
Repurchase of common stock	—	—	—	—	—	(985)	—	(985)	—
Common stock issued under employee benefit plans	—	—	9	—	—	—	—	9	—
Stock awards and options exercised	—	—	125	—	—	—	—	125	—
Balance at March 31, 2020	\$ 3,542	\$ 14	\$ 27,644	\$ 32,601	\$ (2,827)	\$(19,829)	\$ 94	\$ 41,239	(a) \$ 140

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of \$37,941 million at Dec. 31, 2019 and \$37,603 million at March 31, 2020.

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 in our 2020 Annual Report.

The accompanying consolidated financial statements are unaudited. In the opinion of management, all adjustments necessary 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 2020 Annual Report.

In order to combine items of a similar nature within total revenue and to simplify our income statement presentation, in the first quarter of 2021, we made the following reporting changes. The reclassifications had no impact on consolidated total revenue or total revenue for the business segments. Prior periods were reclassified to be comparable with the current period presentation.

- Other trading revenue was reclassified from foreign exchange and other trading revenue to investment and other income.
- Foreign exchange and other trading revenue was renamed foreign exchange revenue.
- The impact of foreign currency remeasurement was reclassified from investment and other income to foreign exchange revenue.
- Income (loss) from consolidated investment management funds was reclassified to investment and other income.

- Investment and other income was reclassified from fee revenue to other revenue. Other revenue includes investment and other income and net securities gains (losses).

In addition, the assets and liabilities of consolidated investment management funds were reclassified to other assets and other liabilities, respectively, on the consolidated balance sheet. The reclassifications had no impact on total assets or total liabilities. Prior periods were reclassified to be comparable with the current period presentation.

The table below summarizes the effects of the reclassifications on the consolidated income statement.

Consolidated income statement reclassifications <i>(in millions)</i>	Quarter ended	
	Dec. 31, 2020	March 31, 2020
Before reclassifications		
Foreign exchange and other trading revenue	\$ 167	\$ 319
Total fee revenue	\$ 3,116	\$ 3,323
Investment and other income	\$ 22	\$ 11
Income (loss) from consolidated investment management funds	\$ 41	\$ (38)
After reclassifications		
Foreign exchange revenue	\$ 187	\$ 245
Total fee revenue	\$ 3,114	\$ 3,238
Investment and other income	\$ 43	\$ 47

The table below summarizes the effects of the reclassifications on the consolidated balance sheet.

Consolidated balance sheet reclassifications <i>(in millions)</i>	Dec. 31, 2020
Before reclassifications	
Other assets	\$ 20,468
Assets of consolidated investment management funds, at fair value	\$ 487
Other liabilities	\$ 7,514
Liabilities of consolidated investment management funds, at fair value	\$ 3
After reclassifications	
Other assets	\$ 20,955
Other liabilities	\$ 7,517

The table below summarizes the effects of the reclassifications on the business segments.

Business segment reclassifications (in millions)	4Q20	3Q20	2Q20	1Q20
Investment Services business				
Before reclassifications				
Foreign exchange and other trading revenue	\$ 180	\$ 146	\$ 178	\$ 261
Other revenue	\$ 94	\$ 100	\$ 145	\$ 146
After reclassifications				
Foreign exchange revenue	\$ 163	\$ 126	\$ 164	\$ 228
Other revenue	\$ 111	\$ 120	\$ 159	\$ 179
Other segment				
Before reclassifications				
Fee (loss) revenue	\$ (23)	\$ 11	\$ 29	\$ 21
Net securities gains	\$ 6	\$ 9	\$ 9	\$ 9
After reclassifications				
Fee revenue	\$ 11	\$ 7	\$ 10	\$ 6
Other (loss) revenue	\$ (28)	\$ 13	\$ 28	\$ 24

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—Acquisitions and dispositions

In the fourth quarter of 2020, BNY Mellon entered into agreements to sell two legal entities, one of which closed in the first quarter of 2021. The remaining transaction is expected to close in the second quarter of 2021. BNY Mellon recorded a total after-tax loss of \$34 million on these transactions in the fourth quarter of 2020.

Note 3—Securities

The following tables present the amortized cost, the gross unrealized gains and losses and the fair value of securities at March 31, 2021 and Dec. 31, 2020.

Securities at March 31, 2021 (in millions)	Amortized cost	Gross unrealized		Fair value
		Gains	Losses	
Available-for-sale:				
U.S. Treasury	\$ 27,474	\$ 730	\$ 276	\$ 27,928
Agency residential mortgage-backed securities (“RMBS”)	19,501	405	60	19,846
Sovereign debt/sovereign guaranteed	13,453	141	34	13,560
Agency commercial mortgage-backed securities (“MBS”)	8,797	446	27	9,216
Supranational	7,414	44	20	7,438
Foreign covered bonds	6,491	55	4	6,542
Collateralized loan obligations (“CLOs”)	4,751	7	4	4,754
Non-agency commercial MBS	2,907	80	28	2,959
U.S. government agencies	2,823	113	17	2,919
Foreign government agencies	2,678	24	4	2,698
State and political subdivisions	2,650	19	35	2,634
Other asset-backed securities (“ABS”)	2,617	20	9	2,628
Non-agency RMBS (a)	2,310	156	15	2,451
Corporate bonds	2,289	32	83	2,238
Other debt securities	1	—	—	1
Total securities available-for-sale (b)(c)	\$ 106,156	\$ 2,272	\$ 616	\$ 107,812
Held-to-maturity:				
Agency RMBS	\$ 38,606	\$ 728	\$ 346	\$ 38,988
U.S. Treasury	2,938	72	—	3,010
Agency commercial MBS	2,687	69	30	2,726
U.S. government agencies	2,675	1	68	2,608
Sovereign debt/sovereign guaranteed	1,001	30	2	1,029
Non-agency RMBS	55	3	—	58
Supranational	55	—	—	55
State and political subdivisions	15	1	1	15
Total securities held-to-maturity	\$ 48,032	\$ 904	\$ 447	\$ 48,489
Total securities	\$ 154,188	\$ 3,176	\$ 1,063	\$ 156,301

- (a) Includes \$451 million that was included in the former Grantor Trust.
- (b) The amortized cost of available-for-sale securities is net of the allowance for credit loss of \$10 million. The allowance for credit loss primarily relates to CLOs.
- (c) Includes gross unrealized gains of \$72 million and gross unrealized losses of \$39 million recorded in accumulated other comprehensive income related to securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains are primarily related to agency commercial MBS and losses are primarily related to agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities.

Securities at Dec. 31, 2020 (in millions)	Amortized cost	Gross unrealized		Fair value
		Gains	Losses	
Available-for-sale:				
U.S. Treasury	\$ 23,557	\$1,358	\$ 21	\$ 24,894
Agency RMBS	21,919	479	51	22,347
Sovereign debt/sovereign guaranteed	12,202	190	1	12,391
Agency commercial MBS	8,605	625	2	9,228
Supranational	7,086	75	1	7,160
Foreign covered bonds	6,658	68	1	6,725
CLOs	4,706	7	10	4,703
Foreign government agencies	4,086	49	—	4,135
U.S. government agencies	3,680	174	1	3,853
Other ABS	3,135	32	3	3,164
Non-agency commercial MBS	2,864	159	6	3,017
Non-agency RMBS (a)	2,178	157	9	2,326
State and political subdivisions	2,270	39	1	2,308
Corporate bonds	1,945	50	1	1,994
Commercial paper/ certificates of deposit ("CDs")	249	—	—	249
Other debt securities	1	—	—	1
Total securities available-for-sale (b)(c)	\$ 105,141	\$3,462	\$ 108	\$ 108,495
Held-to-maturity:				
Agency RMBS	\$ 38,355	\$1,055	\$ 14	\$ 39,396
U.S. Treasury	2,938	90	—	3,028
U.S. government agencies	2,816	4	6	2,814
Agency commercial MBS	2,659	105	2	2,762
Sovereign debt/sovereign guaranteed	1,050	42	—	1,092
Non-agency RMBS	58	3	—	61
Supranational	55	—	—	55
State and political subdivisions	15	1	—	16
Total securities held-to- maturity	\$ 47,946	\$1,300	\$ 22	\$ 49,224
Total securities	\$ 153,087	\$4,762	\$ 130	\$ 157,719

- (a) Includes \$487 million that was included in the former Grantor Trust.
- (b) The amortized cost of available-for-sale securities is net of the allowance for credit loss of \$11 million. The allowance for credit loss primarily relates to CLOs.
- (c) Includes gross unrealized gains of \$75 million and gross unrealized losses of \$44 million recorded in accumulated other comprehensive income related to securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains are primarily related to agency commercial MBS and losses are primarily related to agency RMBS and 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)	1Q21	4Q20	1Q20
Realized gross gains	\$ 12	\$ 8	\$ 12
Realized gross losses	(12)	(2)	(3)
Total net securities gains	\$ —	\$ 6	\$ 9

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

Net securities gains (losses)			
(in millions)	1Q21	4Q20	1Q20
U.S. Treasury	\$ (4)	\$ 1	\$ 5
Other	4	5	4
Total net securities gains	\$ —	\$ 6	\$ 9

Allowance for credit losses – Securities

The allowance for credit losses related to securities was \$10 million at March 31, 2021 and \$11 million at Dec. 31, 2020, and primarily relates to the available-for-sale CLO portfolio.

Credit quality indicators – Securities

At March 31, 2021, the gross unrealized losses on the securities portfolio were primarily attributable to an increase in credit spreads 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, \$39 million of the unrealized losses at March 31, 2021 and \$44 million at Dec. 31, 2020 reflected in the available-for-sale sections of the tables below relate to certain securities (primarily agency RMBS) that were transferred in prior periods 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 fair value and 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, 2021 (a) (in millions)	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Agency RMBS	\$ 1,452	\$ 22	\$ 604	\$ 38	\$ 2,056	\$ 60
U.S. Treasury	9,032	276	—	—	9,032	276
Sovereign debt/sovereign guaranteed	3,751	34	190	—	3,941	34
Agency commercial MBS	1,164	26	233	1	1,397	27
Foreign covered bonds	849	4	14	—	863	4
Supranational	1,818	20	133	—	1,951	20
CLOs	749	1	451	3	1,200	4
Foreign government agencies	698	4	—	—	698	4
U.S. government agencies	829	17	—	—	829	17
Other ABS	1,031	8	138	1	1,169	9
Non-agency commercial MBS	998	27	104	1	1,102	28
Non-agency RMBS (b)	1,114	11	263	4	1,377	15
State and political subdivisions	1,420	35	2	—	1,422	35
Corporate bonds	1,559	83	—	—	1,559	83
Total securities available-for-sale (c)	\$ 26,464	\$ 568	\$ 2,132	\$ 48	\$ 28,596	\$ 616

(a) Includes \$10.0 billion of securities with an unrealized loss of greater than \$1 million.

(b) Includes \$3 million of securities with an unrealized loss of less than \$1 million for less than 12 months and \$9 million of securities with an unrealized loss of less than \$1 million for 12 months or more that were included in the former Grantor Trust.

(c) Includes gross unrealized losses of \$39 million 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 will be amortized into net interest revenue over the contractual lives of the securities. There were no gross unrealized losses for less than 12 months.

Available-for-sale securities in an unrealized loss position without an allowance for credit losses at Dec. 31, 2020 (a) (in millions)	Less than 12 months		12 months or more		Total	
	Fair value	Unrealized losses	Fair value	Unrealized losses	Fair value	Unrealized losses
Available-for-sale:						
Agency RMBS	\$ 850	\$ 4	\$ 1,965	\$ 47	\$ 2,815	\$ 51
U.S. Treasury	4,253	21	—	—	4,253	21
Sovereign debt/sovereign guaranteed	1,349	1	135	—	1,484	1
Agency commercial MBS	440	1	266	1	706	2
Foreign covered bonds	468	1	90	—	558	1
Supranational	1,041	1	132	—	1,173	1
CLOs	1,849	6	579	4	2,428	10
U.S. government agencies	160	1	—	—	160	1
Other ABS	449	2	226	1	675	3
Non-agency commercial MBS	468	4	170	2	638	6
Non-agency RMBS (b)	973	3	103	6	1,076	9
State and political subdivisions	273	1	2	—	275	1
Corporate bonds	282	1	—	—	282	1
Total securities available-for-sale (c)	\$ 12,855	\$ 47	\$ 3,668	\$ 61	\$ 16,523	\$ 108

(a) Includes \$1.6 billion of securities with an unrealized loss of greater than \$1 million.

(b) Includes \$16 million of securities with an unrealized loss of less than \$1 million for less than 12 months and \$2 million of securities with an unrealized loss of less than \$1 million for 12 months or more that were included in the former Grantor Trust.

(c) Includes gross unrealized losses of \$44 million 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 will be amortized into net interest revenue over the contractual lives of the securities. There were no gross unrealized losses for less than 12 months.

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, 2021			Ratings (a)					
			AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/ A2/ SP-1	Not rated
<i>(dollars in millions)</i>	Amortized cost	Net unrealized gain						
Agency RMBS	\$ 38,606	\$ 382	100%	—%	—%	—%	—%	—%
U.S. Treasury	2,938	72	100	—	—	—	—	—
U.S. government agencies	2,675	(67)	100	—	—	—	—	—
Agency commercial MBS	2,687	39	100	—	—	—	—	—
Sovereign debt/sovereign guaranteed (b)	1,001	28	100	—	—	—	—	—
Non-agency RMBS	55	3	28	56	1	14	—	1
Supranational	55	—	100	—	—	—	—	—
State and political subdivisions	15	—	6	2	5	—	—	87
Total held-to-maturity securities	\$ 48,032	\$ 457	100%	—%	—%	—%	—%	—%

(a) Represents ratings by Standard & Poor's ("S&P") or the equivalent.

(b) Primarily consists of exposure to France, UK and Germany.

Held-to-maturity securities portfolio at Dec. 31, 2020			Ratings (a)					
			AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/ A2/ SP-1	Not rated
<i>(dollars in millions)</i>	Amortized cost	Net unrealized gain						
Agency RMBS	\$ 38,355	\$ 1,041	100 %	— %	— %	— %	— %	— %
U.S. Treasury	2,938	90	100	—	—	—	—	—
U.S. government agencies	2,816	(2)	100	—	—	—	—	—
Agency commercial MBS	2,659	103	100	—	—	—	—	—
Sovereign debt/sovereign guaranteed (b)	1,050	42	98	—	—	—	2	—
Non-agency RMBS	58	3	28	55	2	14	—	1
Supranational	55	—	100	—	—	—	—	—
State and political subdivisions	15	1	6	2	6	—	—	86
Total held-to-maturity securities	\$ 47,946	\$ 1,278	100 %	— %	— %	— %	— %	— %

(a) Represents ratings by Standard & Poor's ("S&P") or the equivalent.

(b) Primarily consists of exposure to France, UK and Germany.

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, 2021 (dollars in millions)	U.S. Treasury		U.S. government agencies		State and political subdivisions		Other bonds, notes and debentures		Mortgage/asset-backed		Total
	Amount	Yield (a)	Amount	Yield (a)	Amount	Yield (a)	Amount	Yield (a)	Amount	Yield (a)	
Securities available-for-sale:											
One year or less	\$ 3,637	1.36%	\$ —	—%	\$ 702	1.27%	\$ 9,028	0.46%	\$ —	—%	\$ 13,367
Over 1 through 5 years	11,763	1.11	1,382	0.86	531	2.72	18,095	0.56	—	—	31,771
Over 5 through 10 years	9,784	1.34	1,400	2.38	1,079	1.50	5,181	0.77	—	—	17,444
Over 10 years	2,744	3.11	137	1.98	322	2.24	173	0.72	—	—	3,376
Mortgage-backed securities	—	—	—	—	—	—	—	—	34,472	2.18	34,472
Asset-backed securities	—	—	—	—	—	—	—	—	7,382	1.55	7,382
Total	\$ 27,928	1.42%	\$ 2,919	1.64%	\$ 2,634	1.77%	\$ 32,477	0.57%	\$ 41,854	2.07%	\$ 107,812
Securities held-to-maturity:											
One year or less	\$ 1,429	2.03%	\$ —	—%	\$ —	—%	\$ 48	0.23%	\$ —	—%	\$ 1,477
Over 1 through 5 years	1,509	1.93	880	0.68	2	5.62	925	0.69	—	—	3,316
Over 5 through 10 years	—	—	1,530	1.07	—	—	83	0.60	—	—	1,613
Over 10 years	—	—	265	2.18	13	4.76	—	—	—	—	278
Mortgage-backed securities	—	—	—	—	—	—	—	—	41,348	2.38	41,348
Total	\$ 2,938	1.98%	\$ 2,675	1.05%	\$ 15	4.90%	\$ 1,056	0.66%	\$ 41,348	2.38%	\$ 48,032

(a) Yields are based upon the amortized cost of securities.

Pledged assets

At March 31, 2021, BNY Mellon had pledged assets of \$142 billion, including \$113 billion pledged as collateral for potential borrowings at the Federal Reserve Discount Window and \$6 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at March 31, 2021 included \$124 billion of securities, \$11 billion of loans, \$6 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, 2020, BNY Mellon had pledged assets of \$141 billion, including \$113 billion pledged as collateral for potential borrowing at the Federal Reserve Discount Window and \$5 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at Dec. 31, 2020 included \$124 billion of securities, \$11 billion of loans, \$6 billion of trading assets and less than \$1 billion of interest-bearing deposits with banks.

At March 31, 2021 and Dec. 31, 2020, pledged assets included \$20 billion and \$18 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, 2021 and Dec. 31, 2020, the market value of the securities received that can be sold or repledged was \$95 billion and \$121 billion, respectively. We routinely sell or repledge these securities through delivery to third parties. As of March 31, 2021 and Dec. 31, 2020, the market value of securities collateral sold or repledged was \$58 billion and \$84 billion, respectively.

Restricted cash and securities

Cash and securities may be segregated under federal and other regulations or requirements. At both March 31, 2021 and Dec. 31, 2020, cash segregated under federal and other regulations or requirements was \$3 billion. Restricted cash is included in interest-bearing deposits with banks on the consolidated balance sheet. Securities segregated under federal and other regulations or requirements were \$4 billion at March 31, 2021 and \$6 billion at Dec. 31, 2020. 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 4—Loans and asset quality

Loans

The table below provides the details of our loan portfolio.

Loans (in millions)	March 31, 2021	Dec. 31, 2020
Domestic:		
Commercial	\$ 1,428	\$ 1,356
Commercial real estate	5,876	6,056
Financial institutions	4,431	4,495
Lease financings	399	431
Wealth management loans and mortgages	16,460	16,211
Other residential mortgages	364	389
Overdrafts	954	651
Other	1,780	1,823
Margin loans	15,514	13,141
Total domestic	47,206	44,553
Foreign:		
Commercial	16	73
Commercial real estate	6	—
Financial institutions	6,531	6,750
Lease financings	561	559
Wealth management loans and mortgages	123	146
Other (primarily overdrafts)	3,910	2,113
Margin loans	2,379	2,275
Total foreign	13,526	11,916
Total loans (a)	\$ 60,732	\$ 56,469

(a) Net of unearned income of \$265 million at March 31, 2021 and \$274 million at Dec. 31, 2020 primarily related to domestic and foreign lease financings.

Our loan portfolio consists of three portfolio segments: commercial, lease financings and mortgages. We manage our portfolio at the class level, which consists of six classes of financing receivables: commercial, commercial real estate, financial institutions, lease financings, wealth management loans and mortgages and other residential mortgages.

The following tables are presented for each class of financing receivables and provide additional information about our credit risks.

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, held-to-maturity securities, available-for-sale securities and accounts receivable.

Allowance for credit losses activity for the quarter ended March 31, 2021								
(in millions)	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Total	
Beginning balance	\$ 16	\$ 430	\$ 10	\$ 2	\$ 8	\$ 13	\$ 479	
Charge-offs	—	—	—	—	(1)	—	(1)	
Recoveries	—	—	—	—	—	2	2	
Net (charge-offs) recoveries	—	—	—	—	(1)	2	1	
Provision (a)	(5)	(65)	(3)	—	(1)	(6)	(80)	
Ending balance (b)	\$ 11	\$ 365	\$ 7	\$ 2	\$ 6	\$ 9	\$ 400	
Allowance for:								
Loan losses	\$ 4	\$ 303	\$ 4	\$ 2	\$ 5	\$ 9	\$ 327	
Lending-related commitments	7	62	3	—	1	—	73	
Individually evaluated for impairment:								
Loan balance (c)	\$ —	\$ 26	\$ —	\$ —	\$ 18	\$ 1	\$ 45	
Allowance for loan losses	—	5	—	—	—	—	5	

(a) Does not include the provision for credit losses benefit related to other financial instruments of \$3 million for the first quarter 2021.

(b) Includes \$3 million of allowance for credit losses related to foreign loans, primarily financial institutions.

(c) Includes collateral dependent loans of \$45 million with \$59 million of collateral at fair value.

Notes to Consolidated Financial Statements (continued)

Allowance for credit losses activity for the quarter ended Dec. 31, 2020									
<i>(in millions)</i>	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Total		
Beginning balance	\$ 27	\$ 386	\$ 11	\$ 3	\$ 15	\$ 18	\$	\$	\$ 460
Charge-offs	—	—	—	—	—	(1)			(1)
Recoveries	—	—	—	—	—	1			1
Net (charge-offs) recoveries	—	—	—	—	—	—			—
Provision (a)	(11)	44	(1)	(1)	(7)	(5)			19
Ending balance (b)	\$ 16	\$ 430	\$ 10	\$ 2	\$ 8	\$ 13	\$	\$	\$ 479
Allowance for:									
Loan losses	\$ 6	\$ 324	\$ 6	\$ 2	\$ 7	\$ 13	\$	\$	\$ 358
Lending-related commitments	10	106	4	—	1	—			121
Individually evaluated for impairment:									
Loan balance	\$ —	\$ —	\$ —	\$ —	\$ 20 (c)	\$ —	\$	\$	\$ 20
Allowance for loan losses	—	—	—	—	—	—			—

(a) Does not include the provision for credit losses benefit related to other financial instruments of \$4 million for the fourth quarter 2020.

(b) Includes \$6 million of allowance for credit losses related to foreign loans, primarily financial institutions.

(c) Includes collateral dependent loans of \$20 million with \$30 million of collateral at fair value.

Allowance for credit losses activity for the quarter ended March 31, 2020									
<i>(in millions)</i>	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Foreign (a)	Total	
Balance at Dec. 31, 2019	\$ 60	\$ 76	\$ 20	\$ 3	\$ 20	\$ 13	\$ 24	\$	\$ 216
Impact of adopting ASU 2016-13	(43)	14	(6)	—	(12)	2	(24)		(69)
Balance at Jan. 1, 2020	17	90	14	3	8	15	—		147
Charge-offs	—	—	—	—	—	—	—		—
Recoveries	—	—	—	—	—	—	—		—
Net (charge-offs) recoveries	—	—	—	—	—	—	—		—
Provision (b)	9	118	4	10	1	(1)	—		141
Ending balance (c)	\$ 26	\$ 208	\$ 18	\$ 13	\$ 9	\$ 14	\$ —	\$	\$ 288
Allowance for:									
Loan losses	\$ 13	\$ 83	\$ 10	\$ 13	\$ 7	\$ 14	\$ —	\$	\$ 140
Lending-related commitments	13	125	8	—	2	—	—		148
Individually evaluated for impairment:									
Loan balance	\$ —	\$ —	\$ —	\$ —	\$ 18 (d)	\$ —	\$ —	\$	\$ 18
Allowance for loan losses	—	—	—	—	—	—	—		—

(a) The allowance related to foreign exposure has been reclassified to financial institutions (\$10 million), commercial (\$10 million) and lease financings (\$4 million).

(b) Does not include the provision for credit losses related to other financial instruments of \$28 million for the first quarter 2020.

(c) Includes \$12 million of allowance for credit losses related to foreign loans, primarily financial institutions.

(d) Includes collateral dependent loans of \$18 million with \$26 million of collateral at fair value.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets (in millions)	March 31, 2021			Dec. 31, 2020		
	Recorded investment		Total	Recorded investment		Total
	With an allowance	Without an allowance		With an allowance	Without an allowance	
Nonperforming loans:						
Other residential mortgages	\$ 55	\$ 1	\$ 56	\$ 57	\$ —	\$ 57
Wealth management loans and mortgages	10	18	28	10	20	30
Commercial real estate	26	—	26	1	—	1
Total nonperforming loans	91	19	110	68	20	88
Other assets owned	—	2	2	—	1	1
Total nonperforming assets	\$ 91	\$ 21	\$ 112	\$ 68	\$ 21	\$ 89

At March 31, 2021, undrawn commitments to borrowers whose loans were classified as nonaccrual or reduced rate were not material.

Past due loans

The table below presents our past due loans.

Past due loans and still accruing interest (in millions)	March 31, 2021				Dec. 31, 2020			
	Days past due			Total past due	Days past due			Total past due
	30-59	60-89	≥90		30-59	60-89	≥90	
Wealth management loans and mortgages	\$ 56	\$ —	\$ —	\$ 56	\$ 54	\$ 1	\$ —	\$ 55
Financial institutions	11	8	—	19	11	—	—	11
Other residential mortgages	7	—	—	7	3	1	—	4
Commercial real estate	4	—	—	4	19	16	—	35
Total past due loans	\$ 78	\$ 8	\$ —	\$ 86	\$ 87	\$ 18	\$ —	\$ 105

Loan modifications

Due to the coronavirus pandemic, there have been two forms of relief provided for classifying loans as TDRs: The Coronavirus Aid, Relief, and Economic Security Act (the “CARES Act”), the relevant provisions of which were extended by the Consolidated Appropriations Act, 2021, and the Interagency Guidance. See Note 1 of the Notes to Consolidated Financial Statements in our 2020 Annual Report for additional details on the CARES Act, Consolidated Appropriations Act, 2021, and Interagency Guidance. Financial institutions may account for eligible loan modifications either under the CARES Act or the Interagency Guidance. The Company has elected to apply both the CARES Act and the Interagency Guidance, as applicable, in

providing borrowers with loan modification relief in response to the coronavirus pandemic. We modified loans of \$6 million in the first quarter of 2021, less than \$1 million in the first quarter of 2020 and \$16 million in the fourth quarter of 2020. Nearly all of the modifications were short-term loan payment forbearances or modified principal and/or interest payments. These loans were primarily residential mortgage and commercial real estate loans. We also modified \$14 million of commercial real estate loans in the first quarter of 2021 by providing payment modifications and an extension of maturity. We did not identify any of the modifications as TDRs. At March 31, 2021, the unpaid principal balance of the loans modified under the CARES Act or Interagency Guidance was \$91 million.

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.

<i>(in millions)</i>	Originated, at amortized cost						March 31, 2021			
							Revolving loans		Converted to term loans – Amortized cost	Total (a)
	1Q21	2020	2019	2018	2017	Prior to 2017	Amortized cost			
Commercial:										
Investment grade	\$ 392	\$ 20	\$ —	\$ —	\$ 208	\$ 57	\$ 589	\$ —	\$ 1,266	
Non-investment grade	98	23	—	—	—	—	57	—	178	
Total commercial	490	43	—	—	208	57	646	—	1,444	\$ 1
Commercial real estate:										
Investment grade	892	457	818	175	319	542	123	—	3,326	
Non-investment grade	525	179	591	439	117	471	208	26	2,556	
Total commercial real estate	1,417	636	1,409	614	436	1,013	331	26	5,882	8
Financial institutions:										
Investment grade	409	159	—	—	—	97	8,582	—	9,247	
Non-investment grade	43	20	—	—	—	—	1,652	—	1,715	
Total financial institutions	452	179	—	—	—	97	10,234	—	10,962	14
Wealth management loans and mortgages:										
Investment grade	7	16	77	5	150	171	8,070	—	8,496	
Non-investment grade	—	—	—	—	—	—	58	—	58	
Wealth management mortgages	437	1,089	982	616	1,113	3,750	42	—	8,029	
Total wealth management loans and mortgages	444	1,105	1,059	621	1,263	3,921	8,170	—	16,583	27
Lease financings	5	100	17	13	7	818	—	—	960	—
Other residential mortgages	—	—	—	—	—	364	—	—	364	1
Other loans	—	—	—	—	—	—	1,842	—	1,842	1
Margin loans	3,265	2,800	—	—	—	—	11,828	—	17,893	8
Total loans	\$ 6,073	\$ 4,863	\$ 2,485	\$ 1,248	\$ 1,914	\$ 6,270	\$ 33,051	\$ 26	\$ 55,930	\$ 60

(a) Excludes overdrafts of \$4,802 million. Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.

<i>(in millions)</i>	Originated, at amortized cost						Dec. 31, 2020			
							Revolving loans		Converted to term loans – Amortized cost	Total (a)
	2020	2019	2018	2017	2016	Prior to 2016	Amortized cost			
Commercial:										
Investment grade	\$ 128	\$ 18	\$ 71	\$ 420	\$ 57	\$ —	\$ 493	\$ —	\$ 1,187	
Non-investment grade	142	—	6	—	—	—	94	—	242	
Total commercial	270	18	77	420	57	—	587	—	1,429	\$ 2
Commercial real estate:										
Investment grade	778	1,010	458	543	312	346	127	—	3,574	
Non-investment grade	285	619	643	159	376	144	229	27	2,482	
Total commercial real estate	1,063	1,629	1,101	702	688	490	356	27	6,056	8
Financial institutions:										
Investment grade	132	146	47	125	13	156	8,760	—	9,379	
Non-investment grade	84	36	—	—	—	—	1,746	—	1,866	
Total financial institutions	216	182	47	125	13	156	10,506	—	11,245	12
Wealth management loans and mortgages:										
Investment grade	18	85	11	147	59	112	7,786	—	8,218	
Non-investment grade	—	—	—	—	—	—	54	—	54	
Wealth management mortgages	1,117	1,044	637	1,188	1,515	2,546	38	—	8,085	
Total wealth management loans and mortgages	1,135	1,129	648	1,335	1,574	2,658	7,878	—	16,357	27
Lease financings	116	18	14	9	20	813	—	—	990	—
Other residential mortgages	—	—	—	—	—	389	—	—	389	1
Other loans	—	—	—	—	—	—	1,904	—	1,904	1
Margin loans	4,614	—	—	—	—	—	10,802	—	15,416	8
Total loans	\$ 7,414	\$ 2,976	\$ 1,887	\$ 2,591	\$ 2,352	\$ 4,506	\$ 32,033	\$ 27	\$ 53,786	\$ 59

(a) Excludes overdrafts of \$2,683 million. Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.

Commercial

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 96% of the exposures meeting the investment grade

equivalent criteria of our internal credit rating classification at March 31, 2021. In addition, 73% 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 89% expiring within one year.

Wealth management loans and mortgages

Wealth management non-mortgage 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 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, including business assets, fixed assets or a modest amount of commercial real estate. For the loans collateralized by other assets, the credit

quality of the obligor is carefully analyzed, but we do not consider this portfolio of loans to be investment grade.

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 62% at origination. Delinquency rate is a key indicator of credit quality in the wealth management portfolio. At March 31, 2021, less than 1% of the mortgages were past due.

At March 31, 2021, the wealth management mortgage portfolio consisted of the following geographic concentrations: California – 22%; New York – 16%; Massachusetts – 10%; Florida – 8%; and other – 44%.

Lease financing

At March 31, 2021, the lease financings portfolio consisted of exposures backed by well-diversified assets, primarily large-ticket transportation equipment and real estate. The largest component of our lease residual value exposure is freight-related rail cars. Assets are both domestic and foreign-based, with primary concentrations in the U.S. and Germany.

Other residential mortgages

The other residential mortgage portfolio primarily consists of 1-4 family residential mortgage loans and totaled \$364 million at March 31, 2021 and \$389

million at Dec. 31, 2020. These loans are not typically correlated to external ratings. Included in this portfolio at March 31, 2021 were \$63 million of mortgage loans purchased in 2005, 2006 and the first quarter of 2007.

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients and totaled \$4.8 billion at March 31, 2021 and \$2.7 billion at Dec. 31, 2020. Overdrafts occur on a daily basis and are generally repaid within two business days.

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 \$17.9 billion of secured margin loans at March 31, 2021, compared with \$15.4 billion at Dec. 31, 2020. 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.

Reverse repurchase agreements

Reverse repurchase agreements at March 31, 2021 were fully secured with high quality collateral. As a result, there was no allowance for credit losses related to these assets at March 31, 2021.

Note 5—Goodwill and intangible assets

Goodwill

The tables below provide a breakdown of goodwill by business.

Goodwill by business		Investment Services	Investment and Wealth Management	Other	Consolidated
<i>(in millions)</i>					
Balance at Dec. 31, 2020	\$	8,456	\$ 9,040	\$ —	\$ 17,496
Dispositions		—	(5)	—	(5)
Foreign currency translation		(28)	6	—	(22)
Balance at March 31, 2021	\$	8,428	\$ 9,041	\$ —	\$ 17,469

Notes to Consolidated Financial Statements (continued)

Goodwill by business		Investment Services	Investment and Wealth Management	Other	Consolidated
<i>(in millions)</i>					
Balance at Dec. 31, 2019	\$	8,332	\$ 9,007	\$ 47	\$ 17,386
Foreign currency translation		(43)	(103)	—	(146)
Other (a)		47	—	(47)	—
Balance at March 31, 2020	\$	8,336	\$ 8,904	\$ —	\$ 17,240

(a) Reflects the transfer of goodwill associated with Capital Markets business.

Intangible assets

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

Intangible assets – net carrying amount by business		Investment Services	Investment and Wealth Management	Other	Consolidated
<i>(in millions)</i>					
Balance at Dec. 31, 2020	\$	608	\$ 1,555	\$ 849	\$ 3,012
Disposition		—	(6)	—	(6)
Amortization		(17)	(7)	—	(24)
Foreign currency translation		(1)	2	—	1
Balance at March 31, 2021	\$	590	\$ 1,544	\$ 849	\$ 2,983

Intangible assets – net carrying amount by business		Investment Services	Investment and Wealth Management	Other	Consolidated
<i>(in millions)</i>					
Balance at Dec. 31, 2019	\$	678	\$ 1,580	\$ 849	\$ 3,107
Amortization		(18)	(8)	—	(26)
Foreign currency translation		(1)	(10)	—	(11)
Balance at March 31, 2020	\$	659	\$ 1,562	\$ 849	\$ 3,070

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

Intangible assets	March 31, 2021				Dec. 31, 2020		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Remaining weighted- average amortization period	Gross carrying amount	Accumulated amortization	Net carrying amount
<i>(in millions)</i>							
Subject to amortization: (a)							
Customer contracts—Investment Services	\$ 1,431	\$ (1,212)	\$ 219	10 years	\$ 1,435	\$ (1,199)	\$ 236
Customer relationships—Investment and Wealth Management	697	(567)	130	9 years	705	(564)	141
Other	59	(17)	42	14 years	59	(15)	44
Total subject to amortization	2,187	(1,796)	391	10 years	2,199	(1,778)	421
Not subject to amortization: (b)							
Tradename	1,295	N/A	1,295	N/A	1,295	N/A	1,295
Customer relationships	1,297	N/A	1,297	N/A	1,296	N/A	1,296
Total not subject to amortization	2,592	N/A	2,592	N/A	2,591	N/A	2,591
Total intangible assets	\$ 4,779	\$ (1,796)	\$ 2,983	N/A	\$ 4,790	\$ (1,778)	\$ 3,012

(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)
2021	\$ 81
2022	63
2023	53
2024	45
2025	38

Impairment testing

The goodwill impairment test is performed at least annually at the reporting unit level. Intangible assets not subject to amortization are tested for impairment annually or more often if events or circumstances indicate they may be impaired.

Note 6—Other assets

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

Other assets (in millions)	March 31, 2021	Dec. 31, 2020
Corporate/bank-owned life insurance	\$ 5,325	\$ 5,301
Accounts receivable	4,390	3,619
Fails to deliver	3,042	1,371
Software	1,905	1,884
Prepaid pension assets	1,602	1,556
Equity in a joint venture and other investments	1,283	1,259
Renewable energy investments	1,134	1,206
Qualified affordable housing project investments	1,113	1,145
Income taxes receivable	807	599
Prepaid expense	540	477
Assets of consolidated investment management funds (a)	508	487
Federal Reserve Bank stock	480	479
Seed capital	263	215
Fair value of hedging derivatives	85	19
Other (b)	1,375	1,338
Total other assets (a)	\$ 23,852	\$ 20,955

(a) In the first quarter of 2021, we reclassified the assets of consolidated investment management funds, at fair value, to other assets on the consolidated balance sheet. Prior periods have been reclassified. See Note 1 for additional information.

(b) At March 31, 2021 and Dec. 31, 2020, other assets include \$8 million and \$7 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 income on the consolidated income statement. Our non-readily marketable equity securities totaled \$137 million at March 31, 2021 and \$129 million at Dec. 31, 2020 and are included in equity in a joint venture and other 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)	1Q21	4Q20	1Q20	Life-to-date
Upward adjustments	\$ —	\$ 11	\$ 4	\$ 53
Downward adjustments	—	—	—	(4)
Net adjustments	\$ —	\$ 11	\$ 4	\$ 49

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 \$1.1 billion at March 31, 2021 and Dec. 31, 2020. Commitments to fund future investments in qualified affordable housing projects totaled \$493 million at March 31, 2021 and \$514 million at Dec. 31, 2020 and are recorded in other liabilities on the consolidated balance sheet. A summary of the commitments to fund future investments is as follows: 2021 – \$186 million; 2022 – \$106 million; 2023 – \$144 million; 2024 – \$31 million; 2025 – \$1 million; and 2026 and thereafter – \$25 million.

Tax credits and other tax benefits recognized were \$38 million in the first quarter of 2021, \$26 million in the fourth quarter of 2020, \$38 million in the first quarter of 2020.

Amortization expense included in the provision for income taxes was \$32 million in the first quarter of 2021, \$21 million in the fourth quarter of 2020 and \$31 million in the first quarter of 2020.

Investments valued using net asset value (“NAV”) per share

In our Investment and Wealth Management business, we make seed capital investments in certain funds we manage. We also hold private equity investments, specifically 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 <i>(in millions)</i>	March 31, 2021		Dec. 31, 2020	
	Fair value	Unfunded commitments	Fair value	Unfunded commitments
Seed capital (a)	\$ 53	\$ 20	\$ 52	\$ 22
Private equity investments (SBICs) (b)	110	54	102	52
Other (c)	43	—	47	—
Total	\$ 206	\$ 74	\$ 201	\$ 74

- (a) Primarily includes leveraged loans and structured credit funds, which are generally not redeemable. Distributions from such investments will be received as the underlying investments in the funds, which have lives of three to 11 years at both March 31, 2021 and Dec. 31, 2020, are liquidated.
- (b) Private equity investments 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.
- (c) Primarily includes investments in funds that relate to deferred compensation arrangements with employees. Investments in funds can be redeemed on a monthly to quarterly basis with redemption notice periods of up to 95 days.

Note 7—Contract revenue

Fee and other revenue in Investment Services and Investment and Wealth Management 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 fee schedules. See Note 10 of the Notes to Consolidated Financial Statements in our 2020 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 2020 Annual Report for additional information on our principal businesses, Investment 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 table presents fee and other revenue, disaggregated by type, related to contracts with customers 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

<i>(in millions)</i>	Quarter ended											
	March 31, 2021				Dec. 31, 2020				March 31, 2020			
	IS	IWM	Other	Total	IS	IWM	Other	Total	IS	IWM	Other	Total
Fee and other revenue – contract revenue:												
Investment services fees:												
Asset servicing fees	\$ 1,175	\$ 25	\$ (18)	\$ 1,182	\$ 1,115	\$ 22	\$ (14)	\$ 1,123	\$ 1,127	\$ 23	\$ (11)	\$ 1,139
Clearing services fees	455	—	—	455	418	—	—	418	470	—	—	470
Issuer services fees	245	—	—	245	257	—	—	257	263	—	—	263
Treasury services fees	159	—	1	160	156	—	1	157	149	—	—	149
Total investment services fees	2,034	25	(17)	2,042	1,946	22	(13)	1,955	2,009	23	(11)	2,021
Investment management and performance fees	4	883	(5)	882	4	881	(5)	880	5	862	(4)	863
Financing-related fees	20	—	—	20	13	—	—	13	28	—	—	28
Distribution and servicing	1	28	—	29	(1)	29	—	28	(12)	43	—	31
Investment and other income	36	(11)	—	25	48	(24)	—	24	72	(50)	—	22
Total fee and other revenue – contract revenue	2,095	925	(22)	2,998	2,010	908	(18)	2,900	2,102	878	(15)	2,965
Fee and other revenue – not in scope of Accounting Standards Codification (“ASC”) 606 (a)(b)	250	18	(5)	263	225	32	1	258	334	(32)	45	347
Total fee and other revenue	\$ 2,345	\$ 943	\$ (27)	\$ 3,261	\$ 2,235	\$ 940	\$ (17)	\$ 3,158	\$ 2,436	\$ 846	\$ 30	\$ 3,312

(a) Primarily includes asset servicing fees, foreign exchange revenue, financing-related fees, investment and other income (loss) and net securities gains (losses), all of which are accounted for using other accounting guidance.

(b) The Investment and Wealth Management business segment includes income (loss) attributable to noncontrolling interests related to consolidated investment management funds of \$5 million in the first quarter of 2021, \$5 million in the fourth quarter of 2020 and \$(18) million in the first quarter of 2020.

IS – Investment Services segment.

IWM – Investment and Wealth Management segment.

Contract balances

Our clients are billed based on fee schedules that are agreed upon in each customer contract. Receivables from customers were \$3.0 billion at March 31, 2021 and \$2.4 billion at Dec. 31, 2020.

Contract assets represent accrued revenues that have not yet been billed to the customers due to certain contractual terms other than the passage of time and were \$68 million at March 31, 2021 and \$32 million at Dec. 31, 2020. 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 \$184 million at March 31, 2021 and \$167 million at Dec. 31, 2020. Contract liabilities are included in other liabilities on the consolidated balance sheet. Revenue recognized in the first quarter

of 2021 relating to contract liabilities as of Dec. 31, 2020 was \$49 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 \$72 million at March 31, 2021 and \$73 million at Dec. 31, 2020. Capitalized sales incentives are amortized based on the transfer of goods or services to which the assets relate and typically average nine years. The amortization of capitalized sales incentives, which is primarily included in staff expense on the consolidated income statement, totaled \$5 million in the first quarter of 2021, first quarter of 2020 and fourth quarter of 2020.

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 \$17 million at March 31, 2021 and \$15 million at Dec. 31, 2020. These capitalized costs are amortized on a straight-line basis over the expected contract period, which generally ranges from seven to nine years. The amortization is included in professional, legal and other purchased services and other expenses on the consolidated income statement and totaled less than \$1 million in the first quarter of 2021 and \$1 million in the first quarter of 2020 and fourth quarter of 2020.

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 8—Net interest revenue

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

Net interest revenue <i>(in millions)</i>	Quarter ended		
	March 31, 2021	Dec. 31, 2020	March 31, 2020
Interest revenue			
Deposits with the Federal Reserve and other central banks	\$ (16)	\$ (13)	\$ 80
Deposits with banks	14	16	58
Federal funds sold and securities purchased under resale agreements	32	40	396
Margin loans	45	43	87
Non-margin loans	185	193	309
Securities:			
Taxable	450	469	594
Exempt from federal income taxes	9	9	6
Total securities	459	478	600
Trading securities	19	19	40
Total interest revenue	738	776	1,570
Interest expense			
Deposits	(37)	(33)	240
Federal funds purchased and securities sold under repurchase agreements	(3)	1	275
Trading liabilities	3	4	7
Other borrowed funds	2	2	4
Commercial paper	—	—	6
Customer payables	(1)	(1)	30
Long-term debt	119	123	194
Total interest expense	83	96	756
Net interest revenue	655	680	814
Provision for credit losses	(83)	15	169
Net interest revenue after provision for credit losses	\$ 738	\$ 665	\$ 645

Note 9—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 <i>(in millions)</i>	Quarter ended					
	March 31, 2021			March 31, 2020		
	Domestic pension benefits	Foreign pension benefits	Health care benefits	Domestic pension benefits	Foreign pension benefits	Health care benefits
Service cost	\$ —	\$ 4	\$ —	\$ —	\$ 3	\$ —
Interest cost	34	6	1	39	7	1
Expected return on assets	(75)	(9)	(2)	(80)	(10)	(1)
Other	25	4	—	22	3	(1)
Net periodic benefit (credit) cost	\$ (16)	\$ 5	\$ (1)	\$ (19)	\$ 3	\$ (1)

Note 10—Income taxes

BNY Mellon recorded an income tax provision of \$221 million (19.2% effective tax rate) in the first quarter of 2021, \$265 million (21.6% effective tax rate) in the first quarter of 2020 and \$148 million (16.4% effective tax rate) in the fourth quarter of 2020.

Our total tax reserves as of March 31, 2021 were \$121 million compared with \$119 million at Dec. 31, 2020. If these tax reserves were unnecessary, \$121 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, 2021 is accrued interest, where applicable, of \$33 million. The additional tax expense related to interest for the three months ended March 31, 2021 was \$2 million, compared with \$4 million for the three months ended March 31, 2020.

It is reasonably possible the total reserve for uncertain tax positions could decrease within the next 12 months by approximately \$7 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 2012. Our UK income tax returns are closed to examination through 2016.

Note 11—Variable interest entities and securitization

We have variable interests in variable interest entities (“VIEs”), which include investments in retail, institutional and alternative investment funds, including CLO structures in which we provide asset management services, some of which are consolidated.

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 in the consolidated balance sheet as of March 31, 2021 and Dec. 31, 2020. 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 investments <i>(in millions)</i>	March 31, 2021			Dec. 31, 2020		
	Investment Management funds	Securitization	Total consolidated investments	Investment Management funds	Securitization	Total consolidated investments
Trading assets	\$ 483	\$ 400	\$ 883	\$ 482	\$ 400	\$ 882
Other assets	25	—	25	5	—	5
Total assets	\$ 508 <i>(a)</i>	\$ 400	\$ 908	\$ 487 <i>(b)</i>	\$ 400	\$ 887
Other liabilities	\$ 10	\$ 400	\$ 410	\$ 3	\$ 400	\$ 403
Total liabilities	\$ 10 <i>(a)</i>	\$ 400	\$ 410	\$ 3 <i>(b)</i>	\$ 400	\$ 403
Nonredeemable noncontrolling interests	\$ 262 <i>(a)</i>	\$ —	\$ 262	\$ 143 <i>(b)</i>	\$ —	\$ 143

(a) Includes voting model entities (“VMEs”) with assets of \$196 million, liabilities of \$1 million and nonredeemable noncontrolling interests of \$55 million.

(b) Includes VMEs with assets of \$314 million, liabilities of \$3 million and nonredeemable noncontrolling interests of \$76 million.

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, 2021 and Dec. 31, 2020, the following assets and liabilities related to the VIEs where we are not the primary beneficiary were included in our consolidated balance sheets 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, 2021			Dec. 31, 2020		
	Assets	Liabilities	Maximum loss exposure	Assets	Liabilities	Maximum loss exposure
Securities – Available-for-sale (a)	\$ 212	\$ —	\$ 212	\$ 217	\$ —	\$ 217
Other	2,450	493	2,959	2,565	514	3,096

(a) Includes investments in the Company's sponsored CLOs.

Note 12—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, 2021 and Dec. 31, 2020.

Preferred stock summary (a)	Per annum dividend rate	Total shares issued and outstanding		Carrying value (b) (in millions)	
		March 31, 2021	Dec. 31, 2020	March 31, 2021	Dec. 31, 2020
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 E	4.950% to but excluding June 20, 2020, then a floating rate equal to the three-month LIBOR plus 3.42%	10,000	10,000	990	990
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
Total		45,826	45,826	\$ 4,541	\$ 4,541

(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 E, Series F, Series G and Series H preferred stock is recorded net of issuance costs.

The table below presents the dividends paid on the Parent's preferred stock.

Preferred dividends paid (dollars in millions, except per share amounts)	Depositary shares per share	1Q21		4Q20		1Q20	
		Per share	Total dividend	Per share	Total dividend	Per share	Total dividend
Series A	100 (a)	\$ 1,011.11	\$ 5	\$ 1,011.11	\$ 5	\$ 1,011.11	\$ 5
Series C	4,000	N/A	N/A	1,300.00	23 (b)	1,300.00	8
Series D	100	N/A	—	2,250.00	11	N/A	—
Series E	100	924.82	9	921.98	9	N/A	—
Series F	100	2,312.50	23	N/A	—	2,312.50	23
Series G	100	2,350.00	24	N/A	—	N/A	—
Series H	100	1,408.06	8	N/A	—	N/A	—
Total		\$ 69	\$ 69	\$ 48	\$ 48	\$ 36	\$ 36

(a) Represents Normal Preferred Capital Securities.

(b) Includes deferred fees of approximately \$15 million related to the redemption of the Series C preferred stock.

N/A – Not applicable.

In December 2020, all of the outstanding shares of the Series C preferred stock were redeemed.

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 the preferred stock, see Note 15 of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

Note 13—Other comprehensive income (loss)

Components of other comprehensive income (loss)	Quarter ended								
	March 31, 2021			Dec. 31, 2020			March 31, 2020		
	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
<i>(in millions)</i>									
Foreign currency translation:									
Foreign currency translation adjustments arising during the period (a)	\$ (127)	\$ (23)	\$ (150)	\$ 340	\$ 91	\$ 431	\$ (265)	\$ (104)	\$ (369)
Total foreign currency translation	(127)	(23)	(150)	340	91	431	(265)	(104)	(369)
Unrealized (loss) gain on assets available-for-sale:									
Unrealized (loss) gain arising during period	(926)	223	(703)	44	(11)	33	243	(60)	183
Reclassification adjustment (b)	—	—	—	(6)	1	(5)	(9)	2	(7)
Net unrealized (loss) gain on assets available-for-sale	(926)	223	(703)	38	(10)	28	234	(58)	176
Defined benefit plans:									
Net (loss) arising during the period	—	—	—	(138)	31	(107)	—	—	—
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost (b)	28	(6)	22	23	(3)	20	24	(6)	18
Total defined benefit plans	28	(6)	22	(115)	28	(87)	24	(6)	18
Unrealized (loss) gain on cash flow hedges:									
Unrealized hedge gain (loss) arising during period	1	—	1	6	(2)	4	(13)	3	(10)
Reclassification of net loss (gain) to net income:									
FX contracts – staff expense	(5)	1	(4)	(1)	1	—	(1)	—	(1)
Total reclassifications to net income	(5)	1	(4)	(1)	1	—	(1)	—	(1)
Net unrealized (loss) gain on cash flow hedges	(4)	1	(3)	5	(1)	4	(14)	3	(11)
Total other comprehensive (loss) income	\$ (1,029)	\$ 195	\$ (834)	\$ 268	\$ 108	\$ 376	\$ (21)	\$ (165)	\$ (186)

(a) Includes the impact of hedges of net investments in foreign subsidiaries. See Note 16 for additional information.

(b) The reclassification adjustment related to the unrealized gain (loss) on assets available-for-sale is recorded as net securities gains 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 14—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 2020 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, 2021 and Dec. 31, 2020, 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.

Notes to Consolidated Financial Statements (continued)

Assets and liabilities measured at fair value on a recurring basis at March 31, 2021 <i>(dollars in millions)</i>	Level 1	Level 2	Level 3	Netting (a)	Total carrying value
Assets:					
Available-for-sale securities:					
U.S. Treasury	\$ 27,928	\$ —	\$ —	\$ —	\$ 27,928
Agency RMBS	—	19,846	—	—	19,846
Sovereign debt/sovereign guaranteed	5,941	7,619	—	—	13,560
Agency commercial MBS	—	9,216	—	—	9,216
Supranational	—	7,438	—	—	7,438
Foreign covered bonds	—	6,542	—	—	6,542
CLOs	—	4,754	—	—	4,754
Non-agency commercial MBS	—	2,959	—	—	2,959
U.S. government agencies	—	2,919	—	—	2,919
Foreign government agencies	—	2,698	—	—	2,698
State and political subdivisions	—	2,634	—	—	2,634
Other ABS	—	2,628	—	—	2,628
Non-agency RMBS (b)	—	2,451	—	—	2,451
Corporate bonds	—	2,238	—	—	2,238
Other debt securities	—	1	—	—	1
Total available-for-sale securities	33,869	73,943	—	—	107,812
Trading assets:					
Debt instruments	2,777	3,225	—	—	6,002
Equity instruments (c)	7,495	—	—	—	7,495
Derivative assets not designated as hedging:					
Interest rate	6	3,344	—	(1,496)	1,854
Foreign exchange	—	6,940	—	(5,418)	1,522
Equity and other contracts	1	82	—	(72)	11
Total derivative assets not designated as hedging	7	10,366	—	(6,986)	3,387
Total trading assets	10,279	13,591	—	(6,986)	16,884
Other assets:					
Derivative assets designated as hedging:					
Foreign exchange	—	85	—	—	85
Total derivative assets designated as hedging	—	85	—	—	85
Other assets (d)	453	415	—	—	868
Assets measured at NAV (d)	—	—	—	—	206
Total assets	\$ 44,601	\$ 88,034	\$ —	\$ (6,986)	\$ 125,855
Percentage of total assets prior to netting	34%	66%	—%		
Liabilities:					
Trading liabilities:					
Debt instruments	\$ 2,010	\$ 25	\$ —	\$ —	\$ 2,035
Equity instruments	52	—	—	—	52
Derivative liabilities not designated as hedging:					
Interest rate	2	2,925	—	(1,925)	1,002
Foreign exchange	—	6,266	—	(4,796)	1,470
Equity and other contracts	1	22	—	(16)	7
Total derivative liabilities not designated as hedging	3	9,213	—	(6,737)	2,479
Total trading liabilities	2,065	9,238	—	(6,737)	4,566
Long-term debt (c)	—	400	—	—	400
Other liabilities – derivative liabilities designated as hedging:					
Interest rate	—	282	—	—	282
Foreign exchange	—	149	—	—	149
Total other liabilities – derivative liabilities designated as hedging	—	431	—	—	431
Other liabilities	1	9	—	—	10
Total liabilities	\$ 2,066	\$ 10,078	\$ —	\$ (6,737)	\$ 5,407
Percentage of total liabilities prior to netting	17%	83%	—%		

(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 \$451 million in Level 2 that was included in the former Grantor Trust.

(c) Includes certain interests in securitizations.

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

Notes to Consolidated Financial Statements (continued)

Assets measured at fair value on a recurring basis at Dec. 31, 2020 (dollars in millions)	Level 1	Level 2	Level 3	Netting (a)	Total carrying value
Assets:					
Available-for-sale securities:					
U.S. Treasury	\$ 24,894	\$ —	\$ —	\$ —	\$ 24,894
Agency RMBS	—	22,347	—	—	22,347
Sovereign debt/sovereign guaranteed	5,909	6,482	—	—	12,391
Agency commercial MBS	—	9,228	—	—	9,228
Supranational	—	7,160	—	—	7,160
Foreign covered bonds	—	6,725	—	—	6,725
CLOs	—	4,703	—	—	4,703
Foreign government agencies	—	4,135	—	—	4,135
U.S. government agencies	—	3,853	—	—	3,853
Other ABS	—	3,164	—	—	3,164
Non-agency commercial MBS	—	3,017	—	—	3,017
Non-agency RMBS (b)	—	2,326	—	—	2,326
State and political subdivisions	—	2,308	—	—	2,308
Corporate bonds	—	1,994	—	—	1,994
Commercial paper/CDs	—	249	—	—	249
Other debt securities	—	1	—	—	1
Total available-for-sale securities	30,803	77,692	—	—	108,495
Trading assets:					
Debt instruments	1,803	3,868	—	—	5,671
Equity instruments (c)	5,775	—	—	—	5,775
Derivative assets not designated as hedging:					
Interest rate	5	4,477	—	(1,952)	2,530
Foreign exchange	—	7,688	—	(6,392)	1,296
Equity and other contracts	—	2	—	(2)	—
Total derivative assets not designated as hedging	5	12,167	—	(8,346)	3,826
Total trading assets	7,583	16,035	—	(8,346)	15,272
Other assets:					
Derivative assets designated as hedging:					
Foreign exchange	—	19	—	—	19
Total derivative assets designated as hedging	—	19	—	—	19
Other assets (d)(e)	504	285	—	—	789
Assets measured at NAV (d)					201
Total assets	\$ 38,890	\$ 94,031	\$ —	\$ (8,346)	\$ 124,776
Percentage of total assets prior to netting	29%	71%	—%		

Notes to Consolidated Financial Statements (continued)

Liabilities measured at fair value on a recurring basis at Dec. 31, 2020 <i>(dollars in millions)</i>	Level 1	Level 2	Level 3	Netting (a)	Total carrying value
Liabilities:					
Trading liabilities:					
Debt instruments	\$ 2,287	\$ 35	\$ —	\$ —	\$ 2,322
Equity instruments	11	—	—	—	11
Derivative liabilities not designated as hedging:					
Interest rate	2	3,878	—	(2,348)	1,532
Foreign exchange	—	7,622	—	(5,484)	2,138
Equity and other contracts	7	34	—	(13)	28
Total derivative liabilities not designated as hedging	9	11,534	—	(7,845)	3,698
Total trading liabilities	2,307	11,569	—	(7,845)	6,031
Long-term debt (c)	—	400	—	—	400
Other liabilities – derivative liabilities designated as hedging:					
Interest rate	—	666	—	—	666
Foreign exchange	—	441	—	—	441
Total other liabilities – derivative liabilities designated as hedging	—	1,107	—	—	1,107
Other liabilities (e)	1	2	—	—	3
Total liabilities	\$ 2,308	\$ 13,078	\$ —	\$ (7,845)	\$ 7,541
Percentage of total liabilities prior to netting	15%	85%	—%		

- (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 \$487 million in Level 2 that was included in the former Grantor Trust.
- (c) Includes certain interests in securitizations.
- (d) Includes seed capital, private equity investments and other assets.
- (e) In the first quarter of 2021, we reclassified the assets and liabilities of consolidated investment management funds, at fair value, to other assets and other liabilities, respectively, on the consolidated balance sheet. The reclassifications had no impact on total assets or total liabilities. Prior periods were reclassified to be comparable with the current period presentation. See Note 1 for additional information.

Notes to Consolidated Financial Statements (continued)

Details of certain available-for-sale securities measured at fair value on a recurring basis	March 31, 2021					Dec. 31, 2020				
	Total carrying value	Ratings (a)				Total carrying value	Ratings (a)			
		AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower		AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower
<i>(dollars in millions)</i>	(b)					(b)				
Non-agency RMBS (c), originated in:										
2008-2021	\$ 1,727	100%	—%	—%	—%	\$ 1,548	100%	—%	—%	—%
2007	166	12	3	—	85	179	12	3	—	85
2006	223	—	23	—	77	237	—	23	—	77
2005	208	3	—	7	90	227	3	—	7	90
2004 and earlier	127	18	9	6	67	135	19	10	11	60
Total non-agency RMBS	\$ 2,451	72%	3%	1%	24%	\$ 2,326	69%	3%	1%	27%
Non-agency commercial MBS originated in:										
2009-2021	\$ 2,959	99%	1%	—%	—%	\$ 3,017	99%	1%	—%	—%
Foreign covered bonds:										
Canada	\$ 2,354	100%	—%	—%	—%	\$ 2,552	100%	—%	—%	—%
UK	1,299	100	—	—	—	1,259	100	—	—	—
Australia	900	100	—	—	—	951	100	—	—	—
Norway	715	100	—	—	—	703	100	—	—	—
Germany	500	100	—	—	—	494	100	—	—	—
Other	774	100	—	—	—	766	100	—	—	—
Total foreign covered bonds	\$ 6,542	100%	—%	—%	—%	\$ 6,725	100%	—%	—%	—%
Sovereign debt/sovereign guaranteed:										
Germany	\$ 3,504	100%	—%	—%	—%	\$ 2,222	100%	—%	—%	—%
Italy	1,827	—	—	100	—	2,010	—	—	100	—
France	1,826	100	—	—	—	1,697	100	—	—	—
Spain	1,383	—	7	93	—	1,920	—	5	95	—
Singapore	1,040	100	—	—	—	984	100	—	—	—
UK	1,015	100	—	—	—	1,089	100	—	—	—
Canada	660	100	—	—	—	572	100	—	—	—
Netherlands	487	100	—	—	—	491	100	—	—	—
Hong Kong	455	100	—	—	—	29	100	—	—	—
Japan	429	—	100	—	—	408	—	100	—	—
Austria	251	100	—	—	—	256	100	—	—	—
Ireland	240	—	100	—	—	252	—	100	—	—
Other (d)	443	76	—	—	24	461	73	—	—	27
Total sovereign debt/sovereign guaranteed	\$ 13,560	71%	5%	23%	1%	\$ 12,391	62%	6%	31%	1%
Foreign government agencies:										
Netherlands	\$ 796	100%	—%	—%	—%	\$ 847	100%	—%	—%	—%
Canada	547	77	23	—	—	511	75	25	—	—
France	310	100	—	—	—	305	100	—	—	—
Sweden	305	100	—	—	—	281	100	—	—	—
Finland	224	100	—	—	—	225	100	—	—	—
Germany	49	100	—	—	—	1,473	100	—	—	—
Other	467	79	21	—	—	493	80	20	—	—
Total foreign government agencies	\$ 2,698	92%	8%	—%	—%	\$ 4,135	95%	5%	—%	—%

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

(b) At March 31, 2021 and Dec. 31, 2020, 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 \$451 million at March 31, 2021 and \$487 million at Dec. 31, 2020 that were included in the former Grantor Trust.

(d) Includes non-investment grade sovereign debt/sovereign guaranteed securities related to Brazil of \$108 million at March 31, 2021 and \$125 million at Dec. 31, 2020.

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. Examples would be the recording of an impairment of

an asset and non-readily marketable equity securities carried at cost with upward or downward adjustments.

The following table presents the financial instruments carried on the consolidated balance sheet by caption and level in the fair value hierarchy as of March 31, 2021 and Dec. 31, 2020.

Assets measured at fair value on a nonrecurring basis (in millions)	March 31, 2021				Dec. 31, 2020			
	Level 1	Level 2	Level 3	Total carrying value	Level 1	Level 2	Level 3	Total carrying value
Loans (a)	\$ —	\$ 47	\$ —	\$ 47	\$ —	\$ 48	\$ —	\$ 48
Other assets (b)(c)	—	138	41	179	—	131	—	131
Total assets at fair value on a nonrecurring basis	\$ —	\$ 185	\$ 41	\$ 226	\$ —	\$ 179	\$ —	\$ 179

- (a) The fair value of these loans decreased less than \$1 million in both the first quarter of 2021 and the fourth quarter of 2020, 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.
- (c) The level 3 other assets relate to a renewable energy equity method investment. The Company recognized an other-than-temporary impairment of \$39 million the first quarter of 2021, which was derived by preparing a discounted cash flow using unobservable inputs and was primarily driven by revised projections of future operating results and realizability of tax credits. The development of these expectations requires management review and judgment.

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, 2021 and Dec. 31, 2020, by caption on the consolidated balance sheet and by the valuation hierarchy.

Summary of financial instruments (in millions)	March 31, 2021				
	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	\$ —	\$ 125,524	\$ —	\$ 125,524	\$ 125,524
Interest-bearing deposits with banks	—	23,772	—	23,772	23,763
Federal funds sold and securities purchased under resale agreements	—	28,263	—	28,263	28,263
Securities held-to-maturity	4,039	44,450	—	48,489	48,032
Loans (a)	—	59,741	—	59,741	59,445
Other financial assets	5,991	1,142	—	7,133	7,133
Total	\$ 10,030	\$ 282,892	\$ —	\$ 292,922	\$ 292,160
Liabilities:					
Noninterest-bearing deposits	\$ —	\$ 95,306	\$ —	\$ 95,306	\$ 95,306
Interest-bearing deposits	—	240,778	—	240,778	241,462
Federal funds purchased and securities sold under repurchase agreements	—	15,150	—	15,150	15,150
Payables to customers and broker-dealers	—	23,827	—	23,827	23,827
Borrowings	—	518	—	518	518
Long-term debt	—	26,107	—	26,107	24,950
Total	\$ —	\$ 401,686	\$ —	\$ 401,686	\$ 401,213

- (a) Does not include the leasing portfolio.

Summary of financial instruments (in millions)	Dec. 31, 2020				
	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	\$ —	\$ 141,775	\$ —	\$ 141,775	\$ 141,775
Interest-bearing deposits with banks	—	17,310	—	17,310	17,300
Federal funds sold and securities purchased under resale agreements	—	30,907	—	30,907	30,907
Securities held-to-maturity	4,120	45,104	—	49,224	47,946
Loans (a)	—	53,586	—	53,586	55,121
Other financial assets	6,252	1,160	—	7,412	7,412
Total	\$ 10,372	\$ 289,842	\$ —	\$ 300,214	\$ 300,461
Liabilities:					
Noninterest-bearing deposits	\$ —	\$ 83,854	\$ —	\$ 83,854	\$ 83,854
Interest-bearing deposits	—	257,287	—	257,287	257,691
Federal funds purchased and securities sold under repurchase agreements	—	11,305	—	11,305	11,305
Payables to customers and broker-dealers	—	25,085	—	25,085	25,085
Borrowings	—	563	—	563	563
Long-term debt	—	27,306	—	27,306	25,584
Total	\$ —	\$ 405,400	\$ —	\$ 405,400	\$ 404,082

(a) Does not include the leasing portfolio.

Note 15—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 certain long-term debt. 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, 2021	Dec. 31, 2020
Assets of consolidated investment management funds:		
Trading assets	\$ 483	\$ 482
Other assets	25	5
Total assets of consolidated investment management funds	\$ 508	\$ 487
Liabilities of consolidated investment management funds:		
Other liabilities	10	3
Total liabilities of consolidated investment management funds	\$ 10	\$ 3

BNY Mellon values the assets and liabilities of its 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 value of the assets and liabilities are recorded as income (loss) from consolidated investment management funds, which is included in investment and other income in the consolidated income statement.

We have elected the fair value option on \$240 million of long-term debt. The fair value of this long-term debt was \$400 million at March 31, 2021 and \$400 million at Dec. 31, 2020. The long-term debt is valued using observable market inputs and is included in Level 2 of the valuation hierarchy.

The following table presents the changes in fair value of long-term debt recorded in other trading revenue which is included in investment and other income in the consolidated income statement.

Change in fair value of long-term debt (a) (in millions)	1Q21	4Q20	1Q20
Investment and other income – other trading revenue	\$ —	\$ —	\$ (10)

(a) The changes in fair value are approximately offset by an economic hedge included in other trading revenue.

Note 16—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 2021.

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, corporate bonds and foreign covered bonds. At March 31, 2021, \$20.6 billion par value of available-for-sale securities were hedged with interest rate swaps designated as fair value hedges that had notional values of \$20.6 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, 2021, \$15.1 billion par value of debt was hedged with interest rate swaps designated

as fair value hedges that had notional values of \$15.1 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 Indian rupee, British pound, Euro, Hong Kong dollar, Polish zloty and Singapore dollar used in revenue and expense transactions for entities that have the U.S. dollar as their functional currency. As of March 31, 2021, the hedged forecasted foreign currency transactions and designated forward foreign exchange contract hedges were \$353 million (notional), with a pre-tax gain of \$7 million recorded in accumulated OCI. This gain will be reclassified to earnings over the next 12 months.

We also utilize forward foreign exchange contracts as fair value hedges of the foreign exchange risk associated with available-for-sale securities. Forward points are designated as an excluded component and amortized into earnings over the hedge period. The unamortized derivative value associated with the excluded component is recognized in accumulated OCI. At March 31, 2021, \$145 million par value of available-for-sale securities was hedged with foreign currency forward contracts that had a notional value of \$145 million.

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, 2021, forward foreign exchange contracts with notional amounts totaling \$8.3 billion were designated as net investment hedges.

In addition to forward foreign exchange contracts, we also designate non-derivative financial instruments as hedges of our net investments in foreign subsidiaries. Those non-derivative financial instruments

designated as hedges of our net investments in foreign subsidiaries were all long-term liabilities of

BNY Mellon and, at March 31, 2021, had a combined U.S. dollar equivalent carrying value of \$179 million.

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				
<i>(in millions)</i>	Location of gains (losses)	1Q21	4Q20	1Q20
Interest rate fair value hedges of available-for-sale securities				
Derivative	Interest revenue	\$ 791	\$ 237	\$ (1,033)
Hedged item	Interest revenue	(785)	(232)	1,011
Interest rate fair value hedges of long-term debt				
Derivative	Interest expense	(353)	(106)	714
Hedged item	Interest expense	351	105	(708)
Foreign exchange fair value hedges of available-for-sale securities				
Derivative (a)	Foreign exchange revenue	8	2	(7)
Hedged item	Foreign exchange revenue	(7)	(2)	7
Cash flow hedges of forecasted FX exposures				
Gain reclassified from OCI into income	Staff expense	5	1	1
Gain (loss) recognized in the consolidated income statement due to fair value and cash flow hedging relationships		\$ 10	\$ 5	\$ (15)

(a) Includes gains of less than \$1 million in the first quarter of 2021, fourth quarter of 2020 and first quarter of 2020 associated with the amortization of the excluded component. At March 31, 2021 and Dec. 31, 2020, the remaining accumulated OCI balance associated with the excluded component was de minimis.

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							
<i>(in millions)</i>							
Derivatives in net investment hedging relationships	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		
	1Q21	4Q20	1Q20		1Q21	4Q20	1Q20
FX contracts	\$ 82	\$ (387)	\$ 437	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)	
	March 31, 2021	Dec. 31, 2020	March 31, 2021	Dec. 31, 2020
<i>(in millions)</i>				
Available-for-sale securities (b)(c)	\$ 20,571	\$ 17,536	\$ 634	\$ 1,428
Long-term debt	\$ 15,635	\$ 14,784	\$ 450	\$ 783

(a) Includes \$168 million and \$177 million of basis adjustment increases on discontinued hedges associated with available-for-sale securities at March 31, 2021 and Dec. 31, 2020, respectively, and \$99 million and \$118 million of basis adjustment decreases on discontinued hedges associated with long-term debt at March 31, 2021 and Dec. 31, 2020, respectively.

(b) Excludes hedged items where only foreign currency risk is the designated hedged risk, as the basis adjustments related to foreign currency hedges will not reverse through the consolidated income statement in future periods. The carrying amount excluded for available-for-sale securities was \$145 million at March 31, 2021 and \$148 million at Dec. 31, 2020.

(c) 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 (in millions)	Notional value		Asset derivatives fair value		Liability derivatives fair value	
	March 31, 2021	Dec. 31, 2020	March 31, 2021	Dec. 31, 2020	March 31, 2021	Dec. 31, 2020
Derivatives designated as hedging instruments: (a)(b)						
Interest rate contracts	\$ 35,689	\$ 31,360	\$ —	\$ —	\$ 282	\$ 666
Foreign exchange contracts	8,803	8,706	85	19	149	441
Total derivatives designated as hedging instruments			\$ 85	\$ 19	\$ 431	\$ 1,107
Derivatives not designated as hedging instruments: (b)(c)						
Interest rate contracts	\$ 221,043	\$ 198,865	\$ 3,350	\$ 4,482	\$ 2,927	\$ 3,880
Foreign exchange contracts	913,156	813,003	6,940	7,688	6,266	7,622
Equity contracts	6,709	5,142	83	2	19	37
Credit contracts	165	165	—	—	4	4
Total derivatives not designated as hedging instruments			\$ 10,373	\$ 12,172	\$ 9,216	\$ 11,543
Total derivatives fair value (d)			\$ 10,458	\$ 12,191	\$ 9,647	\$ 12,650
Effect of master netting agreements (e)			(6,986)	(8,346)	(6,737)	(7,845)
Fair value after effect of master netting agreements			\$ 3,472	\$ 3,845	\$ 2,910	\$ 4,805

- (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 \$1,231 million and \$982 million, respectively, at March 31, 2021, and \$1,552 million and \$1,051 million, respectively, at Dec. 31, 2020.

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 income 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)	1Q21	4Q20	1Q20
Foreign exchange revenue (a)	\$ 231	\$ 187	\$ 245
Other trading (loss) revenue (a)	(7)	(31)	66

- (a) In the first quarter of 2021, we reclassified certain items within total revenue on the consolidated income statement and reclassified prior periods to be comparable with the current period presentation. See Note 1 for additional information.

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 \$10 million in the first quarter of 2021, a loss of \$41 million in the first

quarter of 2020 and a gain of \$23 million in the fourth quarter of 2020.

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 14.

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.

<i>(in millions)</i>	March 31, 2021	Dec. 31, 2020
Aggregate fair value of OTC derivatives in net liability positions (a)	\$ 3,785	\$ 5,235
Collateral posted	\$ 4,325	\$ 5,568

(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)		
<i>(in millions)</i>	March 31, 2021	Dec. 31, 2020
If The Bank of New York Mellon’s rating changed to: (b)		
A3/A-	\$ 73	\$ 79
Baa2/BBB	\$ 333	\$ 813
Ba1/BB+	\$ 1,829	\$ 2,859

(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, 2021 and Dec. 31, 2020, existing collateral arrangements would

have required us to post additional collateral of \$54 million and \$41 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, 2021

(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		Net amount
				Financial instruments	Cash collateral received	
Derivatives subject to netting arrangements:						
Interest rate contracts	\$ 2,280	\$ 1,496	\$ 784	\$ 206	\$ —	\$ 578
Foreign exchange contracts	6,600	5,418	1,182	66	—	1,116
Equity and other contracts	83	72	11	—	—	11
Total derivatives subject to netting arrangements	8,963	6,986	1,977	272	—	1,705
Total derivatives not subject to netting arrangements	1,495	—	1,495	—	—	1,495
Total derivatives	10,458	6,986	3,472	272	—	3,200
Reverse repurchase agreements	50,722	33,544 (b)	17,178	17,150	—	28
Securities borrowing	11,085	—	11,085	10,624	—	461
Total	\$ 72,265	\$ 40,530	\$ 31,735	\$ 28,046	\$ —	\$ 3,689

(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, 2020

(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		Net amount
				Financial instruments	Cash collateral received	
Derivatives subject to netting arrangements:						
Interest rate contracts	\$ 2,972	\$ 1,952	\$ 1,020	\$ 311	\$ —	\$ 709
Foreign exchange contracts	7,128	6,392	736	146	—	590
Equity and other contracts	2	2	—	—	—	—
Total derivatives subject to netting arrangements	10,102	8,346	1,756	457	—	1,299
Total derivatives not subject to netting arrangements	2,089	—	2,089	—	—	2,089
Total derivatives	12,191	8,346	3,845	457	—	3,388
Reverse repurchase agreements	78,828	59,561 (b)	19,267	19,252	—	15
Securities borrowing	11,640	—	11,640	11,166	—	474
Total	\$ 102,659	\$ 67,907	\$ 34,752	\$ 30,875	\$ —	\$ 3,877

(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, 2021

<i>(in millions)</i>	Gross liabilities recognized	Gross amounts offset in the balance sheet	<i>(a)</i>	Net liabilities recognized in the balance sheet	Gross amounts not offset in the balance sheet		Net amount
					Financial instruments	Cash collateral pledged	
Derivatives subject to netting arrangements:							
Interest rate contracts	\$ 3,168	\$ 1,925		\$ 1,243	\$ 1,168	\$ —	\$ 75
Foreign exchange contracts	5,810	4,796		1,014	173	—	841
Equity and other contracts	19	16		3	—	—	3
Total derivatives subject to netting arrangements	8,997	6,737		2,260	1,341	—	919
Total derivatives not subject to netting arrangements	650	—		650	—	—	650
Total derivatives	9,647	6,737		2,910	1,341	—	1,569
Repurchase agreements	47,516	33,544	<i>(b)</i>	13,972	13,968	1	3
Securities lending	1,178	—		1,178	1,153	—	25
Total	\$ 58,341	\$ 40,281		\$ 18,060	\$ 16,462	\$ 1	\$ 1,597

(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, 2020

<i>(in millions)</i>	Gross liabilities recognized	Gross amounts offset in the balance sheet	<i>(a)</i>	Net liabilities recognized in the balance sheet	Gross amounts not offset in the balance sheet		Net amount
					Financial instruments	Cash collateral pledged	
Derivatives subject to netting arrangements:							
Interest rate contracts	\$ 4,533	\$ 2,348		\$ 2,185	\$ 2,115	\$ —	\$ 70
Foreign exchange contracts	7,280	5,484		1,796	143	—	1,653
Equity and other contracts	37	13		24	7	—	17
Total derivatives subject to netting arrangements	11,850	7,845		4,005	2,265	—	1,740
Total derivatives not subject to netting arrangements	800	—		800	—	—	800
Total derivatives	12,650	7,845		4,805	2,265	—	2,540
Repurchase agreements	69,831	59,561	<i>(b)</i>	10,270	10,270	—	—
Securities lending	1,035	—		1,035	983	—	52
Total	\$ 83,516	\$ 67,406		\$ 16,110	\$ 13,518	\$ —	\$ 2,592

(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									
<i>(in millions)</i>	March 31, 2021				Dec. 31, 2020				
	Remaining contractual maturity				Remaining contractual maturity				
	Overnight and continuous	Up to 30 days	30 days or more	Total	Overnight and continuous	Up to 30 days	30 days or more	Total	
Repurchase agreements:									
U.S. Treasury	\$ 38,425	\$ 46	\$ —	\$ 38,471	\$ 62,381	\$ —	\$ —	\$ 62,381	
Agency RMBS	2,518	—	2	2,520	3,117	—	80	3,197	
Corporate bonds	243	131	1,555	1,929	190	218	1,436	1,844	
Sovereign debt/sovereign guaranteed	74	—	1,879	1,953	—	—	—	—	
State and political subdivisions	31	70	780	881	66	40	864	970	
U.S. government agencies	632	—	—	632	425	—	—	425	
Other debt securities	23	48	92	163	7	21	138	166	
Equity securities	—	51	916	967	—	21	827	848	
Total	\$ 41,946	\$ 346	\$ 5,224	\$ 47,516	\$ 66,186	\$ 300	\$ 3,345	\$ 69,831	
Securities lending:									
Agency RMBS	\$ 172	\$ —	\$ —	\$ 172	\$ 161	\$ —	\$ —	\$ 161	
Other debt securities	68	—	—	68	52	—	—	52	
Equity securities	938	—	—	938	822	—	—	822	
Total	\$ 1,178	\$ —	\$ —	\$ 1,178	\$ 1,035	\$ —	\$ —	\$ 1,035	
Total secured borrowings	\$ 43,124	\$ 346	\$ 5,224	\$ 48,694	\$ 67,221	\$ 300	\$ 3,345	\$ 70,866	

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 17—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 <i>(in millions)</i>	March 31, 2021	Dec. 31, 2020
Lending commitments	\$ 47,758	\$ 47,577
Standby letters of credit (“SBLC”) (a)	2,295	2,265
Commercial letters of credit	51	60
Securities lending indemnifications (b)(c)	479,719	469,121

- (a) *Net of participations totaling \$155 million at March 31, 2021 and \$154 million at Dec. 31, 2020.*
- (b) *Excludes the indemnification for securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled \$60 billion at March 31, 2021 and \$62 billion at Dec. 31, 2020.*
- (c) *Includes cash collateral, invested in indemnified repurchase agreements, held by us as securities lending agent of \$42 billion at March 31, 2021 and \$41 billion at Dec. 31, 2020.*

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: \$30.5 billion in less than one year, \$16.3 billion in one to five years and \$954 million over five years.

SBLCs principally support obligations of corporate clients and were collateralized with cash and securities of \$191 million at March 31, 2021 and \$194 million at Dec. 31, 2020. At March 31, 2021, \$1.6 billion of the SBLCs will expire within one year, \$730 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, 2021	Dec. 31, 2020
Investment grade	84%	82%
Non-investment grade	16%	18%

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 \$51 million at March 31, 2021 and \$60 million at Dec. 31, 2020.

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 \$73 million at March 31, 2021 and \$121 million at Dec. 31, 2020.

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 \$504 billion at March 31, 2021 and \$493 billion at Dec. 31, 2020.

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 March 31, 2021 and Dec. 31, 2020, \$60 billion and \$62 billion, respectively, of borrowings at CIBC Mellon, for which BNY Mellon acts as agent on behalf of CIBC Mellon clients, were secured by collateral of \$64 billion and \$66 billion, respectively. 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, 2021, we had no unsettled repurchase agreements and \$2.9 billion of unsettled reverse repurchase agreements.

Industry concentrations

We have significant industry concentrations related to credit exposure at March 31, 2021. The tables below present our credit exposure in the financial institutions and commercial portfolios.

Financial institutions portfolio exposure (in billions)	March 31, 2021		
	Loans	Unfunded commitments	Total exposure
Securities industry	\$ 2.3	\$ 21.3	\$ 23.6
Asset managers	1.4	6.5	7.9
Banks	6.4	1.1	7.5
Insurance	0.1	3.0	3.1
Government	0.1	0.2	0.3
Other	0.7	0.7	1.4
Total	\$ 11.0	\$ 32.8	\$ 43.8

Commercial portfolio exposure (in billions)	March 31, 2021		
	Loans	Unfunded commitments	Total exposure
Manufacturing	\$ 0.4	\$ 4.0	\$ 4.4
Energy and utilities	0.3	4.0	4.3
Services and other	0.7	3.5	4.2
Media and telecom	—	0.8	0.8
Total	\$ 1.4	\$ 12.3	\$ 13.7

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 overnight repurchase and reverse repurchase transactions in U.S. Treasury 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 16 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, 2021 and Dec. 31, 2020, 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, 2021 and Dec. 31, 2020, 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 \$650 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

The Bank of New York 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; and one action commenced in May 2016 is pending in New York state court.

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. After dismissals, 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. All the cases that have been brought in federal court against Pershing and the case brought against The Bank of New York Mellon have been consolidated in Texas federal court for discovery

purposes. In July 2020, after being enjoined from pursuing claims before the Financial Industry Regulatory Authority, Inc. (“FINRA”), an investment firm filed an action against Pershing in Texas federal court. FINRA arbitration proceedings also have been initiated by alleged purchasers asserting similar claims.

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, Associação 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 has appealed that decision. 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 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, and the MPF has appealed that decision. In addition, the Tribunal de Contas da Uniao (“TCU”), an administrative

tribunal, has initiated two proceedings with the purpose of determining liability for losses to two investment funds administered by DTVM in which Postalis was the exclusive 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 \$45 million. TCU also imposed on DTVM a fine of approximately \$2 million. DTVM has filed an administrative appeal of the decision. 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 challenging the decision rendered by the Arbitration Court with respect to its jurisdiction over the case. 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 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, we received secondary liability notices from the German tax authorities totaling approximately \$150 million 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.

Note 18—Lines of business

We have an internal information system that produces performance data along product and service lines for our two principal businesses 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 2020 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 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 2021.

The accounting policies of the businesses are the same as those described in Note 1 of the Notes to Consolidated Financial Statements in our 2020 Annual Report.

The results of our businesses 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 revenue in each business.
- 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 Investment Services.
- 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 business segment.
- Incentives expense related to restricted stock and RSUs is allocated to the businesses.
- 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 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.
- 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. Businesses 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 businesses to our overall profitability.

For the quarter ended March 31, 2021				
<i>(dollars in millions)</i>	Investment Services	Investment and Wealth Management	Other	Consolidated
Total fee and other revenue (loss)	\$ 2,345	\$ 943 (a)	\$ (27)	\$ 3,261 (a)
Net interest revenue (expense)	645	48	(38)	655
Total revenue (loss)	2,990	991 (a)	(65)	3,916 (a)
Provision for credit losses	(79)	4	(8)	(83)
Noninterest expense	2,101	709	41	2,851
Income (loss) before income taxes	\$ 968	\$ 278 (a)	\$ (98)	\$ 1,148 (a)
Pre-tax operating margin (b)	32%	28%	N/M	29%
Average assets	\$ 385,054	\$ 32,066	\$ 43,259	\$ 460,379

(a) Total fee and other revenue, total revenue and income before income taxes are net of noncontrolling interests of \$5 million.

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

N/M – Not meaningful.

Notes to Consolidated Financial Statements (continued)

For the quarter ended Dec. 31, 2020					
<i>(dollars in millions)</i>	Investment Services	Investment and Wealth Management		Other	Consolidated
Total fee and other revenue (loss)	\$ 2,235	\$ 940 (a)	\$	(17)	\$ 3,158 (a)
Net interest revenue (expense)	670	50		(40)	680
Total revenue (loss)	2,905	990 (a)		(57)	3,838 (a)
Provision for credit losses	31	(8)		(8)	15
Noninterest expense	2,174	687		64	2,925
Income (loss) before income taxes	\$ 700	\$ 311 (a)	\$	(113)	\$ 898 (a)
Pre-tax operating margin (b)	24%	32%		N/M	24%
Average assets	\$ 358,270	\$ 30,804	\$	48,414	\$ 437,488

(a) Total fee and other revenue, total revenue and income before income taxes are net of noncontrolling interests of \$5 million.

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

N/M – Not meaningful.

For the quarter ended March 31, 2020					
<i>(dollars in millions)</i>	Investment Services	Investment and Wealth Management		Other	Consolidated
Total fee and other revenue	\$ 2,436	\$ 846 (a)	\$	30	\$ 3,312 (a)
Net interest revenue (expense)	806	52		(44)	814
Total revenue (loss)	3,242	898 (a)		(14)	4,126 (a)
Provision for credit losses	149	9		11	169
Noninterest expense	1,987	695		30	2,712
Income (loss) before income taxes	\$ 1,106	\$ 194 (a)	\$	(55)	\$ 1,245 (a)
Pre-tax operating margin (b)	34%	22%		N/M	30%
Average assets	\$ 304,089	\$ 30,543	\$	50,646	\$ 385,278

(a) Total fee and other revenue, total revenue and income before income taxes are net of a loss attributable to noncontrolling interests of \$18 million.

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

N/M – Not meaningful.

Note 19—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 <i>(in millions)</i>	Three months ended March 31,	
	2021	2020
Transfers from loans to other assets for other real estate owned	\$ 1	\$ —
Change in assets of consolidated investment management funds	21	16
Change in liabilities of consolidated investment management funds	7	—
Change in nonredeemable noncontrolling interests of consolidated investment management funds	119	8
Securities purchased not settled	413	1,667
Securities sold not settled	443	—
Securities matured not settled	—	9
Premises and equipment/operating lease obligations	24	15
Investment redemptions not settled	—	37

Item 4. Controls and Procedures

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 2021 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 2020 Annual Report, such as:

- errors or delays in our operational and transaction processing 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 mitigating risk and reducing the potential for losses;
- the coronavirus pandemic is adversely affecting us and creates significant risks and uncertainties for our business, and the ultimate impact of the pandemic on us will depend on future developments, which are highly uncertain and cannot be predicted;
- 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 to protect our computer systems, networks and information and our clients’ information against cybersecurity threats, 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, 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;
- 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;
- 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;

- changes in interest rates and yield curves have had, and may in the future continue to have, a material adverse effect on our profitability;
- we may experience losses on securities related to volatile and illiquid market conditions, reducing our earnings and impacting our financial condition;
- transitions away from and the replacement of LIBOR and other interbank offered rates could adversely impact our business, financial condition and results of operations;
- following the end of the transition period, the UK and the EU have not agreed to alternatives to the “passporting rights,” which may result in negative effects on global economic conditions, global financial markets, and 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 and counterparty 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;
- 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 may subject us to 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 business may be adversely affected if we are unable to attract, retain and motivate employees;
- 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; and
- 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.

Investors should consider all risk factors discussed in our 2020 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 17 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 2021. 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 2021				
<i>(dollars in millions, except per share amounts; common shares in thousands)</i>	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, 2021
January 2021	8,608	\$ 41.12	8,608	\$ 4,095
February 2021	8,142	42.27	8,142	3,751
March 2021	16	43.46	16	3,751
First quarter of 2021 (a)	16,766	\$ 41.68	16,766	\$ 3,751

(a) Includes 1,675 thousand shares repurchased at a purchase price of \$71 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 \$41.63.

In December 2020, in connection with the Federal Reserve’s release of the second round of CCAR stress tests during 2020, we announced a share repurchase plan approved by our Board of Directors. This program provides for the repurchase of up to \$4.451 billion from the third quarter of 2020 through the third quarter of 2021. Any repurchases during that period will be made in a manner consistent with any applicable distribution limitations imposed by the Federal Reserve. This new share repurchase plan replaces 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.

Index to Exhibits

<u>Exhibit No.</u>	<u>Description</u>	<u>Method of Filing</u>
3.1	Restated Certificate of Incorporation of The Bank of New York Mellon Corporation.	<u>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.</u>
3.2	Certificate of Amendment to the 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.	<u>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.</u>
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.	<u>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.</u>
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.	<u>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.</u>
3.5	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series E Noncumulative Perpetual Preferred Stock, dated April 27, 2015.	<u>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 28, 2015, and incorporated herein by reference.</u>
3.6	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.	<u>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.</u>
3.7	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.	<u>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.</u>
3.8	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.	<u>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.</u>
3.9	Amended and Restated By-Laws of The Bank of New York Mellon Corporation, as amended and restated on Feb. 12, 2018.	<u>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.</u>

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, 2021. The Company hereby agrees to furnish to the Commission, upon request, a copy of any such instrument.	N/A
22.1	Subsidiary Issuer of Guaranteed Securities.	Filed herewith.
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 Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2021, 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 6, 2021

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

Subsidiary Issuer of Guaranteed Securities

Issuer	Securities	Guarantor
Mellon Capital IV, a 100% owned finance subsidiary of The Bank of New York Mellon Corporation (the "Parent")	6.244% Fixed-to-Floating Rate Normal Preferred Capital Securities (the "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.

CERTIFICATION

I, Thomas P. Gibbons, 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 6, 2021

/s/ Thomas P. Gibbons

Name: Thomas P. Gibbons

Title: Chief Executive Officer

CERTIFICATION

I, Emily Portney, 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 6, 2021

/s/ Emily Portney

Name: Emily Portney

Title: Chief Financial Officer

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, 2021 (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 6, 2021

/s/ Thomas P. Gibbons

Name: Thomas P. Gibbons

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.

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 her knowledge, that BNY Mellon’s Quarterly Report on Form 10-Q for the quarter ended March 31, 2021 (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 6, 2021

/s/ Emily Portney

Name: Emily Portney

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.