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 September 30, 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	**13-2614959**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*

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

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

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

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

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

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

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

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

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

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

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

As of Sept. 30, 2021, 825,821,063 shares of the registrant's common stock, $0.01 par value per share, were outstanding.

THE BANK OF NEW YORK MELLON CORPORATION

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

Consolidated Financial Highlights (unaudited)

(dollars in millions, except per share amounts and unless otherwise noted)	Quarter ended **Sept. 30, 2021**	Quarter ended June 30, 2021	Quarter ended Sept. 30, 2020		Year-to-date **Sept. 30, 2021**	Year-to-date Sept. 30, 2020	
Results applicable to common shareholders of The Bank of New York Mellon Corporation:							
Net income	**$ 881**	$ 991	$ 876		**$ 2,730**	$ 2,721	
Basic earnings per share	**$ 1.04**	$ 1.14	$ 0.98		**$ 3.15**	$ 3.05	
Diluted earnings per share	**$ 1.04**	$ 1.13	$ 0.98		**$ 3.14**	$ 3.04	
Fee and other revenue	**$ 3,394**	$ 3,315	$ 3,144	*(a)*	**$ 9,975**	$ 9,668	*(a)*
Net interest revenue	**641**	645	703		**1,941**	2,297	
Total revenue	**$ 4,035**	$ 3,960	$ 3,847		**$ 11,916**	$ 11,965	
Return on common equity *(annualized)*	**8.8%**	9.8%	8.7%		**9.1%**	9.4%	
Return on tangible common equity *(annualized)* – Non-GAAP *(b)*	**16.8%**	18.6%	16.7%		**17.1%**	18.5%	
Return on average assets *(annualized)*	**0.78%**	0.88%	0.84%		**0.81%**	0.90%	
Fee revenue as a percentage of total revenue	**81%**	81%	80%	*(a)*	**82%**	79%	*(a)*
Non-U.S. revenue as a percentage of total revenue	**38%**	38%	37%		**38%**	37%	
Pre-tax operating margin	**29%**	32%	30%		**30%**	30%	
Net interest margin	**0.67%**	0.67%	0.79%		**0.67%**	0.89%	
Net interest margin on a fully taxable equivalent (“FTE”) basis – Non-GAAP *(c)*	**0.68%**	0.67%	0.79%		**0.67%**	0.89%	
Assets under custody and/or administration (“AUC/A”) at period end *(in trillions) (d)*	**$ 45.3**	$ 45.0	$ 38.6		**$ 45.3**	$ 38.6	
Assets under management (“AUM”) at period end *(in billions) (e)*	**$ 2,310**	$ 2,320	$ 2,041		**$ 2,310**	$ 2,041	
Market value of securities on loan at period end *(in billions) (f)*	**$ 443**	$ 456	$ 378		**$ 443**	$ 378	
Average common shares and equivalents outstanding *(in thousands)*:							
Basic	**844,088**	869,460	889,499		**865,374**	891,050	
Diluted	**849,028**	873,475	891,069		**869,324**	892,793	
Selected average balances:							
Interest-earning assets	**$ 381,065**	$ 388,285	$ 357,634		**$ 388,823**	$ 346,418	
Total assets	**$ 446,761**	$ 452,329	$ 414,865		**$ 453,106**	$ 405,203	
Interest-bearing deposits	**$ 233,363**	$ 239,466	$ 211,500		**$ 239,272**	$ 206,610	
Noninterest-bearing deposits	**$ 85,581**	$ 85,802	$ 67,610		**$ 84,945**	$ 66,869	
Long-term debt	**$ 25,751**	$ 25,275	$ 26,511		**$ 25,740**	$ 27,285	
Preferred stock	**$ 4,541**	$ 4,541	$ 4,532		**$ 4,541**	$ 4,029	
Total The Bank of New York Mellon Corporation common shareholders’ equity	**$ 39,755**	$ 40,393	$ 39,924		**$ 40,286**	$ 38,693	
Other information at period end:							
Cash dividends per common share	**$ 0.34**	$ 0.31	$ 0.31		**$ 0.96**	$ 0.93	
Common dividend payout ratio	**33%**	27%	32%		**31%**	31%	
Common dividend yield *(annualized)*	**2.6%**	2.4%	3.6%		**2.5%**	3.6%	
Closing stock price per common share	**$ 51.84**	$ 51.23	$ 34.34		**$ 51.84**	$ 34.34	
Market capitalization	**$ 42,811**	$ 44,220	$ 30,430		**$ 42,811**	$ 30,430	
Book value per common share	**$ 47.30**	$ 47.20	$ 45.58		**$ 47.30**	$ 45.58	
Tangible book value per common share – Non-GAAP *(b)*	**$ 24.88**	$ 25.64	$ 24.60		**$ 24.88**	$ 24.60	
Full-time employees	**48,900**	48,800	48,600		**48,900**	48,600	
Common shares outstanding *(in thousands)*	**825,821**	863,174	886,136		**825,821**	886,136	

Consolidated Financial Highlights (unaudited) (continued)

Regulatory capital and other ratios	**Sept. 30, 2021**	June 30, 2021	Dec. 31, 2020
Average liquidity coverage ratio (“LCR”)	**111%**	110%	110%
Regulatory capital ratios: *(g)*			
Advanced:			
Common Equity Tier 1 (“CET1”) ratio	**11.8%**	12.7%	13.1%
Tier 1 capital ratio	**14.5**	15.3	15.8
Total capital ratio	**15.2**	16.0	16.7
Standardized:			
CET1 ratio	**11.7%**	12.6%	13.4%
Tier 1 capital ratio	**14.4**	15.2	16.1
Total capital ratio	**15.3**	16.2	17.1
Tier 1 leverage ratio	**5.7%**	6.0%	6.3%
Supplementary leverage ratio (“SLR”) *(h)*	**7.0**	7.5	8.6
BNY Mellon shareholders’ equity to total assets ratio	**9.3%**	9.7%	9.8%
BNY Mellon common shareholders’ equity to total assets ratio	**8.3**	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 45 for the reconciliation of Non-GAAP measures.

(c) See “Net interest revenue” on page 11 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 $1.7 trillion at Sept. 30, 2021 and June 30, 2021 and $1.4 trillion at Sept. 30, 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 $68 billion at Sept. 30, 2021, $63 billion at June 30, 2021 and $62 billion at Sept. 30, 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 36.

(h) The SLR at Dec. 31, 2020 reflects the temporary exclusion of U.S. Treasury securities from the leverage exposure, which increased our SLR by 72 basis points. The temporary exclusion ceased to apply beginning April 1, 2021. See “Capital” beginning on page 36 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").

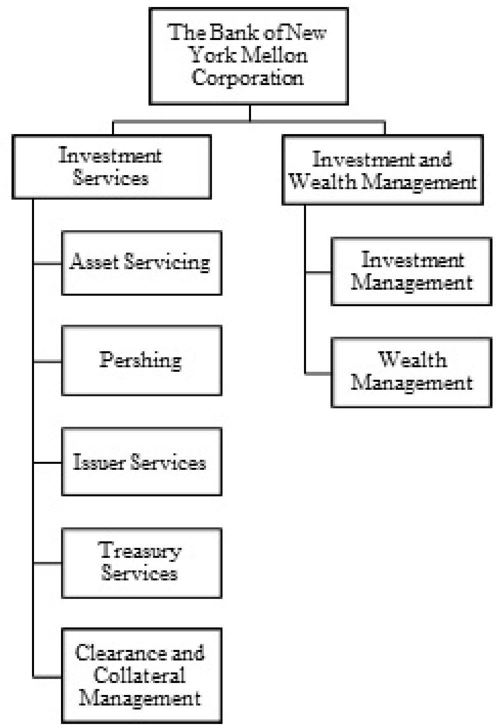
The following should be read in conjunction with the Consolidated Financial Statements included in this report. Investors should also read the section titled "Forward-looking Statements."

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.



Key third quarter 2021 events

Share repurchase program and increase in cash dividend on common stock

In June 2021, our Board of Directors approved the repurchase of up to $6.0 billion of common stock starting in the third quarter of 2021 and continuing through the fourth quarter of 2022.

Additionally, in July, our Board of Directors approved a 10% increase in the quarterly cash dividend on common stock, from $0.31 to $0.34 per share. This increased quarterly cash dividend was paid on Aug. 9, 2021.

Highlights of third quarter 2021 results

Net income applicable to common shareholders was $881 million, or $1.04 per diluted common share, in the third quarter of 2021. Net income applicable to common shareholders was $876 million, or $0.98 per diluted common share, in the third quarter of 2020. The highlights below are based on the third quarter of 2021 compared with the third quarter of 2020, unless otherwise noted.

- Total revenue of $4.0 billion increased 5%, primarily reflecting:
  - Fee and other revenue increased 8%, primarily reflecting:
    - Fee revenue increased 6%, primarily reflecting the positive impact of higher markets, higher client volumes 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 increased primarily reflecting strategic equity investment gains. (See “Fee and other revenue” beginning on page 7.)
  - Net interest revenue decreased 9%, primarily reflecting lower interest rates on interest-earning assets and the impact of hedging activities (primarily offset in fee and other revenue). This was partially offset by the benefit of lower funding and deposit rates and higher deposit and loan balances. (See “Net interest revenue” on page 11.)
- Provision for credit losses was a benefit of $45 million primarily driven by an improvement in the macroeconomic forecast. (See “Consolidated balance sheet review – Allowance for credit losses” beginning on page 29.)
- Noninterest expense increased 9%, 3% of which was due to higher litigation reserves. The remainder of the increase primarily reflects higher revenue-related expenses, investments in growth, infrastructure and efficiency initiatives and the unfavorable impact of a weaker U.S. dollar. (See “Noninterest expense” on page 14.)
- Effective tax rate of 18.8%. (See “Income taxes” on page 14.)

Capital and liquidity

- CET1 ratio was 11.7% at Sept. 30, 2021, compared with 12.6% at June 30, 2021. The decrease primarily reflects capital deployed through common stock repurchases and dividends, partially offset by capital generated through earnings. (See “Capital” beginning on page 36.)
- Tier 1 leverage was 5.7% at Sept. 30, 2021, compared with 6.0% at June 30, 2021. The decrease reflects lower Tier 1 common equity driven by common share repurchases, partially offset by lower average assets. (See “Capital” beginning on page 36.)
- Repurchased 38.1 million common shares for $2.0 billion.

Highlights of our principal businesses

Investment Services

- Total revenue increased 3%.
- Income before income taxes decreased 9%.
- AUC/A of $45.3 trillion increased 17%, primarily reflecting higher market values, client inflows and net new business.

Investment and Wealth Management

- Total revenue increased 12%.
- Income before income taxes increased 42%.
- AUM of $2.3 trillion increased 13%, primarily reflecting higher market values, net inflows and the favorable impact of a weaker U.S. dollar.

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 nine months of 2021, which resulted in lower net interest revenue and continued money market fee waivers. This has been partially offset by higher average deposit balances and higher money market balances compared with 2020.

Equity market levels have continued to improve in the first nine months of 2021, resulting in increased asset-based fees in Investment Services and Investment and Wealth Management.

The macroeconomic outlook continued to improve through the first three quarters of 2021, resulting in decreases in the allowance for credit losses and benefits to the provision for credit losses.

The restrictions on common stock dividends and share repurchases ended on June 30, 2021. In the third quarter of 2021, BNY Mellon increased the quarterly cash dividend on common stock, from $0.31 to $0.34 per share, and repurchased 38.1 million common shares at an average price of $52.55 per common share for a total of $2.0 billion.

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 *(dollars in millions, unless otherwise noted)*	**3Q21**	2Q21	3Q20	**3Q21 vs. 2Q21**	**3Q21 vs. 3Q20**	**YTD21**	YTD20	**YTD21 vs. YTD20**
Investment services fees:								
Asset servicing fees *(a)*	**$ 1,223**	$ 1,200	$ 1,168	**2%**	**5%**	**$ 3,622**	$ 3,500	**3%**
Clearing services fees *(b)*	**423**	435	397	**(3)**	**7**	**1,313**	1,298	**1**
Issuer services fees	**280**	281	295	**—**	**(5)**	**806**	835	**(3)**
Treasury services fees	**165**	160	152	**3**	**9**	**482**	445	**8**
Total investment services fees	**2,091**	2,076	2,012	**1**	**4**	**6,223**	6,078	**2**
Investment management and performance fees	**913**	889	835	**3**	**9**	**2,692**	2,483	**8**
Foreign exchange revenue	**185**	184	149 *(c)*	**1**	**24**	**600**	587 *(c)*	**2**
Financing-related fees	**48**	48	49	**—**	**(2)**	**147**	166	**(11)**
Distribution and servicing	**28**	27	29	**4**	**(3)**	**84**	87	**(3)**
Total fee revenue	**3,265**	3,224	3,074 *(c)*	**1**	**6**	**9,746**	9,401 *(c)*	**4**
Investment and other income	**127**	89	61 *(c)*	**N/M**	**N/M**	**225**	240 *(c)*	**N/M**
Net securities gains	**2**	2	9	**N/M**	**N/M**	**4**	27	**N/M**
Total other revenue	**129**	91	70	**N/M**	**N/M**	**229**	267	**N/M**
Total fee and other revenue	**$ 3,394**	$ 3,315	$ 3,144	**2%**	**8%**	**$ 9,975**	$ 9,668	**3%**
Fee revenue as a percentage of total revenue	**81%**	81%	80% *(c)*			**82%**	79% *(c)*	
AUC/A at period end *(in trillions) (d)*	**$ 45.3**	$ 45.0	$ 38.6	**1%**	**17%**	**$ 45.3**	$ 38.6	**17%**
AUM at period end *(in billions) (e)*	**$ 2,310**	$ 2,320	$ 2,041	**—%**	**13%**	**$ 2,310**	$ 2,041	**13%**

(a) Asset servicing fees include the fees from the Clearance and Collateral Management business and also include securities lending revenue of $48 million in the third quarter of 2021, $45 million in the second quarter of 2021, $40 million in the third quarter of 2020, $138 million in the first nine months of 2021 and $147 million in the first nine months 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 $1.7 trillion at Sept. 30, 2021 and June 30, 2021 and $1.4 trillion at Sept. 30, 2020.

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

N/M – Not meaningful.

Fee revenue increased 6% compared with the third quarter of 2020 and 1% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher investment management and performance fees, asset servicing fees, clearing services fees and foreign exchange revenue, partially offset by higher money market fee waivers. The increase compared with the second quarter of 2021 primarily reflects higher asset servicing fees, investment management and performance fees and lower money market fee waivers, partially offset by lower clearing services fees. Excluding money market fee waivers, fee revenue increased 11% (Non-GAAP). See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 45 for the reconciliation of Non-GAAP measures.

Other revenue increased $59 million compared with the third quarter of 2020 and $38 million compared with the second quarter of 2021. Both increases primarily reflect strategic equity investment gains.

Money market fee waivers

Given the continued low 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 third quarter of 2021, the net impact of money market fee waivers was $233 million, down from $252 million in the second quarter of 2021, driven by slightly higher short-term interest rates.

Money market fee waivers *(in millions)*	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
Investment services fees:					
Asset servicing fees	**$ (40)**	$ (42)	$ (1)	**$ (104)**	$ (1)
Clearing services fees	**(84)**	(88)	(57)	**(246)**	(116)
Issuer services fees	**(16)**	(15)	(1)	**(41)**	(2)
Treasury services fees	**(2)**	(3)	(3)	**(8)**	(5)
Total investment services fees	**(142)**	(148)	(62)	**(399)**	(124)
Investment management and performance fees	**(109)**	(115)	(42)	**(313)**	(86)
Distribution and servicing revenue	**(11)**	(13)	(6)	**(37)**	(9)
Total fee revenue	**(262)**	(276)	(110)	**(749)**	(219)
Less: Distribution and servicing expense	**29**	24	9	**76**	16
Net impact of money market fee waivers	**$ (233)**	$ (252)	$ (101)	**$ (673)**	$ (203)
Impact to revenue by line of business *(a)*:					
Asset Servicing	**$ (47)**	$ (50)	$ (4)	**$ (126)**	$ (5)
Pershing	**(102)**	(99)	(73)	**(295)**	(142)
Issuer Services	**(22)**	(22)	(2)	**(59)**	(3)
Treasury Services	**(13)**	(16)	(1)	**(38)**	(1)
Investment Management	**(76)**	(85)	(28)	**(222)**	(66)
Wealth Management	**(2)**	(4)	(2)	**(9)**	(2)
Total impact to revenue by line of business	**$ (262)**	$ (276)	$ (110)	**$ (749)**	$ (219)

(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, for the fourth quarter of 2021 to approximate the third quarter of 2021, based on implied forward rates and money market balances as of the end of the third quarter of 2021. Fee waivers in subsequent periods will continue to be dependent on short-term interest rates and the level of money market balances.

Investment services fees

Investment services fees increased 4% compared with the third quarter of 2020 and 1% compared with the second quarter of 2021, reflecting the following:

- Asset servicing fees increased 5% compared with the third quarter of 2020 and 2% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher market values and higher client activity, partially offset by higher money market fee waivers. The increase compared with the second quarter of 2021 primarily reflects higher market values and client activity.
- Clearing services fees increased 7% compared with the third quarter of 2020 and decreased 3% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher market values, client activity and balances, partially offset by higher money market fee waivers. The decrease compared with the second quarter of 2021 reflects lower clearance volumes, partially offset by higher market values.
- Issuer services fees decreased 5% compared with the third quarter of 2020 and were essentially unchanged compared with the second quarter of 2021. The decrease compared with the third quarter of 2020 primarily reflects higher money market fee waivers and lower Corporate Trust revenue, partially offset by higher Depositary Receipts revenue. Compared with the second quarter of 2021, lower Corporate Trust revenue was offset by seasonally higher Depositary Receipts revenue.

- Treasury services fees increased 9% compared with the third quarter of 2020 and 3% compared with the second quarter of 2021. Both increases primarily reflect 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 9% compared with the third quarter of 2020 and 3% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher market values and equity income, the favorable impact of a weaker U.S. dollar and higher performance fees, partially offset by higher money market fee waivers. The increase compared with the second quarter of 2021 primarily reflects higher market values and performance fees and lower money market fee waivers. Performance fees were $21 million in the third quarter of 2021, $7 million in the third quarter of 2020 and $14 million in the second quarter of 2021. On a constant currency basis (Non-GAAP), investment management and performance fees increased 7% compared with the third quarter of 2020. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 45 for the reconciliation of Non-GAAP measures.

AUM was $2.3 trillion at Sept. 30, 2021, an increase of 13% compared with Sept. 30, 2020, primarily reflecting higher market values, net inflows and the favorable impact of a weaker U.S. dollar.

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). Foreign exchange revenue increased 24% compared with the third quarter of 2020 and 1% compared with the second quarter of 2021. The increase compared with the third 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.

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, income from corporate and bank-owned life insurance contracts, other investment gains or losses, gains or losses from disposals, expense reimbursements from our CIBC Mellon joint venture 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 *(in millions)*	**3Q21**	2Q21	3Q20 *(a)*	**YTD21**	YTD20 *(a)*
(Loss) income from consolidated investment management funds	**$ (7)**	$ 13	$ 27	**$ 23**	$ 43
Seed capital gains *(b)*	**7**	18	9	**28**	1
Other trading revenue (loss)	**20**	(1)	(14)	**12**	44
Renewable energy investment (losses)	**(42)**	(41)	(34)	**(164)**	(102)
Corporate/bank-owned life insurance	**33**	29	33	**95**	105
Other investments gains *(c)*	**70**	23	11	**104**	17
Disposal gains	**7**	6	—	**13**	—
Expense reimbursements from joint venture	**25**	25	23	**73**	63
Other income	**14**	17	6	**41**	69
Total investment and other income	**$ 127**	$ 89	$ 61	**$ 225**	$ 240

(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 $127 million in the third quarter of 2021 compared with $61 million in the third quarter of 2020 and $89 million in the second quarter of 2021. The increases compared with the third quarter of 2020 and second quarter of 2021 primarily reflect strategic equity investment gains.

Year-to-date 2021 compared with year-to-date 2020

Fee revenue increased 4% compared with the first nine months of 2020, primarily reflecting higher investment management and performance fees and asset servicing fees. The 8% increase in investment management and performance fees primarily reflects higher market values and the favorable impact of a weaker U.S. dollar, partially offset by higher money market fee waivers. The 3% increase in asset servicing fees primarily reflects higher market values, client activity and the favorable impact of a weaker U.S. dollar, partially offset by higher money market fee waivers.

The decrease in other revenue primarily reflects one-time fees in the Asset Servicing and Pershing businesses in the first nine months of 2020, an impairment related to a renewable energy investment recorded in the first quarter of 2021 and lower fixed income trading results, partially offset by strategic equity investment and disposal gains.

Net interest revenue

Net interest revenue				3Q21 vs.				YTD21 vs.
(dollars in millions)	**3Q21**	2Q21	3Q20	**2Q21**	**3Q20**	**YTD21**	YTD20	**YTD20**
Net interest revenue – GAAP	**$ 641**	$ 645	$ 703	**(1)%**	**(9)%**	**$ 1,941**	$ 2,297	**(15)%**
Add: Tax equivalent adjustment	**3**	3	2	**N/M**	**N/M**	**9**	6	**N/M**
Net interest revenue (FTE) – Non-GAAP *(a)*	**$ 644**	$ 648	$ 705	**(1)%**	**(9)%**	**$ 1,950**	$ 2,303	**(15)%**
Average interest-earning assets	**$ 381,065**	$ 388,285	$ 357,634	**(2)%**	**7%**	**$ 388,823**	$ 346,418	**12%**
Net interest margin – GAAP	**0.67%**	0.67%	0.79%	**— bps**	**(12) bps**	**0.67%**	0.89%	**(22) bps**
Net interest margin (FTE) – Non-GAAP *(a)*	**0.68%**	0.67%	0.79%	**1 bps**	**(11) bps**	**0.67%**	0.89%	**(22) 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 9% compared with the third quarter of 2020 and 1% compared with the second quarter of 2021. The decrease compared with the third quarter of 2020 primarily reflects lower interest rates on interest-earning assets and the impact of hedging activities (primarily offset in fee and other revenue). This was partially offset by the benefit of lower funding and deposit rates and higher deposit and loan balances. The decrease compared with the second quarter of 2021 primarily reflects a decline in interest-earning assets driven by lower deposits.

Net interest margin decreased 12 basis points compared with the third quarter of 2020 and was unchanged compared with the second quarter of 2021. The decrease compared with the third quarter of 2020 primarily reflects the factors mentioned above.

Average interest-earning assets increased 7% compared with the third quarter of 2020 and decreased 2% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher interest-bearing deposits with the Federal Reserve and other central banks and margin loan balances. The decrease compared with the second quarter of 2021 primarily reflects lower interest-bearing deposits with the Federal Reserve and other central banks.

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

Year-to-date 2021 compared with year-to-date 2020

Net interest revenue decreased 15% compared with the first nine months of 2020, primarily driven by lower interest rates on interest-earning assets, partially offset by the benefit of lower funding and deposit rates, a larger securities portfolio, higher deposit balances and lower debt balances. The decrease in the net interest margin primarily reflects the factors mentioned above.

Average interest-earning assets increased 12% compared with the first nine months of 2020. The increase primarily reflects higher interest-bearing deposits with the Federal Reserve and other central banks, a larger securities portfolio and higher loan balances.

Average balances and interest rates	Quarter ended								
	Sept. 30, 2021			June 30, 2021			Sept. 30, 2020		
(dollars in millions; average rates annualized)	**Average balance**	**Interest**	**Average rates**	Average balance	Interest	Average rates	Average balance	Interest	Average rates
Assets									
Interest-earning assets:									
Interest-bearing deposits with the Federal Reserve and other central banks	**$ 108,110**	**$ (21)**	**(0.07)%**	$ 114,564	$ (25)	(0.09)%	$ 90,670	$ (10)	(0.04)%
Interest-bearing deposits with banks (primarily foreign banks)	**20,465**	**12**	**0.22**	22,465	11	0.20	19,202	20	0.42
Federal funds sold and securities purchased under resale agreements *(a)*	**29,304**	**32**	**0.44**	27,857	25	0.36	30,342	48	0.63
Margin loans	**20,374**	**52**	**1.02**	18,995	49	1.04	12,870	41	1.24
Non-margin loans:									
Domestic offices	**36,872**	**175**	**1.90**	36,455	173	1.90	30,053	160	2.12
Foreign offices	**3,960**	**11**	**1.11**	5,070	15	1.14	10,693	39	1.45
Total non-margin loans	**40,832**	**186**	**1.82**	41,525	188	1.81	40,746	199	1.94
Securities:									
U.S. government obligations	**36,255**	**67**	**0.73**	33,212	59	0.71	30,073	76 *(b)*	1.00 *(b)*
U.S. government agency obligations	**70,199**	**234**	**1.34**	72,809	244	1.34	78,300	308 *(b)*	1.58 *(b)*
State and political subdivisions *(c)*	**2,628**	**13**	**2.07**	2,768	14	1.94	1,500	9 *(b)*	2.51 *(b)*
Other securities *(c)*	**47,334**	**112**	**0.94**	47,451	112	0.95	46,719	115 *(b)*	0.98 *(b)*
Total investment securities *(c)*	**156,416**	**426**	**1.09**	156,240	429	1.10	156,592	508	1.30
Trading securities *(c)*	**5,564**	**9**	**0.53**	6,639	11	0.72	7,212	16	0.91
Total securities *(c)*	**161,980**	**435**	**1.07**	162,879	440	1.08	163,804	524	1.28
Total interest-earning assets *(c)*	**$ 381,065**	**$ 696**	**0.73%**	$ 388,285	$ 688	0.71%	$ 357,634	$ 822	0.92%
Noninterest-earning assets	**65,696**			64,044			57,231		
Total assets	**$ 446,761**			$ 452,329			$ 414,865		
Liabilities									
Interest-bearing liabilities:									
Interest-bearing deposits:									
Domestic offices	**$ 123,617**	**$ (5)**	**(0.02)%**	$ 126,953	$ (8)	(0.02)%	$ 102,767	$ (4)	(0.01)%
Foreign offices	**109,746**	**(39)**	**(0.14)**	112,513	(41)	(0.15)	108,733	(25)	(0.09)
Total interest-bearing deposits	**233,363**	**(44)**	**(0.08)**	239,466	(49)	(0.08)	211,500	(29)	(0.05)
Federal funds purchased and securities sold under repurchase agreements *(a)*	**13,415**	**2**	**0.08**	13,773	(5)	(0.17)	16,850	6	0.13
Trading liabilities	**2,821**	**1**	**0.11**	2,282	2	0.38	2,692	2	0.30
Other borrowed funds	**383**	**3**	**2.53**	298	1	2.21	873	3	1.40
Commercial paper	**11**	**—**	**0.07**	—	—	—	2,274	—	0.09
Payables to customers and broker-dealers	**16,648**	**(1)**	**(0.01)**	16,811	—	(0.01)	18,501	—	(0.01)
Long-term debt	**25,751**	**91**	**1.39**	25,275	91	1.43	26,511	135	2.01
Total interest-bearing liabilities	**$ 292,392**	**$ 52**	**0.07%**	$ 297,905	$ 40	0.05%	$ 279,201	$ 117	0.16%
Total noninterest-bearing deposits	**85,581**			85,802			67,610		
Other noninterest-bearing liabilities	**24,164**			23,317			23,393		
Total liabilities	**402,137**			407,024			370,204		
Temporary equity									
Redeemable noncontrolling interests	**46**			57			82		
Permanent equity									
Total The Bank of New York Mellon Corporation shareholders' equity	**44,296**			44,934			44,456		
Noncontrolling interests	**282**			314			123		
Total permanent equity	**44,578**			45,248			44,579		
Total liabilities, temporary equity and permanent equity	**$ 446,761**			$ 452,329			$ 414,865		
Net interest revenue (FTE) – Non-GAAP *(d)*		**$ 644**			$ 648			$ 705	
Net interest margin (FTE) – Non-GAAP *(c)(d)*			**0.68%**			0.67%			0.79%
Less: Tax equivalent adjustment		**3**			3			2	
Net interest revenue – GAAP		**$ 641**			$ 645			$ 703	
Net interest margin – GAAP			**0.67%**			0.67%			0.79%

(a) *Includes the average impact of offsetting under enforceable netting agreements of approximately $47 billion for the third quarter of 2021, $41 billion for the second quarter of 2021 and $43 billion for the third 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 0.17% for the third quarter of 2021, 0.15% for the second quarter of 2021 and 0.26% for the third 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 third quarter of 2021, (0.04)% for the second quarter of 2021 and 0.04% for the third 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) *In the second quarter of 2021, we reclassified the impact of hedging within the categories comprising total investment securities to align the impact of hedging with the securities being hedged and reclassified prior periods to be comparable. The change reduced the income and average rates previously reported for U.S. government obligations and U.S. government agency obligations and increased the income and average rates for Other securities.*

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

(d) *See "Net interest revenue" on page 11 for the reconciliation of this Non-GAAP measure.*

Average balances and interest rates	Year-to-date					
	Sept. 30, 2021			Sept. 30, 2020		
(dollars in millions; average rates annualized)	**Average balance**	**Interest**	**Average rates**	Average balance	Interest	Average rates
Assets						
Interest-earning assets:						
Interest-bearing deposits with the Federal Reserve and other central banks	**$ 116,136**	**$ (62)**	**(0.07)%**	$ 88,442	$ 63	0.09%
Interest-bearing deposits with banks (primarily foreign banks)	**21,411**	**37**	**0.23**	19,126	118	0.83
Federal funds sold and securities purchased under resale agreements *(a)*	**28,783**	**89**	**0.41**	31,567	505	2.14
Margin loans	**18,436**	**146**	**1.06**	12,882	168	1.74
Non-margin loans:						
Domestic offices	**34,869**	**505**	**1.94**	30,983	570	2.45
Foreign offices	**6,216**	**54**	**1.15**	11,532	168	1.95
Total non-margin loans	**41,085**	**559**	**1.82**	42,515	738	2.32
Securities:						
U.S. government obligations	**32,770**	**189**	**0.77**	27,061	215 *(b)*	1.06 *(b)*
U.S. government agency obligations	**73,516**	**749**	**1.36**	73,992	1,036 *(b)*	1.87 *(b)*
State and political subdivisions *(c)*	**2,641**	**39**	**1.97**	1,187	24 *(b)*	2.80 *(b)*
Other securities *(c)*	**47,273**	**340**	**0.96**	42,883	398 *(b)*	1.24 *(b)*
Total investment securities *(c)*	**156,200**	**1,317**	**1.13**	145,123	1,673	1.54
Trading securities *(c)*	**6,772**	**39**	**0.76**	6,763	74	1.46
Total securities *(c)*	**162,972**	**1,356**	**1.11**	151,886	1,747	1.53
Total interest-earning assets *(c)*	**$ 388,823**	**$ 2,125**	**0.73%**	$ 346,418	$ 3,339	1.29%
Noninterest-earning assets	**64,283**			58,785		
Total assets	**$ 453,106**			$ 405,203		
Liabilities						
Interest-bearing liabilities:						
Interest-bearing deposits:						
Domestic offices	**$ 126,353**	**$ (20)**	**(0.02)%**	$ 101,610	$ 181	0.24%
Foreign offices	**112,919**	**(110)**	**(0.13)**	105,000	13	0.02
Total interest-bearing deposits	**239,272**	**(130)**	**(0.07)**	206,610	194	0.13
Federal funds purchased and securities sold under repurchase agreements *(a)*	**14,152**	**(6)**	**(0.05)**	15,000	282	2.51
Trading liabilities	**2,445**	**6**	**0.32**	2,099	11	0.66
Other borrowed funds	**337**	**6**	**2.27**	1,286	14	1.50
Commercial paper	**4**	**—**	**0.07**	1,352	7	0.70
Payables to customers and broker-dealers	**17,047**	**(2)**	**(0.01)**	17,879	29	0.22
Long-term debt	**25,740**	**301**	**1.55**	27,285	499	2.43
Total interest-bearing liabilities	**$ 298,997**	**$ 175**	**0.08%**	$ 271,511	$ 1,036	0.51%
Total noninterest-bearing deposits	**84,945**			66,869		
Other noninterest-bearing liabilities	**24,010**			23,913		
Total liabilities	**407,952**			362,293		
Temporary equity						
Redeemable noncontrolling interests	**62**			74		
Permanent equity						
Total The Bank of New York Mellon Corporation shareholders' equity	**44,827**			42,722		
Noncontrolling interests	**265**			114		
Total permanent equity	**45,092**			42,836		
Total liabilities, temporary equity and permanent equity	**$ 453,106**			$ 405,203		
Net interest revenue (FTE) – Non-GAAP *(d)*		**$ 1,950**			$ 2,303	
Net interest margin (FTE) – Non-GAAP *(c)(d)*			**0.67%**			0.89%
Less: Tax equivalent adjustment		**9**			6	
Net interest revenue – GAAP		**$ 1,941**			$ 2,297	
Net interest margin – GAAP			**0.67%**			0.89%

(a) Includes the average impact of offsetting under enforceable netting agreements of approximately $42 billion for the first nine months of 2021 and $63 billion for the first nine months 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 0.17% for the first nine months of 2021 and 0.71% for the first nine months 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 (0.01)% for the first nine months of 2021 and 0.48% for the first nine months 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) In the second quarter of 2021, we reclassified the impact of hedging within the categories comprising total investment securities to align the impact of hedging with the securities being hedged and reclassified prior periods to be comparable. The change reduced the income and average rates previously reported for U.S. government obligations and U.S. government agency obligations and increased the income and average rates for Other securities.

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

(d) See "Net interest revenue" on page 11 for the reconciliation of this Non-GAAP measure.

Noninterest expense

Noninterest expense				3Q21 vs.				YTD21 vs.
(dollars in millions)	**3Q21**	2Q21	3Q20	**2Q21**	**3Q20**	**YTD21**	YTD20	**YTD20**
Staff	**$ 1,584**	$ 1,518	$ 1,466	**4%**	**8%**	**$ 4,704**	$ 4,412	**7%**
Software and equipment	**372**	365	340	**2**	**9**	**1,099**	1,011	**9**
Professional, legal and other purchased services	**363**	363	355	**—**	**2**	**1,069**	1,022	**5**
Sub-custodian and clearing	**129**	132	119	**(2)**	**8**	**385**	344	**12**
Net occupancy	**120**	122	136	**(2)**	**(12)**	**365**	408	**(11)**
Distribution and servicing	**76**	73	85	**4**	**(11)**	**223**	261	**(15)**
Bank assessment charges	**34**	35	30	**(3)**	**13**	**103**	100	**3**
Business development	**22**	22	17	**—**	**29**	**63**	79	**(20)**
Amortization of intangible assets	**19**	20	26	**(5)**	**(27)**	**63**	78	**(19)**
Other	**199**	128	107	**55**	**86**	**473**	364	**30**
Total noninterest expense	**$ 2,918**	$ 2,778	$ 2,681	**5%**	**9%**	**$ 8,547**	$ 8,079	**6%**
Full-time employees at period end	**48,900**	48,800	48,600	**—%**	**1%**	**48,900**	48,600	**1%**

Total noninterest expense increased 9% compared with the third quarter of 2020 and 5% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher revenue-related expenses and litigation reserves, investments in growth, infrastructure and efficiency initiatives and the unfavorable impact of a weaker U.S. dollar. The investments in growth, infrastructure and efficiency initiatives are primarily included in staff, software and equipment, and professional, legal and other purchased services expenses. The increase compared with the second quarter of 2021 primarily reflects higher litigation reserves, investments in growth, infrastructure and efficiency initiatives and higher revenue-related expenses.

We expect total reported noninterest expense to increase approximately 4% for the full-year 2021 compared to 2020. This is driven by an unfavorable impact of foreign exchange rates, incremental investments in growth, infrastructure and efficiency opportunities and higher volume- and revenue-related expenses, partially offset by the 1% year-over-year impact of notable items. Notable items include increased litigation reserves in both years and in 2020 also included severance and real estate charges. Noninterest expense could be impacted if foreign exchange rates change from Sept. 30, 2021 levels, volume- and revenue-related expenses increase or there are unexpected charges or expenses.

Year-to-date 2021 compared with year-to-date 2020

Noninterest expense increased 6% compared with the first nine months of 2020, primarily reflecting investments in growth, infrastructure and efficiency initiatives, the unfavorable impact of a weaker U.S. dollar and higher revenue-related expenses and litigation reserves.

Income taxes

BNY Mellon recorded an income tax provision of $219 million (18.8% effective tax rate) in the third quarter of 2021, $213 million (18.4% effective tax rate) in the third quarter of 2020 and $241 million (19.0% effective tax rate) in the second quarter of 2021. 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 organizational changes in the third 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, Depositary 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 Sept. 30, 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 $0.04 to $0.07.

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)	**3Q21**	2Q21	1Q21	4Q20	3Q20	**3Q21 vs. 2Q21**	**3Q21 vs. 3Q20**	**YTD21**	YTD20	**YTD21 vs. YTD20**
Revenue:										
Investment services fees:										
Asset servicing fees *(a)*	**$ 1,216**	$ 1,192	$ 1,191	$ 1,130	$ 1,156	**2%**	**5%**	**$ 3,599**	$ 3,467	**4%**
Clearing services fees *(b)*	**423**	435	455	418	397	**(3)**	**7**	**1,313**	1,298	**1**
Issuer services fees	**280**	281	245	257	295	**—**	**(5)**	**806**	835	**(3)**
Treasury services fees	**164**	160	157	156	152	**3**	**8**	**481**	445	**8**
Total investment services fees	**2,083**	2,068	2,048	1,961	2,000	**1**	**4**	**6,199**	6,045	**3**
Foreign exchange revenue	**148**	152	193	163	126	**(3)**	**17**	**493**	518 *(c)*	**(5)**
Other *(d)*	**147**	116	104	111	120	**27**	**23**	**367**	458 *(c)*	**(20)**
Total fee and other revenue	**2,378**	2,336	2,345	2,235	2,246	**2**	**6**	**7,059**	7,021	**1**
Net interest revenue	**632**	643	645	670	681	**(2)**	**(7)**	**1,920**	2,255	**(15)**
Total revenue	**3,010**	2,979	2,990	2,905	2,927	**1**	**3**	**8,979**	9,276	**(3)**
Provision for credit losses	**(35)**	(77)	(79)	31	(10)	**N/M**	**N/M**	**(191)**	284	**N/M**
Noninterest expense (excluding amortization of intangible assets)	**2,200**	2,040	2,084	2,157	2,002	**8**	**10**	**6,324**	5,942	**6**
Amortization of intangible assets	**11**	12	17	17	18	**(8)**	**(39)**	**40**	54	**(26)**
Total noninterest expense	**2,211**	2,052	2,101	2,174	2,020	**8**	**9**	**6,364**	5,996	**6**
Income before income taxes	**$ 834**	$ 1,004	$ 968	$ 700	$ 917	**(17)%**	**(9)%**	**$ 2,806**	$ 2,996	**(6)%**
Pre-tax operating margin	**28%**	34%	32%	24%	31%			**31%**	32%	
Securities lending revenue	**$ 45**	$ 42	$ 41	$ 36	$ 37	**7%**	**22%**	**$ 128**	$ 134	**(4)%**
Total revenue by line of business:										
Asset Servicing	**$ 1,437**	$ 1,382	$ 1,424	$ 1,357	$ 1,354	**4%**	**6%**	**$ 4,243**	$ 4,348	**(2)%**
Pershing	**566**	590	605	563	538	**(4)**	**5**	**1,761**	1,769	**—**
Issuer Services	**400**	405	363	385	435	**(1)**	**(8)**	**1,168**	1,285	**(9)**
Treasury Services	**326**	319	317	325	323	**2**	**1**	**962**	1,002	**(4)**
Clearance and Collateral Management	**281**	283	281	275	277	**(1)**	**1**	**845**	872	**(3)**
Total revenue by line of business	**$ 3,010**	$ 2,979	$ 2,990	$ 2,905	$ 2,927	**1%**	**3%**	**$ 8,979**	$ 9,276	**(3)%**
Average balances:										
Average loans	**$ 47,430**	$ 46,845	$ 43,468	$ 41,437	$ 40,308	**1%**	**18%**	**$ 45,929**	$ 41,731	**10%**
Average deposits	**$ 308,645**	$313,923	$315,088	$292,631	$263,621	**(2)%**	**17%**	**$ 312,528**	$258,112	**21%**

(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						3Q21 vs.	
(dollars in millions, unless otherwise noted)	**3Q21**	2Q21	1Q21	4Q20	3Q20	**2Q21**	**3Q20**
AUC/A at period end *(in trillions) (a)*	**$ 45.3**	$ 45.0	$ 41.7	$ 41.1	$ 38.6	**1%**	**17%**
Market value of securities on loan at period end *(in billions) (b)*	**$ 443**	$ 456	$ 445	$ 435	$ 378	**(3)%**	**17%**
Pershing:							
Net new assets (U.S. platform) *(in billions) (c)*	**$ 7**	$ 40	$ 28	$ 28	$ 12	**N/M**	**N/M**
Average active clearing accounts (U.S. platform) *(in thousands)*	**6,849**	6,889	6,757	6,635	6,556	**(1)%**	**4%**
Average long-term mutual fund assets (U.S. platform)	**$ 736,843**	$ 730,954	$ 678,556	$ 630,086	$ 597,312	**1%**	**23%**
Average investor margin loans (U.S. platform)	**$ 13,050**	$ 12,097	$ 10,937	$ 10,097	$ 9,350	**8%**	**40%**
Clearance and Collateral Management:							
Average tri-party collateral management balances *(in billions)*	**$ 4,516**	$ 3,898	$ 3,638	$ 3,555	$ 3,417	**16%**	**32%**

(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 $1.7 trillion at Sept. 30, 2021 and June 30, 2021, $1.6 trillion at March 31, 2021, $1.5 trillion at Dec. 31, 2020 and $1.4 trillion at Sept. 30, 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 $68 billion at Sept. 30, 2021, $63 billion at June 30, 2021, $64 billion at March 31, 2021, $68 billion at Dec. 31, 2020 and $62 billion at Sept. 30, 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 $45.3 trillion of AUC/A at Sept. 30, 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 $5.0 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 $4.5 trillion serviced globally, including approximately $3.4 trillion of the U.S. tri-party repo market at Sept. 30, 2021.

Review of financial results

AUC/A of $45.3 trillion increased 17% compared with Sept. 30, 2020, primarily reflecting higher market values, client inflows and net new business. AUC/A consisted of 37% equity securities and 63% fixed-income securities at Sept. 30, 2021 and 34% equity securities and 66% fixed-income securities at Sept. 30, 2020.

Total revenue of $3.0 billion increased 3% compared with the third quarter of 2020 and 1% compared with the second quarter of 2021. The drivers of total revenue by line of business are indicated below.

Asset Servicing revenue of $1.4 billion increased 6% compared with the third quarter of 2020 and 4% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher market values, strategic equity investment gains, higher client activity and foreign exchange revenue, partially offset by higher money market fee waivers and lower net interest revenue. The increase compared with the second quarter of 2021 primarily reflects strategic equity investment gains and higher market levels and client activity.

Pershing revenue of $566 million increased 5% compared with the third quarter of 2020 and decreased 4% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher market values, client balances and activity, partially offset by higher money market fee waivers. The decrease compared with the second quarter of 2021 reflects lower clearance volumes and net interest revenue, partially offset by higher market values.

Issuer Services revenue of $400 million decreased 8% compared with the third quarter of 2020 and 1% compared with the second quarter of 2021. The decrease compared with the third quarter of 2020 primarily reflects higher money market fee waivers and lower fees and net interest revenue in Corporate Trust, partially offset by higher Depositary Receipts revenue. The decrease compared with the second quarter of 2021 primarily reflects lower fees and net interest revenue in Corporate Trust, partially offset by seasonally higher Depositary Receipts revenue.

Treasury Services revenue of $326 million increased 1% compared with the third quarter of 2020 and 2% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher payment volumes and higher net interest revenue driven by higher deposit balances, partially offset by higher money market fee waivers. The increase compared with the second quarter of 2021 primarily reflects higher net interest revenue and payment volumes.

Clearance and Collateral Management revenue of $281 million increased 1% compared with the third quarter of 2020 and decreased 1% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher non-U.S. collateral management fees driven by balances and higher clearance volumes, partially offset by lower intraday credit fees and net interest revenue.

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

Noninterest expense of $2.2 billion increased 9% compared with the third quarter of 2020 and 8% compared with the second quarter of 2021. Both increases primarily reflect higher litigation reserves, higher revenue-related expenses and investments in growth, infrastructure and efficiency initiatives.

Year-to-date 2021 compared with year-to-date 2020

Total revenue of $9.0 billion decreased 3% compared with the first nine months of 2020. Asset Servicing revenue of $4.2 billion decreased 2%, primarily reflecting lower net interest revenue and higher money market fee waivers, partially offset by higher market values and client activity. Pershing revenue of $1.8 billion decreased slightly, primarily reflecting higher money market fee waivers and lower clearance volumes, partially offset by higher market values and client balances and activity. Issuer Services revenue of $1.2 billion decreased 9%, primarily reflecting lower interest rates and higher money market fee waivers in Corporate Trust. Treasury Services revenue of $962 million decreased 4%, primarily reflecting lower interest rates and higher money market fee waivers, partially offset by higher payment volumes and deposits. Clearance and Collateral Management revenue of $845 million decreased 3%, primarily reflecting lower net interest revenue, lower intra-day credit fees and clearance volumes.

Noninterest expense of $6.4 billion increased 6% compared with the first nine months of 2020 primarily reflecting investments in growth, infrastructure and efficiency initiatives, higher litigation reserves and revenue-related expenses and the unfavorable impact of a weaker U.S. dollar.

Investment and Wealth Management business

						3Q21 vs.				YTD21 vs.
(dollars in millions)	**3Q21**	2Q21	1Q21	4Q20	3Q20	**2Q21**	**3Q20**	**YTD21**	YTD20	**YTD20**
Revenue:										
Investment management fees *(a)*	**$ 893**	$ 876	$ 850	$ 839	$ 828	**2%**	**8%**	**$ 2,619**	$ 2,422	**8%**
Performance fees	**21**	14	40	45	7	**N/M**	**200**	**75**	62	**21**
Investment management and performance fees *(b)*	**914**	890	890	884	835	**3**	**9**	**2,694**	2,484	**8**
Distribution and servicing	**28**	28	28	29	31	**—**	**(10)**	**84**	108	**(22)**
Other *(a)*	**43**	34	25	27	5	**N/M**	**N/M**	**102**	(37)	**N/M**
Total fee and other revenue *(a)*	**985**	952	943	940	871	**3**	**13**	**2,880**	2,555	**13**
Net interest revenue	**47**	47	48	50	47	**—**	**—**	**142**	147	**(3)**
Total revenue	**1,032**	999	991	990	918	**3**	**12**	**3,022**	2,702	**12**
Provision for credit losses	**(7)**	(4)	4	(8)	12	**N/M**	**N/M**	**(7)**	28	**N/M**
Noninterest expense (excluding amortization of intangible assets)	**684**	669	702	678	653	**2**	**5**	**2,055**	1,990	**3**
Amortization of intangible assets	**7**	8	7	9	8	**(13)**	**(13)**	**22**	24	**(8)**
Total noninterest expense	**691**	677	709	687	661	**2**	**5**	**2,077**	2,014	**3**
Income before income taxes	**$ 348**	$ 326	$ 278	$ 311	$ 245	**7%**	**42%**	**$ 952**	$ 660	**44%**
Pre-tax operating margin	**34%**	33%	28%	32%	27%			**31%**	24%	
Adjusted pre-tax operating margin – Non-GAAP *(c)*	**36%**	35%	30%	34%	29%			**34%**	27%	
Total revenue by line of business:										
Investment Management	**$ 727**	$ 700	$ 698	$ 714	$ 641	**4%**	**13%**	**$ 2,125**	$ 1,882	**13%**
Wealth Management	**305**	299	293	276	277	**2**	**10**	**897**	820	**9**
Total revenue by line of business	**$ 1,032**	$ 999	$ 991	$ 990	$ 918	**3%**	**12%**	**$ 3,022**	$ 2,702	**12%**
Average balances:										
Average loans	**$12,248**	$11,871	$11,610	$11,497	$11,503	**3%**	**6%**	**$11,912**	$11,805	**1%**
Average deposits	**$17,270**	$17,466	$19,177	$18,144	$17,570	**(1)%**	**(2)%**	**$17,964**	$17,070	**5%**

(a) Total fee and other revenue is net of income attributable to noncontrolling interests related to consolidated investment management funds. 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 8% (Non-GAAP) compared with the third quarter of 2020. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 45 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 45.

N/M – Not meaningful.

AUM trends						**3Q21 vs.**	
(dollars in billions)	**3Q21**	2Q21	1Q21	4Q20	3Q20	**2Q21**	**3Q20**
AUM at period end, by product type: *(a)*							
Equity	**$ 180**	$ 187	$ 173	$ 170	$ 149	**(4)%**	**21%**
Fixed income	**269**	272	261	259	241	**(1)**	**12**
Index	**436**	440	419	393	350	**(1)**	**25**
Liability-driven investments	**843**	841	802	855	788	**—**	**7**
Multi-asset and alternative investments	**218**	222	214	209	193	**(2)**	**13**
Cash	**364**	358	345	325	320	**2**	**14**
Total AUM	**$ 2,310**	$ 2,320	$ 2,214	$ 2,211	$ 2,041	**—%**	**13%**
Changes in AUM: *(a)*							
Beginning balance of AUM	**$ 2,320**	$ 2,214	$ 2,211	$ 2,041	$ 1,961		
Net inflows (outflows):							
Long-term strategies:							
Equity	**(5)**	(3)	—	(2)	(4)		
Fixed income	**1**	8	8	5	1		
Liability-driven investments	**16**	11	8	15	14		
Multi-asset and alternative investments	**(2)**	1	(2)	—	(3)		
Total long-term active strategies inflows	**10**	17	14	18	8		
Index	**(3)**	(5)	3	(3)	(3)		
Total long-term strategies inflows	**7**	12	17	15	5		
Short-term strategies:							
Cash	**7**	13	19	5	(10)		
Total net inflows (outflows)	**14**	25	36	20	(5)		
Net market impact	**4**	79	(36)	93	41		
Net currency impact	**(28)**	2	3	57	44		
Ending balance of AUM	**$ 2,310**	$ 2,320	$ 2,214	$ 2,211	$ 2,041	**—%**	**13%**
Wealth Management client assets *(b)*	**$ 307**	$ 305	$ 292	$ 286	$ 265	**1%**	**16%**

(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 13% compared with Sept. 30, 2020 primarily reflecting higher market values, net inflows and the favorable impact of a weaker U.S. dollar.

Net long-term strategy inflows were $7 billion in the third quarter of 2021, driven by liability-driven investments, partially offset by equity funds. Short-term strategy inflows were $7 billion in the third 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 $1.0 billion increased 12% compared with the third quarter of 2020 and 3% compared with the second quarter of 2021.

Investment Management revenue of $727 million increased 13% compared with the third quarter of 2020 and 4% compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher market values and equity income, strategic equity investment gains, the favorable impact of a weaker U.S. dollar and higher performance fees, partially offset by money market fee waivers. The increase compared with the second quarter of 2021 primarily reflects higher market values, lower money market fee waivers and higher performance fees.

Wealth Management revenue of $305 million increased 10% compared with the third quarter of 2020 and 2% compared with the second quarter of 2021. Both increases primarily reflect higher market values.

Revenue generated in the Investment and Wealth Management business included 38% from non-U.S. sources in the third quarter of 2021, compared with 41% in the third quarter of 2020 and 38% in the second quarter of 2021.

Noninterest expense of $691 million increased 5% compared with the third quarter of 2020 and 2% compared with the second quarter of 2021. Both increases primarily reflect higher revenue-related expenses and investments in growth initiatives. The increase compared with the third quarter of 2020 also reflects the unfavorable impact of a weaker U.S. dollar, partially offset by lower distribution and servicing expense.

Year-to-date 2021 compared with year-to-date 2020

Total revenue of $3.0 billion increased 12% compared with the first nine months of 2020. Investment Management revenue of $2.1 billion increased 13% primarily reflecting higher market values, the favorable impact of a weaker U.S. dollar, higher equity income and seed capital gains, partially offset by higher money market fee waivers. Wealth Management revenue of $897 million increased 9%, primarily reflecting higher market values.

Noninterest expense of $2.1 billion increased 3% compared with the first nine months of 2020, primarily reflecting higher revenue-related expenses, investments in growth initiatives and the unfavorable impact of a weaker U.S. dollar, partially offset by lower distribution and servicing expense.

Other segment

(in millions)	**3Q21**	2Q21	1Q21	4Q20	3Q20	**YTD21**	YTD20	
Fee revenue	**$ 12**	$ 13	$ 9	$ 11	$ 7	**$ 34**	$ 23	*(a)*
Other revenue	**23**	9	(36)	(28)	13	**(4)**	65	*(a)*
Total fee and other revenue	**35**	22	(27)	(17)	20	**30**	88	
Net interest (expense)	**(38)**	(45)	(38)	(40)	(25)	**(121)**	(105)	
Total revenue	**(3)**	(23)	(65)	(57)	(5)	**(91)**	(17)	
Provision for credit losses	**(3)**	(5)	(8)	(8)	7	**(16)**	9	
Noninterest expense	**16**	49	41	64	—	**106**	69	
(Loss) before income taxes	**$ (16)**	$ (67)	$ (98)	$ (113)	$ (12)	**$ (181)**	$ (95)	
Average loans and leases	**$ 1,528**	$ 1,804	$ 1,711	$ 1,794	$ 1,805	**$ 1,680**	$ 1,861	

(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 has an offsetting impact between fee and other revenue and net interest expense.

Total revenue increased $2 million compared with the third quarter of 2020 and increased $20 million compared with the second quarter of 2021. The increase compared with the second quarter of 2021 primarily reflects investment and disposal gains.

Noninterest expense increased $16 million compared with the third quarter of 2020 and decreased $33 million compared with the second quarter of 2021. The increase compared with the third quarter of 2020 primarily reflects higher staff expense. The decrease compared with the second quarter of 2021 primarily reflects lower staff expense and professional, legal and other purchased services.

Year-to-date 2021 compared with year-to-date 2020

(Loss) before income taxes increased $86 million compared with the first nine months of 2020. Total fee and other revenue decreased $58 million, primarily reflecting an impairment of a renewable energy investment recorded in the first quarter of 2021 and lower net securities gains. Noninterest expense increased $37 million compared with the first nine months of 2020, primarily reflecting higher 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, and second quarter 2021 Form 10-Q, page 23.
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 Sept. 30, 2021, total assets were $471 billion, compared with $470 billion at Dec. 31, 2020. The increase in total assets was primarily driven by higher loans and other assets, partially offset by lower interest-bearing deposits with the Federal Reserve and other central banks. Deposits totaled $343 billion at Sept. 30, 2021, compared with $342 billion at Dec. 31, 2020. The increase reflects higher noninterest-bearing deposits (principally U.S. offices), partially offset by lower interest-bearing deposits in both non-U.S. and U.S. offices. Total interest-bearing deposits as a percentage of total interest-earning assets were 60% at Sept. 30, 2021 and 63% at Dec. 31, 2020.

At Sept. 30, 2021, available funds totaled $182 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 Sept. 30, 2021 and 42% at Dec. 31, 2020. For additional information on our available funds, see “Liquidity and dividends.”

Securities were $157 billion, or 33% of total assets, at Sept. 30, 2021, compared with $156 billion, or 33% of total assets, at Dec. 31, 2020. The increase primarily reflects investments in U.S. Treasury securities and agency commercial mortgage-backed securities (“MBS”), partially offset by decreases in agency residential mortgage-backed securities (“RMBS”) and unrealized pre-tax gains. For additional information on our securities portfolio, see “Securities” and Note 3 of the Notes to Consolidated Financial Statements.

Loans were $64 billion, or 14% of total assets, at Sept. 30, 2021, compared with $56 billion, or 12% of total assets, at Dec. 31, 2020. The increase was primarily driven by higher margin loans, overdrafts and wealth management loans and mortgages exposure, partially offset by lower financial institutions exposure. For additional information on our loan portfolio, see “Loans” and Note 4 of the Notes to Consolidated Financial Statements.

Long-term debt totaled $25 billion at Sept. 30, 2021 and $26 billion at Dec. 31, 2020. Redemptions and maturities 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 $44 billion at Sept. 30, 2021 from $46 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 Sept. 30, 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 Sept. 30, 2021 *(in billions)*	Interest-bearing deposits Central banks	Banks	Lending *(a)*	Securities *(b)*	Other *(c)*	Total exposure	
Top 10 country exposure:							
United Kingdom ("UK")	$ 18.4	$ 0.2	$ 1.3	$ 3.5	$ 3.0	$ 26.4	
Germany	19.0	0.7	0.8	4.5	0.4	25.4	
Canada	—	5.0	0.4	4.0	1.0	10.4	
Belgium	8.4	0.8	0.1	0.1	—	9.4	
Japan	6.6	0.3	—	0.4	0.1	7.4	
Netherlands	4.2	0.1	0.2	1.9	0.1	6.5	
Luxembourg	1.4	0.1	0.6	0.1	2.7	4.9	
Ireland	0.8	0.2	0.4	0.2	2.3	3.9	
China	—	2.6	0.8	—	0.3	3.7	
France	—	0.5	0.1	2.7	0.2	3.5	
Total Top 10 country exposure	**$ 58.8**	**$ 10.5**	**$ 4.7**	**$ 17.4**	**$ 10.1**	**$ 101.5**	*(d)*
Select country exposure:							
Italy	$ —	$ 0.4	$ —	$ 1.6	$ —	$ 2.0	
Brazil	—	—	0.8	0.1	0.3	1.2	
Total select country exposure	**$ —**	**$ 0.4**	**$ 0.8**	**$ 1.7**	**$ 0.3**	**$ 3.2**	

(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)	June 30, 2021 Fair value	3Q21 change in unrealized gain (loss)	**Sept. 30, 2021** Amortized cost *(a)*	**Sept. 30, 2021** Fair value	Fair value as a % of amortized cost *(a)*	Unrealized gain (loss)	% Floating rate *(b)*	Ratings *(c)* AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/ A2 & SP-1	Not rated
Agency RMBS	$ 53,944	$ (100)	**$ 52,223**	**$ 52,913**	101%	$ 690	13%	100%	—%	—%	—%	—%	—%
U.S. Treasury	34,267	(31)	**35,920**	**36,044**	100	124	53	100	—	—	—	—	—
Sovereign debt/sovereign guaranteed *(d)*	14,209	(34)	**13,968**	**14,045**	101	77	15	77	5	17	1	—	—
Agency commercial MBS	11,678	(78)	**12,309**	**12,549**	102	240	24	100	—	—	—	—	—
Supranational	8,157	(17)	**7,985**	**8,004**	100	19	56	100	—	—	—	—	—
Foreign covered bonds *(e)*	6,793	(12)	**6,917**	**6,946**	100	29	37	100	—	—	—	—	—
U.S. government agencies	5,460	(8)	**5,420**	**5,426**	100	6	25	100	—	—	—	—	—
Collateralized loan obligations (“CLOs”)	5,139	—	**5,202**	**5,204**	100	2	100	99	—	—	1	—	—
Non-agency commercial MBS	3,263	(23)	**3,108**	**3,167**	102	59	25	100	—	—	—	—	—
Foreign government agencies *(f)*	2,708	(6)	**2,670**	**2,679**	100	9	17	92	8	—	—	—	—
State and political subdivisions	2,621	(17)	**2,665**	**2,659**	100	(6)	—	87	10	—	—	2	1
Non-agency RMBS *(g)*	2,530	(7)	**2,515**	**2,647**	105	132	44	77	4	—	9	—	10
Other asset-backed securities (“ABS”)	2,456	(5)	**2,307**	**2,312**	100	5	16	100	—	—	—	—	—
Corporate bonds	2,347	(17)	**2,395**	**2,377**	99	(18)	—	15	67	18	—	—	—
Other	1	—	**1**	**1**	100	—	—	—	—	—	—	—	100
Total securities	$ 155,573 *(h)*	$ (355)	**$ 155,605**	**$ 156,973** *(h)*	101%	$ 1,368 *(h)(i)*	30%	96%	2%	2%	—%	—%	—%

(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, UK, Singapore and Spain.
(e) Primarily consists of exposure to Canada, UK, Australia, Germany and Norway.
(f) Primarily consists of exposure to the Netherlands, Canada, France, Norway and Sweden.
(g) Includes RMBS that were included in the former Grantor Trust of $416 million at June 30, 2021 and $387 million at Sept. 30, 2021.
(h) Includes net unrealized losses on derivatives hedging securities available-for-sale (including terminated hedges) of $927 million at June 30, 2021 and $742 million at Sept. 30, 2021.
(i) Includes unrealized gains of $927 million at Sept. 30, 2021 related to available-for-sale securities, net of hedges, and $441 million related to held-to-maturity securities.

The fair value of our securities portfolio, including related hedges, was $157.0 billion at Sept. 30, 2021, compared with $156.3 billion at Dec. 31, 2020. The increase primarily reflects investments in U.S. Treasury securities and agency commercial MBS, partially offset by decreases in agency RMBS and unrealized pre-tax gains.

At Sept. 30, 2021, the securities portfolio had a net unrealized gain, including the impact of related hedges, of $1.4 billion, compared with $3.2 billion at Dec. 31, 2020. The decrease in the net unrealized gain, including the impact of hedges, was primarily driven by higher market interest rates.

The fair value of the available-for-sale securities totaled $100.3 billion at Sept. 30, 2021, net of hedges, or 64% of the securities portfolio, net of hedges. The fair value of the held-to-maturity securities totaled $56.7 billion at Sept. 30, 2021, or 36% 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 $703 million at Sept. 30, 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 Sept. 30, 2021, 96% of the securities in our portfolio were rated AAA/AA-, compared with 95% at 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 accretable discount related to the 2009 restructuring of the securities portfolio.

Net premium amortization and discount accretion of securities *(a)* *(dollars in millions)*	**3Q21**	2Q21	1Q21	4Q20	3Q20
Amortizable purchase premium (net of discount) relating to securities:					
Balance at period-end	**$ 2,120**	$ 2,067	$ 2,195	$ 2,283	$ 2,050
Estimated average life remaining at period-end *(in years)*	**4.5**	4.4	4.3	3.9	3.8
Amortization	**$ 168**	$ 183	$ 189	$ 181	$ 161
Accretable discount related to the prior restructuring of the securities portfolio:					
Balance at period-end	**$ 115**	$ 118	$ 121	$ 130	$ 133
Estimated average life remaining at period-end *(in years)*	**6.0**	6.1	5.9	5.6	5.7
Accretion	**$ 11**	$ 9	$ 12	$ 8	$ 9

(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	**Sept. 30, 2021**			Dec. 31, 2020		
(in billions)	Loans	Unfunded commitments	Total exposure	Loans	Unfunded commitments	Total exposure
Non-margin loans:						
Financial institutions	**$ 9.4**	**$ 32.1**	**$ 41.5**	$ 11.2	$ 32.8	$ 44.0
Commercial	**1.7**	**11.9**	**13.6**	1.4	12.7	14.1
Subtotal institutional	**11.1**	**44.0**	**55.1**	12.6	45.5	58.1
Wealth management loans and mortgages	**18.0**	**1.3**	**19.3**	16.4	1.1	17.5
Commercial real estate	**6.4**	**3.6**	**10.0**	6.1	3.2	9.3
Lease financings	**0.8**	**—**	**0.8**	1.0	—	1.0
Other residential mortgages	**0.3**	**—**	**0.3**	0.4	—	0.4
Overdrafts	**4.6**	**—**	**4.6**	2.7	—	2.7
Other	**2.3**	**—**	**2.3**	1.9	—	1.9
Subtotal non-margin loans	**43.5**	**48.9**	**92.4**	41.1	49.8	90.9
Margin loans	**20.8**	**0.1**	**20.9**	15.4	0.1	15.5
Total	**$ 64.3**	**$ 49.0**	**$ 113.3**	$ 56.5	$ 49.9	$ 106.4

At Sept. 30, 2021, total lending-related exposure of $113.3 billion increased 6% compared with Dec. 31, 2020, primarily reflecting higher margin loans, overdrafts and wealth management and mortgages exposure, partially offset by lower financial institutions exposure.

Our financial institutions and commercial portfolios comprise our largest concentrated risk. These portfolios comprised 49% of our total exposure at Sept. 30, 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)*	**Sept. 30, 2021**					Dec. 31, 2020		
	Loans	Unfunded commitments	Total exposure	% Inv. grade	% due <1 yr.	Loans	Unfunded commitments	Total exposure
Securities industry	**$ 2.0**	**$ 18.8**	**$ 20.8**	**97%**	**99%**	$ 2.3	$ 21.6	$ 23.9
Asset managers	**1.5**	**7.4**	**8.9**	**98**	**77**	1.4	6.4	7.8
Banks	**4.9**	**1.7**	**6.6**	**86**	**88**	6.7	1.1	7.8
Insurance	**0.3**	**3.0**	**3.3**	**100**	**17**	0.1	2.8	2.9
Government	**0.1**	**0.1**	**0.2**	**100**	**—**	0.1	0.2	0.3
Other	**0.6**	**1.1**	**1.7**	**97**	**58**	0.6	0.7	1.3
Total	**$ 9.4**	**$ 32.1**	**$ 41.5**	**96%**	**84%**	$ 11.2	$ 32.8	$ 44.0

The financial institutions portfolio exposure was $41.5 billion at Sept. 30, 2021, a decrease of 6% compared with Dec. 31, 2020, primarily reflecting lower exposure to the securities industry and bank portfolios, partially offset by higher exposure to the asset managers, insurance and other portfolios.

Financial institution exposures are high-quality, with 96% of the exposures meeting the investment grade equivalent criteria of our internal credit rating classification at Sept. 30, 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.

The exposure to financial institutions is generally short-term, with 84% of the exposures expiring within one year. At Sept. 30, 2021, 56% of the exposure to financial institutions had an expiration within 90 days, compared with 18% at Dec. 31, 2020.

Secured intraday credit facilities represent approximately 40% of the exposure in the financial institutions portfolio and are reviewed and reapproved annually.

In addition, 68% of the financial institutions exposure is secured. For example, securities industry clients and asset managers often borrow against marketable securities held in custody.

At Sept. 30, 2021, the secured intra-day credit provided to dealers in connection with their tri-party repo activity totaled $17.7 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.

The asset managers portfolio exposure is high-quality, with 98% of the exposures meeting our investment grade equivalent ratings criteria as of Sept. 30, 2021. These exposures are generally short-term liquidity facilities, with the majority to regulated mutual funds.

Our banks exposure primarily relates to our global trade finance. These exposures are short-term in nature, with 88% due in less than one year. The investment grade percentage of our banks exposure was 86% at Sept. 30, 2021 and 85% at Dec. 31, 2020. Our non-investment grade exposures are primarily trade finance loans in Brazil.

Commercial

The commercial portfolio is presented below.

Commercial portfolio exposure	**Sept. 30, 2021**					Dec. 31, 2020		
(dollars in billions)	Loans	Unfunded commitments	Total exposure	% Inv. grade	% due <1 yr.	Loans	Unfunded commitments	Total exposure
Manufacturing	**$ 0.5**	**$ 4.0**	**$ 4.5**	**96%**	**17%**	$ 0.5	$ 4.1	$ 4.6
Energy and utilities	**0.3**	**3.9**	**4.2**	**88**	**3**	0.3	3.9	4.2
Services and other	**0.8**	**3.2**	**4.0**	**94**	**33**	0.6	3.8	4.4
Media and telecom	**0.1**	**0.8**	**0.9**	**93**	**8**	—	0.9	0.9
Total	**$ 1.7**	**$ 11.9**	**$ 13.6**	**93%**	**17%**	$ 1.4	$ 12.7	$ 14.1

The commercial portfolio exposure was $13.6 billion at Sept. 30, 2021, a decrease of 4% from Dec. 31, 2020, primarily driven by lower exposure to the services and other portfolio.

We have $563 million of total direct exposure to the oil and gas industry at Sept. 30, 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 58% investment grade at Sept. 30, 2021 and 66% at 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				
	Sept. 30, 2021	June 30, 2021	March 31, 2021	Dec. 31, 2020	Sept. 30, 2020
Financial institutions	**96%**	96%	96%	95%	95%
Commercial	**93%**	93%	92%	92%	93%

Wealth management loans and mortgages

Our wealth management exposure was $19.3 billion at Sept. 30, 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 Sept. 30, 2021.

At Sept. 30, 2021, the wealth management mortgage portfolio consisted of the following geographic concentrations: California – 22%; New York – 16%; Florida – 9%; Massachusetts – 9%; 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	**Sept. 30, 2021**		Dec. 31, 2020	
(in billions)	Total exposure	Percentage secured *(a)*	Total exposure	Percentage secured *(a)*
Residential	**$ 3.5**	**82%**	$ 3.3	86%
Office	**2.6**	**76**	2.8	75
Retail	**0.8**	**57**	1.0	52
Mixed-use	**0.7**	**24**	0.7	22
Hotels	**0.5**	**20**	0.6	20
Healthcare	**0.4**	**27**	0.4	25
Other *(b)*	**1.5**	**7**	0.5	23
Total commercial real estate	**$ 10.0**	**58%**	$ 9.3	64%

(a) Represents the percentage of exposure secured by real estate in each asset class.
(b) Includes subscription lines to real-estate related private equity funds and are secured by the fund investors' capital commitments and the funds' right to call capital.

Our commercial real estate exposure totaled $10.0 billion at Sept. 30, 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 Sept. 30, 2021, the unsecured portfolio consisted of real estate investment trusts ("REITs") and real estate operating companies, which are both primarily investment grade.

At Sept. 30, 2021, our commercial real estate portfolio consisted of the following concentrations: New York metro – 33%; REITs and real estate operating companies – 42%; and other – 25%.

Lease financings

The lease financings portfolio exposure totaled $0.8 billion at Sept. 30, 2021 and $1.0 billion at Dec. 31, 2020. At Sept. 30, 2021, approximately 98% of leasing exposure was investment grade, or investment grade equivalent and consisted of exposures backed by well-diversified assets, primarily real estate and large-ticket transportation equipment. The largest components of our lease residual value exposure relate to aircraft and freight-related rail cars. Assets are both domestic and foreign-based, with primary concentrations in the Germany and the U.S.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled $317 million at Sept. 30, 2021 and $389 million at Dec. 31, 2020. Included in this portfolio at Sept. 30, 2021 were $54 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 $20.9 billion at Sept. 30, 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 $7.1 billion at Sept. 30, 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 *(dollars in millions)*	**Sept. 30, 2021**	June 30, 2021	Dec. 31, 2020	Sept. 30, 2020
Beginning balance of allowance for credit losses	**$ 335**	$ 419	$ 486	$ 475
Provision for credit losses	**(45)**	(86)	15	9
Net recoveries (charge-offs):				
Loans:				
Other residential mortgages	**1**	—	—	1
Financial institutions	**—**	2	—	—
Wealth management loans and mortgages	**—**	—	—	—
Other financial instruments	**—**	—	—	1
Net recoveries	**1**	2	—	2
Ending balance of allowance for credit losses	**$ 291**	$ 335	$ 501	$ 486
Allowance for loan losses	**$ 233**	$ 269	$ 358	$ 325
Allowance for lending-related commitments	**40**	50	121	135
Allowance for financial instruments *(a)*	**18**	16	22	26
Total allowance for credit losses	**$ 291**	$ 335	$ 501	$ 486
Non-margin loans	**$43,507**	$ 43,624	$ 41,053	$ 41,993
Margin loans	**20,821**	19,923	15,416	13,498
Total loans	**$64,328**	$ 63,547	$ 56,469	$ 55,491
Allowance for loan losses as a percentage of total loans	**0.36%**	0.42%	0.63%	0.59%
Allowance for loan losses as a percentage of non-margin loans	**0.54**	0.62	0.87	0.77
Allowance for loan losses and lending-related commitments as a percentage of total loans	**0.42**	0.50	0.85	0.83
Allowance for loan losses and lending-related commitments as a percentage of non-margin loans	**0.63**	0.73	1.17	1.10

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

The provision for credit losses was a benefit of $45 million in the third quarter of 2021, primarily driven by an improved macroeconomic forecast.

We had $20.8 billion of secured margin loans on our balance sheet at Sept. 30, 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	Sept. 30, 2021	June 30, 2021	Dec. 31, 2020	Sept. 30, 2020
Commercial real estate	**82%**	90%	89%	84%
Other	**6**	—	—	—
Commercial	**4**	3	3	6
Financial institutions	**3**	2	2	2
Other residential mortgages	**2**	3	3	4
Wealth management *(a)*	**2**	1	2	3
Lease financings	**1**	1	1	1
Total	**100%**	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 $67 million, and if each credit were rated one grade worse, the quantitative allowance would have increased by $125 million. Our multi-scenario based macroeconomic forecast used in determining the Sept. 30, 2021 allowance for credit losses consisted of three scenarios. The baseline scenario reflects moderate and flat GDP growth and unemployment recovery and stable commercial real estate prices through mid-2022 that begin to increase in the second half of 2022. The upside scenario reflects faster GDP growth and unemployment recovery and higher commercial real estate prices compared with the baseline. The downside scenario contemplates negative GDP growth throughout 2021 and increasing unemployment through 2022 and lower commercial real estate prices than the baseline. Consistent with the first and second quarters of 2021, 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 Sept. 30, 2021, if we had applied 100% weighting to the downside scenario, the quantitative allowance for credit losses would have been approximately $110 million higher.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets *(dollars in millions)*	Sept. 30, 2021	Dec. 31, 2020
Nonperforming loans:		
Other residential mortgages	**$ 40**	$ 57
Wealth management loans and mortgages	**26**	30
Commercial real estate	**25**	1
Other	**16**	—
Total nonperforming loans	**107**	88
Other assets owned	**1**	1
Total nonperforming assets	**$ 108**	$ 89
Nonperforming assets ratio	**0.17%**	0.16%
Nonperforming assets ratio, excluding margin loans	**0.25**	0.22
Allowance for loan losses/ nonperforming loans	**217.8**	406.8
Allowance for loan losses/ nonperforming assets	**215.7**	402.2
Total allowance for credit losses/ nonperforming loans	**255.1**	544.3
Total allowance for credit losses/ nonperforming assets	**252.8**	538.2

Nonperforming assets increased $19 million compared with Dec. 31, 2020, reflecting higher commercial real estate loans and others loans, partially offset by lower other residential mortgages and wealth management loans and mortgages.

Lost interest

Interest revenue would have increased by $1 million in the third quarter of 2021, second quarter of 2021 and third quarter of 2020, $3 million in the first nine months of 2021 and $4 million in the first nine months 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 $23 million in the third quarter of 2021, $106 million in the third quarter of 2020 and $3 million in the second quarter of 2021. 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 loans of $56 million in the third quarter of 2020, a majority of which were commercial real estate loans, by providing long-term loan payment modifications and an extension of maturity. We did not identify any of the modifications as TDRs. There were no long-term loan modifications in the third quarter of 2021 and second quarter of 2021. At Sept. 30, 2021, the unpaid principal balance of the loans modified under the CARES Act or Interagency Guidance was $94 million.

Deposits

Total deposits were $343.1 billion at Sept. 30, 2021, an increase, compared with $341.5 billion at Dec. 31, 2020. The increase primarily reflects higher noninterest-bearing deposits (principally U.S. offices), partially offset by lower interest-bearing deposits in both non-U.S. and U.S. offices.

Noninterest-bearing deposits were $100.5 billion at Sept. 30, 2021 compared with $83.8 billion at Dec. 31, 2020. Interest-bearing deposits were $242.6 billion at Sept. 30, 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.

Federal funds purchased and securities sold under repurchase agreements

	Quarter ended		
(dollars in millions)	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020
Maximum month-end balance during the quarter	**$13,712**	$14,071	$17,248
Average daily balance *(a)*	**$13,415**	$13,773	$16,850
Weighted-average rate during the quarter *(a)*	**0.08%**	(0.17)%	0.13%
Ending balance *(b)*	**$11,973**	$12,425	$15,907
Weighted-average rate at period end *(b)*	**0.15%**	(0.25)%	0.16%

(a) Includes the average impact of offsetting under enforceable netting agreements of $47,411 million in the third quarter of 2021, $41,173 million in the second quarter of 2021 and $42,862 million in the third quarter of 2020. On a Non-GAAP basis, excluding the impact of offsetting, the weighted-average rates would have been 0.02% for the third quarter of 2021, (0.04)% for the second quarter of 2021 and 0.04% for the third 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 $49,195 million at Sept. 30, 2021, $41,122 million at June 30, 2021 and $54,629 million at Sept. 30, 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 Sept. 30, 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		
(dollars in millions)	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020
Maximum month-end balance during the quarter	**$ 26,002**	$23,704	$ 24,188
Average daily balance *(a)*	**$ 23,923**	$23,760	$ 23,847
Weighted-average rate during the quarter *(a)*	**(0.01)%**	(0.01)%	(0.01)%
Ending balance	**$ 26,002**	$23,704	$ 23,514
Weighted-average rate at period end	**(0.01)%**	(0.01)%	(0.01)%

(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 $16,648 million in the third quarter of 2021, $16,811 million in the second quarter of 2021 and $18,501 million in the third 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		
(dollars in millions)	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020
Maximum month-end balance during the quarter	**$ —**	$ —	$ 5,000
Average daily balance	**$ 11**	$ —	$ 2,274
Weighted-average rate during the quarter	**0.07%**	—%	0.09%
Ending balance	**$ —**	$ —	$ 671
Weighted-average rate at period end	**—%**	—%	0.09%

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 Sept. 30, 2020 primarily reflects the continuation of elevated deposit levels.

Information related to other borrowed funds is presented below.

Other borrowed funds	Quarter ended		
(dollars in millions)	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020
Maximum month-end balance during the quarter	**$ 876**	$ 451	$ 948
Average daily balance	**$ 383**	$ 298	$ 873
Weighted-average rate during the quarter	**2.53%**	2.21%	1.40%
Ending balance	**$ 767**	$ 451	$ 420
Weighted-average rate at period end	**1.80%**	2.51%	1.66%

Other borrowed funds primarily include overdrafts of sub-custodian account balances in our Investment Services businesses, finance lease liabilities and borrowings under lines of credit by our Pershing subsidiaries. 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 Sept. 30, 2020. Overdrafts typically relate to timing differences for settlements. The increase in other borrowed funds compared with Sept. 30, 2020 and June 30, 2021 primarily reflects higher overdrafts of sub-custodian account balances in our Investment Services business and borrowings under lines of credit by our Pershing subsidiaries. The increase compared to Sept. 30, 2020 was partially offset by lower borrowings from the Federal Reserve Bank of Boston under the MMLF program.

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 Sept. 30, 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	**Sept. 30,**	Dec. 31,	Average				
(dollars in millions)	**2021**	2020	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
Cash and due from banks	**$ 6,752**	$ 6,252	**$ 5,990**	$ 5,938	$ 4,332	**$ 5,884**	$ 4,343
Interest-bearing deposits with the Federal Reserve and other central banks	**126,959**	141,775	**108,110**	114,564	90,670	**116,136**	88,442
Interest-bearing deposits with banks	**20,057**	17,300	**20,465**	22,465	19,202	**21,411**	19,126
Federal funds sold and securities purchased under resale agreements	**28,497**	30,907	**29,304**	27,857	30,342	**28,783**	31,567
Total available funds	**$182,265**	$ 196,234	**$163,869**	$170,824	$144,546	**$172,214**	$143,478
Total available funds as a percentage of total assets	**39%**	42%	**37%**	38%	35%	**38%**	35%

Total available funds were $182.3 billion at Sept. 30, 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 and federal funds sold and securities purchased under resale agreements, partially offset by higher interest-bearing deposits with banks.

Average non-core sources of funds, such as federal funds purchased and securities sold under repurchase agreements, trading liabilities, other borrowed funds and commercial paper were $16.9 billion for the first nine months of 2021 and $19.7 billion for the first nine months of 2020. The decrease reflects lower commercial paper, other borrowed funds and federal funds purchased and securities sold under repurchase agreements, partially offset by higher trading liabilities.

Average foreign deposits, primarily from our European-based Investment Services business, were $112.9 billion for the first nine months of 2021, compared with $105.0 billion for the first nine months of 2020. Average interest-bearing domestic deposits were $126.4 billion for the first nine months of 2021 and $101.6 billion for the first nine months of 2020. The increase primarily reflects client activity.

Average payables to customers and broker-dealers were $17.0 billion for the first nine months of 2021 and $17.9 billion for the first nine months of 2020. Payables to customers and broker-dealers are driven by customer trading activity and market volatility.

Average long-term debt was $25.7 billion for the first nine months of 2021 and $27.3 billion for the first nine months of 2020.

Average noninterest-bearing deposits increased to $84.9 billion for the first nine months of 2021 from $66.9 billion for the first nine 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 Sept. 30, 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 $25.0 billion at Sept. 30, 2021 and $26.0 billion at Dec. 31, 2020. Redemptions and maturities of $4.3 billion and a decrease in the fair value of hedged long-term debt were partially offset by issuances of $3.7 billion. The Parent has no long-term debt maturing in the remainder of 2021.

In October 2021, the Parent issued $700 million of fixed rate senior notes maturing in 2024 at an annual interest rate of 0.85%, $400 million of floating rate senior notes maturing in 2024 at an annual interest rate of the compounded secured overnight financing rate ("SOFR") plus 20 basis points and $400 million of fixed rate senior notes maturing in 2029 at an annual interest rate of 1.90%.

The Bank of New York Mellon may issue notes and CDs. At Sept. 30, 2021 and Dec. 31, 2020, $30 million of notes were outstanding. There were no CDs outstanding at Sept. 30, 2021 and $100 million was 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 Sept. 30, 2021 and Dec. 31, 2020. The average commercial paper outstanding was $4 million for the first nine months of 2021 and $1.4 billion for the first nine months of 2020.

Subsequent to Sept. 30, 2021, our U.S. bank subsidiaries could declare dividends to the Parent of approximately $1.5 billion, without the need for a regulatory waiver. In addition, at Sept. 30, 2021, non-bank subsidiaries of the Parent had liquid assets of approximately $3.9 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. Average borrowings under these lines were $4 million in the third quarter of 2021. Pershing Limited, an indirect UK-based subsidiary of BNY Mellon, has two separate uncommitted lines of credit amounting to $266 million in aggregate. Average borrowings under these lines were $30 million, in aggregate, in the third 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 81% of total revenue in the third quarter of 2021, and the dividend capacity of our banking subsidiaries. Our double leverage ratio was 117.7% at Sept. 30, 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 August 2021, a quarterly dividend of $0.34 per common share was paid to common shareholders. Our common stock dividend payout ratio was 33% for the third quarter of 2021.

In the third quarter of 2021, we repurchased 38.1 million common shares at an average price of $52.55 per common share, for a total cost of $2.0 billion.

Liquidity coverage ratio ("LCR")

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

The following table presents BNY Mellon's consolidated HQLA at Sept. 30, 2021, and the average HQLA and average LCR for the third quarter of 2021.

Consolidated HQLA and LCR *(dollars in billions)*		**Sept. 30, 2021**
Securities *(a)*	$	**121**
Cash *(b)*		**127**
Total consolidated HQLA *(c)*	$	**248**
Total consolidated HQLA – average *(c)*	$	**229**
Average LCR		**111%**

(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 $174 billion at Sept. 30, 2021 and averaged $156 billion for the third 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 third 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 $291 million in the nine months ended Sept. 30, 2021, compared with net cash provided by operations of $5.9 billion in the nine months ended Sept. 30, 2020. In the nine months ended Sept. 30, 2021 cash flows used for operations primarily resulted from changes in trading assets and liabilities, partially offset by earnings. In the nine months ended Sept. 30, 2020, cash flows provided by operations primarily resulted from earnings and changes in trading assets and liabilities.

Net cash used for investing activities was $259 million in the nine months ended Sept. 30, 2021, compared with $44.3 billion in the nine months ended Sept. 30, 2020. In the nine months ended Sept. 30, 2021, net cash used for investing activities primarily reflects the net change in loans and securities, offset by changes in interest-bearing deposits with the Federal Reserve and other central banks. In the nine months ended Sept. 30, 2020, net cash used for investing activities primarily reflects net changes in securities and changes in interest-bearing deposits with the Federal Reserve and other central banks.

Net cash provided by financing activities was $2.2 billion in the nine months ended Sept. 30, 2021, compared with $38.1 billion in the nine months ended Sept. 30, 2020. In the nine months ended Sept. 30, 2021, net cash provided by financing activities primarily reflects changes in deposits, issuances of long-term debt and changes in payables to customers and broker-dealers, partially offset by repayments of long-term debt and common stock repurchases. In the nine months ended Sept. 30, 2020, net cash provided by financing activity reflects changes in deposits, payables to customers and broker-dealers and federal funds purchased and securities sold under repurchase agreements, partially offset by changes in commercial paper.

Capital

Capital data *(dollars in millions, except per share amounts; common shares in thousands)*	**Sept. 30, 2021**	June 30, 2021	Dec. 31, 2020
Average common equity to average assets	**8.9%**	8.9%	9.3%
At period end:			
BNY Mellon shareholders' equity to total assets ratio	**9.3%**	9.7%	9.8%
BNY Mellon common shareholders' equity to total assets ratio	**8.3%**	8.7%	8.8%
Total BNY Mellon shareholders' equity	**$ 43,601**	$ 45,281	$ 45,801
Total BNY Mellon common shareholders' equity	**$ 39,060**	$ 40,740	$ 41,260
BNY Mellon tangible common shareholders' equity – Non-GAAP *(a)*	**$ 20,545**	$ 22,127	$ 22,563
Book value per common share	**$ 47.30**	$ 47.20	$ 46.53
Tangible book value per common share – Non-GAAP *(a)*	**$ 24.88**	$ 25.64	$ 25.44
Closing stock price per common share	**$ 51.84**	$ 51.23	$ 42.44
Market capitalization	**$ 42,811**	$ 44,220	$ 37,634
Common shares outstanding	**825,821**	863,174	886,764
Cash dividends per common share	**$ 0.34**	$ 0.31	$ 0.31
Common dividend payout ratio	**33%**	27%	39%
Common dividend yield	**2.6%**	2.4%	2.9%

(a) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 45 for a reconciliation of GAAP to Non-GAAP.

The Bank of New York Mellon Corporation total shareholders' equity decreased to $43.6 billion at Sept. 30, 2021 from $45.8 billion at Dec. 31, 2020. The decrease primarily reflects common stock repurchases, dividend payments and unrealized losses on securities available-for-sale, 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 $703 million at Sept. 30, 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 nine months of 2021, we repurchased 67.7 million common shares at an average price of $49.03 per common share for a total of $3.3 billion.

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. The temporary restrictions on dividends and share repurchases ended for BNY Mellon after June 30, 2021. After these temporary restrictions were lifted, BNY Mellon continued to be subject to the stress capital buffer ("SCB") framework, which would impose restrictions on capital distributions on an incremental basis if BNY Mellon's risk-based capital ratios decline into the buffer zone.

In June 2021, the Federal Reserve released the results of its stress tests for 2021. Our Board of Directors subsequently authorized the repurchase of up to $6.0 billion of common shares over the six quarters beginning in the third quarter of 2021 and continuing through the fourth quarter of 2022. This new share repurchase plan replaced all previously authorized share repurchase plans.

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 Sept. 30, 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	Sept. 30, 2021			June 30, 2021	Dec. 31, 2020
	Well capitalized	Minimum required *(a)*	Capital ratios	Capital ratios	Capital ratios
Consolidated regulatory capital ratios: *(b)*					
Advanced Approaches:					
CET1 ratio	N/A *(c)*	8.5%	**11.8%**	12.7%	13.1%
Tier 1 capital ratio	6%	10	**14.5**	15.3	15.8
Total capital ratio	10	12	**15.2**	16.0	16.7
Standardized Approach:					
CET1 ratio	N/A *(c)*	8.5%	**11.7%**	12.6%	13.4%
Tier 1 capital ratio	6%	10	**14.4**	15.2	16.1
Total capital ratio	10	12	**15.3**	16.2	17.1
Tier 1 leverage ratio	N/A *(c)*	4	**5.7**	6.0	6.3
SLR *(d)(e)*	N/A *(c)*	5	**7.0**	7.5	8.6
The Bank of New York Mellon regulatory capital ratios: *(b)*					
Advanced Approaches:					
CET1 ratio	6.5%	7%	**16.5%**	16.7%	17.1%
Tier 1 capital ratio	8	8.5	**16.5**	16.7	17.1
Total capital ratio	10	10.5	**16.5**	16.8	17.3
Tier 1 leverage ratio	5	4	**6.1**	6.1	6.4
SLR *(d)*	6	3	**7.8**	8.0	8.5

(a) Minimum requirements for Sept. 30, 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 Dec. 31, 2020 reflects the temporary exclusion of U.S. Treasury securities from total leverage exposure which increased our consolidated SLR by 72 basis points. The temporary exclusion ceased to apply beginning April 1, 2021.

Our CET1 ratio under the Standardized Approach was 11.7% at Sept. 30, 2021 and 13.1% at Dec. 31, 2020 under the Advanced Approaches. The decrease was primarily driven by common stock repurchases, dividend payments, unrealized losses on securities available-for-sale and an increase in RWAs, partially offset by capital generated through earnings.

Tier 1 leverage was 5.7% at Sept. 30, 2021, compared with 6.0% at June 30, 2021. The decrease reflects lower Tier 1 common equity driven by common share repurchases, partially offset by lower average assets.

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 (in millions)	Sept. 30, 2021	June 30, 2021	Dec. 31, 2020
CET1:			
Common shareholders' equity	**$ 39,060**	$ 40,740	$ 41,260
Adjustments for:			
Goodwill and intangible assets *(a)*	**(18,515)**	(18,613)	(18,697)
Net pension fund assets	**(304)**	(308)	(319)
Equity method investments	**(299)**	(305)	(306)
Deferred tax assets	**(55)**	(55)	(54)
Other	**(43)**	(3)	(9)
Total CET1	**19,844**	21,456	21,875
Other Tier 1 capital:			
Preferred stock	**4,541**	4,541	4,541
Other	**(93)**	(101)	(106)
Total Tier 1 capital	**$ 24,292**	$ 25,896	$ 26,310
Tier 2 capital:			
Subordinated debt	**$ 1,248**	$ 1,248	$ 1,248
Allowance for credit losses	**282**	326	490
Other	**(6)**	(6)	(10)
Total Tier 2 capital – Standardized Approach	**1,524**	1,568	1,728
Excess of expected credit losses	**—**	45	247
Less: Allowance for credit losses	**282**	326	490
Total Tier 2 capital – Advanced Approaches	**$ 1,242**	$ 1,287	$ 1,485
Total capital:			
Standardized Approach	**$ 25,816**	$ 27,464	$ 28,038
Advanced Approaches	**$ 25,534**	$ 27,183	$ 27,795
Risk-weighted assets:			
Standardized Approach	**$ 169,216**	$ 169,885	$ 163,848
Advanced Approaches:			
Credit Risk	**$ 99,631**	$ 101,282	$ 98,262
Market Risk	**3,113**	3,010	4,226
Operational Risk	**64,863**	65,088	63,938
Total Advanced Approaches	**$ 167,607**	$ 169,380	$ 166,426
Average assets for Tier 1 leverage ratio	**$ 427,461**	$ 432,954	$ 417,982
Total leverage exposure for SLR	**$ 347,856**	$ 346,455	$ 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 (in millions)	3Q21
CET1 – Beginning of period	**$ 21,456**
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**881**
Goodwill and intangible assets, net of related deferred tax liabilities	**98**
Gross CET1 generated	**979**
Capital deployed:	
Common stock dividends *(a)*	**(296)**
Common stock repurchases	**(2,001)**
Total capital deployed	**(2,297)**
Other comprehensive income:	
Unrealized loss on assets available-for-sale	**(152)**
Foreign currency translation	**(202)**
Unrealized loss on cash flow hedges	**(1)**
Defined benefit plans	**22**
Total other comprehensive income	**(333)**
Additional paid-in capital *(b)*	**69**
Other additions (deductions):	
Net pension fund assets	**4**
Embedded goodwill	**6**
Other	**(40)**
Total other deductions	**(30)**
Net CET1 deployed	**(1,612)**
CET1 – End of period	**$ 19,844**

(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 Sept. 30, 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 Sept. 30, 2021	Increase or decrease of	
(in basis points)	$100 million in common equity	$1 billion in RWA, quarterly average assets or total leverage exposure
CET1:		
Standardized Approach	6 bps	7 bps
Advanced Approaches	6	7
Tier 1 capital:		
Standardized Approach	6	9
Advanced Approaches	6	9
Total capital:		
Standardized Approach	6	9
Advanced Approaches	6	9
Tier 1 leverage	2	1
SLR	3	2

From April 1, 2020 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 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.

Stress capital buffer

In August 2021, the Federal Reserve announced that BNY Mellon's SCB requirement would be 2.5%, equal to the regulatory floor, effective as of Oct. 1, 2021. The SCB replaced the static 2.5% capital conservation buffer for Standardized Approach capital ratios for CCAR BHCs. The SCB does not apply to bank subsidiaries, which remain subject to the static 2.5% capital conservation buffer. See "Recent regulatory developments" for additional information on the SCB.

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

Total Loss-Absorbing Capacity ("TLAC")

The 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	**Sept. 30, 2021**		
	Minimum required	Minimum ratios with buffers	Ratios
Eligible external TLAC:			
As a percentage of RWA	18.0%	21.5%	27.3%
As a percentage of total leverage exposure	7.5%	9.5%	13.3%
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	5.5%

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)*	**3Q21**			**Sept. 30,**
(in millions)	**Average**	**Minimum**	**Maximum**	**2021**
Interest rate	**$ 2.1**	**$ 1.5**	**$ 3.1**	**$ 1.6**
Foreign exchange	**2.3**	**1.9**	**4.0**	**2.8**
Equity	**0.1**	**—**	**0.2**	**0.1**
Credit	**1.5**	**1.1**	**2.2**	**1.8**
Diversification	**(2.6)**	**N/M**	**N/M**	**(2.9)**
Overall portfolio	**3.4**	**2.4**	**5.2**	**3.4**

VaR *(a)*	2Q21			June 30,
(in millions)	Average	Minimum	Maximum	2021
Interest rate	$ 2.2	$ 1.6	$ 2.7	$ 1.9
Foreign exchange	2.6	1.9	3.7	2.3
Equity	0.1	—	0.3	0.2
Credit	1.8	1.4	2.6	2.0
Diversification	(3.7)	N/M	N/M	(3.5)
Overall portfolio	3.0	2.5	4.5	2.9

VaR *(a)*	3Q20			Sept. 30,
(in millions)	Average	Minimum	Maximum	2020
Interest rate	$ 2.1	$ 1.7	$ 2.6	$ 2.2
Foreign exchange	2.6	2.0	3.7	2.5
Equity	0.3	0.1	0.6	0.1
Credit	2.2	1.5	3.5	2.3
Diversification	(3.8)	N/M	N/M	(3.7)
Overall portfolio	3.4	2.4	4.6	3.4

VaR *(a)*	**YTD21**		
(in millions)	**Average**	**Minimum**	**Maximum**
Interest rate	**$ 2.1**	**$ 1.5**	**$ 3.1**
Foreign exchange	**2.6**	**1.9**	**4.0**
Equity	**0.1**	**—**	**0.9**
Credit	**1.7**	**1.1**	**2.8**
Diversification	**(3.3)**	**N/M**	**N/M**
Overall portfolio	**3.2**	**2.4**	**5.2**

VaR *(a)*	YTD20		
(in millions)	Average	Minimum	Maximum
Interest rate	$ 3.4	$ 1.7	$ 11.3
Foreign exchange	3.0	1.7	6.3
Equity	0.7	0.1	2.3
Credit	3.0	1.2	12.1
Diversification	(5.3)	N/M	N/M
Overall portfolio	4.8	2.4	14.3

(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 third quarter of 2021, interest rate risk generated 35% of average gross VaR, foreign exchange risk generated 38% of average gross VaR, equity risk generated 2% of average gross VaR and credit risk generated 25% of average gross VaR. During the third quarter of 2021, our daily trading loss exceeded our calculated VaR amount of the overall portfolio on one occasion.

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

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

	Quarter ended				
(dollars in millions)	**Sept. 30, 2021**	June 30, 2021	March 31, 2021	Dec. 31, 2020	Sept. 30, 2020
Revenue range:	Number of days				
Less than \$(2.5)	**—**	—	—	2	4
\$(2.5) – \$0	**2**	7	6	12	10
\$0 – \$2.5	**23**	22	17	11	23
\$2.5 – \$5.0	**30**	25	21	26	16
More than \$5.0	**9**	10	17	11	12

(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 \$17.9 billion at Sept. 30, 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 \$5.2 billion at Sept. 30, 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 Sept. 30, 2021, our OTC derivative assets, including those in hedging relationships, of \$4.4 billion included a credit valuation adjustment (“CVA”) deduction of \$27 million. Our OTC derivative liabilities, including those in hedging relationships, of \$3.1 billion included a debit valuation adjustment (“DVA”) of \$2 million related to our own credit spread. Net of hedges, the CVA increased less than \$1 million and the DVA was unchanged in the third quarter of 2021, which decreased other trading revenue by less than \$1 million. The net impact increased other trading revenue by $1 million in the second quarter of 2021 and $3 million in the third 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				
	Sept. 30, 2021	June 30, 2021	March 31, 2021	Dec. 31, 2020	Sept. 30, 2020
Rating:					
AAA to AA-	**52%**	52%	45%	46%	54%
A+ to A-	**17**	19	26	28	20
BBB+ to BBB-	**25**	24	22	18	17
BB+ and lower *(b)*	**6**	5	7	8	9
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 between a baseline scenario and hypothetical interest rate scenarios. Interest rate sensitivity is quantified by calculating the change in pre-tax net interest revenue between the scenarios over a 12-month measurement period.

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

In the table below, we use the earnings simulation model to assess the impact of various hypothetical interest rate scenarios compared to the baseline scenario. Beginning in the third quarter of 2021, we have refined our scenario analysis by replacing gradual rate ramp scenarios with scenarios that reflect the impact of instantaneous interest rate shock movements. In each of the new scenarios, all currencies' interest rates are instantaneously shifted higher or lower. The scenarios assume instantaneous rate changes at the start of the forecast. Long-term interest rates are defined as all tenors equal to or greater than three years and short-term interest rates are defined as all tenors equal to or less than three months. Interim term points are interpolated where applicable. The refined scenarios are intended to provide information on a basis that is consistent with industry practice.

The following table shows net interest revenue sensitivity for BNY Mellon. Prior periods have been updated to reflect the impact of instantaneous interest rate shock movements.

Estimated changes in net interest revenue *(in millions)*	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020
Up 100 bps rate shock vs. baseline	**$ 840**	$ 857	$ 628
Long-term up 100 bps, short-term unchanged	**239**	214	267
Short-term up 100 bps, long-term unchanged	**601**	643	361
Long-term down 50 bps, short-term unchanged	**(117)**	(113)	(150)
Down 100 bps rate shock vs. baseline	**794**	648	639

The slight decreases in certain of the rising rate sensitivities compared with June 30, 2021 are driven by slightly lower client deposits.

While the net interest revenue sensitivity scenario 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 a rising short-term rate environment. 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 up 100 basis point scenario in the table above by approximately $60 million. The impact would be smaller if the run-off was assumed to be a mixture of interest-bearing and noninterest-bearing deposits.

Additionally, given the continued low short-term interest rates, money market mutual fund fees and other similar fees are being waived to protect investors from negative returns. See "Fee and other revenue" beginning on page 7 for additional details on the impact of money market fee waivers on fee revenues.

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 – Non-GAAP is additional useful information for investors because it presents a measure of those assets that can generate income, and the tangible book value per common share – Non-GAAP is additional useful information because it presents the level of tangible assets in relation to shares of common stock outstanding.

BNY Mellon has presented the measure of fee revenue, excluding money market fee waivers – Non-GAAP. We believe that this measure is useful information for investors for evaluating the impact of current interest rates and market conditions on fee revenue growth rates and the performance of our business.

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 *(dollars in millions)*	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
Net income applicable to common shareholders of The Bank of New York Mellon Corporation – GAAP	**$ 881**	$ 991	$ 876	**$ 2,730**	$ 2,721
Add: Amortization of intangible assets	**19**	20	26	**63**	78
Less: Tax impact of amortization of intangible assets	**4**	5	7	**15**	19
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation, excluding amortization of intangible assets – Non-GAAP	**$ 896**	$ 1,006	$ 895	**$ 2,778**	$ 2,780
Average common shareholders' equity	**$ 39,755**	$ 40,393	$ 39,924	**$ 40,286**	$ 38,693
Less: Average goodwill	**17,474**	17,517	17,357	**17,495**	17,304
Average intangible assets	**2,953**	2,975	3,039	**2,976**	3,062
Add: Deferred tax liability – tax deductible goodwill	**1,173**	1,163	1,132	**1,173**	1,132
Deferred tax liability – intangible assets	**673**	675	666	**673**	666
Average tangible common shareholders' equity – Non-GAAP	**$ 21,174**	$ 21,739	$ 21,326	**$ 21,661**	$ 20,125
Return on common shareholders' equity – GAAP	**8.8%**	9.8%	8.7%	**9.1%**	9.4%
Return on tangible common shareholders' equity – Non-GAAP	**16.8%**	18.6%	16.7%	**17.1%**	18.5%

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

Book value and tangible book value per common share reconciliation *(dollars in millions, except per share amounts and unless otherwise noted)*	**Sept. 30, 2021**	June 30, 2021	Dec. 31, 2020	Sept. 30, 2020
BNY Mellon shareholders' equity at period end – GAAP	**$ 43,601**	$ 45,281	$ 45,801	$ 44,917
Less: Preferred stock	**4,541**	4,541	4,541	4,532
BNY Mellon common shareholders' equity at period end – GAAP	**39,060**	40,740	41,260	40,385
Less: Goodwill	**17,420**	17,487	17,496	17,357
Intangible assets	**2,941**	2,964	3,012	3,026
Add: Deferred tax liability – tax deductible goodwill	**1,173**	1,163	1,144	1,132
Deferred tax liability – intangible assets	**673**	675	667	666
BNY Mellon tangible common shareholders' equity at period end – Non-GAAP	**$ 20,545**	$ 22,127	$ 22,563	$ 21,800
Period-end common shares outstanding *(in thousands)*	**825,821**	863,174	886,764	886,136
Book value per common share – GAAP	**$ 47.30**	$ 47.20	$ 46.53	$ 45.58
Tangible book value per common share – Non-GAAP	**$ 24.88**	$ 25.64	$ 25.44	$ 24.60

The following table presents the impact of money market fee waivers on our consolidated fee revenue.

Fee revenue reconciliation *(dollars in millions)*	**3Q21**	3Q20	**3Q21 vs. 3Q20**
Fee revenue	**$ 3,265**	$ 3,074	**6%**
Less: Money market fee waivers	**(262)**	(110)	
Fee revenue, excluding money market fee waivers – Non-GAAP	**$ 3,527**	$ 3,184	**11%**

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

Constant currency reconciliation – Consolidated *(dollars in millions)*	**3Q21**	3Q20	**3Q21 vs. 3Q20**
Investment management and performance fees – GAAP	**$ 913**	$ 835	**9%**
Impact of changes in foreign currency exchange rates	**—**	15	
Adjusted investment management and performance fees – Non-GAAP	**$ 913**	$ 850	**7%**

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 *(dollars in millions)*	**3Q21**	3Q20	**3Q21 vs. 3Q20**
Investment management and performance fees – GAAP	**$ 914**	$ 835	**9%**
Impact of changes in foreign currency exchange rates	**—**	15	
Adjusted investment management and performance fees – Non-GAAP	**$ 914**	$ 850	**8%**

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 (dollars in millions)	3Q21	2Q21	1Q21	4Q20	3Q20	YTD21	YTD20
Income before income taxes – GAAP	**$ 348**	$ 326	$ 278	$ 311	$ 245	**$ 952**	$ 660
Total revenue – GAAP	**$ 1,032**	$ 999	$ 991	$ 990	$ 918	**$ 3,022**	$ 2,702
Less: Distribution and servicing expense	**76**	74	75	76	85	**225**	262
Adjusted total revenue, net of distribution and servicing expense – Non-GAAP	**$ 956**	$ 925	$ 916	$ 914	$ 833	**$ 2,797**	$ 2,440
Pre-tax operating margin – GAAP *(a)*	**34%**	33%	28%	32%	27%	**31%**	24%
Adjusted pre-tax operating margin, net of distribution and servicing expense – Non-GAAP *(a)*	**36%**	35%	30%	34%	29%	**34%**	27%

(a) Income before taxes divided by total revenue.

Recent regulatory developments

For a summary of additional regulatory matters relevant to our operations, see "Recent regulatory developments" in our Form 10-Q for the quarters ended March 31, 2021 and June 30, 2021 and "Supervision and Regulation" 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 state 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 U.S. dollar 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.

Consolidated Income Statement (unaudited)

(in millions)	Quarter ended Sept. 30, 2021	Quarter ended June 30, 2021	Quarter ended Sept. 30, 2020		Year-to-date Sept. 30, 2021	Year-to-date Sept. 30, 2020	
Fee and other revenue							
Investment services fees:							
Asset servicing fees	**$ 1,223**	$ 1,200	$ 1,168		**$ 3,622**	$ 3,500	
Clearing services fees	**423**	435	397		**1,313**	1,298	
Issuer services fees	**280**	281	295		**806**	835	
Treasury services fees	**165**	160	152		**482**	445	
Total investment services fees	**2,091**	2,076	2,012		**6,223**	6,078	
Investment management and performance fees	**913**	889	835		**2,692**	2,483	
Foreign exchange revenue	**185**	184	149	*(a)*	**600**	587	*(a)*
Financing-related fees	**48**	48	49		**147**	166	
Distribution and servicing	**28**	27	29		**84**	87	
Total fee revenue	**3,265**	3,224	3,074	*(a)*	**9,746**	9,401	*(a)*
Investment and other income	**127**	89	61	*(a)*	**225**	240	*(a)*
Net securities gains	**2**	2	9		**4**	27	
Total other revenue	**129**	91	70	*(a)*	**229**	267	*(a)*
Total fee and other revenue	**3,394**	3,315	3,144		**9,975**	9,668	
Net interest revenue							
Interest revenue	**693**	685	820		**2,116**	3,333	
Interest expense	**52**	40	117		**175**	1,036	
Net interest revenue	**641**	645	703		**1,941**	2,297	
Total revenue	**4,035**	3,960	3,847		**11,916**	11,965	
Provision for credit losses	**(45)**	(86)	9		**(214)**	321	
Noninterest expense							
Staff	**1,584**	1,518	1,466		**4,704**	4,412	
Software and equipment	**372**	365	340		**1,099**	1,011	
Professional, legal and other purchased services	**363**	363	355		**1,069**	1,022	
Sub-custodian and clearing	**129**	132	119		**385**	344	
Net occupancy	**120**	122	136		**365**	408	
Distribution and servicing	**76**	73	85		**223**	261	
Bank assessment charges	**34**	35	30		**103**	100	
Business development	**22**	22	17		**63**	79	
Amortization of intangible assets	**19**	20	26		**63**	78	
Other	**199**	128	107		**473**	364	
Total noninterest expense	**2,918**	2,778	2,681		**8,547**	8,079	
Income							
Income before income taxes	**1,162**	1,268	1,157		**3,583**	3,565	
Provision for income taxes	**219**	241	213		**681**	694	
Net income	**943**	1,027	944		**2,902**	2,871	
Net loss (income) attributable to noncontrolling interests related to consolidated investment management funds	**4**	(5)	(7)		**(6)**	(4)	
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**947**	1,022	937		**2,896**	2,867	
Preferred stock dividends	**(66)**	(31)	(61)		**(166)**	(146)	
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 881**	$ 991	$ 876		**$ 2,730**	$ 2,721	

(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.

Consolidated Income Statement (unaudited) (continued)

Net income applicable to common shareholders of The Bank of New York Mellon Corporation used for the earnings per share calculation *(in millions)*	Quarter ended **Sept. 30, 2021**	Quarter ended June 30, 2021	Quarter ended Sept. 30, 2020	Year-to-date **Sept. 30, 2021**	Year-to-date Sept. 30, 2020
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 881**	$ 991	$ 876	**$ 2,730**	$ 2,721
Less: Earnings allocated to participating securities	**—**	1	1	**2**	5
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	**$ 881**	$ 990	$ 875	**$ 2,728**	$ 2,716

Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(in thousands)*	Quarter ended **Sept. 30, 2021**	Quarter ended June 30, 2021	Quarter ended Sept. 30, 2020	Year-to-date **Sept. 30, 2021**	Year-to-date Sept. 30, 2020
Basic	**844,088**	869,460	889,499	**865,374**	891,050
Common stock equivalents	**5,297**	4,315	2,173	**4,401**	2,522
Less: Participating securities	**(357)**	(300)	(603)	**(451)**	(779)
Diluted	**849,028**	873,475	891,069	**869,324**	892,793
Anti-dilutive securities *(a)*	**517**	547	1,485	**739**	1,828

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

Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation *(in dollars)*	Quarter ended **Sept. 30, 2021**	Quarter ended June 30, 2021	Quarter ended Sept. 30, 2020	Year-to-date **Sept. 30, 2021**	Year-to-date Sept. 30, 2020
Basic	**$ 1.04**	$ 1.14	$ 0.98	**$ 3.15**	$ 3.05
Diluted	**$ 1.04**	$ 1.13	$ 0.98	**$ 3.14**	$ 3.04

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Comprehensive Income Statement (unaudited)

	Quarter ended			Year-to-date	
(in millions)	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020	**Sept. 30, 2021**	Sept. 30, 2020
Net income	**$ 943**	$ 1,027	$ 944	**$ 2,902**	$ 2,871
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	**(202)**	51	331	**(301)**	77
Unrealized (loss) gain on assets available-for-sale:					
Unrealized (loss) gain arising during the period	**(150)**	77	233	**(776)**	1,169
Reclassification adjustment	**(2)**	(1)	(6)	**(3)**	(20)
Total unrealized (loss) gain on assets available-for-sale	**(152)**	76	227	**(779)**	1,149
Defined benefit plans:					
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost	**22**	25	20	**69**	57
Total defined benefit plans	**22**	25	20	**69**	57
Net unrealized (loss) gain on cash flow hedges	**(1)**	(3)	8	**(7)**	1
Total other comprehensive (loss) income, net of tax *(a)*	**(333)**	149	586	**(1,018)**	1,284
Total comprehensive income	**610**	1,176	1,530	**1,884**	4,155
Net loss (income) attributable to noncontrolling interests	**4**	(5)	(7)	**(6)**	(4)
Other comprehensive loss attributable to noncontrolling interests	**—**	—	(2)	**—**	—
Comprehensive income applicable to shareholders of The Bank of New York Mellon Corporation	**$ 614**	$ 1,171	$ 1,521	**$ 1,878**	$ 4,151

(a) Other comprehensive (loss) income attributable to The Bank of New York Mellon Corporation shareholders was $(333) million for the quarter ended Sept. 30, 2021, $149 million for the quarter ended June 30, 2021, $584 million for the quarter ended Sept. 30, 2020, $(1,018) million for the nine months ended Sept. 30, 2021 and $1,284 million for the nine months ended Sept. 30, 2020.

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Balance Sheet (unaudited)

(dollars in millions, except per share amounts)	Sept. 30, 2021	Dec. 31, 2020
Assets		
Cash and due from banks, net of allowance for credit losses of $2 and $4	**$ 6,752**	$ 6,252
Interest-bearing deposits with the Federal Reserve and other central banks	**126,959**	141,775
Interest-bearing deposits with banks, net of allowance for credit losses of $2 and $3 (includes restricted of $4,201 and $3,167)	**20,057**	17,300
Federal funds sold and securities purchased under resale agreements	**28,497**	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 $56,708 and $49,224)	**56,267**	47,946
Available-for-sale, at fair value (amortized cost of $99,338 and $105,141, net of allowance for credit losses of $10 and $11)	**101,007**	108,495
Total securities	**157,274**	156,441
Trading assets	**17,854**	15,272
Loans	**64,328**	56,469
Allowance for credit losses	**(233)**	(358)
Net loans	**64,095**	56,111
Premises and equipment	**3,422**	3,602
Accrued interest receivable	**464**	510
Goodwill	**17,420**	17,496
Intangible assets	**2,941**	3,012
Other assets, net of allowance for credit losses on accounts receivable of $4 and $4 (includes $1,313 and $1,009, at fair value)	**24,798**	20,955
Total assets	**$ 470,533**	$ 469,633
Liabilities		
Deposits:		
Noninterest-bearing (principally U.S. offices)	**$ 100,498**	$ 83,854
Interest-bearing deposits in U.S. offices	**130,468**	133,479
Interest-bearing deposits in non-U.S. offices	**112,173**	124,212
Total deposits	**343,139**	341,545
Federal funds purchased and securities sold under repurchase agreements	**11,973**	11,305
Trading liabilities	**5,152**	6,031
Payables to customers and broker-dealers	**26,002**	25,085
Other borrowed funds	**767**	350
Accrued taxes and other expenses	**5,609**	5,696
Other liabilities (including allowance for credit losses on lending-related commitments of $40 and $121, also includes $433 and $1,110, at fair value)	**8,796**	7,517
Long-term debt (includes $400 and $400, at fair value)	**25,043**	25,984
Total liabilities	**426,481**	423,513
Temporary equity		
Redeemable noncontrolling interests	**178**	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 $0.01 per share; authorized 3,500,000,000 shares; issued 1,389,042,033 and 1,382,306,327 shares	**14**	14
Additional paid-in capital	**28,075**	27,823
Retained earnings	**36,125**	34,241
Accumulated other comprehensive loss, net of tax	**(2,003)**	(985)
Less: Treasury stock of 563,220,970 and 495,542,796 common shares, at cost	**(23,151)**	(19,833)
Total The Bank of New York Mellon Corporation shareholders' equity	**43,601**	45,801
Nonredeemable noncontrolling interests of consolidated investment management funds	**273**	143
Total permanent equity	**43,874**	45,944
Total liabilities, temporary equity and permanent equity	**$ 470,533**	$ 469,633

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Statement of Cash Flows (unaudited)

	Nine months ended Sept. 30,	
(in millions)	**2021**	2020
Operating activities		
Net income	**$ 2,902**	$ 2,871
Net (income) attributable to noncontrolling interests	**(6)**	(4)
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**2,896**	2,867
Adjustments to reconcile net income to net cash provided by (used for) operating activities:		
Provision for credit losses	**(214)**	321
Pension plan contributions	**(5)**	(18)
Depreciation and amortization	**1,406**	1,175
Deferred tax (benefit)	**255**	(351)
Net securities (gains)	**(4)**	(27)
Change in trading assets and liabilities	**(3,466)**	1,736
Change in accruals and other, net	**(1,159)**	200
Net cash (used for) provided by operating activities	**(291)**	5,903
Investing activities		
Change in interest-bearing deposits with banks	**(2,005)**	(3,808)
Change in interest-bearing deposits with the Federal Reserve and other central banks	**11,450**	(9,775)
Purchases of securities held-to-maturity	**(7,587)**	(23,507)
Paydowns of securities held-to-maturity	**8,601**	6,291
Maturities of securities held-to-maturity	**1,242**	5,477
Purchases of securities available-for-sale	**(38,201)**	(56,860)
Sales of securities available-for-sale	**8,846**	10,824
Paydowns of securities available-for-sale	**10,132**	7,300
Maturities of securities available-for-sale	**13,396**	21,113
Net change in loans	**(7,823)**	(537)
Sales of loans and other real estate	**1**	10
Change in federal funds sold and securities purchased under resale agreements	**2,343**	525
Net change in seed capital investments	**(83)**	20
Purchases of premises and equipment/capitalized software	**(841)**	(956)
Proceeds from the sale of premises and equipment	**34**	—
Dispositions, net of cash	**8**	—
Other, net	**228**	(417)
Net cash (used for) investing activities	**(259)**	(44,300)
Financing activities		
Change in deposits	**4,805**	35,736
Change in federal funds purchased and securities sold under repurchase agreements	**806**	4,299
Change in payables to customers and broker-dealers	**954**	4,627
Change in other borrowed funds	**432**	(183)
Change in commercial paper	**—**	(3,288)
Net proceeds from the issuance of long-term debt	**3,689**	2,245
Repayments of long-term debt	**(4,250)**	(4,400)
Proceeds from the exercise of stock options	**45**	36
Issuance of common stock	**10**	9
Issuance of preferred stock	**—**	990
Treasury stock acquired	**(3,318)**	(988)
Common cash dividends paid	**(846)**	(838)
Preferred cash dividends paid	**(166)**	(146)
Other, net	**4**	36
Net cash provided by financing activities	**2,165**	38,135
Effect of exchange rate changes on cash	**(81)**	(10)
Change in cash and due from banks and restricted cash		
Change in cash and due from banks and restricted cash	**1,534**	(272)
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	**$ 10,953**	$ 6,995
Cash and due from banks and restricted cash		
Cash and due from banks at end of period (unrestricted cash)	**$ 6,752**	$ 4,104
Restricted cash at end of period	**4,201**	2,891
Cash and due from banks and restricted cash at end of period	**$ 10,953**	$ 6,995
Supplemental disclosures		
Interest paid	**$ 226**	$ 1,166
Income taxes paid	**376**	1,112
Income taxes refunded	**36**	23

See accompanying unaudited Notes to Consolidated Financial Statements.

Consolidated Statement of Changes in Equity (unaudited)

	The Bank of New York Mellon Corporation shareholders						Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity		Redeemable non-controlling interests/ temporary equity
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock				
Balance at June 30, 2021	$ 4,541	$ 14	$ 28,006	$ 35,540	$ (1,670)	$(21,150)	$ 344	$ 45,625	*(a)*	$ 169
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—		**8**
Other net changes in noncontrolling interests	—	—	—	—	—	—	**(67)**	**(67)**		**1**
Net income (loss)	—	—	—	**947**	—	—	**(4)**	**943**		—
Other comprehensive (loss)	—	—	—	—	**(333)**	—	—	**(333)**		—
Dividends:										
Common stock at $0.34 per share *(b)*	—	—	—	**(296)**	—	—	—	**(296)**		—
Preferred stock	—	—	—	**(66)**	—	—	—	**(66)**		—
Repurchase of common stock	—	—	—	—	—	**(2,001)**	—	**(2,001)**		—
Common stock issued under employee benefit plans	—	—	**4**	—	—	—	—	**4**		—
Stock awards and options exercised	—	—	**65**	—	—	—	—	**65**		—
Balance at Sept. 30, 2021	**$ 4,541**	**$ 14**	**$ 28,075**	**$ 36,125**	**$ (2,003)**	**$(23,151)**	**$ 273**	**$ 43,874**	*(a)*	**$ 178**

(a) *Includes total The Bank of New York Mellon Corporation common shareholders' equity of $40,740 million at June 30, 2021 and $39,060 million at Sept. 30, 2021.*

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

	The Bank of New York Mellon Corporation shareholders						Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity		Redeemable non-controlling interests/ temporary equity
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss) income, net of tax	Treasury stock				
Balance at March 31, 2021	$ 4,541	$ 14	$ 27,928	$ 34,822	$ (1,819)	$(20,532)	$ 262	$ 45,216	*(a)*	$ 187
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—		6
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—		(22)
Other net changes in noncontrolling interests	—	—	9	—	—	—	77	86		(2)
Net income	—	—	—	1,022	—	—	5	1,027		—
Other comprehensive income	—	—	—	—	149	—	—	149		—
Dividends:										
Common stock at $0.31 per share *(b)*	—	—	—	(273)	—	—	—	(273)		—
Preferred stock	—	—	—	(31)	—	—	—	(31)		—
Repurchase of common stock	—	—	—	—	—	(618)	—	(618)		—
Common stock issued under employee benefit plans	—	—	5	—	—	—	—	5		—
Stock awards and options exercised	—	—	64	—	—	—	—	64		—
Balance at June 30, 2021	$ 4,541	$ 14	$ 28,006	$ 35,540	$ (1,670)	$(21,150)	$ 344	$ 45,625	*(a)*	$ 169

(a) *Includes total The Bank of New York Mellon Corporation common shareholders' equity of $40,413 million at March 31, 2021 and $40,740 million at June 30, 2021.*

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

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

	The Bank of New York Mellon Corporation shareholders								
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock	Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable non-controlling interests/ temporary equity
Balance at June 30, 2020	$ 4,532	$ 14	$ 27,702	$ 33,224	$ (1,943)	$(19,832)	$ 112	$ 43,809 *(a)*	$ 157
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	21
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	(1)
Other net changes in noncontrolling interests	—	—	—	—	—	—	132	132	—
Net income	—	—	—	937	—	—	7	944	—
Other comprehensive income	—	—	—	—	584	—	—	584	2
Dividends:									
Common stock at $0.31 per share	—	—	—	(279)	—	—	—	(279)	—
Preferred stock	—	—	—	(61)	—	—	—	(61)	—
Common stock issued under employee benefit plans	—	—	6	—	—	—	—	6	—
Stock awards and options exercised	—	—	33	—	—	—	—	33	—
Balance at Sept. 30, 2020	$ 4,532	$ 14	$ 27,741	$ 33,821	$ (1,359)	$(19,832)	$ 251	$ 45,168 *(a)*	$ 179

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $39,165 million at June 30, 2020 and $40,385 million at Sept. 30, 2020.

	The Bank of New York Mellon Corporation shareholders								
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock	Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable non-controlling interests/ temporary equity
Balance at Dec. 31, 2020	$ 4,541	$ 14	$ 27,823	$ 34,241	$ (985)	$(19,833)	$ 143	$ 45,944 *(a)*	$ 176
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	**37**
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	**(52)**
Other net changes in noncontrolling interests	—	—	**(24)**	—	—	—	**124**	**100**	**17**
Net income	—	—	—	**2,896**	—	—	**6**	**2,902**	—
Other comprehensive (loss)	—	—	—	—	**(1,018)**	—	—	**(1,018)**	—
Dividends:									
Common stock at $0.96 per share *(b)*	—	—	—	**(846)**	—	—	—	**(846)**	—
Preferred stock	—	—	—	**(166)**	—	—	—	**(166)**	—
Repurchase of common stock	—	—	—	—	—	**(3,318)**	—	**(3,318)**	—
Common stock issued under employee benefit plans	—	—	**14**	—	—	—	—	**14**	—
Stock awards and options exercised	—	—	**262**	—	—	—	—	**262**	—
Balance at Sept. 30, 2021	**$ 4,541**	**$ 14**	**$ 28,075**	**$ 36,125**	**$ (2,003)**	**$(23,151)**	**$ 273**	**$ 43,874** *(a)*	**$ 178**

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $41,260 million at Dec. 31, 2020 and $39,060 million at Sept. 30, 2021.

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

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

	The Bank of New York Mellon Corporation shareholders									
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss), net of tax	Treasury stock	Nonredeemable noncontrolling interests of consolidated investment management funds	Total permanent equity		Redeemable non-controlling interests/ temporary equity
Balance at Dec. 31, 2019	$ 3,542	$ 14	$ 27,515	$ 31,894	$ (2,638)	$(18,844)	$ 102	$ 41,585	*(a)*	$ 143
Impact of adopting ASU 2016-13, *Financial Instruments – Credit Losses*	—	—	—	45	(5)	—	—	40		—
Adjusted balance at Jan. 1, 2020	3,542	14	27,515	31,939	(2,643)	(18,844)	102	41,625		143
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—		55
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—		(17)
Other net changes in noncontrolling interests	—	—	(5)	—	—	—	145	140		(2)
Net income	—	—	—	2,867	—	—	4	2,871		—
Other comprehensive income	—	—	—	—	1,284	—	—	1,284		—
Dividends:										
Common stock at $0.93 per share	—	—	—	(839)	—	—	—	(839)		—
Preferred stock	—	—	—	(146)	—	—	—	(146)		—
Repurchase of common stock	—	—	—	—	—	(988)	—	(988)		—
Common stock issued under employee benefit plans	—	—	21	—	—	—	—	21		—
Preferred stock issued	990	—	—	—	—	—	—	990		—
Stock awards and options exercised	—	—	210	—	—	—	—	210		—
Balance at Sept. 30, 2020	$ 4,532	$ 14	$ 27,741	$ 33,821	$ (1,359)	$(19,832)	$ 251	$ 45,168	*(a)*	$ 179

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $37,941 million at Dec. 31, 2019 and $40,385 million at Sept. 30, 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, consisting of normal recurring adjustments, for a fair presentation of financial position, results of operations and cash flows for the periods presented have been made. These financial statements should be read in conjunction with our 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 *(in millions)*	Quarter ended Sept. 30, 2020	Year-to-date Sept. 30, 2020
Before reclassifications		
Foreign exchange and other trading revenue	$ 137	$ 622
Total fee revenue	$ 3,108	$ 9,598
Investment and other income	$ 46	$ 162
Income from consolidated investment management funds	$ 27	$ 43
After reclassifications		
Foreign exchange revenue	$ 149	$ 587
Total fee revenue	$ 3,074	$ 9,401
Investment and other income	$ 61	$ 240

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

Business segment reclassifications *(in millions)*	Year-to-date Sept. 30, 2020
Investment Services business	
Before reclassifications	
Foreign exchange and other trading revenue	$ 585
Other revenue	$ 391
After reclassifications	
Foreign exchange revenue	$ 518
Other revenue	$ 458
Other segment	
Before reclassifications	
Fee revenue	$ 61
Net securities gains	$ 27
After reclassifications	
Fee revenue	$ 23
Other revenue	$ 65

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. Those sales closed in the first and third quarters of 2021. BNY Mellon recorded a total after-tax loss of $34 million on these transactions in the fourth quarter of 2020 and a $4 million gain in the third quarter of 2021.

Note 3–Securities

The following tables present the amortized cost, the gross unrealized gains and losses and the fair value of securities at Sept. 30, 2021 and Dec. 31, 2020.

Securities at Sept. 30, 2021		Gross unrealized		
(in millions)	Amortized cost	Gains	Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 25,392	$ 795	$ 226	$ 25,961
Agency residential mortgage-backed securities (“RMBS”)	14,616	339	47	14,908
Sovereign debt/sovereign guaranteed	12,999	112	42	13,069
Agency commercial mortgage-backed securities (“MBS”)	8,139	430	25	8,544
Supranational	7,931	34	26	7,939
Foreign covered bonds	6,917	38	9	6,946
Collateralized loan obligations (“CLOs”)	5,202	5	3	5,204
Non-agency commercial MBS	3,108	90	16	3,182
Foreign government agencies	2,670	16	7	2,679
State and political subdivisions	2,651	15	22	2,644
U.S. government agencies	2,541	115	13	2,643
Non-agency RMBS *(a)*	2,469	144	15	2,598
Corporate bonds	2,395	29	47	2,377
Other asset-backed securities (“ABS”)	2,307	14	9	2,312
Other debt securities	1	—	—	1
Total securities available-for-sale *(b)(c)*	**$ 99,338**	**$2,176**	**$ 507**	**$ 101,007**
Held-to-maturity:				
Agency RMBS	$ 37,607	$ 631	$ 230	$ 38,008
U.S. Treasury	10,528	52	31	10,549
Agency commercial MBS	4,170	64	29	4,205
U.S. government agencies	2,879	1	41	2,839
Sovereign debt/sovereign guaranteed	969	23	3	989
Supranational	54	—	—	54
Non-agency RMBS	46	3	—	49
State and political subdivisions	14	1	—	15
Total securities held-to-maturity	**$ 56,267**	**$ 775**	**$ 334**	**$ 56,708**
Total securities	**$ 155,605**	**$2,951**	**$ 841**	**$ 157,715**

(a) Includes $387 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 $477 million and gross unrealized losses of $80 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 RMBS, U.S. Treasury securities, agency commercial MBS and U.S. government agency securities and losses are primarily related to U.S. Treasury securities and 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 Gains	Gross unrealized Losses	Fair value
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)	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
Realized gross gains	**$ 3**	$ 6	$ 10	**$ 21**	$ 38
Realized gross losses	**(1)**	(4)	(1)	**(17)**	(11)
Total net securities gains	**$ 2**	$ 2	$ 9	**$ 4**	$ 27

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

Net securities gains (losses) (in millions)	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
U.S. Treasury	**$ —**	$ —	$ 1	**$ (4)**	$ 7
Foreign government agencies	**—**	—	5	**1**	7
Supranational	**—**	—	—	**—**	6
Other	**2**	2	3	**7**	7
Total net securities gains	**$ 2**	$ 2	$ 9	**$ 4**	$ 27

In the third quarter of 2021, agency RMBS, U.S. Treasury securities and U.S. government agencies with an aggregate amortized cost of $4.81 billion and fair value of $5.08 billion were transferred from available-for-sale securities to held-to-maturity securities to reduce the impact of changes in interest rates on accumulated other comprehensive income.

In the second quarter of 2021, U.S. Treasury securities and agency commercial MBS with an aggregate amortized cost of $5.95 billion and fair value of $5.96 billion were transferred from available-for-sale securities to held-to-maturity securities to reduce the impact of changes in interest rates on accumulated other comprehensive income.

Allowance for credit losses – Securities

The allowance for credit losses related to securities was $10 million at Sept. 30, 2021 and $11 million at Dec. 31, 2020, and primarily relates to the available-for-sale CLO portfolio.

Credit quality indicators – Securities

At Sept. 30, 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, $80 million of the unrealized losses at Sept. 30, 2021 and $44 million at Dec. 31, 2020 reflected in the tables below relate to certain securities that were previously transferred from available-for-sale to held-to-maturity. The unrealized losses will be amortized into net interest revenue over the contractual lives of the securities. The transfer created a new cost basis for the securities. As a result, if these securities have experienced unrealized losses since the date of transfer, the corresponding 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 Sept. 30, 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	$ 2,830	$ 16	$ 491	$ 31	$ 3,321	$ 47
U.S. Treasury	12,106	222	46	4	12,152	226
Sovereign debt/sovereign guaranteed	3,921	42	104	—	4,025	42
Agency commercial MBS	1,945	24	561	1	2,506	25
Foreign covered bonds	1,637	9	93	—	1,730	9
Supranational	2,357	23	268	3	2,625	26
CLOs	422	1	337	2	759	3
Foreign government agencies	947	7	42	—	989	7
U.S. government agencies	904	13	—	—	904	13
Other ABS	1,066	8	144	1	1,210	9
Non-agency commercial MBS	766	13	137	3	903	16
Non-agency RMBS *(b)*	1,190	11	318	4	1,508	15
State and political subdivisions	1,607	22	21	—	1,628	22
Corporate bonds	1,577	47	—	—	1,577	47
Total securities available-for-sale *(c)*	**$ 33,275**	**$ 458**	**$ 2,562**	**$ 49**	**$ 35,837**	**$ 507**

(a) Includes $8.7 billion of securities with an unrealized loss of greater than $1 million.

(b) Includes $1 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 $49 million gross unrealized losses for less than 12 months and gross unrealized losses of $31 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 U.S. Treasury securities and agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities.

Available-for-sale securities in an unrealized loss position without an allowance for credit losses at Dec. 31, 2020 *(a)*	Less than 12 months		12 months or more		Total	
(in millions)	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 Sept. 30, 2021			Ratings *(a)*					
(dollars in millions)	Amortized cost	Net unrealized gain (loss)	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/ A2/ SP-1	Not rated
Agency RMBS	$ 37,607	$ 401	100%	—%	—%	—%	—%	—%
U.S. Treasury	10,528	21	100	—	—	—	—	—
U.S. government agencies	2,879	(40)	100	—	—	—	—	—
Agency commercial MBS	4,170	35	100	—	—	—	—	—
Sovereign debt/sovereign guaranteed *(b)*	969	20	100	—	—	—	—	—
Non-agency RMBS	46	3	24	59	1	15	—	1
Supranational	54	—	100	—	—	—	—	—
State and political subdivisions	14	1	5	2	5	—	—	88
Total held-to-maturity securities	**$ 56,267**	**$ 441**	**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					
(dollars in millions)	Amortized cost	Net unrealized gain (loss)	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/ A2/ SP-1	Not rated
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 *(a)*	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) 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 Sept. 30, 2021	U.S. Treasury		U.S. government agencies		State and political subdivisions		Other bonds, notes and debentures		Mortgage/ asset-backed		
(dollars in millions)	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Amount	Yield *(a)*	Total
Securities available-for-sale:											
One year or less	$ 2,159	1.44%	$ 195	0.21%	$ 235	2.44%	$ 7,710	0.58%	$ —	—%	**$ 10,299**
Over 1 through 5 years	8,883	1.01	1,720	0.95	633	2.07	19,077	0.49	—	—	**30,313**
Over 5 through 10 years	12,051	1.22	614	2.00	1,499	1.55	6,146	0.74	—	—	**20,310**
Over 10 years	2,868	3.10	114	1.91	277	2.26	78	1.14	—	—	**3,337**
Mortgage-backed securities	—	—	—	—	—	—	—	—	29,232	1.93	**29,232**
Asset-backed securities	—	—	—	—	—	—	—	—	7,516	1.38	**7,516**
Total	$ 25,961	1.35%	$ 2,643	1.17%	$ 2,644	1.83%	$ 33,011	0.56%	$ 36,748	1.81%	**$101,007**
Securities held-to-maturity:											
One year or less	$ 1,653	1.27%	$ —	—%	$ 1	5.52%	$ 94	0.45%	$ —	—%	**$ 1,748**
Over 1 through 5 years	5,978	0.95	862	0.68	1	5.72	848	0.70	—	—	**7,689**
Over 5 through 10 years	2,897	1.21	1,869	1.08	4	4.65	81	0.59	—	—	**4,851**
Over 10 years	—	—	148	1.88	8	4.80	—	—	—	—	**156**
Mortgage-backed securities	—	—	—	—	—	—	—	—	41,823	2.27	**41,823**
Total	$ 10,528	1.07%	$ 2,879	1.00%	$ 14	4.89%	$ 1,023	0.66%	$ 41,823	2.27%	**$ 56,267**

(a) Yields are based upon the amortized cost of securities and do not reflect the impact of hedging.

Pledged assets

At Sept. 30, 2021, BNY Mellon had pledged assets of $141 billion, including $110 billion pledged as collateral for potential borrowings at the Federal Reserve Discount Window and $7 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at Sept. 30, 2021 included $123 billion of securities, $12 billion of loans, $5 billion of trading assets and $1 billion of interest-bearing deposits with banks.

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

At Dec. 31, 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 Sept. 30, 2021 and Dec. 31, 2020, pledged assets included $23 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 Sept. 30, 2021 and Dec. 31, 2020, the market value of the securities received that can be sold or repledged was $119 billion and $121 billion, respectively. We routinely sell or repledge these securities through delivery to third parties. As of Sept. 30, 2021 and Dec. 31, 2020, the market value of securities collateral sold or repledged was $71 billion and $84 billion, respectively.

Restricted cash and securities

Cash and securities may be segregated under federal and other regulations or requirements. At Sept. 30, 2021 and Dec. 31, 2020, cash segregated under federal and other regulations or requirements was $4 billion and $3 billion, respectively. 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 $3 billion at Sept. 30, 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)*	**Sept. 30, 2021**	Dec. 31, 2020
Domestic:		
Commercial	**$ 1,659**	$ 1,356
Commercial real estate	**6,081**	6,056
Financial institutions	**4,049**	4,495
Lease financings	**297**	431
Wealth management loans and mortgages	**17,819**	16,211
Other residential mortgages	**317**	389
Overdrafts	**1,667**	651
Other	**2,308**	1,823
Margin loans	**17,915**	13,141
Total domestic	**52,112**	44,553
Foreign:		
Commercial	**16**	73
Commercial real estate	**311**	—
Financial institutions	**5,399**	6,750
Lease financings	**476**	559
Wealth management loans and mortgages	**168**	146
Other (primarily overdrafts)	**2,940**	2,113
Margin loans	**2,906**	2,275
Total foreign	**12,216**	11,916
Total loans *(a)*	**$ 64,328**	$ 56,469

(a) Net of unearned income of $247 million at Sept. 30, 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 Sept. 30, 2021 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Other	Total
Beginning balance	$ 8	$ 289	$ 7	$ 2	$ 5	$ 8	$ —	$ 319
Charge-offs	—	—	—	—	—	—	—	—
Recoveries	—	—	—	—	—	1	—	1
Net recoveries	—	—	—	—	—	1	—	1
Provision *(a)*	2	(63)	2	(1)	—	(3)	16	(47)
Ending balance *(b)*	**$ 10**	**$ 226**	**$ 9**	**$ 1**	**$ 5**	**$ 6**	**$ 16**	**$ 273**
Allowance for:								
Loan losses	$ 2	$ 199	$ 5	$ 1	$ 4	$ 6	$ 16	$ 233
Lending-related commitments	8	27	4	—	1	—	—	40
Individually evaluated for impairment:								
Loan balance *(c)*	$ —	$ 25	$ —	$ —	$ 18	$ 1	$ 16	$ 60
Allowance for loan losses	—	3	—	—	—	—	16	19

(a) Does not include the provision for credit losses related to other financial instruments of $2 million for the third quarter 2021.
(b) Includes $4 million of allowance for credit losses related to foreign loans, primarily financial institutions.
(c) Includes collateral-dependent loans of $60 million with $52 million of collateral at fair value.

Allowance for credit losses activity for the quarter ended June 30, 2021 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Total
Beginning balance	$ 11	$ 365	$ 7	$ 2	$ 6	$ 9	$ 400
Charge-offs	—	—	—	—	—	(1)	(1)
Recoveries	—	—	2	—	—	1	3
Net recoveries	—	—	2	—	—	—	2
Provision *(a)*	(3)	(76)	(2)	—	(1)	(1)	(83)
Ending balance *(b)*	$ 8	$ 289	$ 7	$ 2	$ 5	$ 8	$ 319
Allowance for:							
Loan losses	$ 3	$ 248	$ 4	$ 2	$ 4	$ 8	$ 269
Lending-related commitments	5	41	3	—	1	—	50
Individually evaluated for impairment:							
Loan balance *(c)*	$ —	$ 26	$ —	$ —	$ 17	$ 1	$ 44
Allowance for loan losses	—	3	—	—	—	—	3

(a) Does not include the provision for credit losses benefit related to other financial instruments of $3 million for the second quarter 2021.
(b) Includes $4 million of allowance for credit losses related to foreign loans, primarily financial institutions.
(c) Includes collateral-dependent loans of $44 million with $50 million of collateral at fair value.

Allowance for credit losses activity for the quarter ended Sept. 30, 2020 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Total
Beginning balance	$ 40	$ 372	$ 16	$ 3	$ 11	$ 12	$ 454
Charge-offs	—	—	—	—	—	—	—
Recoveries	—	—	—	—	—	1	1
Net recoveries	—	—	—	—	—	1	1
Provision *(a)*	(13)	14	(5)	—	4	5	5
Ending balance *(b)*	$ 27	$ 386	$ 11	$ 3	$ 15	$ 18	$ 460
Allowance for:							
Loan losses	$ 14	$ 270	$ 7	$ 3	$ 13	$ 18	$ 325
Lending-related commitments	13	116	4	—	2	—	135
Individually evaluated for impairment:							
Loan balance *(c)*	$ —	$ —	$ —	$ —	$ 17	$ —	$ 17
Allowance for loan losses	—	—	—	—	—	—	—

(a) Does not include the provision for credit losses related to other financial instruments of $4 million for the third quarter 2020.
(b) Includes $8 million of allowance for credit losses related to foreign loans, primarily financial institutions.
(c) Includes collateral-dependent loans of $17 million with $25 million of collateral at fair value.

Allowance for credit losses activity for the nine months ended Sept. 30, 2021 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Other	Total
Beginning balance	$ 16	$ 430	$ 10	$ 2	$ 8	$ 13	$ —	$ 479
Charge-offs	—	—	—	—	(1)	(1)	—	(2)
Recoveries	—	—	2	—	—	4	—	6
Net recoveries (charge-offs)	—	—	2	—	(1)	3	—	4
Provision *(a)*	(6)	(204)	(3)	(1)	(2)	(10)	16	(210)
Ending balance	**$ 10**	**$ 226**	**$ 9**	**$ 1**	**$ 5**	**$ 6**	**$ 16**	**$ 273**

(a) Does not include provision for credit losses benefit related to other financial instruments of $4 million for the nine months ended Sept. 30, 2021.

Allowance for credit losses activity for the nine months ended Sept. 30, 2020 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	Foreign	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	—	—	—	—	—	4	—	4
Net recoveries	—	—	—	—	—	4	—	4
Provision *(a)*	10	296	(3)	—	7	(1)	—	309
Ending balance	$ 27	$ 386	$ 11	$ 3	$ 15	$ 18	$ —	$ 460

(a) Does not include provision for credit losses related to other financial instruments of $12 million for the nine months ended Sept. 30, 2020.

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets	**Sept. 30, 2021**			Dec. 31, 2020		
	Recorded investment			Recorded investment		
(in millions)	With an allowance	Without an allowance	Total	With an allowance	Without an allowance	Total
Nonperforming loans:						
Other residential mortgages	**$ 39**	**$ 1**	**$ 40**	$ 57	$ —	$ 57
Wealth management loans and mortgages	**8**	**18**	**26**	10	20	30
Commercial real estate	**25**	**—**	**25**	1	—	1
Other	**16**	**—**	**16**	—	—	—
Total nonperforming loans	**88**	**19**	**107**	68	20	88
Other assets owned	**—**	**1**	**1**	—	1	1
Total nonperforming assets	**$ 88**	**$ 20**	**$ 108**	$ 68	$ 21	$ 89

At Sept. 30, 2021 and Dec. 31, 2020, 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	**Sept. 30, 2021**				Dec. 31, 2020			
	Days past due			Total	Days past due			Total
(in millions)	30-59	60-89	≥90	past due	30-59	60-89	≥90	past due
Wealth management loans and mortgages	**$ 73**	**$ 11**	**$ —**	**$ 84**	$ 54	$ 1	$ —	$ 55
Commercial real estate	**27**	**—**	**—**	**27**	19	16	—	35
Financial institutions	**10**	**—**	**—**	**10**	11	—	—	11
Other residential mortgages	**3**	**—**	**—**	**3**	3	1	—	4
Total past due loans	**$ 113**	**$ 11**	**$ —**	**$ 124**	$ 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 $23 million in the third quarter of 2021, $106 million in the third quarter of 2020 and $3 million in the second quarter of 2021. 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 loans of $56 million in the third quarter of 2020, a majority of which were commercial real estate loans, by providing long-term loan payment modifications and an extension of maturity. We did not identify any of the modifications as TDRs. There were no long-term loan modifications in the third quarter of 2021 and second quarter of 2021. At Sept. 30, 2021, the unpaid principal balance of the loans modified under the CARES Act or Interagency Guidance was $94 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.

Credit profile of the loan portfolio							**Sept. 30, 2021**			
	Originated, at amortized cost						Revolving loans			
(in millions)	**YTD21**	2020	2019	2018	2017	Prior to 2017	Amortized cost	Converted to term loans – Amortized cost	Total *(a)*	Accrued interest receivable
Commercial:										
Investment grade	**$ 401**	$ 20	$ —	$ —	$ 195	$ 57	**$ 818**	**$ —**	**$ 1,491**	
Non-investment grade	**90**	23	—	—	—	—	**71**	**—**	**184**	
Total commercial	**491**	43	—	—	195	57	**889**	**—**	**1,675**	**$ —**
Commercial real estate:										
Investment grade	**1,265**	524	793	166	275	651	**670**	**—**	**4,344**	
Non-investment grade	**613**	92	625	355	74	106	**157**	**26**	**2,048**	
Total commercial real estate	**1,878**	616	1,418	521	349	757	**827**	**26**	**6,392**	**8**
Financial institutions:										
Investment grade	**759**	—	—	—	—	72	**6,949**	**—**	**7,780**	
Non-investment grade	**45**	—	6	—	—	—	**1,617**	**—**	**1,668**	
Total financial institutions	**804**	—	6	—	—	72	**8,566**	**—**	**9,448**	**10**
Wealth management loans and mortgages:										
Investment grade	**67**	15	74	4	153	125	**9,500**	**—**	**9,938**	
Non-investment grade	**2**	—	—	—	—	—	**28**	**—**	**30**	
Wealth management mortgages	**1,468**	1,036	899	561	944	3,084	**27**	**—**	**8,019**	
Total wealth management loans and mortgages	**1,537**	1,051	973	565	1,097	3,209	**9,555**	**—**	**17,987**	**28**
Lease financings	**23**	81	15	11	4	639	**—**	**—**	**773**	**—**
Other residential mortgages	**—**	—	—	—	—	317	**—**	**—**	**317**	**1**
Other loans	**—**	—	—	—	—	—	**2,362**	**—**	**2,362**	**1**
Margin loans	**6,254**	800	—	—	—	—	**13,767**	**—**	**20,821**	**8**
Total loans	**$ 10,987**	$ 2,591	$ 2,412	$ 1,097	$ 1,645	$ 5,051	**$ 35,966**	**$ 26**	**$ 59,775**	**$ 56**

(a) Excludes overdrafts of $4,553 million. Overdrafts occur on a daily basis primarily in the custody and securities clearance business and are generally repaid within two business days.

Credit profile of the loan portfolio							Dec. 31, 2020			
							Revolving loans			
	Originated, at amortized cost									
(in millions)	2020	2019	2018	2017	2016	Prior to 2016	Amortized cost	Converted to term loans – Amortized cost	Total *(a)*	Accrued interest receivable
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 Sept. 30, 2021. In addition, 68% of the financial institutions exposure is secured. For example, securities industry clients and asset managers often borrow against marketable securities held in custody. The exposure to financial institutions is generally short-term, with 84% expiring within one year.

Wealth management loans 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 Sept. 30, 2021, less than 1% of the mortgages were past due.

At Sept. 30, 2021, the wealth management mortgage portfolio consisted of the following geographic concentrations: California – 22%; New York – 16%; Florida – 9%; Massachusetts – 9%; and other – 44%.

Lease financings

At Sept. 30, 2021, the lease financings portfolio consisted of exposures backed by well-diversified assets, primarily real estate and large-ticket transportation equipment. The largest components of our lease residual value exposure relate to aircraft and freight-related rail cars. Assets are both domestic and foreign-based, with primary concentrations in Germany and the U.S.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled $317 million at Sept. 30, 2021 and $389 million at Dec. 31, 2020. These loans are not typically correlated to external ratings. Included in this portfolio at Sept. 30, 2021 were $54 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 $4.6 billion at Sept. 30, 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 $20.8 billion of secured margin loans at Sept. 30, 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 Sept. 30, 2021 were fully secured with high quality collateral. As a result, there was no allowance for credit losses related to these assets at Sept. 30, 2021.

Note 5–Goodwill and intangible assets

Goodwill

The tables below provide a breakdown of goodwill by business.

Goodwill by business *(in millions)*	Investment Services	Investment and Wealth Management	Other	Consolidated
Balance at Dec. 31, 2020	$ 8,456	$ 9,040	$ —	$ 17,496
Dispositions	—	(5)	—	(5)
Foreign currency translation	(48)	(23)	—	(71)
Balance at Sept. 30, 2021	**$ 8,408**	**$ 9,012**	**$ —**	**$ 17,420**

Goodwill by business *(in millions)*	Investment Services	Investment and Wealth Management	Other	Consolidated
Balance at Dec. 31, 2019	$ 8,332	$ 9,007	$ 47	$ 17,386
Foreign currency translation	21	(50)	—	(29)
Other *(a)*	47	—	(47)	—
Balance at Sept. 30, 2020	$ 8,400	$ 8,957	$ —	$ 17,357

(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 *(in millions)*	Investment Services	Investment and Wealth Management	Other	Consolidated
Balance at Dec. 31, 2020	$ 608	$ 1,555	$ 849	$ 3,012
Disposition	—	(6)	—	(6)
Amortization	(41)	(22)	—	(63)
Foreign currency translation	—	(2)	—	(2)
Balance at Sept. 30, 2021	**$ 567**	**$ 1,525**	**$ 849**	**$ 2,941**

Intangible assets – net carrying amount by business *(in millions)*	Investment Services	Investment and Wealth Management	Other	Consolidated
Balance at Dec. 31, 2019	$ 678	$ 1,580	$ 849	$ 3,107
Amortization	(54)	(24)	—	(78)
Foreign currency translation	1	(4)	—	(3)
Balance at Sept. 30, 2020	$ 625	$ 1,552	$ 849	$ 3,026

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

Intangible assets (in millions)	Sept. 30, 2021 Gross carrying amount	Sept. 30, 2021 Accumulated amortization	Sept. 30, 2021 Net carrying amount	Sept. 30, 2021 Remaining weighted-average amortization period	Dec. 31, 2020 Gross carrying amount	Dec. 31, 2020 Accumulated amortization	Dec. 31, 2020 Net carrying amount
Subject to amortization: *(a)*							
Customer contracts—Investment Services	**$ 1,059**	**$ (864)**	**$ 195**	**9 years**	$ 1,435	$ (1,199)	$ 236
Customer relationships—Investment and Wealth Management	**609**	**(491)**	**118**	**9 years**	705	(564)	141
Other	**46**	**(7)**	**39**	**14 years**	59	(15)	44
Total subject to amortization	**1,714**	**(1,362)**	**352**	**10 years**	2,199	(1,778)	421
Not subject to amortization: *(b)*							
Tradename	**1,294**	**N/A**	**1,294**	**N/A**	1,295	N/A	1,295
Customer relationships	**1,295**	**N/A**	**1,295**	**N/A**	1,296	N/A	1,296
Total not subject to amortization	**2,589**	**N/A**	**2,589**	**N/A**	2,591	N/A	2,591
Total intangible assets	**$ 4,303**	**$ (1,362)**	**$ 2,941**	**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.

BNY Mellon's three business segments include six reporting units for which goodwill impairment testing is performed on an annual basis. The Investment Services segment is comprised of four reporting units and the Investment and Wealth Management segment is comprised of two reporting units. As a result of the annual goodwill impairment test of the six reporting units conducted in the second quarter of 2021, no goodwill impairment was recognized.

Note 6–Other assets

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

Other assets *(in millions)*	**Sept. 30, 2021**	Dec. 31, 2020
Corporate/bank-owned life insurance	**$ 5,349**	$ 5,301
Accounts receivable	**4,187**	3,619
Fails to deliver	**3,531**	1,371
Software	**1,999**	1,884
Prepaid pension assets	**1,683**	1,556
Equity in a joint venture and other investments	**1,409**	1,259
Qualified affordable housing project investments	**1,104**	1,145
Renewable energy investments	**1,066**	1,206
Income taxes receivable	**610**	599
Assets of consolidated investment management funds	**505**	487
Prepaid expense	**488**	477
Federal Reserve Bank stock	**470**	479
Seed capital	**255**	215
Fair value of hedging derivatives	**238**	19
Other *(a)*	**1,904**	1,338
Total other assets	**$ 24,798**	$ 20,955

(a) At Sept. 30, 2021 and Dec. 31, 2020, other assets include $7 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 $212 million at Sept. 30, 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)	**3Q21**	2Q21	3Q20	**YTD21**	YTD20	Life-to-date
Upward adjustments	**$ 55**	$ 6	$ 4	**$ 61**	$ 10	$ 114
Downward adjustments	**—**	—	—	**—**	—	(4)
Net adjustments	**$ 55**	$ 6	$ 4	**$ 61**	$ 10	$ 110

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 Sept. 30, 2021 and Dec. 31, 2020. Commitments to fund future investments in qualified affordable housing projects totaled $480 million at Sept. 30, 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 – $77 million; 2022 – $163 million; 2023 – $162 million; 2024 – $58 million; 2025 – $2 million; and 2026 and thereafter – $18 million.

Tax credits and other tax benefits recognized were $38 million in the third quarter of 2021, $38 million in the second quarter of 2021, $35 million in the third quarter of 2020, $114 million in the first nine months of 2021 and $111 million in the first nine months of 2020.

Amortization expense included in the provision for income taxes was $32 million in the third quarter of 2021, $32 million in the second quarter of 2021, $30 million in the third quarter of 2020, $96 million in the first nine months of 2021 and $92 million in the first nine months 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, primarily small business investment companies ("SBICs"), which are compliant with the Volcker Rule, and certain other corporate investments. Seed capital, private equity and other corporate investments are included in other assets on the consolidated balance sheet. The fair value of certain of these investments was estimated using the NAV per share for our ownership interest in the funds.

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

Investments valued using NAV	**Sept. 30, 2021**		Dec. 31, 2020	
(in millions)	Fair value	Unfunded commitments	Fair value	Unfunded commitments
Seed capital *(a)*	**$ 59**	**$ 25**	$ 52	$ 22
Private equity investments *(b)*	**114**	**61**	102	52
Other *(c)*	**46**	**—**	47	—
Total	**$ 219**	**$ 86**	$ 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 Sept. 30, 2021 and Dec. 31, 2020, are liquidated.

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

(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

	Quarter ended											
	Sept. 30, 2021				June 30, 2021				Sept. 30, 2020			
(in millions)	IS	IWM	Other	Total	IS	IWM	Other	Total	IS	IWM	Other	Total
Fee and other revenue – contract revenue:												
Investment services fees:												
Asset servicing fees	**$1,199**	**$ 25**	**$ (17)**	**$1,207**	$1,175	$ 24	$ (16)	$1,183	$1,143	$ 25	$ (13)	$1,155
Clearing services fees	**423**	**—**	**—**	**423**	435	—	—	435	397	—	—	397
Issuer services fees	**280**	**—**	**—**	**280**	281	—	—	281	296	—	—	296
Treasury services fees	**168**	**1**	**—**	**169**	164	—	(1)	163	153	1	(2)	152
Total investment services fees	**2,070**	**26**	**(17)**	**2,079**	2,055	24	(17)	2,062	1,989	26	(15)	2,000
Investment management and performance fees	**5**	**901**	**(6)**	**900**	4	870	(4)	870	4	838	(3)	839
Financing-related fees	**16**	**—**	**—**	**16**	16	—	—	16	13	1	1	15
Distribution and servicing	**(1)**	**28**	**1**	**28**	—	28	(1)	27	(2)	31	—	29
Investment and other income	**38**	**(10)**	**—**	**28**	32	(7)	—	25	57	(33)	(2)	22
Total fee and other revenue – contract revenue	**2,128**	**945**	**(22)**	**3,051**	2,107	915	(22)	3,000	2,061	863	(19)	2,905
Fee and other revenue – not in scope of Accounting Standards Codification ("ASC") 606 *(a)(b)*	**250**	**40**	**57**	**347**	229	37	44	310	185	8	39	232
Total fee and other revenue	**$2,378**	**$ 985**	**$ 35**	**$3,398**	$2,336	$ 952	$ 22	$3,310	$2,246	$ 871	$ 20	$3,137

(a) Primarily includes asset servicing fees, foreign exchange revenue, financing-related fees, investment and other income and net securities gains, all of which are accounted for using other accounting guidance.
(b) The revenue in the Investment and Wealth Management business segment is net of income (loss) attributable to noncontrolling interests related to consolidated investment management funds of $(4) million in the third quarter of 2021, $5 million in the second quarter of 2021 and $7 million in the third quarter of 2020.
IS – Investment Services business segment.
IWM – Investment and Wealth Management business segment.

Disaggregation of contract revenue by business segment

	Year-to-date							
	Sept. 30, 2021				Sept. 30, 2020			
(in millions)	IS	IWM	Other	Total	IS	IWM	Other	Total
Fee and other revenue – contract revenue:								
Investment services fees:								
Asset servicing fees	**$ 3,549**	**$ 74**	**$ (51)**	**$ 3,572**	$ 3,417	$ 73	$ (39)	$ 3,451
Clearing services fees	**1,313**	**—**	**—**	**1,313**	1,298	—	—	1,298
Issuer services fees	**806**	**—**	**—**	**806**	836	—	—	836
Treasury services fees	**491**	**1**	**—**	**492**	446	1	(1)	446
Total investment services fees	**6,159**	**75**	**(51)**	**6,183**	5,997	74	(40)	6,031
Investment management and performance fees	**13**	**2,654**	**(15)**	**2,652**	13	2,492	(12)	2,493
Financing-related fees	**52**	**—**	**—**	**52**	64	2	1	67
Distribution and servicing	**—**	**84**	**—**	**84**	(21)	108	—	87
Investment and other income	**106**	**(28)**	**—**	**78**	191	(124)	1	68
Total fee and other revenue – contract revenue	**6,330**	**2,785**	**(66)**	**9,049**	6,244	2,552	(50)	8,746
Fee and other revenue – not in scope of ASC 606 *(a)(b)*	**729**	**95**	**96**	**920**	777	3	138	918
Total fee and other revenue	**$ 7,059**	**$ 2,880**	**$ 30**	**$ 9,969**	$ 7,021	$ 2,555	$ 88	$ 9,664

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

(b) The revenue in the Investment and Wealth Management business segment is net of income attributable to noncontrolling interests related to consolidated investment management funds of $6 million in the first nine months of 2021 and $4 million in the first nine months of 2020.

IS – Investment Services business segment.

IWM – Investment and Wealth Management business segment.

Contract balances

Our clients are billed based on fee schedules that are agreed upon in each customer contract. Receivables from customers were $2.5 billion at Sept. 30, 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 $108 million at Sept. 30, 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 $185 million at Sept. 30, 2021 and $167 million at Dec. 31, 2020. Contract liabilities are included in other liabilities on the consolidated balance sheet. Revenue recognized in the third quarter of 2021 relating to contract liabilities as of June 30, 2021 was $68 million. Revenue recognized in the first nine months of 2021 relating to contract liabilities as of Dec. 31, 2020 was $101 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 $62 million at Sept. 30, 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 third quarter of 2021, $6 million in the third quarter of 2020, $5 million in the second quarter of 2021, $15 million in the first nine months of 2021 and $16 million in the first nine months 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 $19 million at Sept. 30, 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 third quarter of 2021, $1 million in the third quarter of 2020, less than $1 million in the second quarter of 2021, $1 million in the first nine months of 2021 and $4 million in the first nine months 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	Quarter ended			Year-to-date	
(in millions)	**Sept. 30, 2021**	June 30, 2021	Sept. 30, 2020	**Sept. 30, 2021**	Sept. 30, 2020
Interest revenue					
Deposits with the Federal Reserve and other central banks	**$ (21)**	$ (25)	$ (10)	**$ (62)**	$ 63
Deposits with banks	**12**	11	20	**37**	118
Federal funds sold and securities purchased under resale agreements	**32**	25	48	**89**	505
Margin loans	**52**	49	41	**146**	168
Non-margin loans	**186**	188	199	**559**	738
Securities:					
Taxable	**413**	415	499	**1,278**	1,649
Exempt from federal income taxes	**11**	11	7	**31**	19
Total securities	**424**	426	506	**1,309**	1,668
Trading securities	**8**	11	16	**38**	73
Total interest revenue	**693**	685	820	**2,116**	3,333
Interest expense					
Deposits	**(44)**	(49)	(29)	**(130)**	194
Federal funds purchased and securities sold under repurchase agreements	**2**	(5)	6	**(6)**	282
Trading liabilities	**1**	2	2	**6**	11
Other borrowed funds	**3**	1	3	**6**	14
Commercial paper	**—**	—	—	**—**	7
Customer payables	**(1)**	—	—	**(2)**	29
Long-term debt	**91**	91	135	**301**	499
Total interest expense	**52**	40	117	**175**	1,036
Net interest revenue	**641**	645	703	**1,941**	2,297
Provision for credit losses	**(45)**	(86)	9	**(214)**	321
Net interest revenue after provision for credit losses	**$ 686**	$ 731	$ 694	**$ 2,155**	$ 1,976

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	Quarter ended								
	Sept. 30, 2021			June 30, 2021			Sept. 30, 2020		
(in millions)	Domestic pension benefits	Foreign pension benefits	Health care benefits	Domestic pension benefits	Foreign pension benefits	Health care benefits	Domestic pension benefits	Foreign pension benefits	Health care benefits
Service cost	**$ —**	**$ 4**	**$ —**	$ —	$ 3	$ —	$ —	$ 3	$ —
Interest cost	**35**	**6**	**1**	34	7	1	39	7	2
Expected return on assets	**(75)**	**(9)**	**(2)**	(75)	(8)	(1)	(80)	(10)	(2)
Other	**24**	**3**	**—**	24	3	—	22	2	(1)
Net periodic benefit (credit) cost	**$ (16)**	**$ 4**	**$ (1)**	$ (17)	$ 5	$ —	$ (19)	$ 2	$ (1)

Net periodic benefit (credit) cost	Year-to-date					
	Sept. 30, 2021			Sept. 30, 2020		
(in millions)	Domestic pension benefits	Foreign pension benefits	Health care benefits	Domestic pension benefits	Foreign pension benefits	Health care benefits
Service cost	**$ —**	**$ 11**	**$ —**	$ —	$ 9	$ —
Interest cost	**103**	**19**	**3**	117	20	4
Expected return on assets	**(225)**	**(26)**	**(5)**	(239)	(29)	(5)
Other	**73**	**10**	**—**	65	8	(2)
Net periodic benefit (credit) cost	**$ (49)**	**$ 14**	**$ (2)**	$ (57)	$ 8	$ (3)

Note 10–Income taxes

BNY Mellon recorded an income tax provision of $219 million (18.8% effective tax rate) in the third quarter of 2021, $213 million (18.4% effective tax rate) in the third quarter of 2020 and $241 million (19.0% effective tax rate) in the second quarter of 2021.

Our total tax reserves as of Sept. 30, 2021 were $120 million compared with $119 million at Dec. 31, 2020. If these tax reserves were unnecessary, $120 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 Sept. 30, 2021 is accrued interest, where applicable, of $33 million. The additional tax expense related to interest for the nine months ended Sept. 30, 2021 was $6 million, compared with $5 million for the nine months ended Sept. 30, 2020.

It is reasonably possible the total reserve for uncertain tax positions could decrease within the next 12 months by approximately $1 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 income tax returns are closed to examination through 2014. Our New York City income tax returns are closed to examination through 2012. Our UK income tax returns are closed to examination through 2018.

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 Sept. 30, 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	**Sept. 30, 2021**			Dec. 31, 2020		
(in millions)	Investment Management funds	Securitization	Total consolidated investments	Investment Management funds	Securitization	Total consolidated investments
Trading assets	**$ 487**	**$ 400**	**$ 887**	$ 482	$ 400	$ 882
Other assets	**18**	**—**	**18**	5	—	5
Total assets	**$ 505** *(a)*	**$ 400**	**$ 905**	$ 487 *(b)*	$ 400	$ 887
Other liabilities	**$ 5**	**$ 400**	**$ 405**	$ 3	$ 400	$ 403
Total liabilities	**$ 5** *(a)*	**$ 400**	**$ 405**	$ 3 *(b)*	$ 400	$ 403
Nonredeemable noncontrolling interests	**$ 273** *(a)*	**$ —**	**$ 273**	$ 143 *(b)*	$ —	$ 143

(a) Includes voting model entities ("VMEs") with assets of $185 million, liabilities of $1 million and nonredeemable noncontrolling interests of $48 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 Sept. 30, 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	**Sept. 30, 2021**			Dec. 31, 2020		
(in millions)	Assets	Liabilities	Maximum loss exposure	Assets	Liabilities	Maximum loss exposure
Securities – Available-for-sale *(a)*	**$ 208**	**$ —**	**$ 208**	$ 217	$ —	$ 217
Other	**2,380**	**480**	**2,882**	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 Sept. 30, 2021 and Dec. 31, 2020.

Preferred stock summary *(a)*		Total shares issued and outstanding		Carrying value *(b)* *(in millions)*	
	Per annum dividend rate	**Sept. 30, 2021**	Dec. 31, 2020	**Sept. 30, 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	**3Q21**		2Q21		3Q20		**YTD21**		YTD20	
		Per share	Total dividend	Per share	Total dividend	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	**$3,033.33**	**$ 15**	$3,044.44	$ 15
Series C	4,000	**N/A**	**N/A**	N/A	N/A	1,300.00	7	**N/A**	**N/A**	3,900.00	23
Series D	100	**N/A**	—	2,250.00	11	N/A	—	**2,250.00**	**11**	2,250.00	11
Series E	100	**898.50**	**10**	911.68	9	962.65	10	**2,735.00**	**28**	3,437.65	35
Series F	100	**2,312.50**	**23**	N/A	—	2,312.50	23	**4,625.00**	**46**	4,625.00	46
Series G	100	**2,350.00**	**23**	N/A	—	1,579.72	16	**4,700.00**	**47**	1,579.72	16
Series H	100	**925.00**	**5**	925.00	6	N/A	N/A	**3,258.06**	**19**	N/A	N/A
Total			**$ 66**		$ 31		$ 61		**$ 166**		$ 146

(a) Represents Normal Preferred Capital Securities.
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								
	Sept. 30, 2021			June 30, 2021			Sept. 30, 2020		
(in millions)	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount
Foreign currency translation:									
Foreign currency translation adjustments arising during the period *(a)*	**$ (158)**	**$ (44)**	**$ (202)**	$ 38	$ 13	$ 51	$ 262	$ 69	$ 331
Total foreign currency translation	**(158)**	**(44)**	**(202)**	38	13	51	262	69	331
Unrealized gain (loss) on assets available-for-sale:									
Unrealized (loss) gain arising during period	**(201)**	**51**	**(150)**	106	(29)	77	297	(64)	233
Reclassification adjustment *(b)*	**(2)**	**—**	**(2)**	(2)	1	(1)	(9)	3	(6)
Net unrealized (loss) gain on assets available-for-sale	**(203)**	**51**	**(152)**	104	(28)	76	288	(61)	227
Defined benefit plans:									
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost *(b)*	**28**	**(6)**	**22**	27	(2)	25	24	(4)	20
Total defined benefit plans	**28**	**(6)**	**22**	27	(2)	25	24	(4)	20
Unrealized (loss) gain on cash flow hedges:									
Unrealized hedge gain arising during period	**1**	**—**	**1**	—	—	—	9	(1)	8
Reclassification of net loss (gain) to net income:									
FX contracts – staff expense	**(2)**	**—**	**(2)**	(4)	1	(3)	—	—	—
Total reclassifications to net income	**(2)**	**—**	**(2)**	(4)	1	(3)	—	—	—
Net unrealized (loss) gain on cash flow hedges	**(1)**	**—**	**(1)**	(4)	1	(3)	9	(1)	8
Total other comprehensive (loss) income	**$ (334)**	**$ 1**	**$ (333)**	$ 165	$ (16)	$ 149	$ 583	$ 3	$ 586

(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.

Components of other comprehensive income (loss)	Year-to-date					
	Sept. 30, 2021			Sept. 30, 2020		
(in millions)	Pre-tax amount	Tax (expense) benefit	After-tax amount	Pre-tax amount	Tax (expense) benefit	After-tax amount
Foreign currency translation:						
Foreign currency translation adjustments arising during the period *(a)*	**$ (247)**	**$ (54)**	**$ (301)**	$ 101	$ (24)	$ 77
Total foreign currency translation	**(247)**	**(54)**	**(301)**	101	(24)	77
Unrealized (loss) gain on assets available-for-sale:						
Unrealized (loss) gain arising during period	**(1,021)**	**245**	**(776)**	1,529	(360)	1,169
Reclassification adjustment *(b)*	**(4)**	**1**	**(3)**	(27)	7	(20)
Net unrealized (loss) gain on assets available-for-sale	**(1,025)**	**246**	**(779)**	1,502	(353)	1,149
Defined benefit plans:						
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost *(b)*	**83**	**(14)**	**69**	72	(15)	57
Total defined benefit plans	**83**	**(14)**	**69**	72	(15)	57
Unrealized gain (loss) on cash flow hedges:						
Unrealized hedge gain (loss) arising during period	**2**	**—**	**2**	(1)	1	—
Reclassification of net (gains) losses to net income:						
FX contracts – staff expense	**(11)**	**2**	**(9)**	2	(1)	1
Total reclassifications to net income	**(11)**	**2**	**(9)**	2	(1)	1
Net unrealized (loss) on cash flow hedges	**(9)**	**2**	**(7)**	1	—	1
Total other comprehensive (loss) income	**$ (1,198)**	**$ 180**	**$ (1,018)**	$ 1,676	$ (392)	$ 1,284

(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 Sept. 30, 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.

Assets measured at fair value on a recurring basis at Sept. 30, 2021 *(dollars in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Assets:					
Available-for-sale securities:					
U.S. Treasury	$ 25,961	$ —	$ —	$ —	$ 25,961
Agency RMBS	—	14,908	—	—	14,908
Sovereign debt/sovereign guaranteed	5,587	7,482	—	—	13,069
Agency commercial MBS	—	8,544	—	—	8,544
Supranational	—	7,939	—	—	7,939
Foreign covered bonds	—	6,946	—	—	6,946
CLOs	—	5,204	—	—	5,204
Non-agency commercial MBS	—	3,182	—	—	3,182
Foreign government agencies	—	2,679	—	—	2,679
State and political subdivisions	—	2,644	—	—	2,644
U.S. government agencies	—	2,643	—	—	2,643
Non-agency RMBS *(b)*	—	2,598	—	—	2,598
Corporate bonds	—	2,377	—	—	2,377
Other ABS	—	2,312	—	—	2,312
Other debt securities	—	1	—	—	1
Total available-for-sale securities	31,548	69,459	—	—	101,007
Trading assets:					
Debt instruments	1,811	2,604	—	—	4,415
Equity instruments *(c)*	9,274	—	—	—	9,274
Derivative assets not designated as hedging:					
Interest rate	4	3,420	—	(1,455)	1,969
Foreign exchange	—	6,351	—	(4,251)	2,100
Equity and other contracts	6	259	—	(169)	96
Total derivative assets not designated as hedging	10	10,030	—	(5,875)	4,165
Total trading assets	11,095	12,634	—	(5,875)	17,854
Other assets:					
Derivative assets designated as hedging:					
Foreign exchange	—	238	—	—	238
Total derivative assets designated as hedging	—	238	—	—	238
Other assets *(d)*	531	325	—	—	856
Total other assets	531	563	—	—	1,094
Assets measured at NAV *(d)*					219
Total assets	**$ 43,174**	**$ 82,656**	**$ —**	**$ (5,875)**	**$ 120,174**
Percentage of total assets prior to netting	34%	66%	—%		

Liabilities measured at fair value on a recurring basis at Sept. 30, 2021 *(dollars in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Liabilities:					
Trading liabilities:					
Debt instruments	$ 2,331	$ 68	$ —	$ —	$ 2,399
Equity instruments	61	—	—	—	61
Derivative liabilities not designated as hedging:					
Interest rate	3	2,986	—	(1,844)	1,145
Foreign exchange	—	6,218	—	(4,685)	1,533
Equity and other contracts	—	14	—	—	14
Total derivative liabilities not designated as hedging	3	9,218	—	(6,529)	2,692
Total trading liabilities	2,395	9,286	—	(6,529)	5,152
Long-term debt *(c)*	—	400	—	—	400
Other liabilities:					
Derivative liabilities designated as hedging:					
Interest rate	—	421	—	—	421
Foreign exchange	—	7	—	—	7
Total derivative liabilities designated as hedging	—	428	—	—	428
Other liabilities	1	4	—	—	5
Total other liabilities	1	432	—	—	433
Total liabilities	**$ 2,396**	**$ 10,118**	**$ —**	**$ (6,529)**	**$ 5,985**
Percentage of total liabilities prior to netting	19%	81%	—%		

(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 $387 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.

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)*	504	285	—	—	789
Total other assets	504	304	—	—	808
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%	—%		

Liabilities 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
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 derivative liabilities designated as hedging	—	1,107	—	—	1,107
Other liabilities	1	2	—	—	3
Total other liabilities	1	1,109	—	—	1,110
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.

Details of certain available-for-sale securities measured at fair value on a recurring basis *(dollars in millions)*	**Sept. 30, 2021**							Dec. 31, 2020						
		Ratings *(a)*							Ratings *(a)*					
	Total carrying value *(b)*	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/A2 & SP-1	Not rated	Total carrying value *(b)*	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	A1+/A2 & SP-1	Not rated
Non-agency RMBS *(c)*, originated in:														
2008-2021	$ 1,996	100%	—%	—%	—%	—%	—%	$ 1,548	100%	—%	—%	—%	—%	—%
2007	124	—	4	—	40	—	56	179	12	3	—	42	—	43
2006	194	—	24	—	33	—	43	237	—	23	—	40	—	37
2005	179	3	5	1	40	—	51	227	3	—	7	52	—	38
2004 and earlier	105	16	10	5	57	—	12	135	19	10	11	54	—	6
Total non-agency RMBS	$ 2,598	78%	3%	—%	9%	—%	10%	$ 2,326	69%	3%	1%	16%	—%	11%
Non-agency commercial MBS originated in:														
2009-2021	$ 3,182	100%	—%	—%	—%	—%	—%	$ 3,017	99%	1%	—%	—%	—%	—%
Foreign covered bonds:														
Canada	$ 2,537	100%	—%	—%	—%	—%	—%	$ 2,552	100%	—%	—%	—%	—%	—%
UK	1,220	100	—	—	—	—	—	1,259	100	—	—	—	—	—
Australia	865	100	—	—	—	—	—	951	100	—	—	—	—	—
Germany	666	100	—	—	—	—	—	494	100	—	—	—	—	—
Norway	621	100	—	—	—	—	—	703	100	—	—	—	—	—
Other	1,037	100	—	—	—	—	—	766	100	—	—	—	—	—
Total foreign covered bonds	$ 6,946	100%	—%	—%	—%	—%	—%	$ 6,725	100%	—%	—%	—%	—%	—%
Sovereign debt/sovereign guaranteed:														
Germany	$ 3,651	100%	—%	—%	—%	—%	—%	$ 2,222	100%	—%	—%	—%	—%	—%
France	1,852	100	—	—	—	—	—	1,697	100	—	—	—	—	—
Italy	1,536	—	—	100	—	—	—	2,010	—	—	100	—	—	—
UK	1,203	99	—	—	—	1	—	1,089	100	—	—	—	—	—
Singapore	1,102	100	—	—	—	—	—	984	100	—	—	—	—	—
Spain	998	—	9	91	—	—	—	1,920	—	5	95	—	—	—
Canada	651	100	—	—	—	—	—	572	100	—	—	—	—	—
Hong Kong	568	100	—	—	—	—	—	29	100	—	—	—	—	—
Netherlands	340	100	—	—	—	—	—	491	100	—	—	—	—	—
Austria	306	100	—	—	—	—	—	256	100	—	—	—	—	—
Japan	296	—	100	—	—	—	—	408	—	100	—	—	—	—
Ireland	235	—	100	—	—	—	—	252	—	100	—	—	—	—
Other *(d)*	331	60	—	—	40	—	—	461	73	—	—	27	—	—
Total sovereign debt/sovereign guaranteed	$ 13,069	75%	5%	19%	1%	—%	—%	$ 12,391	62%	6%	31%	1%	—%	—%
Foreign government agencies:														
Netherlands	$ 834	100%	—%	—%	—%	—%	—%	$ 847	100%	—%	—%	—%	—%	—%
Canada	572	78	22	—	—	—	—	511	75	25	—	—	—	—
France	277	100	—	—	—	—	—	305	100	—	—	—	—	—
Norway	270	100	—	—	—	—	—	273	100	—	—	—	—	—
Sweden	253	100	—	—	—	—	—	281	100	—	—	—	—	—
Finland	205	100	—	—	—	—	—	225	100	—	—	—	—	—
Germany	—	—	—	—	—	—	—	1,473	100	—	—	—	—	—
Other	268	64	36	—	—	—	—	220	55	45	—	—	—	—
Total foreign government agencies	$ 2,679	92%	8%	—%	—%	—%	—%	$ 4,135	95%	5%	—%	—%	—%	—%

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

(b) At Sept. 30, 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 $387 million at Sept. 30, 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 $134 million at Sept. 30, 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 Sept. 30, 2021 and Dec. 31, 2020.

Assets measured at fair value on a nonrecurring basis	**Sept. 30, 2021**				Dec. 31, 2020			
(in millions)	Level 1	Level 2	Level 3	Total carrying value	Level 1	Level 2	Level 3	Total carrying value
Loans *(a)*	**$ —**	**$ 42**	**$ —**	**$ 42**	$ —	$ 48	$ —	$ 48
Other assets *(b)*	**—**	**214**	**—**	**214**	—	131	—	131
Total assets at fair value on a nonrecurring basis	**$ —**	**$ 256**	**$ —**	**$ 256**	$ —	$ 179	$ —	$ 179

(a) The fair value of these loans was unchanged in the third quarter of 2021 and decreased less than $1 million in 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.

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 Sept. 30, 2021 and Dec. 31, 2020, by caption on the consolidated balance sheet and by the valuation hierarchy.

Summary of financial instruments	**Sept. 30, 2021**				
(in millions)	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	$ —	$ 126,959	$ —	$ 126,959	$ 126,959
Interest-bearing deposits with banks	—	20,063	—	20,063	20,057
Federal funds sold and securities purchased under resale agreements	—	28,497	—	28,497	28,497
Securities held-to-maturity	11,538	45,170	—	56,708	56,267
Loans *(a)*	—	63,513	—	63,513	63,322
Other financial assets	6,752	1,186	—	7,938	7,938
Total	**$ 18,290**	**$ 285,388**	**$ —**	**$ 303,678**	**$ 303,040**
Liabilities:					
Noninterest-bearing deposits	$ —	$ 100,498	$ —	$ 100,498	$ 100,498
Interest-bearing deposits	—	241,183	—	241,183	242,641
Federal funds purchased and securities sold under repurchase agreements	—	11,973	—	11,973	11,973
Payables to customers and broker-dealers	—	26,002	—	26,002	26,002
Borrowings	—	929	—	929	929
Long-term debt	—	25,741	—	25,741	24,643
Total	**$ —**	**$ 406,326**	**$ —**	**$ 406,326**	**$ 406,686**

(a) Does not include the leasing portfolio.

Summary of financial instruments	Dec. 31, 2020				
(in millions)	Level 1	Level 2	Level 3	Total estimated fair value	Carrying amount
Assets:					
Interest-bearing deposits with the Federal Reserve and other central banks	$ —	$ 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)	**Sept. 30, 2021**	Dec. 31, 2020
Assets of consolidated investment management funds:		
Trading assets	**$ 487**	$ 482
Other assets	**18**	5
Total assets of consolidated investment management funds	**$ 505**	$ 487
Liabilities of consolidated investment management funds:		
Other liabilities	**5**	3
Total liabilities of consolidated investment management funds	**$ 5**	$ 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 Sept. 30, 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 (loss) which is included in investment and other income in the consolidated income statement.

Change in fair value of long-term debt *(a)*					
(in millions)	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
Investment and other income – other trading revenue (loss)	**$ —**	$ —	$ (1)	**$ —**	$ (13)

(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 third 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 Sept. 30, 2021, $24.7 billion par value of available-for-sale securities were hedged with interest rate swaps designated as fair value hedges that had notional values of $24.7 billion.

The fixed rate long-term debt instruments hedged generally have original maturities of five to 30 years. In fair value hedging relationships, fixed rate debt is hedged with "receive fixed rate, pay variable rate" swaps. At Sept. 30, 2021, $21.1 billion par value of debt was hedged with interest rate swaps designated as fair value hedges that had notional values of $21.1 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, Hong Kong dollar, Polish zloty, Singapore dollar and euro used in revenue and expense transactions for entities that have the U.S. dollar as their functional currency. As of Sept. 30, 2021, the hedged forecasted foreign currency transactions and designated forward foreign exchange contract hedges were $330 million (notional), with a net pre-tax gain of $1 million recorded in accumulated OCI. Over the next 12 months, a gain of $1 million will be reclassified to earnings.

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 Sept. 30, 2021, $143 million par value of available-for-sale securities was hedged with foreign currency forward contracts that had a notional value of $143 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 Sept. 30, 2021, forward foreign exchange contracts with notional amounts totaling $8.3 billion were designated as net investment hedges.

From time to time, we also designate non-derivative financial instruments as hedges of our net investments in foreign subsidiaries. At Sept. 30, 2021, there were no non-derivative financial instruments hedging our net investments in foreign subsidiaries.

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

Income statement impact of fair value and cash flow hedges *(in millions)*	Location of gains (losses)	**3Q21**	2Q21	3Q20	**YTD21**	YTD20
Interest rate fair value hedges of available-for-sale securities						
Derivative	Interest revenue	**$ 183**	$ (325)	$ 150	**$ 649**	$ (864)
Hedged item	Interest revenue	**(184)**	322	(140)	**(647)**	856
Interest rate fair value hedges of long-term debt						
Derivative	Interest expense	**(96)**	22	(68)	**(427)**	693
Hedged item	Interest expense	**96**	(21)	66	**426**	(691)
Foreign exchange fair value hedges of available-for-sale securities						
Derivative *(a)*	Foreign exchange revenue	**—**	(1)	1	**7**	(11)
Hedged item	Foreign exchange revenue	**—**	1	1	**(6)**	13
Cash flow hedges of forecasted FX exposures						
Gain (loss) reclassified from OCI into income	Staff expense	**2**	4	—	**11**	(2)
Gain (loss) recognized in the consolidated income statement due to fair value and cash flow hedging relationships		**$ 1**	$ 2	$ 10	**$ 13**	$ (6)

(a) Includes gains of less than $1 million in the third quarter of 2021, second quarter of 2021 and third quarter of 2020 and gains of $1 million in the first nine months of 2021 and first nine months of 2020 associated with the amortization of the excluded component. At Sept. 30, 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 *(in millions)*	Gain or (loss) recognized in accumulated OCI on derivatives					Location of gain or (loss) reclassified from accumulated OCI into income	Gain or (loss) reclassified from accumulated OCI into income				
Derivatives in net investment hedging relationships	**3Q21**	2Q21	3Q20	**YTD21**	YTD20		**3Q21**	2Q21	3Q20	**YTD21**	YTD20
FX contracts	**$ 201**	$ (62)	$ (289)	**$ 221**	$ 103	Net interest revenue	**$ —**	$ —	$ —	**$ —**	$ —

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

Hedged items in fair value hedging relationships	Carrying amount of hedged asset or liability		Hedge accounting basis adjustment increase (decrease) *(a)*	
(in millions)	**Sept. 30, 2021**	Dec. 31, 2020	**Sept. 30, 2021**	Dec. 31, 2020
Available-for-sale securities *(b)(c)*	**$ 24,662**	$ 17,536	**$ 742**	$ 1,428
Long-term debt	**$ 21,565**	$ 14,784	**$ 395**	$ 783

(a) Includes $182 million and $177 million of basis adjustment increases on discontinued hedges associated with available-for-sale securities at Sept. 30, 2021 and Dec. 31, 2020, respectively, and $80 million and $118 million of basis adjustment decreases on discontinued hedges associated with long-term debt at Sept. 30, 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 $143 million at Sept. 30, 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	Notional value		Asset derivatives fair value		Liability derivatives fair value	
(in millions)	**Sept. 30, 2021**	Dec. 31, 2020	**Sept. 30, 2021**	Dec. 31, 2020	**Sept. 30, 2021**	Dec. 31, 2020
Derivatives designated as hedging instruments: *(a)(b)*						
Interest rate contracts	**$ 45,771**	$ 31,360	**$ —**	$ —	**$ 421**	$ 666
Foreign exchange contracts	**8,749**	8,706	**238**	19	**7**	441
Total derivatives designated as hedging instruments			**$ 238**	$ 19	**$ 428**	$ 1,107
Derivatives not designated as hedging instruments: *(b)(c)*						
Interest rate contracts	**$ 195,065**	$ 198,865	**$ 3,424**	$ 4,482	**$ 2,989**	$ 3,880
Foreign exchange contracts	**925,721**	813,003	**6,351**	7,688	**6,218**	7,622
Equity contracts	**8,214**	5,142	**265**	2	**9**	37
Credit contracts	**190**	165	**—**	—	**5**	4
Total derivatives not designated as hedging instruments			**$ 10,040**	$ 12,172	**$ 9,221**	$ 11,543
Total derivatives fair value *(d)*			**$ 10,278**	$ 12,191	**$ 9,649**	$ 12,650
Effect of master netting agreements *(e)*			**(5,875)**	(8,346)	**(6,529)**	(7,845)
Fair value after effect of master netting agreements			**$ 4,403**	$ 3,845	**$ 3,120**	$ 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 $1,060 million and $1,714 million, respectively, at Sept. 30, 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)	**3Q21**	2Q21	3Q20		**YTD21**	YTD20	
Foreign exchange revenue	**$ 185**	$ 184	$ 149	*(a)*	**$ 600**	$ 587	*(a)*
Other trading revenue (loss)	**20**	(1)	(14)	*(a)*	**12**	44	*(a)*

(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 loss of $2 million in the third quarter of 2021, gains of $12 million in the third quarter of 2020, $13 million in the second quarter of 2021 and $21 million in the first nine months of 2021 and a loss of $1 million in the first nine months 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.

(in millions)	**Sept. 30, 2021**	Dec. 31, 2020
Aggregate fair value of OTC derivatives in net liability positions *(a)*	**$ 4,790**	$ 5,235
Collateral posted	**$ 5,216**	$ 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)* *(in millions)*	**Sept. 30, 2021**	Dec. 31, 2020
If The Bank of New York Mellon's rating changed to: *(b)*		
A3/A-	**$ 45**	$ 79
Baa2/BBB	**$ 465**	$ 813
Ba1/BB+	**$ 2,597**	$ 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 Sept. 30, 2021 and Dec. 31, 2020, existing collateral arrangements would have required us to post additional collateral of $47 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 Sept. 30, 2021					Gross amounts not offset in the balance sheet		
(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet	*(a)*	Net assets recognized in the balance sheet	Financial instruments	Cash collateral received	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	$ 2,238	$ 1,456		$ 782	$ 223	$ —	$ 559
Foreign exchange contracts	5,943	4,251		1,692	66	—	1,626
Equity and other contracts	265	168		97	28	—	69
Total derivatives subject to netting arrangements	8,446	5,875		2,571	317	—	2,254
Total derivatives not subject to netting arrangements	1,832	—		1,832	—	—	1,832
Total derivatives	10,278	5,875		4,403	317	—	4,086
Reverse repurchase agreements	66,757	49,195	*(b)*	17,562	17,536	—	26
Securities borrowing	10,935	—		10,935	10,355	—	580
Total	**$ 87,970**	**$ 55,070**		**$ 32,900**	**$ 28,208**	**$ —**	**$ 4,692**

(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					Gross amounts not offset in the balance sheet		
(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet	*(a)*	Net assets recognized in the balance sheet	Financial instruments	Cash collateral received	Net amount
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 Sept. 30, 2021 *(in millions)*	Gross liabilities recognized	Gross amounts offset in the balance sheet		Net liabilities recognized in the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral pledged	Net amount
Derivatives subject to netting arrangements:			*(a)*				
Interest rate contracts	$ 3,389	$ 1,844		$ 1,545	$ 1,503	$ —	$ 42
Foreign exchange contracts	5,744	4,685		1,059	247	—	812
Equity and other contracts	9	—		9	—	—	9
Total derivatives subject to netting arrangements	9,142	6,529		2,613	1,750	—	863
Total derivatives not subject to netting arrangements	507	—		507	—	—	507
Total derivatives	9,649	6,529		3,120	1,750	—	1,370
Repurchase agreements	59,510	49,195	*(b)*	10,315	10,308	2	5
Securities lending	1,658	—		1,658	1,581	—	77
Total	**$ 70,817**	**$ 55,724**		**$ 15,093**	**$ 13,639**	**$ 2**	**$ 1,452**

(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 *(in millions)*	Gross liabilities recognized	Gross amounts offset in the balance sheet		Net liabilities recognized in the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral pledged	Net amount
Derivatives subject to netting arrangements:			*(a)*				
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	*(b)*	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

	Sept. 30, 2021				Dec. 31, 2020			
	Remaining contractual maturity				Remaining contractual maturity			
(in millions)	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	**$ 52,216**	**$ 144**	**$ —**	**$ 52,360**	$ 62,381	$ —	$ —	$ 62,381
Corporate bonds	**217**	**16**	**1,161**	**1,394**	190	218	1,436	1,844
Agency RMBS	**1,369**	**—**	**—**	**1,369**	3,117	—	80	3,197
U.S. government agencies	**985**	**—**	**—**	**985**	425	—	—	425
State and political subdivisions	**57**	**48**	**857**	**962**	66	40	864	970
Sovereign debt/sovereign guaranteed	**578**	**—**	**349**	**927**	—	—	—	—
Other debt securities	**1**	**5**	**198**	**204**	7	21	138	166
Equity securities	**—**	**230**	**1,079**	**1,309**	—	21	827	848
Total	**$ 55,423**	**$ 443**	**$ 3,644**	**$ 59,510**	$ 66,186	$ 300	$ 3,345	$ 69,831
Securities lending:								
Agency RMBS	**$ 123**	**$ —**	**$ —**	**$ 123**	$ 161	$ —	$ —	$ 161
Other debt securities	**119**	**—**	**—**	**119**	52	—	—	52
Equity securities	**1,416**	**—**	**—**	**1,416**	822	—	—	822
Total	**$ 1,658**	**$ —**	**$ —**	**$ 1,658**	$ 1,035	$ —	$ —	$ 1,035
Total secured borrowings	**$ 57,081**	**$ 443**	**$ 3,644**	**$ 61,168**	$ 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 *(in millions)*	**Sept. 30, 2021**	Dec. 31, 2020
Lending commitments	**$ 46,892**	$ 47,577
Standby letters of credit ("SBLC") *(a)*	**1,993**	2,265
Commercial letters of credit	**146**	60
Securities lending indemnifications *(b)(c)*	**485,626**	469,121

(a) Net of participations totaling $126 million at Sept. 30, 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 $64 billion at Sept. 30, 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 $50 billion at Sept. 30, 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: $28.0 billion in less than one year, $18.1 billion in one to five years and $787 million over five years.

SBLCs principally support obligations of corporate clients and were collateralized with cash and securities of $163 million at Sept. 30, 2021 and $194 million at Dec. 31, 2020. At Sept. 30, 2021, $1.4 billion of the SBLCs will expire within one year, $558 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	**Sept. 30, 2021**	Dec. 31, 2020
Investment grade	**85%**	82%
Non-investment grade	**15%**	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 $146 million at Sept. 30, 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 $40 million at Sept. 30, 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 $511 billion at Sept. 30, 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 Sept. 30, 2021 and Dec. 31, 2020, $64 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 $68 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 Sept. 30, 2021, we had $3.7 billion of unsettled repurchase agreements and $10.4 billion of unsettled reverse repurchase agreements.

Industry concentrations

We have significant industry concentrations related to credit exposure at Sept. 30, 2021. The tables below present our credit exposure in the financial institutions and commercial portfolios.

Financial institutions portfolio exposure *(in billions)*	Sept. 30, 2021 Loans	Unfunded commitments	Total exposure
Securities industry	$ 2.0	$ 18.8	$ 20.8
Asset managers	1.5	7.4	8.9
Banks	4.9	1.7	6.6
Insurance	0.3	3.0	3.3
Government	0.1	0.1	0.2
Other	0.6	1.1	1.7
Total	**$ 9.4**	**$ 32.1**	**$ 41.5**

Commercial portfolio exposure *(in billions)*	Sept. 30, 2021 Loans	Unfunded commitments	Total exposure
Manufacturing	$ 0.5	$ 4.0	$ 4.5
Energy and utilities	0.3	3.9	4.2
Services and other	0.8	3.2	4.0
Media and telecom	0.1	0.8	0.9
Total	**$ 1.7**	**$ 11.9**	**$ 13.6**

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

Sponsored member repo program

BNY Mellon is a sponsoring member in the FICC sponsored member program, where we submit eligible repurchase and reverse repurchase transactions in U.S. Treasury and agency securities ("Sponsored Member Transactions") between BNY Mellon and our sponsored member clients for novation and clearing through FICC pursuant to the FICC Government Securities Division rulebook (the "FICC Rules"). We also guarantee to FICC the prompt and full payment and performance of our sponsored member clients' respective obligations under the FICC Rules in connection with such clients' Sponsored Member Transactions. We minimize our credit exposure under this guaranty by obtaining a security interest in our sponsored member clients' collateral and rights under Sponsored Member Transactions. See "Offsetting assets and liabilities" in Note 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 Sept. 30, 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 Sept. 30, 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 $615 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 two actions commenced in May 2016 and September 2021 are 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. This action has been resolved. Various alleged Stanford CD purchasers asserted similar claims in FINRA arbitration proceedings.

Brazilian Postalis Litigation

BNY Mellon Servicos Financeiros DTVM S.A. ("DTVM"), a subsidiary that provides asset services in Brazil, acts as administrator for certain investment funds in which a public pension fund for postal workers called Postalis-Instituto de Seguridade Social dos Correios e Telégrafos ("Postalis") invested. On Aug. 22, 2014, Postalis sued DTVM in Rio de Janeiro, Brazil for losses related to a Postalis fund for which DTVM is administrator. Postalis alleges that DTVM failed to properly perform duties, including to conduct due diligence of and exert control over the manager. On March 12, 2015, Postalis filed a lawsuit in Rio de Janeiro against DTVM and BNY Mellon Administração de Ativos Ltda. ("Ativos") alleging failure to properly perform duties relating to another fund of which DTVM is administrator and Ativos is manager. On Dec. 14, 2015, Associacão dos Profissionais dos Correios ("ADCAP"), a Brazilian postal workers association, filed a lawsuit in São Paulo against DTVM and other defendants alleging that DTVM improperly contributed to Postalis investment losses. On March 20, 2017, the lawsuit was dismissed without prejudice, and ADCAP appealed. On Aug. 4, 2021, the appellate court overturned the dismissal and sent the lawsuit to a state lower court. On Dec. 17, 2015, Postalis filed three lawsuits in Rio de Janeiro against DTVM and Ativos alleging failure to properly perform duties with respect to investments in several other funds. On May 20, 2021, the court in one of those lawsuits entered a $3 million judgment against DTVM and Ativos. On Aug. 23, 2021, DTVM and Ativos filed an appeal of the May 20 decision. On Feb. 4, 2016, Postalis filed a lawsuit in Brasilia against DTVM, Ativos and BNY Mellon Alocação de Patrimônio Ltda. ("Alocação de Patrimônio"), an investment management subsidiary, alleging failure to properly perform duties and liability for losses with respect to investments in various funds of which the defendants were administrator and/or manager. On Jan. 16, 2018, the Brazilian Federal Prosecution Service ("MPF") filed a civil lawsuit in São Paulo against DTVM alleging liability for Postalis losses based on alleged failures to properly perform certain duties as administrator to certain funds in which Postalis invested or as controller of Postalis's own investment portfolio. On April 18, 2018, the court dismissed the lawsuit without prejudice. On Aug. 4, 2021, the appellate court overturned the dismissal and returned the lawsuit to the lower court. In addition, the Tribunal de Contas da União ("TCU"), an administrative tribunal, has initiated three proceedings with the purpose of determining liability for losses to three investment funds administered by DTVM in which Postalis was an investor. On Sept. 9, 2020, TCU rendered a decision in one of the proceedings, finding DTVM and two former Postalis directors jointly and severally liable for approximately $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 third 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 each business segment.
- 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 Sept. 30, 2021 *(dollars in millions)*	**Investment Services**	**Investment and Wealth Management**		**Other**	**Consolidated**	
Total fee and other revenue	**$ 2,378**	**$ 985**	*(a)*	**$ 35**	**$ 3,398**	*(a)*
Net interest revenue (expense)	**632**	**47**		**(38)**	**641**	
Total revenue (loss)	**3,010**	**1,032**	*(a)*	**(3)**	**4,039**	*(a)*
Provision for credit losses	**(35)**	**(7)**		**(3)**	**(45)**	
Noninterest expense	**2,211**	**691**		**16**	**2,918**	
Income (loss) before income taxes	**$ 834**	**$ 348**	*(a)*	**$ (16)**	**$ 1,166**	*(a)*
Pre-tax operating margin *(b)*	**28%**	**34%**		**N/M**	**29%**	
Average assets	**$ 379,273**	**$ 30,195**		**$ 37,293**	**$ 446,761**	

(a) Total fee and other revenue, total revenue and income before income taxes are net of loss attributable to noncontrolling interests related to consolidated investment management funds of $4 million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

For the quarter ended June 30, 2021 *(dollars in millions)*	Investment Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	$ 2,336	$ 952	*(a)*	$ 22	$ 3,310	*(a)*
Net interest revenue (expense)	643	47		(45)	645	
Total revenue (loss)	2,979	999	*(a)*	(23)	3,955	*(a)*
Provision for credit losses	(77)	(4)		(5)	(86)	
Noninterest expense	2,052	677		49	2,778	
Income (loss) before income taxes	$ 1,004	$ 326	*(a)*	$ (67)	$ 1,263	*(a)*
Pre-tax operating margin *(b)*	34%	33%		N/M	32%	
Average assets	$ 383,330	$ 30,370		$ 38,629	$ 452,329	

(a) Total fee and other revenue, total revenue and income before income taxes are net of income attributable to noncontrolling interests related to consolidated investment management funds of $5 million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

For the quarter ended Sept. 30, 2020 *(dollars in millions)*	Investment Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	$ 2,246	$ 871	*(a)*	$ 20	$ 3,137	*(a)*
Net interest revenue (expense)	681	47		(25)	703	
Total revenue (loss)	2,927	918	*(a)*	(5)	3,840	*(a)*
Provision for credit losses	(10)	12		7	9	
Noninterest expense	2,020	661		—	2,681	
Income (loss) before income taxes	$ 917	$ 245	*(a)*	$ (12)	$ 1,150	*(a)*
Pre-tax operating margin *(b)*	31%	27%		N/M	30%	
Average assets	$ 329,324	$ 30,160		$ 55,381	$ 414,865	

(a) Total fee and other revenue, total revenue and income before income taxes are net of income attributable to noncontrolling interests related to consolidated investment management funds of $7 million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

For the nine months ended Sept. 30, 2021 *(dollars in millions)*	Investment Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	**$ 7,059**	**$ 2,880**	*(a)*	**$ 30**	**$ 9,969**	*(a)*
Net interest revenue (expense)	**1,920**	**142**		**(121)**	**1,941**	
Total revenue (loss)	**8,979**	**3,022**	*(a)*	**(91)**	**11,910**	*(a)*
Provision for credit losses	**(191)**	**(7)**		**(16)**	**(214)**	
Noninterest expense	**6,364**	**2,077**		**106**	**8,547**	
Income (loss) before income taxes	**$ 2,806**	**$ 952**	*(a)*	**$ (181)**	**$ 3,577**	*(a)*
Pre-tax operating margin *(b)*	**31%**	**31%**		**N/M**	**30%**	
Average assets	**$ 382,531**	**$ 30,870**		**$ 39,705**	**$ 453,106**	

(a) Total fee and other revenue, total revenue and income before income taxes are net of income attributable to noncontrolling interests related to consolidated investment management fund of $6 million.
(b) Income before income taxes divided by total revenue.
N/M – Not meaningful.

For the nine months ended Sept. 30, 2020 *(dollars in millions)*	Investment Services	Investment and Wealth Management		Other	Consolidated	
Total fee and other revenue	$ 7,021	$ 2,555	*(a)*	$ 88	$ 9,664	*(a)*
Net interest revenue (expense)	2,255	147		(105)	2,297	
Total revenue (loss)	9,276	2,702	*(a)*	(17)	11,961	*(a)*
Provision for credit losses	284	28		9	321	
Noninterest expense	5,996	2,014		69	8,079	
Income (loss) before income taxes	$ 2,996	$ 660	*(a)*	$ (95)	$ 3,561	*(a)*
Pre-tax operating margin *(b)*	32%	24%		N/M	30%	
Average assets	$ 322,924	$ 30,343		$ 51,936	$ 405,203	

(a) Total fee and other revenue, total revenue and income before income taxes are net of income attributable to noncontrolling interests related to consolidated investment funds of $4 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 *(in millions)*	Nine months ended Sept. 30, **2021**	2020
Transfers from loans to other assets for other real estate owned	**$ 1**	$ 1
Change in assets of consolidated investment management funds	**18**	343
Change in liabilities of consolidated investment management funds	**2**	3
Change in nonredeemable noncontrolling interests of consolidated investment management funds	**130**	149
Securities purchased not settled	**531**	846
Securities sold not settled	**29**	—
Available-for-sale securities transferred to held-to-maturity	**11,028**	—
Premises and equipment/capitalized software funded by finance lease obligations	**11**	—
Premises and equipment/operating lease obligations	**72**	126

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 third 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 third 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 – third quarter of 2021 *(dollars in millions, except per share amounts; common shares in thousands)*	Total shares repurchased	Average price per share	Total shares repurchased as part of a publicly announced plan or program	Maximum approximate dollar value of shares that may yet be purchased under the publicly announced plans or programs at Sept. 30, 2021
July 2021	12,471	$ 50.02	12,471	$ 5,376
August 2021	25,601	53.79	25,601	3,999
September 2021	6	53.62	6	3,999
Third quarter of 2021 *(a)*	**38,078**	**$ 52.55**	**38,078**	**$ 3,999** *(b)*

(a) Includes 11 thousand shares repurchased at a purchase price of $1 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 $52.55.

(b) Represents the maximum value of the shares to be repurchased through the fourth quarter of 2022 under the share repurchase plan announced in June 2021 and includes shares repurchased in connection with employee benefit plans.

In June 2021, in connection with the Federal Reserve's release of the 2021 CCAR stress tests, we announced a share repurchase program approved by our Board of Directors providing for the repurchase of up to $6.0 billion of common stock beginning in the third quarter of 2021 and continuing through the fourth quarter of 2022. This new share repurchase plan replaced all previously authorized share repurchase plans.

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

Item 6. Exhibits.

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

Exhibit No.	Description	Method of Filing
3.1	Restated Certificate of Incorporation of The Bank of New York Mellon Corporation.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Securities and Exchange Commission (the "Commission") on July 2, 2007, and incorporated herein by reference.
3.2	Certificate of Amendment to the The Bank of New York Mellon Corporation's Restated Certificate of Incorporation, as filed with the Secretary of State of the State of Delaware on April 9, 2019.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on April 10, 2019, and incorporated herein by reference.
3.3	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series A Noncumulative Preferred Stock, dated June 15, 2007.	Previously filed as Exhibit 4.1 to the Company's Current Report on Form 8-K (File No. 000-52710) as filed with the Commission on July 5, 2007, and incorporated herein by reference.
3.4	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series D Noncumulative Perpetual Preferred Stock, dated May 16, 2013.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on May 16, 2013, and incorporated herein by reference.
3.5	Certificate of Designations of The Bank of New York Mellon Corporation with respect to the Series E Noncumulative Perpetual Preferred Stock, dated April 27, 2015.	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.
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.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Aug. 1, 2016, and incorporated herein by reference.
3.7	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.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on May 19, 2020, and incorporated herein by reference.
3.8	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.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Nov. 3, 2020, and incorporated herein by reference.
3.9	Amended and Restated By-Laws of The Bank of New York Mellon Corporation, as amended and restated on Feb. 12, 2018.	Previously filed as Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-35651) as filed with the Commission on Feb. 13, 2018, and incorporated herein by reference.

Exhibit No.	Description	Method of Filing
4.1	None of the instruments defining the rights of holders of long-term debt of the Parent or any of its subsidiaries represented long-term debt in excess of 10% of the total assets of the Company as of Sept. 30, 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.	Previously filed as Exhibit 22.1 to the Company's Quarterly Report on Form 10-Q (File No. 001-35651) as filed with the Commission on May 6, 2021, and incorporated herein by reference.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
101.INS	Inline XBRL Instance Document.	The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document.	Filed herewith.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document.	Filed herewith.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document.	Filed herewith.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document.	Filed herewith.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document.	Filed herewith.
104	The cover page of the Company's Quarterly Report on Form 10-Q for the quarter ended Sept. 30, 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: November 5, 2021

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

Exhibit 31.1

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: November 5, 2021

/s/ Thomas P. Gibbons

Name: Thomas P. Gibbons
Title: Chief Executive Officer

Exhibit 31.2

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: November 5, 2021

/s/ Emily Portney

Name: Emily Portney
Title: Chief Financial Officer

Exhibit 32.1

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation ("BNY Mellon"), hereby certifies, to his knowledge, that BNY Mellon's Quarterly Report on Form 10-Q for the quarter ended Sept. 30, 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: November 5, 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.

Exhibit 32.2

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation ("BNY Mellon"), hereby certifies, to her knowledge, that BNY Mellon's Quarterly Report on Form 10-Q for the quarter ended Sept. 30, 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: November 5, 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.