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

FORM 10-Q

[X] Quarterly Report Pursuant To Section 13 or 15(d) of the Securities Exchange Act of 1934

For the Quarterly Period Ended Sept. 30, 2017

or

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

Commission File No. 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.)*

225 Liberty Street
New York, New York 10286
(Address of principal executive offices) (Zip Code)

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

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 _X_ No ___

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes _X_ 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	[X]	Smaller reporting company	[ ]
Accelerated filer	[ ]	Emerging growth company	[ ]
Non-accelerated filer	[ ] (Do not check if a smaller reporting 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 _X_

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

Class	Outstanding as of Sept. 30, 2017
Common Stock, $0.01 par value	1,024,022,353

THE BANK OF NEW YORK MELLON CORPORATION

Third Quarter 2017 Form 10-Q
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The Bank of New York Mellon Corporation (and its subsidiaries)

Consolidated Financial Highlights (unaudited)

(dollar amounts in millions, except per share amounts and unless otherwise noted)	Quarter ended			Year-to-date	
	Sept. 30, 2017	June 30, 2017	Sept. 30, 2016	**Sept. 30, 2017**	Sept. 30, 2016
Results applicable to common shareholders of The Bank of New York Mellon Corporation:					
Net income	**$ 983**	$ 926	$ 974	**$ 2,789**	$ 2,603
Basic earnings per share	**0.94**	0.88	0.90	**2.66**	2.39
Diluted earnings per share	**0.94**	0.88	0.90	**2.64**	2.38
Fee and other revenue	**$ 3,167**	$ 3,120	$ 3,150	**$ 9,305**	$ 9,119
Income from consolidated investment management funds	**10**	10	17	**53**	21
Net interest revenue	**839**	826	774	**2,457**	2,307
Total revenue	**$ 4,016**	$ 3,956	$ 3,941	**$ 11,815**	$ 11,447
Return on common equity *(annualized) (a)*	**10.6%**	10.4%	10.8%	**10.4%**	9.8%
Adjusted return on common equity *(annualized)* – Non-GAAP *(a)(b)*	**11.0%**	10.8%	11.3%	**10.9%**	10.3%
Return on tangible common equity *(annualized)* – Non-GAAP *(a)(c)*	**21.9%**	21.9%	23.5%	**22.0%**	21.5%
Adjusted return on tangible common equity *(annualized)* – Non-GAAP *(a)(b)(c)*	**22.0%**	22.1%	23.6%	**22.1%**	21.7%
Return on average assets *(annualized)*	**1.13%**	1.09%	1.10%	**1.09%**	0.96%
Fee revenue as a percentage of total revenue	**78%**	79%	79%	**79%**	79%
Percentage of non-U.S. total revenue	**36%**	35%	36%	**35%**	34%
Pre-tax operating margin *(a)*	**34%**	33%	33%	**33%**	31%
Adjusted pre-tax operating margin – Non-GAAP *(a)(b)*	**35%**	35%	35%	**34%**	33%
Net interest margin	**1.15%**	1.14%	1.05%	**1.14%**	1.00%
Net interest margin on a fully taxable equivalent (“FTE”) basis – Non-GAAP *(d)*	**1.16%**	1.16%	1.06%	**1.16%**	1.02%
Assets under management (“AUM”) at period end *(in billions) (e)*	**$ 1,824**	$ 1,771	$ 1,715	**$ 1,824**	$ 1,715
Assets under custody and/or administration (“AUC/A”) at period end *(in trillions) (f)*	**$ 32.2**	$ 31.1	$ 30.5	**$ 32.2**	$ 30.5
Market value of securities on loan at period end *(in billions) (g)*	**$ 382**	$ 336	$ 288	**$ 382**	$ 288
Average common shares and equivalents outstanding *(in thousands)*: *(h)*					
Basic	**1,035,337**	1,035,829	1,062,248	**1,037,431**	1,071,457
Diluted	**1,041,138**	1,041,879	1,067,682	**1,043,585**	1,077,150
Selected average balances:					
Interest-earning assets	**$ 291,841**	$ 289,496	$ 296,703	**$ 288,283**	$ 308,560
Assets of operations	**$ 344,966**	$ 341,607	$ 350,190	**$ 340,588**	$ 362,092
Total assets	**$ 345,709**	$ 342,515	$ 351,230	**$ 341,510**	$ 363,290
Interest-bearing deposits	**$ 142,490**	$ 142,336	$ 155,109	**$ 141,558**	$ 160,728
Long-term debt	**$ 28,138**	$ 27,398	$ 23,930	**$ 27,148**	$ 22,779
Noninterest-bearing deposits	**$ 70,168**	$ 73,886	$ 81,619	**$ 72,524**	$ 82,861
Preferred stock	**$ 3,542**	$ 3,542	$ 3,284	**$ 3,542**	$ 2,798
Total The Bank of New York Mellon Corporation common shareholders’ equity	**$ 36,780**	$ 35,862	$ 35,767	**$ 35,876**	$ 35,616
Other information at period end:					
Cash dividends per common share	**$ 0.24**	$ 0.19	$ 0.19	**$ 0.62**	$ 0.53
Common dividend payout ratio	**26%**	22%	21%	**23%**	22%
Common dividend yield *(annualized)*	**1.8%**	1.5%	1.9%	**1.6%**	1.8%
Closing stock price per common share	**$ 53.02**	$ 51.02	$ 39.88	**$ 53.02**	$ 39.88
Market capitalization	**$ 54,294**	$ 52,712	$ 42,167	**$ 54,294**	$ 42,167
Book value per common share *(a)*	**$ 36.11**	$ 35.26	$ 34.19	**$ 36.11**	$ 34.19
Tangible book value per common share – Non-GAAP *(a)(c)*	**$ 18.19**	$ 17.53	$ 16.67	**$ 18.19**	$ 16.67
Full-time employees	**52,900**	52,800	52,300	**52,900**	52,300
Common shares outstanding *(in thousands)*	**1,024,022**	1,033,156	1,057,337	**1,024,022**	1,057,337

Consolidated Financial Highlights (unaudited) (continued)

Regulatory and Capital ratios	Sept. 30, 2017	June 30, 2017	Dec. 31, 2016
Average liquidity coverage ratio ("LCR") *(i)*	**119%**	116%	114%
Regulatory capital ratios: *(j)*			
Standardized:			
Common equity Tier 1 ("CET1") ratio	**12.3%**	12.0%	12.3%
Tier 1 capital ratio	**14.6**	14.3	14.5
Total (Tier 1 plus Tier 2) capital ratio	**15.6**	14.8	15.2
Advanced:			
CET1 ratio	**11.1**	10.8	10.6
Tier 1 capital ratio	**13.2**	12.9	12.6
Total (Tier 1 plus Tier 2) capital ratio	**14.0**	13.2	13.0
Leverage capital ratio *(j)*	**6.8**	6.7	6.6
Supplementary leverage ratio ("SLR") *(j)*	**6.3**	6.2	6.0
BNY Mellon shareholders' equity to total assets ratio – GAAP	**11.4**	11.3	11.6
BNY Mellon common shareholders' equity to total assets ratio – GAAP	**10.4**	10.3	10.6
Selected regulatory capital ratios – fully phased-in – Non-GAAP: *(k)*			
Estimated CET1 ratio:			
Standardized Approach	**11.9%**	11.5%	11.3%
Advanced Approach	**10.7**	10.4	9.7
Estimated SLR	**6.1**	6.0	5.6

(a) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 49 for a reconciliation of Non-GAAP measures.

(b) Non-GAAP information for all periods presented excludes the amortization of intangible assets and merger and integration ("M&I"), litigation and restructuring charges. Non-GAAP information for the third quarter of 2016 and for the first nine months of 2016 also excludes a recovery of the previously impaired loan to Sentinel Management Group, Inc. ("Sentinel"). Additionally, the pre-tax operating margin (Non-GAAP) excludes the net income attributable to noncontrolling interests of consolidated investment management funds.

(c) Tangible common equity – Non-GAAP and tangible book value per common share – Non-GAAP exclude goodwill and intangible assets, net of deferred tax liabilities. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 49 for the reconciliation of Non-GAAP measures.

(d) See "Average balances and interest rates" on page 11 for a reconciliation of Non-GAAP measures.

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

(f) Includes the AUC/A of CIBC Mellon Global Securities Services Company ("CIBC Mellon"), a joint venture with the Canadian Imperial Bank of Commerce, of $1.3 trillion at Sept. 30, 2017 and $1.2 trillion at both June 30, 2017 and Sept. 30, 2016.

(g) 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, 2017, $66 billion at June 30, 2017 and $64 billion at Sept. 30, 2016.

(h) Beginning in the third quarter of 2017, vested stock awards to retirement eligible employees are included in common shares outstanding for earnings per share purposes. This change increased both average basic and average diluted shares outstanding by approximately 6 million for the quarter, which resulted in a de minimis impact to both basic and diluted earnings per share. For additional information, see the "Consolidated Income Statement" beginning on page 57.

(i) For additional information on our LCR, see "Liquidity and dividends" beginning on page 33.

(j) 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 leverage capital ratio is based on Tier I capital, as phased-in, and quarterly average total assets. The SLR is based on Tier 1 capital, as phased-in, and average quarterly assets and certain off-balance sheet exposures. For additional information on our capital ratios, see "Capital" beginning on page 37.

(k) The estimated fully phased-in CET1 and SLR ratios (Non-GAAP) are based on our interpretation of the U.S. capital rules, which are being gradually phased-in over a multi-year period. For additional information on these Non-GAAP ratios, see "Capital" beginning on page 37.

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, 2016 ("2016 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."

How we reported results

Throughout this Form 10-Q, certain measures, which are noted as "Non-GAAP financial measures," exclude certain items or otherwise include components that differ from U.S. generally accepted accounting principles ("GAAP"). BNY Mellon believes that these measures are useful to investors because they permit a focus on period-to-period comparisons using measures that relate to our ability to enhance revenues and limit expenses in circumstances where such matters are within our control or because they provide additional information about our ability to meet fully phased-in capital requirements. Certain immaterial reclassifications have been made to prior periods to place them on a basis comparable with the current period presentation. See "Supplemental information - Explanation of GAAP and Non-GAAP financial measures" beginning on page 49 for a reconciliation of financial measures presented in accordance with GAAP to adjusted Non-GAAP financial measures. See "Net interest revenue," including the "Average balances and interest rates" beginning on page 10 for information on measures presented on a fully taxable equivalent basis. Also see "Capital" beginning on page 37 for information on our fully phased-in capital requirements.

Overview

The Bank of New York Mellon Corporation was the first company listed on the New York Stock Exchange (NYSE: BK). With a rich history of maintaining our financial strength and stability through all business cycles, BNY Mellon is a global investments company dedicated to improving lives through investing.

We manage and service assets for financial institutions, corporations and individual investors in 35 countries and more than 100 markets. As of Sept. 30, 2017, BNY Mellon had $32.2 trillion in assets under custody and/or administration ("AUC/A"), and $1.8 trillion in assets under management ("AUM").

BNY Mellon is focused on enhancing our clients' experience by leveraging our scale and expertise to deliver innovative and strategic solutions for our clients, and building trusted relationships that drive value. We hold a unique position in the global financial services industry. We service both the buy-side and sell-side, providing us with distinctive marketplace insights that enable us to support our clients' success.

BNY Mellon's businesses benefit from global growth in financial assets, the globalization of the investment process, changes in demographics and the continued evolution of the regulatory landscape—each providing us with opportunities to advise and service clients.

Key third quarter 2017 events

Definitive agreement to sell CenterSquare Investment Management

In September 2017, we announced that we entered into a definitive agreement to sell CenterSquare Investment Management ("CenterSquare"), one of our Investment Management boutiques. CenterSquare had approximately $9 billion in AUM in U.S. and global real estate and infrastructure investments. The transaction is subject to standard regulatory and other required approvals and is expected to be completed in the fourth quarter of 2017 or first quarter of 2018.

Charles W. Scharf named chief executive officer; Gerald L. Hassell, chairman, to retire

In July 2017, Charles W. Scharf was appointed chief executive officer and member of the board of directors of the Company. Mr. Scharf succeeds Gerald L. Hassell, who will continue as the Company's chairman of the board of directors until his retirement at the end of the year. After Mr. Hassell's retirement, Mr. Scharf will become chairman, effective Jan. 1, 2018.

Resolution plan

As required by the Dodd-Frank Act, the Parent must submit annually to the Board of Governors of the Federal Reserve System ("Federal Reserve") and the Federal Deposit Insurance Corporation ("FDIC") a plan for its rapid and orderly resolution in the event of material financial distress or failure. The Parent filed its most recent resolution plan on July 1, 2017. We believe the 2017 resolution plan addresses all shortcomings and deficiencies identified by the FDIC and the Federal Reserve in the Company's 2015 resolution plan. The public portion of our 2017 resolution plan is available on the Federal Reserve's and FDIC's websites.

In September 2017, the Federal Reserve and FDIC extended the filing deadline by one year to July 1, 2019 for the Parent's next resolution plan.

Increase in cash dividend on common stock

BNY Mellon's 2017 capital plan submitted in connection with our Comprehensive Capital Analysis and Review ("CCAR") included a 26% increase in the quarterly cash dividend to $0.24 per common share. The first payment of the increased quarterly cash dividend was made on Aug. 11, 2017.

Highlights of third quarter 2017 results

We reported net income applicable to common shareholders of $983 million, or $0.94 per diluted common share, in the third quarter of 2017. Net income applicable to common shareholders was $974 million, or $0.90 per diluted common share, in the third quarter of 2016 and $926 million, or $0.88 per diluted common share, in the second quarter of 2017.

Highlights of the third quarter of 2017 include:

- AUC/A totaled a record $32.2 trillion at Sept. 30, 2017 compared with $30.5 trillion at Sept. 30, 2016. The 6% increase primarily reflects higher market values, the favorable impact of a weaker U.S. dollar and net new business. (See "Investment Services business" beginning on page 19.)
- AUM totaled a record $1.82 trillion at Sept. 30, 2017 compared with $1.72 trillion at Sept. 30, 2016. The 6% increase primarily reflects higher market values, net inflows and the favorable impact of a weaker U.S. dollar (principally versus the British pound). AUM excludes securities lending cash management assets and assets managed in the Investment Services business. (See "Investment Management business" beginning on page 16.)
- Investment services fees totaled $1.92 billion, an increase of 1% compared with $1.89 billion in the third quarter of 2016. The increase primarily reflects higher money market fees, higher equity market values and net new business, partially offset by lower Depositary Receipts revenue. (See "Investment Services business" beginning on page 19.)
- Investment management and performance fees totaled $901 million, an increase of 5% compared with $860 million in the third quarter of 2016. The increase primarily reflects higher equity market values and money market fees. (See "Investment Management business" beginning on page 16.)
- Foreign exchange and other trading revenue totaled $173 million compared with $183 million in the third quarter of 2016. Foreign exchange revenue totaled $158 million, a decrease of 10% compared with $175 million in the third quarter of 2016, primarily reflecting lower volatility and lower Depositary Receipt-related foreign exchange activity, partially offset by higher volumes. (See "Fee and other revenue" beginning on page 7.)
- Investment and other income totaled $63 million compared with $92 million in the third quarter of 2016. The decrease primarily reflects lower other income driven by our investments in renewable energy and lower seed capital gains. (See "Fee and other revenue" beginning on page 7.)

- Net interest revenue totaled $839 million compared with $774 million in the third quarter of 2016. The 8% increase was primarily driven by higher interest rates, partially offset by lower average deposits and loans. Net interest margin was 1.15% in the third quarter of 2017 compared with 1.05% in the third quarter of 2016. The net interest margin (FTE) (Non-GAAP) was 1.16% in the third quarter of 2017 compared with 1.06% in the third quarter of 2016. (See “Net interest revenue” on page 10.)
- The provision for credit losses was a credit of $6 million in the third quarter of 2017 and a credit of $19 million in the third quarter of 2016. (See “Asset quality and allowance for credit losses” beginning on page 29.)
- Noninterest expense totaled $2.65 billion compared with $2.64 billion in the third quarter of 2016. The increase primarily reflects higher software and professional, legal and other purchased services expenses, partially offset by lower litigation expense and bank assessment charges. (See “Noninterest expense” beginning on page 13.)
- The provision for income taxes was $348 million and the effective rate was 25.4% in the third quarter of 2017 compared with an income tax provision of $324 million and an effective tax rate of 24.6% in the third quarter of 2016. (See “Income taxes” on page 14.)
- The net unrealized pre-tax gain on the total investment securities portfolio was $257 million at Sept. 30, 2017 compared with a pre-tax gain of $151 million at June 30, 2017. The increase was primarily driven by a decrease in long-term interest rates. (See “Investment securities” beginning on page 25.)
- Our CET1 ratio under the Advanced Approach was 11.1% at Sept. 30, 2017 and 10.8% at June 30, 2017. The increase was primarily driven by CET1 generation. Our CET1 ratio under the Standardized Approach was 12.3% at Sept. 30, 2017 and 12.0% at June 30, 2017. (See “Capital” beginning on page 37.)
- Our estimated CET1 ratio (Non-GAAP) calculated under the Advanced Approach on a fully phased-in basis was 10.7% at Sept. 30, 2017 and 10.4% at June 30, 2017. The increase primarily reflects CET1 generation. Our estimated CET1 ratio (Non-GAAP) calculated under the Standardized Approach on a fully phased-in basis was 11.9% at Sept. 30, 2017 and 11.5% at June 30, 2017. (See “Capital” beginning on page 37.)

Fee and other revenue

Fee and other revenue				**3Q17 vs.**				**YTD17 vs.**
(dollars in millions, unless otherwise noted)	**3Q17**	2Q17	3Q16	**2Q17**	**3Q16**	**YTD17**	YTD16	**YTD16**
Investment services fees:								
Asset servicing *(a)*	**$ 1,105**	$ 1,085	$ 1,067	**2%**	**4%**	**$ 3,253**	$ 3,176	**2%**
Clearing services	**383**	394	349	**(3)**	**10**	**1,153**	1,049	**10**
Issuer services	**288**	241	337	**20**	**(15)**	**780**	815	**(4)**
Treasury services	**141**	140	137	**1**	**3**	**420**	407	**3**
Total investment services fees	**1,917**	1,860	1,890	**3**	**1**	**5,606**	5,447	**3**
Investment management and performance fees	**901**	879	860	**3**	**5**	**2,622**	2,502	**5**
Foreign exchange and other trading revenue	**173**	165	183	**5**	**(5)**	**502**	540	**(7)**
Financing-related fees	**54**	53	58	**2**	**(7)**	**162**	169	**(4)**
Distribution and servicing	**40**	41	43	**(2)**	**(7)**	**122**	125	**(2)**
Investment and other income	**63**	122	92	**N/M**	**N/M**	**262**	271	**N/M**
Total fee revenue	**3,148**	3,120	3,126	**1**	**1**	**9,276**	9,054	**2**
Net securities gains	**19**	—	24	**N/M**	**N/M**	**29**	65	**N/M**
Total fee and other revenue	**$ 3,167**	$ 3,120	$ 3,150	**2%**	**1%**	**$ 9,305**	$ 9,119	**2%**
Fee revenue as a percentage of total revenue	**78%**	79%	79%			**79%**	79%	
AUM at period end *(in billions) (b)*	**$ 1,824**	$ 1,771	$ 1,715	**3%**	**6%**	**$ 1,824**	$ 1,715	**6%**
AUC/A at period end *(in trillions) (c)*	**$ 32.2**	$ 31.1	$ 30.5	**4%**	**6%**	**$ 32.2**	$ 30.5	**6%**

(a) Asset servicing fees include securities lending revenue of $47 million in the third quarter of 2017, $48 million in the second quarter of 2017, $51 million in the third quarter of 2016, $144 million in the first nine months of 2017 and $153 million in the first nine months of 2016.

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

(c) Includes the AUC/A of CIBC Mellon of $1.3 trillion at Sept. 30, 2017 and $1.2 trillion at both June 30, 2017 and Sept. 30, 2016.

N/M - Not meaningful.

Fee and other revenue increased 1% compared with the third quarter of 2016 and 2% (unannualized) compared with the second quarter of 2017. The increase compared with the third quarter of 2016 primarily reflects higher investment management and performance fees, asset servicing fees and clearing services fees, partially offset by lower issuer services fees, investment and other income and foreign exchange and other trading revenue. The increase compared with the second quarter of 2017 primarily reflects seasonally higher issuer services fees, investment management and performance fees, asset servicing fees and net securities gains, partially offset by lower investment and other income.

Investment services fees

Investment services fees were impacted by the following compared with the third quarter of 2016 and the second quarter of 2017:

- Asset servicing fees increased 4% compared with the third quarter of 2016 and 2% (unannualized) compared with the second quarter of 2017. The increase compared with the third quarter of 2016 primarily reflects higher equity market values and net new business, including growth in collateral management, partially offset by the impact of downsizing the retail UK transfer agency business. The increase compared with the second quarter of 2017 was primarily driven by the favorable impact of a weaker U.S. dollar and higher equity market values.
- Clearing services fees increased 10% compared with the third quarter of 2016 and decreased 3% (unannualized) compared with the second quarter of 2017. The increase was primarily driven by higher money market fees and growth in long-term mutual fund assets. The decrease primarily reflects lower clearance volumes.
- Issuer services fees decreased 15% compared with the third quarter of 2016 and increased 20% (unannualized) compared with the second quarter of 2017. The decrease primarily reflects fewer corporate actions, lost business and lower fees due to a reduction in shares outstanding in certain depositary receipts programs, partially offset by higher Corporate Trust revenue. The increase

compared with the second quarter of 2017 primarily reflects seasonality in Depositary Receipts revenue and higher Corporate Trust revenue.

- Treasury services fees increased 3% compared with the third quarter of 2016 and 1% (unannualized) compared with the second quarter of 2017. Both increases primarily reflect higher payment volumes, partially offset by higher compensating balance credits provided to clients, which reduces fee revenue and increases net interest revenue.

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

Investment management and performance fees

Investment management and performance fees increased 5% compared with the third quarter of 2016 and 3% (unannualized) compared with the second quarter of 2017, primarily reflecting higher equity market values and money market fees. The increase compared with the third quarter of 2016 also reflects higher performance fees. The increase compared with the second quarter of 2017 also reflects the favorable impact of a weaker U.S. dollar. Changes in currency rates had an insignificant impact on the growth rate of investment management and performance fees compared with the third quarter of 2016. Performance fees were $15 million in the third quarter of 2017, $8 million in the third quarter of 2016 and $17 million in the second quarter of 2017.

Total AUM for the Investment Management business increased 6% compared with Sept. 30, 2016 and 3% compared with June 30, 2017. The increase compared with Sept. 30, 2016 primarily reflects higher market values, net inflows and the favorable impact of a weaker U.S. dollar (principally versus the British pound). The increase compared with June 30, 2017 primarily reflects the favorable impact of a weaker U.S. dollar (principally versus the British pound), higher market values and net inflows. Net long-term inflows of fixed income and multi-asset and alternative investments were offset by outflows of index, equity and liability-driven investments in the third quarter of 2017. Net short-term inflows of $10 billion in the third quarter of 2017 were a result of increased distribution through our liquidity portals.

See the “Investment Management business” in “Review of businesses” for additional details regarding the drivers of investment management and performance fees.

Foreign exchange and other trading revenue

Foreign exchange and other trading revenue *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Foreign exchange	**$ 158**	$ 151	$ 175	**$ 463**	$ 512
Other trading revenue	**15**	14	8	**39**	28
Total foreign exchange and other trading revenue	**$ 173**	$ 165	$ 183	**$ 502**	$ 540

Foreign exchange and other trading revenue decreased 5% compared with the third quarter of 2016 and increased 5% (unannualized) compared with the second quarter of 2017.

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, and the impact of foreign currency hedging activities. Foreign exchange revenue decreased 10% compared with the third quarter of 2016, primarily reflecting lower volatility and lower Depositary Receipt-related foreign exchange activity, partially offset by higher volumes. Foreign exchange revenue increased 5% (unannualized) compared with the second quarter of 2017 reflecting higher volumes. Foreign exchange revenue is primarily reported in the Investment Services business and, to a lesser extent, the Investment Management business and the Other segment.

Our custody clients may enter into foreign exchange transactions in a number of ways, including through our standing instruction programs. While the shift of custody clients from our standing instruction programs to other trading options has abated, our foreign exchange revenue continues to be impacted by changes in volume and volatility. For the quarter ended Sept. 30, 2017, our total revenue for all types of foreign exchange trading transactions was $158 million, or 4% of our total revenue, and approximately 28% of our foreign exchange revenue was generated by transactions in our standing instruction programs.

Financing-related fees

Financing-related fees, which are primarily reported in the Investment Services business and the Other segment, include capital markets fees, loan commitment fees and credit-related fees. Financing-related fees decreased compared with the third quarter of 2016 primarily reflecting lower syndication fees. Financing-related fees increased compared with the second quarter of 2017 primarily reflecting higher underwriting fees.

Distribution and servicing fees

Distribution and servicing fees decreased compared with the third quarter of 2016 primarily reflecting fees paid to introducing brokers, partially offset by higher money market fees.

Investment and other income

Investment and other income *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Corporate/bank-owned life insurance	**$ 37**	$ 43	$ 34	**$ 110**	$ 96
Lease-related gains	**—**	51	—	**52**	44
Expense reimbursements from joint venture	**18**	17	18	**49**	52
Equity investment income (loss)	**—**	7	(1)	**33**	(8)
Seed capital gains *(a)*	**6**	10	16	**25**	38
Asset-related gains (losses)	**1**	(5)	8	**(1)**	9
Other income (loss)	**1**	(1)	17	**(6)**	40
Total investment and other income	**$ 63**	$ 122	$ 92	**$ 262**	$ 271

(a) Excludes the gains (losses) on seed capital investments in consolidated investment management funds which are reflected in operations of consolidated investment management funds, net of noncontrolling interests. The gains on seed capital investments in consolidated investment management funds were $7 million in the third quarter of 2017, $7 million in the second quarter of 2017, $8 million in the third quarter of 2016, $29 million in the first nine months of 2017 and $15 million in the first nine months of 2016.

Investment and other income decreased compared with both the third quarter of 2016 and second quarter of 2017. The decrease compared with the third quarter of 2016 primarily reflects lower other income driven by increased pre-tax losses on our investments in renewable energy and lower seed capital gains. The pre-tax losses on the renewable energy investments are offset by corresponding tax benefits and credits recorded as a reduction to the provision for income taxes. The decrease compared with the second quarter of 2017 primarily reflects lease-related gains recorded in the second quarter of 2017 and lower income from corporate/bank-owned life insurance.

Year-to-date 2017 compared with year-to-date 2016

Fee and other revenue increased 2% compared with the first nine months of 2016, primarily reflecting higher investment management and performance fees, clearing services fees and asset servicing fees, partially offset by lower foreign exchange and other trading revenue, net securities gains and issuer services fees. The 5% increase in investment management and performance fees primarily reflects higher market values, money market fees and performance fees, partially offset by the unfavorable impact of a stronger U.S. dollar (principally versus the British pound). The 10% increase in clearing services fees primarily reflects higher money market fees and growth in long-term mutual fund assets. The 2% increase in asset servicing fees primarily reflects net new business, including growth in collateral management and higher equity market values, partially offset by the unfavorable impact of a stronger U.S. dollar and the impact of downsizing the retail UK transfer agency business. The 7% decrease in foreign exchange and other trading revenue primarily reflects lower volatility and lower Depositary Receipts-related foreign exchange activity. The 4% decrease in issuer services fees primarily reflects lower Depositary Receipts revenue.

Net interest revenue

Net interest revenue								**YTD17**
				3Q17 vs.				**vs.**
(dollars in millions)	**3Q17**	2Q17	3Q16	**2Q17**	**3Q16**	**YTD17**	YTD16	**YTD16**
Net interest revenue	**$ 839**	$ 826	$ 774	**2%**	**8%**	**$ 2,457**	$ 2,307	**7%**
Tax equivalent adjustment	**12**	12	12	**N/M**	**N/M**	**36**	39	**N/M**
Net interest revenue (FTE) – Non-GAAP *(a)*	**$ 851**	$ 838	$ 786	**2%**	**8%**	**$ 2,493**	$ 2,346	**6%**
Average interest-earning assets	**$ 291,841**	$ 289,496	$ 296,703	**1%**	**(2)%**	**$ 288,283**	$ 308,560	**(7)%**
Net interest margin	**1.15%**	1.14%	1.05%	**1 bps**	**10 bps**	**1.14%**	1.00%	**14 bps**
Net interest margin (FTE) – Non-GAAP *(a)*	**1.16%**	1.16%	1.06%	**— bps**	**10 bps**	**1.16%**	1.02%	**14 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.

FTE - fully taxable equivalent.

N/M - Not meaningful.

bps - basis points.

Net interest revenue increased 8% compared with the third quarter of 2016 and 2% (unannualized) compared with the second quarter of 2017 primarily reflecting higher interest rates, partially offset by lower average deposits and loans. The sequential increase also reflects an additional interest-earning day during the quarter.

Net interest margin increased 10 basis points compared with the third quarter of 2016, primarily reflecting the factors listed above.

Average non-U.S. dollar deposits comprised approximately 30% of our average total deposits in the third quarter of 2017. Approximately 45% of the average non-U.S. dollar deposits in the third quarter of 2017 were euro-denominated.

Year-to-date 2017 compared with year-to-date 2016

Net interest revenue increased 7% compared with the first nine months of 2016, primarily driven by higher interest rates and lower premium amortization, partially offset by lower average deposits and interest-earning assets. The increase in the net interest margin was primarily driven by the factors listed above.

Average balances and interest rates	Quarter ended								
	Sept. 30, 2017			June 30, 2017			Sept. 30, 2016		
(dollar amounts in millions, presented on an FTE basis)	**Average balance**	**Interest**	**Average rates**	Average balance	Interest	Average rates	Average balance	Interest	Average rates
Assets									
Interest-earning assets:									
Interest-bearing deposits with banks (primarily foreign banks)	**$ 15,899**	**$ 34**	**0.86%**	$ 14,832	$ 27	0.73%	$ 14,066	$ 26	0.74%
Interest-bearing deposits held at the Federal Reserve and other central banks	**70,430**	**89**	**0.50**	69,316	71	0.41	74,102	37	0.20
Federal funds sold and securities purchased under resale agreements	**28,120**	**119**	**1.67**	26,873	86	1.29	26,376	62	0.93
Margin loans	**13,206**	**87**	**2.60**	15,058	87	2.32	18,132	67	1.48
Non-margin loans:									
Domestic offices	**29,950**	**216**	**2.87**	30,734	207	2.70	30,534	171	2.22
Foreign offices	**12,788**	**67**	**2.09**	13,001	65	1.99	12,912	47	1.45
Total non-margin loans	**42,738**	**283**	**2.64**	43,735	272	2.49	43,446	218	1.99
Securities:									
U.S. Government obligations	**25,349**	**106**	**1.67**	25,928	106	1.64	25,279	94	1.49
U.S. Government agency obligations	**61,710**	**309**	**2.00**	59,533	290	1.95	56,464	240	1.70
State and political subdivisions – tax-exempt	**3,226**	**25**	**3.06**	3,298	26	3.09	3,598	27	2.98
Other securities	**28,804**	**98**	**1.34**	28,468	81	1.15	33,064	102	1.23
Trading securities	**2,359**	**13**	**2.26**	2,455	18	2.85	2,176	13	2.62
Total securities	**121,448**	**551**	**1.81**	119,682	521	1.74	120,581	476	1.58
Total interest-earning assets *(a)*	**$ 291,841**	**$ 1,163**	**1.59%**	$ 289,496	$ 1,064	1.47%	$ 296,703	$ 886	1.19%
Allowance for loan losses	**(165)**			(164)			(165)		
Cash and due from banks	**4,961**			4,972			4,189		
Other assets	**48,329**			47,303			49,463		
Assets of consolidated investment management funds	**743**			908			1,040		
Total assets	**$ 345,709**			$ 342,515			$ 351,230		
Liabilities									
Interest-bearing liabilities:									
Interest-bearing deposits:									
Money market rate accounts	**$ 7,509**	**$ 1**	**0.06%**	$ 7,379	$ 1	0.04%	$ 7,346	$ 1	0.06%
Savings	**837**	**1**	**0.76**	1,014	2	0.75	1,201	1	0.41
Demand deposits	**5,932**	**5**	**0.27**	5,659	2	0.14	2,681	3	0.36
Time deposits	**29,934**	**24**	**0.32**	34,757	15	0.18	45,186	7	0.07
Foreign offices	**98,278**	**26**	**0.10**	93,527	12	0.05	98,695	(18)	(0.08)
Total interest-bearing deposits	**142,490**	**57**	**0.16**	142,336	32	0.09	155,109	(6)	(0.02)
Federal funds purchased and securities sold under repurchase agreements	**21,403**	**70**	**1.30**	17,970	38	0.84	9,585	6	0.24
Trading liabilities	**1,434**	**2**	**0.54**	1,216	2	0.61	735	2	1.11
Other borrowed funds	**2,197**	**7**	**1.38**	1,193	4	1.24	874	1	0.76
Commercial paper	**2,736**	**8**	**1.15**	2,215	5	0.95	1,173	1	0.35
Payables to customers and broker-dealers	**18,516**	**19**	**0.42**	20,609	16	0.30	16,873	3	0.07
Long-term debt	**28,138**	**149**	**2.07**	27,398	129	1.87	23,930	93	1.54
Total interest-bearing liabilities	**$ 216,914**	**$ 312**	**0.57%**	$ 212,937	$ 226	0.42%	$ 208,279	$ 100	0.19%
Total noninterest-bearing deposits	**70,168**			73,886			81,619		
Other liabilities	**17,728**			15,545			21,343		
Liabilities and obligations of consolidated investment management funds	**35**			111			238		
Total liabilities	**304,845**			302,479			311,479		
Temporary equity									
Redeemable noncontrolling interests	**188**			172			179		
Permanent equity									
Total BNY Mellon shareholders' equity	**40,322**			39,404			39,051		
Noncontrolling interests	**354**			460			521		
Total permanent equity	**40,676**			39,864			39,572		
Total liabilities, temporary equity and permanent equity	**$ 345,709**			$ 342,515			$ 351,230		
Net interest revenue (FTE) – Non-GAAP		**$ 851**			$ 838			$ 786	
Net interest margin (FTE) – Non-GAAP			**1.16%**			1.16%			1.06%
Less: Tax equivalent adjustment *(b)*		**12**			12			12	
Net interest revenue – GAAP		**$ 839**			$ 826			$ 774	
Net interest margin – GAAP			**1.15%**			1.14%			1.05%

Note: Interest and average rates were calculated on a taxable equivalent basis using dollar amounts in thousands and actual number of days in the year.

(a) Interest income and average yield are presented on an FTE basis (Non-GAAP).

(b) Based on the applicable tax rate of 35%.

Average balances and interest rates	Year-to-date					
	Sept. 30, 2017			Sept. 30, 2016		
(dollar amounts in millions, presented on an FTE basis)	**Average balance**	**Interest**	**Average rates**	Average balance	Interest	Average rates
Assets						
Interest-earning assets:						
Interest-bearing deposits with banks (primarily foreign banks)	**$ 15,153**	**$ 83**	**0.73%**	$ 14,455	$ 76	0.70%
Interest-bearing deposits held at the Federal Reserve and other central banks	**68,613**	**217**	**0.42**	86,947	170	0.26
Federal funds sold and securities purchased under resale agreements	**26,779**	**272**	**1.36**	25,275	167	0.88
Margin loans	**14,663**	**249**	**2.27**	18,420	194	1.41
Non-margin loans:						
Domestic offices	**30,545**	**611**	**2.67**	29,488	493	2.23
Foreign offices	**13,126**	**189**	**1.93**	13,112	144	1.47
Total non-margin loans	**43,671**	**800**	**2.45**	42,600	637	2.00
Securities:						
U.S. Government obligations	**25,835**	**316**	**1.64**	24,778	278	1.50
U.S. Government agency obligations	**59,384**	**870**	**1.95**	56,161	727	1.73
State and political subdivisions – tax-exempt	**3,298**	**77**	**3.09**	3,784	83	2.92
Other securities	**28,531**	**267**	**1.25**	33,592	309	1.23
Trading securities	**2,356**	**48**	**2.74**	2,548	45	2.37
Total securities	**119,404**	**1,578**	**1.76**	120,863	1,442	1.59
Total interest-earning assets *(a)*	**$ 288,283**	**$ 3,199**	**1.48%**	$ 308,560	$ 2,686	1.16%
Allowance for loan losses	**(166)**			(162)		
Cash and due from banks	**5,010**			4,070		
Other assets	**47,461**			49,624		
Assets of consolidated investment management funds	**922**			1,198		
Total assets	**$ 341,510**			$ 363,290		
Liabilities						
Interest-bearing liabilities:						
Interest-bearing deposits:						
Money market rate accounts	**$ 7,466**	**$ 3**	**0.05%**	$ 7,337	$ 3	0.06%
Savings	**980**	**5**	**0.70**	1,203	3	0.36
Demand deposits	**5,656**	**8**	**0.18**	1,782	5	0.40
Time deposits	**33,354**	**50**	**0.20**	44,832	19	0.06
Foreign offices	**94,102**	**32**	**0.05**	105,574	(9)	(0.01)
Total interest-bearing deposits	**141,558**	**98**	**0.09**	160,728	21	0.02
Federal funds purchased and securities sold under repurchase agreements	**19,465**	**132**	**0.90**	15,471	28	0.24
Trading liabilities	**1,188**	**6**	**0.65**	650	5	1.05
Other borrowed funds	**1,409**	**13**	**1.26**	827	5	0.90
Commercial paper	**2,374**	**18**	**1.01**	1,657	5	0.37
Payables to customers and broker-dealers	**19,360**	**42**	**0.29**	16,870	9	0.07
Long-term debt	**27,148**	**397**	**1.93**	22,779	267	1.55
Total interest-bearing liabilities	**$ 212,502**	**$ 706**	**0.44%**	$ 218,982	$ 340	0.21%
Total noninterest-bearing deposits	**72,524**			82,861		
Other liabilities	**16,299**			21,993		
Liabilities and obligations of consolidated investment management funds	**129**			250		
Total liabilities	**301,454**			324,086		
Temporary equity						
Redeemable noncontrolling interests	**174**			183		
Permanent equity						
Total BNY Mellon shareholders' equity	**39,418**			38,414		
Noncontrolling interests	**464**			607		
Total permanent equity	**39,882**			39,021		
Total liabilities, temporary equity and permanent equity	**$ 341,510**			$ 363,290		
Net interest revenue (FTE) – Non-GAAP		**$ 2,493**			$ 2,346	
Net interest margin (FTE) – Non-GAAP			**1.16%**			1.02%
Less: Tax equivalent adjustment *(b)*		**36**			39	
Net interest revenue – GAAP		**$ 2,457**			$ 2,307	
Net interest margin – GAAP			**1.14%**			1.00%

Note: Interest and average rates were calculated on a taxable equivalent basis using dollar amounts in thousands and actual number of days in the year.
(a) Interest income and average yield are presented on an FTE basis (Non-GAAP).
(b) Based on the applicable tax rate of 35%.

Noninterest expense

Noninterest expense (dollars in millions)	3Q17	2Q17	3Q16	3Q17 vs. 2Q17	3Q17 vs. 3Q16	YTD17	YTD16	YTD17 vs. YTD16
Staff	**$ 1,469**	$ 1,417	$ 1,467	**4 %**	**—%**	**$ 4,358**	$ 4,338	**—%**
Professional, legal and other purchased services	**305**	319	292	**(4)**	**4**	**936**	860	**9**
Software	**175**	173	156	**1**	**12**	**514**	470	**9**
Net occupancy	**141**	139	143	**1**	**(1)**	**416**	437	**(5)**
Distribution and servicing	**109**	104	105	**5**	**4**	**313**	307	**2**
Sub-custodian	**62**	65	59	**(5)**	**5**	**191**	188	**2**
Furniture and equipment	**58**	59	59	**(2)**	**(2)**	**174**	187	**(7)**
Bank assessment charges *(a)*	**51**	59	61	**(14)**	**(16)**	**167**	166	**1**
Business development	**49**	63	52	**(22)**	**(6)**	**163**	174	**(6)**
Other *(a)*	**177**	192	170	**(8)**	**4**	**536**	546	**(2)**
Amortization of intangible assets	**52**	53	61	**(2)**	**(15)**	**157**	177	**(11)**
M&I, litigation and restructuring charges	**6**	12	18	**N/M**	**N/M**	**26**	42	**N/M**
Total noninterest expense – GAAP	**$ 2,654**	$ 2,655	$ 2,643	**— %**	**—%**	**$ 7,951**	$ 7,892	**1%**
Staff expense as a percentage of total revenue	**37%**	36 %	37 %			**37%**	38 %	
Full-time employees at period end	**52,900**	52,800	52,300	**— %**	**1%**	**52,900**	52,300	**1%**
Memo:								
Adjusted total noninterest expense excluding amortization of intangible assets and M&I, litigation and restructuring charges – Non-GAAP	**$ 2,596**	$ 2,590	$ 2,564	**— %**	**1%**	**$ 7,768**	$ 7,673	**1%**

(a) In the first quarter of 2017, we began disclosing bank assessment charges on a quarterly basis. The bank assessment charges were previously included in other expense. All prior periods were reclassified.

N/M - Not meaningful.

Total noninterest expense increased less than 1% compared with the third quarter of 2016 and decreased slightly compared with the second quarter of 2017. The increase primarily reflects higher software and professional, legal and other purchased services expenses, partially offset by lower litigation expense and bank assessment charges. The decrease primarily reflects lower other, professional, legal and other purchased services and business development expenses as well as lower bank assessment charges, partially offset by higher staff expense. Excluding amortization of intangible assets and M&I, litigation and restructuring charges, total noninterest expense, as adjusted (Non-GAAP), increased 1% compared with the third quarter of 2016 and less than 1% (unannualized) compared with the second quarter of 2017.

We continue to invest in our risk management, regulatory compliance and other control functions to improve our safety and soundness and in light of increased global regulatory requirements. As a result of the submission of our 2017 resolution plan, we began to experience a modest decrease in the expenses relating to these functions in the third quarter of 2017.

Staff expense

Given our mix of fee-based businesses, which are staffed with high-quality professionals, staff expense comprised 55% of total noninterest expense in the third quarter of 2017, 56% in the third quarter of 2016 and 53% in the second quarter of 2017.

Staff expense increased slightly compared with the third quarter of 2016 as the annual employee merit increase was offset by lower severance. Staff expense increased 4% (unannualized) compared with the second quarter of 2017, primarily due to higher incentives expense reflecting stronger performance and the annual employee merit increase.

Non-staff expense

Non-staff expense includes certain expenses that vary with the levels of business activity and levels of expensed business investments, fixed infrastructure costs and expenses associated with corporate activities related to technology, compliance, legal, productivity initiatives and business development.

Non-staff expense totaled $1.2 billion, an increase of 1% compared with the third quarter of 2016 and a decrease of 4% (unannualized) compared with the second quarter of 2017. The increase primarily reflects higher software and professional, legal and other purchased services expenses, partially offset by lower litigation expense and bank assessment charges. The decrease primarily reflects lower other, professional, legal and other purchases services and business development expenses as well as lower bank assessment charges. The decrease in professional, legal and other purchased services was driven by lower consulting expense related to resolution planning.

Year-to-date 2017 compared with year-to-date 2016

Noninterest expense increased 1% compared with the first nine months of 2016, primarily reflecting higher consulting and software expenses, partially offset by lower net occupancy. The increase in consulting expense primarily reflects higher regulatory and compliance costs. Net occupancy expense decreased as we continue to benefit from the savings generated by the business improvement process.

Income taxes

BNY Mellon recorded an income tax provision of $348 million (25.4% effective tax rate) in the third quarter of 2017. The income tax provision was $324 million (24.6% effective tax rate) in the third quarter of 2016 and $332 million (25.4% effective tax rate) in the second quarter of 2017. For additional information, see Note 10 of the Notes to Consolidated Financial Statements.

We expect the effective tax rate to be approximately 25-26% in 2017 based on current income tax rates. Based on our expected revenue growth as well as the mix of earnings we project for next year, we expect our effective tax rate may rise approximately 100 basis points in 2018.

Any legislation affecting income tax rates could have an impact on our future effective tax rate, the significance of which would depend on the timing, nature and scope of any such legislation, as well as the level and composition of our earnings.

Review of businesses

We have an internal information system that produces performance data along product and service lines for our two principal businesses 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 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, the primary types of revenue by business and how our businesses are presented and analyzed, see Note 18 of the Notes to Consolidated Financial Statements.

Business results are subject to reclassification when organizational changes are made or when improvements are made in the measurement principles.

The results of our businesses may be influenced by client and other activities that vary by quarter. In the first quarter, incentives 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. In the third quarter, staff expense typically increases reflecting the annual employee merit increase. In the fourth quarter, we typically incur higher business development and marketing expenses. In our Investment Management business, performance fees are typically higher in the fourth quarter, as the fourth quarter represents 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

Management business typically has more foreign currency denominated revenues than expenses. Overall, currency fluctuations impact the year-over-year growth rate in the Investment 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.

The following table presents key market metrics at period end and on an average basis.

Key market metrics						**3Q17 vs.**				**YTD17 vs.**
	3Q17	2Q17	1Q17	4Q16	3Q16	**2Q17**	**3Q16**	**YTD17**	**YTD16**	**YTD16**
Standard & Poor's ("S&P") 500 Index *(a)*	**2519**	2423	2363	2239	2168	**4 %**	**16 %**	**2519**	2168	**16 %**
S&P 500 Index – daily average	**2467**	2398	2326	2185	2162	**3**	**14**	**2397**	2065	**16**
FTSE 100 Index *(a)*	**7373**	7313	7323	7143	6899	**1**	**7**	**7373**	6899	**7**
FTSE 100 Index – daily average	**7380**	7391	7274	6923	6765	**—**	**9**	**7348**	6326	**16**
MSCI EAFE *(a)*	**1974**	1883	1793	1684	1702	**5**	**16**	**1974**	1702	**16**
MSCI EAFE – daily average	**1934**	1856	1749	1660	1677	**4**	**15**	**1847**	1640	**13**
Barclays Capital Global Aggregate Bond℠ Index *(a)(b)*	**480**	471	459	451	486	**2**	**(1)**	**480**	486	**(1)**
NYSE and NASDAQ share volume *(in billions)*	**179**	199	186	189	186	**(10)**	**(4)**	**565**	608	**(7)**
JPMorgan G7 Volatility Index – daily average *(c)*	**8.17**	7.98	10.10	10.24	10.19	**2**	**(20)**	**8.75**	10.63	**(18)**
Average interest on excess reserves paid by the Federal Reserve	**1.25%**	1.04%	0.79%	0.55%	0.50%	**21 bps**	**75 bps**	**1.03%**	0.50%	**53 bps**
Foreign exchange rates vs. U.S. dollar:										
British pound *(a)*	**$ 1.34**	$ 1.30	$ 1.25	$ 1.23	$ 1.30	**3 %**	**3 %**	**$ 1.34**	$ 1.30	**3 %**
British pound – average rate	**1.31**	1.28	1.24	1.24	1.31	**2**	**—**	**1.28**	1.39	**(8)**
Euro *(a)*	**1.18**	1.14	1.07	1.05	1.12	**4**	**5**	**1.18**	1.12	**5**
Euro – average rate	**1.17**	1.10	1.07	1.08	1.12	**6**	**4**	**1.13**	1.12	**1**

(a) Period end.
(b) Unhedged in U.S. dollar terms.
(c) The JPMorgan G7 Volatility Index is based on the implied volatility in 3-month currency options.
bps - basis points.

Fee revenue in Investment Management, and to a lesser extent in Investment Services, is impacted by the value of market indices. At Sept. 30, 2017, we estimate 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 $0.02 to $0.04.

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 Management business

(dollars in millions)	**3Q17**	2Q17	1Q17	4Q16	3Q16	**3Q17 vs. 2Q17**	**3Q17 vs. 3Q16**	**YTD17**	YTD16	**YTD17 vs. YTD16**
Revenue:										
Investment management fees:										
Mutual funds	**$ 332**	$ 314	$ 299	$ 297	$ 309	**6 %**	**7 %**	**$ 945**	$ 913	**4 %**
Institutional clients	**367**	362	348	340	362	**1**	**1**	**1,077**	1,040	**4**
Wealth management	**172**	169	167	164	166	**2**	**4**	**508**	478	**6**
Investment management fees *(a)*	**871**	845	814	801	837	**3**	**4**	**2,530**	2,431	**4**
Performance fees	**15**	17	12	32	8	**N/M**	**88**	**44**	28	**57**
Investment management and performance fees	**886**	862	826	833	845	**3**	**5**	**2,574**	2,459	**5**
Distribution and servicing	**51**	53	52	48	49	**(4)**	**4**	**156**	144	**8**
Other *(a)*	**(19)**	(16)	(1)	(1)	(18)	**N/M**	**N/M**	**(36)**	(59)	**N/M**
Total fee and other revenue *(a)*	**918**	899	877	880	876	**2**	**5**	**2,694**	2,544	**6**
Net interest revenue	**82**	87	86	80	82	**(6)**	**—**	**255**	247	**3**
Total revenue	**1,000**	986	963	960	958	**1**	**4**	**2,949**	2,791	**6**
Provision for credit losses	**(2)**	—	3	6	—	**N/M**	**N/M**	**1**	—	**N/M**
Noninterest expense (ex. amortization of intangible assets)	**687**	683	668	672	680	**1**	**1**	**2,038**	2,024	**1**
Amortization of intangible assets	**15**	15	15	22	22	**—**	**(32)**	**45**	60	**(25)**
Total noninterest expense	**702**	698	683	694	702	**1**	**—**	**2,083**	2,084	**—**
Income before taxes	**$ 300**	$ 288	$ 277	$ 260	$ 256	**4 %**	**17 %**	**$ 865**	$ 707	**22 %**
Income before taxes (ex. amortization of intangible assets) – Non-GAAP	**$ 315**	$ 303	$ 292	$ 282	$ 278	**4 %**	**13 %**	**$ 910**	$ 767	**19 %**
Pre-tax operating margin	**30%**	29%	29%	27%	27%			**29%**	25%	
Adjusted pre-tax operating margin – Non-GAAP *(b)*	**35%**	34%	34%	33%	33%			**35%**	31%	
Average balances:										
Average loans	**$16,724**	$ 16,560	$ 16,153	$ 15,673	$ 15,308	**1 %**	**9 %**	**$16,481**	$ 14,795	**11 %**
Average deposits	**$12,374**	$ 14,866	$ 15,781	$ 15,511	$ 15,600	**(17)%**	**(21)%**	**$14,283**	$ 15,696	**(9)%**

(a) Total fee and other revenue includes the impact of the consolidated investment management funds, net of noncontrolling interests. See page 52 for a breakdown of the revenue line items in the Investment Management business impacted by the consolidated investment management funds. Additionally, other revenue includes asset servicing, treasury services, foreign exchange and other trading revenue and investment and other income.

(b) Excludes amortization of intangible assets, provision for credit losses and distribution and servicing expense. See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 49 for the reconciliation of this Non-GAAP measure.

N/M - Not meaningful.

AUM trends *(a)* *(dollars in billions)*	**3Q17**	2Q17	1Q17	4Q16	3Q16	**3Q17 vs. 2Q17**	**3Q17 vs. 3Q16**
AUM at period end, by product type:							
Equity	**$ 158**	$ 163	$ 158	$ 153	$ 156	**(3)%**	**1%**
Fixed income	**206**	198	191	186	194	**4**	**6**
Index	**333**	324	330	312	302	**3**	**10**
Liability-driven investments *(b)*	**622**	607	584	554	607	**2**	**2**
Multi-asset and alternative investments	**207**	192	188	181	189	**8**	**10**
Cash	**298**	287	276	262	267	**4**	**12**
Total AUM	**$ 1,824**	$ 1,771	$ 1,727	$ 1,648	$ 1,715	**3 %**	**6%**
AUM at period end, by client type:							
Institutional	**$ 1,285**	$ 1,265	$ 1,243	$ 1,182	$ 1,234	**2 %**	**4%**
Mutual funds	**447**	418	397	381	396	**7**	**13**
Private client	**92**	88	87	85	85	**5**	**8**
Total AUM	**$ 1,824**	$ 1,771	$ 1,727	$ 1,648	$ 1,715	**3 %**	**6%**
Changes in AUM:							
Beginning balance of AUM	**$ 1,771**	$ 1,727	$ 1,648	$ 1,715	$ 1,664		
Net inflows (outflows):							
Long-term strategies:							
Equity	**(2)**	(2)	(4)	(5)	(6)		
Fixed income	**4**	2	2	(1)	(1)		
Liability-driven investments *(b)*	**(2)**	15	14	(7)	4		
Multi-asset and alternative investments	**3**	1	2	3	7		
Total long-term active strategies inflows (outflows)	**3**	16	14	(10)	4		
Index	**(3)**	(13)	—	(1)	(3)		
Total long-term strategies inflows (outflows)	**—**	3	14	(11)	1		
Short term strategies:							
Cash	**10**	11	13	(3)	(1)		
Total net inflows (outflows)	**10**	14	27	(14)	—		
Net market impact/other	**17**	1	41	(11)	80		
Net currency impact	**26**	29	11	(42)	(29)		
Ending balance of AUM	**$ 1,824**	$ 1,771	$ 1,727	$ 1,648	$ 1,715	**3 %**	**6%**

(a) Excludes securities lending cash management assets and assets managed in the Investment Services business.
(b) Includes currency overlay AUM.

Business description

Our Investment Management business consists of our affiliated investment management boutiques, Wealth Management business and global distribution companies. See pages 19 and 20 of our 2016 Annual Report for additional information on our Investment Management business.

Review of financial results

AUM increased 6% compared with Sept. 30, 2016 primarily reflecting higher market values, net inflows and the favorable impact of the weaker U.S. dollar (principally versus the British pound). The increase compared with June 30, 2017 primarily reflects the favorable impact of the weaker U.S. dollar (principally versus the British pound), higher market values and net inflows.

Net long-term inflows of fixed income and multi-asset and alternative investments were offset by outflows of index, equity and liability-driven investments in the third quarter of 2017. Net short-term inflows of $10 billion in the third quarter of 2017 were a result of increased distribution through our liquidity portals. Market and regulatory trends have driven investable assets toward investments in lower fee asset management products, which negatively impacted our investment management fees.

Total revenue increased 4% compared with the third quarter of 2016 and 1% (unannualized) compared with the second quarter of 2017. Both increases primarily reflect higher investment management and performance fees.

Revenue generated in the Investment Management business included 41% from non-U.S. sources in the third quarter of 2017, compared with 40% in both the third quarter of 2016 and second quarter of 2017.

Investment management fees in the Investment Management business increased 4% compared with the third quarter of 2016 and 3% (unannualized) compared with the second quarter of 2017. Both increases primarily reflect higher equity market values and money market fees. The increase compared with the second quarter of 2017 also reflects the favorable impact of a weaker U.S. dollar.

Distribution and servicing fees increased compared with the third quarter of 2016 primarily reflecting higher money market fees.

Other revenue decreased compared with the third quarter of 2016 primarily reflecting higher payments to Investment Services related to higher money market fees.

Net interest revenue was unchanged compared with the third quarter of 2016 and decreased 6% (unannualized) compared with the second quarter of 2017. The decrease primarily reflects lower average deposits. Average loans increased 9% compared with the third quarter of 2016 and 1% compared with the second quarter of 2017. Average deposits decreased 21% compared with the third quarter of 2016 and 17% compared with the second quarter of 2017.

Noninterest expense, excluding amortization of intangible assets, increased 1% compared with the third quarter of 2016 and 1% (unannualized) compared with the second quarter of 2017. The increase compared with the third quarter of 2016 primarily reflects higher other and distribution and servicing expenses, partially offset by lower severance expense. The increase compared with the second quarter of 2017 primarily reflects higher distribution and servicing expense.

Year-to-date 2017 compared with year-to-date 2016

Income before taxes increased 22% compared with the first nine months of 2016, primarily reflecting revenue growth of 6%, partially offset by a 1% increase in noninterest expense, excluding amortization of intangible assets. Fee and other revenue increased 6% primarily reflecting higher investment management and performance fees. The increase in investment management and performance fees primarily reflects higher market values, money market fees and performance fees, partially offset by the unfavorable impact of a stronger U.S. dollar (principally versus the British pound). Net interest revenue increased 3% primarily due to higher interest rates and average loans, partially offset by lower average deposits. Noninterest expense, excluding amortization of intangible assets, increased 1% primarily reflecting higher incentives expense, driven by stronger performance, partially offset by the favorable impact of a stronger U.S. dollar (principally versus the British pound).

Investment Services business

(dollar amounts in millions, unless otherwise noted)	3Q17	2Q17	1Q17	4Q16	3Q16	3Q17 vs. 2Q17	3Q17 vs. 3Q16	YTD17	YTD16	YTD17 vs. YTD16
Revenue:										
Investment services fees:										
Asset servicing	**$ 1,081**	$ 1,061	$ 1,038	$ 1,043	$ 1,039	**2 %**	**4 %**	**$ 3,180**	$ 3,098	**3 %**
Clearing services	**381**	393	375	354	347	**(3)**	**10**	**1,149**	1,045	**10**
Issuer services	**288**	241	250	211	336	**20**	**(14)**	**779**	813	**(4)**
Treasury services	**141**	139	139	139	136	**1**	**4**	**419**	402	**4**
Total investment services fees	**1,891**	1,834	1,802	1,747	1,858	**3**	**2**	**5,527**	5,358	**3**
Foreign exchange and other trading revenue	**154**	145	153	157	177	**6**	**(13)**	**452**	506	**(11)**
Other *(a)*	**142**	136	129	128	148	**4**	**(4)**	**407**	403	**1**
Total fee and other revenue	**2,187**	2,115	2,084	2,032	2,183	**3**	**—**	**6,386**	6,267	**2**
Net interest revenue	**777**	761	707	713	715	**2**	**9**	**2,245**	2,084	**8**
Total revenue	**2,964**	2,876	2,791	2,745	2,898	**3**	**2**	**8,631**	8,351	**3**
Provision for credit losses	**(2)**	(3)	—	—	1	**N/M**	**N/M**	**(5)**	8	**N/M**
Noninterest expense (ex. amortization of intangible assets)	**1,837**	1,889	1,812	1,786	1,812	**(3)**	**1**	**5,538**	5,401	**3**
Amortization of intangible assets	**37**	38	37	38	39	**(3)**	**(5)**	**112**	117	**(4)**
Total noninterest expense	**1,874**	1,927	1,849	1,824	1,851	**(3)**	**1**	**5,650**	5,518	**2**
Income before taxes	**$ 1,092**	$ 952	$ 942	$ 921	$ 1,046	**15 %**	**4 %**	**$ 2,986**	$ 2,825	**6 %**
Income before taxes (ex. amortization of intangible assets) – Non-GAAP	**$ 1,129**	$ 990	$ 979	$ 959	$ 1,085	**14 %**	**4 %**	**$ 3,098**	$ 2,942	**5 %**
Pre-tax operating margin	**37%**	33%	34%	34%	36%			**35%**	34%	
Adjusted pre-tax operating margin (ex. provision for credit losses and amortization of intangible assets) – Non-GAAP	**38%**	34%	35%	35%	37%			**36%**	35%	
Investment services fees as a percentage of noninterest expense (ex. amortization of intangible assets)	**103%**	97%	99%	98%	103%			**100%**	99%	
Securities lending revenue	**$ 41**	$ 42	$ 40	$ 44	$ 42	**(2)%**	**(2)%**	**$ 123**	$ 126	**(2)%**
Metrics:										
Average loans	**$ 38,038**	$ 40,931	$ 42,818	$ 45,832	$ 44,329	**(7)%**	**(14)%**	**$ 40,578**	$ 44,373	**(9)%**
Average deposits	**$ 198,299**	$ 200,417	$197,690	$213,531	$ 220,316	**(1)%**	**(10)%**	**$ 198,796**	$ 219,344	**(9)%**
AUC/A at period end *(in trillions) (b)*	**$ 32.2**	$ 31.1	$ 30.6	$ 29.9	$ 30.5	**4 %**	**6 %**	**$ 32.2**	$ 30.5	**6 %**
Market value of securities on loan at period end *(in billions) (c)*	**$ 382**	$ 336	$ 314	$ 296	$ 288	**14 %**	**33 %**	**$ 382**	$ 288	**33 %**
Asset servicing:										
Estimated new business wins (AUC/A) *(in billions)*	**$ 166**	$ 152	$ 109	$ 141	$ 150					
Clearing services:										
Average active clearing accounts (U.S. platform) *(in thousands)*	**6,203**	6,159	6,058	5,960	5,942	**1 %**	**4 %**			
Average long-term mutual fund assets (U.S. platform)	**$ 500,998**	$ 480,532	$460,977	$438,460	$ 443,112	**4 %**	**13 %**			
Average investor margin loans (U.S. platform)	**$ 8,886**	$ 9,812	$ 10,740	$ 10,562	$ 10,834	**(9)%**	**(18)%**			
Depositary Receipts:										
Number of sponsored programs	**938**	1,025	1,050	1,062	1,094	**(8)%**	**(14)%**			
Broker-Dealer:										
Average tri-party repo balances *(in billions)*	**$ 2,534**	$ 2,498	$ 2,373	$ 2,307	$ 2,212	**1 %**	**15 %**			

(a) Other revenue includes investment management fees, financing-related fees, distribution and servicing revenue and investment and other income.

(b) Includes the AUC/A of CIBC Mellon of $1.3 trillion at Sept. 30, 2017 and $1.2 trillion at June 30, 2017, March 31, 2017, Dec. 31, 2016 and Sept. 30, 2016.

(c) 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, 2017, $66 billion at June 30, 2017, $65 billion at March 31, 2017, $63 billion at Dec. 31, 2016 and $64 billion at Sept. 30, 2016.

N/M - Not meaningful.

Business description

BNY Mellon Investment Services provides business and technology solutions across the investments process to financial institutions, corporations, foundations and endowments, public funds and government agencies.

We are one of the leading global investment services providers with $32.2 trillion of AUC/A at Sept. 30, 2017.

- We are the primary provider of U.S. government securities clearance and a provider of non-U.S. government securities clearance. We provide services to settle securities transactions in approximately 100 markets.
- We are a leading provider of tri-party repo collateral services with approximately $2.5 trillion serviced globally and approximately $1.6 trillion of the U.S. tri-party repo market.
- 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 $3.3 trillion in 33 separate markets.
- We serve as trustee and/or paying agent on more than 50,000 debt-related issuances globally.
- As one of the largest providers of depositary receipts services in the world, we served as depositary for 938 sponsored American and global depositary receipts programs at Sept. 30, 2017, acting in partnership with leading companies from 59 countries.

We offer asset servicing, clearing services, issuer services and treasury services to our clients. BNY Mellon's comprehensive suite of asset servicing solutions includes: custody, foreign exchange, fund services, securities finance, investment manager outsourcing, performance and risk analytics, alternative investment services, broker-dealer services, and collateral and liquidity services.

As one of the largest fund accounting providers and a trusted partner, we offer services to ensure the safekeeping of assets in capital markets globally. These services include financial reporting, tax reporting services, calculating and reporting net asset values ("NAV"), computing yields, maintaining brokerage account records, and providing administrative support to clients so they may meet their Securities and Exchange Commission ("SEC") and other compliance requirements.

Our alternative investment services and structured products business provides a full range of solutions for alternative investment managers, including prime custody, fund accounting, and client and regulatory reporting services. We also support exchange-traded funds and unit investment trusts, providing fund administration, custody, basket creation and dissemination, authorized participant interaction and order processing, among other services.

Securities finance delivers solutions on both an agency and principal basis. The principal finance program supports a diverse group of client segments, including hedge and liquid alternative funds and other institutional clients.

In liquidity services, our market leading portal enables cash investments for institutional clients via money market funds, deposit products, and direct investments in money market securities, and includes fund research and analytics.

Our broker-dealer services business clears and settles equity and fixed-income transactions globally and serves as custodian for tri-party repo collateral worldwide.

Clearing services, primarily Pershing LLC, an indirect subsidiary of BNY Mellon ("Pershing") and its affiliates, provides business and technology solutions to financial organizations globally, delivering dependable operational support, robust trading services, flexible technology, an expansive array of investment and retirement solutions, practice management support and service excellence.

Our collateral services include collateral management, administration and segregation. We offer innovative solutions, like new collateral types and transaction structures, automation and efficiency, access to global markets, and industry expertise, to help financial institutions and institutional investors mine opportunities from liquidity, financing, risk and balance sheet challenges.

Our corporate trust business delivers a full range of issuer and related investor services, including trustee, paying agency, fiduciary, escrow and other financial services.

Our treasury services include customizable solutions and innovative technology that deliver high-quality cash management, payment and trade support for corporate and institutional global treasury needs. We are a leading provider to the debt capital markets, providing customized and market-driven solutions to investors, bondholders and lenders.

We also provide credit facilities and solutions to support our clients globally.

Role of BNY Mellon, as a trustee, for mortgage-backed securitizations

BNY Mellon acts as trustee and document custodian for certain mortgage-backed security ("MBS") securitization trusts. The role of trustee for MBS securitizations is limited; our primary role as trustee is to calculate and distribute monthly bond payments to bondholders. As a document custodian, we hold the mortgage, note, and related documents provided to us by the loan originator or seller and provide periodic reporting to these parties. BNY Mellon, either as document custodian or trustee, does not receive mortgage underwriting files (the files that contain information related to the creditworthiness of the borrower). As trustee or custodian, we have no responsibility or liability for the quality of the portfolio; we are liable only for performance of our limited duties as described above and in the trust documents. BNY Mellon is indemnified by the servicers or directly from trust assets under the governing agreements. BNY Mellon may appear as the named plaintiff in legal actions brought by servicers in foreclosure and other related proceedings because the trustee is the nominee owner of the mortgage loans within the trusts.

BNY Mellon also has been named as a defendant in legal actions brought by MBS investors alleging that the trustee has expansive duties under the governing agreements, including to investigate and pursue claims against other parties to the MBS transaction. For additional information on our legal proceedings related to this matter, see Note 17 of the Notes to Consolidated Financial Statements.

Review of financial results

AUC/A increased 6% compared with Sept. 30, 2016 to a record $32.2 trillion, primarily reflecting higher market values, the favorable impact of a weaker U.S. dollar and net new business. AUC/A consisted of 37% equity securities and 63% fixed income securities at Sept. 30, 2017, compared with 34% equity securities and 66% fixed income securities at Sept. 30, 2016.

Investment services fees increased 2% compared with the third quarter of 2016 and 3% (unannualized) compared with the second quarter of 2017, reflecting the following factors:

- Asset servicing fees (custody, fund services, broker-dealer services, securities finance, collateral and liquidity services) increased 4% compared with the third quarter of 2016 and 2% (unannualized) compared with the second quarter of 2017. The increase compared with the third quarter of 2016 primarily reflects higher equity market values and net new business, including growth in collateral management, partially offset by the impact of downsizing the retail UK transfer agency business. The increase compared with the second quarter of 2017 was primarily driven by the favorable impact of a weaker U.S. dollar and higher equity market values.
- Clearing services fees increased 10% compared with the third quarter of 2016 primarily driven by higher money market fees and growth in long-term mutual fund assets. Clearing services fees decreased 3% (unannualized) compared with the second quarter of 2017 primarily reflecting lower clearance volumes.
- Issuer services fees (Depositary Receipts and Corporate Trust) decreased 14% compared with the third quarter of 2016 and increased 20% (unannualized) compared with the second quarter of 2017. The decrease compared with the third quarter of 2016 primarily reflects fewer corporate actions, lost business and lower fees due to a reduction in shares outstanding in certain depositary receipts programs, partially offset by higher Corporate Trust revenue. The increase compared with the second quarter of 2017 primarily reflects seasonality in Depositary Receipts revenue and higher Corporate Trust revenue.
- Treasury services fees (global payments, trade finance and cash management) increased 4% compared with the third quarter of 2016 and 1% (unannualized) compared with the second quarter of 2017 primarily reflecting higher payment volumes, partially offset by higher compensating

balance credits provided to clients, which reduces fee revenue and increases 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 new regulations and reduce their operating costs.

Foreign exchange and other trading revenue decreased 13% compared with the third quarter of 2016 primarily reflecting lower volatility and lower Depositary Receipt-related foreign exchange activity, partially offset by higher volumes. Foreign exchange and other trading revenue increased 6% (unannualized) compared with the second quarter of 2017 primarily reflecting higher volumes.

Other revenue decreased 4% compared with the third quarter of 2016 and increased 4% (unannualized) compared with the second quarter of 2017. The third quarter of 2016 results include termination fees related to the clearing services business. Both comparisons reflect higher payments from Investment Management related to higher money market fees.

Net interest revenue increased 9% compared with the third quarter of 2016 primarily reflecting the impact of the higher interest rates, partially offset by lower average deposits and loans. Net interest revenue increased 2% (unannualized) compared with the second quarter of 2017 primarily reflecting higher interest rates.

Noninterest expense, excluding amortization of intangible assets, increased 1% compared with the third quarter of 2016 and decreased 3% (unannualized) compared with the second quarter of 2017. The increase primarily reflects additional technology related-costs, partially offset by lower staff expense. The decrease primarily reflects lower consulting expense, volume-related clearing and sub-custodian expenses and lower business development expense.

Year-to-date 2017 compared with year-to-date 2016

Income before taxes increased 6% compared with the first nine months of 2016, primarily driven by revenue growth of 3%, partially offset by a 3% increase in noninterest expense, excluding amortization of intangible assets. Fee and other revenue increased 2% primarily reflecting higher clearing services and asset servicing fees, partially offset by lower foreign exchange and other trading revenue. The increase in clearing services fees primarily reflects higher money market fees and growth in long-term mutual fund assets. The increase in asset servicing fees primarily reflects net new business, including growth in collateral management and higher equity market values, partially offset by the impact of downsizing the retail UK transfer agency business and the unfavorable impact of a stronger U.S. dollar. The decrease in foreign exchange and other trading revenue primarily reflects lower volatility and lower Depositary Receipt-related foreign exchange activity. Net interest revenue increased 8% primarily due to higher interest rates, partially offset by lower average deposits. Noninterest expense, excluding amortization of intangible assets, increased 3% primarily reflecting higher expenses from regulatory and compliance costs and additional technology investments, partially offset by lower litigation expense and the favorable impact of a stronger U.S. dollar.

Other segment

(in millions)	3Q17	2Q17	1Q17	4Q16	3Q16	YTD17	YTD16
Revenue:							
Fee and other revenue	**$ 69**	$ 113	$ 72	$ 42	$ 100	**$ 254**	$ 324
Net interest (expense) revenue	**(20)**	(22)	(1)	38	(23)	**(43)**	(24)
Total revenue	**49**	91	71	80	77	**211**	300
Provision for credit losses	**(2)**	(4)	(8)	1	(20)	**(14)**	(26)
Noninterest expense (ex. M&I and restructuring charges)	**77**	28	106	108	88	**211**	282
M&I and restructuring charges	**—**	—	1	2	—	**1**	2
Total noninterest expense	**77**	28	107	110	88	**212**	284
(Loss) income before taxes	**$ (26)**	$ 67	$ (28)	$ (31)	$ 9	**$ 13**	$ 42
(Loss) income before taxes (ex. M&I and restructuring charges) – Non-GAAP	**$ (26)**	$ 67	$ (27)	$ (29)	$ 9	**$ 14**	$ 44
Average loans and leases	**$ 1,182**	$ 1,302	$ 1,341	$ 2,142	$ 1,941	**$ 1,275**	$ 1,853

See page 26 of our 2016 Annual Report for additional information on the Other segment.

Review of financial results

Total fee and other revenue decreased $31 million compared with the third quarter of 2016 and $44 million compared with the second quarter of 2017. The decrease compared with the third quarter of 2016 primarily reflects lower other income, driven by increased losses on our investments in renewable energy, and lower asset-related and net securities gains. The decrease compared with the second quarter of 2017 primarily reflects lease-related gains recorded in the second quarter of 2017 and lower income from corporate/bank-owned life insurance, partially offset by higher net securities gains.

Net interest expense decreased $3 million compared with the third quarter of 2016 and $2 million compared with the second quarter of 2017. Both decreases primarily reflect higher interest rates.

Noninterest expense, excluding M&I and restructuring charges, decreased $11 million compared with the third quarter of 2016 and increased $49 million compared with the second quarter of 2017. The decrease was primarily driven by lower litigation and other expenses. The increase was primarily driven by higher staff expense resulting from a methodology change in the second quarter of 2017 for allocating employee benefits expense to the business segments with no impact to consolidated results. The increase was partially offset by lower other and professional, legal and other purchased services expenses.

Year-to-date 2017 compared with year-to-date 2016

Income before taxes decreased $29 million compared with the first nine months of 2016. Fee and other revenue decreased $70 million primarily reflecting lower net securities gains and lower other income driven by increased pre-tax losses on our investments in renewable energy. Net interest expense increased $19 million reflecting the impact of higher crediting rates to the businesses. Noninterest expense, excluding M&I and restructuring charges, decreased $71 million primarily reflecting lower staff, other and litigation expenses.

Critical accounting estimates

Our significant accounting policies are described in Note 1 of the Notes to Consolidated Financial Statements in our 2016 Annual Report. Our critical accounting estimates are those related to the allowance for loan losses and allowance for lending-related commitments, fair value of financial instruments and derivatives, other-than-temporary impairment ("OTTI"), goodwill and other intangibles, and pension accounting, as referenced below.

Critical policy	Reference
Allowance for loan losses and allowance for lending-related commitments	2016 Annual Report, pages 29-31.
Fair value of financial instruments and derivatives	2016 Annual Report, pages 31-32.
OTTI	2016 Annual Report, page 33.
Goodwill and other intangibles	Second quarter 2017 Form 10-Q, page 24.
Pension accounting	2016 Annual Report, pages 34-36.

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 ensure that the overall liquidity risk, including intra-day liquidity risk, that we undertake 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, 2017, total assets were $354 billion compared with $333 billion at Dec. 31, 2016. The increase in total assets was primarily driven by higher interest-bearing deposits with the Federal Reserve and other central banks, partially offset by lower loans. Deposits totaled $231 billion at Sept. 30, 2017 and $221 billion at Dec. 31, 2016, and were driven by higher interest-bearing deposits in non-U.S. offices. At Sept. 30, 2017, total interest-bearing deposits were 50% of total interest-earning assets, compared with 51% at Dec. 31, 2016.

At Sept. 30, 2017, we had $43 billion of liquid funds (which include interest-bearing deposits with banks and federal funds sold and securities purchased under resale agreements) and $82 billion of cash (including $76 billion of overnight deposits with the Federal Reserve and other central banks) for a total of $125 billion of available funds. This compares with available funds of $104 billion at Dec. 31, 2016. Total available funds as a percentage of total assets were 35% at Sept. 30, 2017 compared with 31% at Dec. 31, 2016. For additional information on our liquid funds and available funds, see "Liquidity and dividends."

Investment securities were $120.0 billion, or 34% of total assets, at Sept. 30, 2017, compared with $114.7 billion, or 34% of total assets, at Dec. 31, 2016. The increase in investment securities primarily reflects additional investments in commercial mortgage-backed securities ("MBS") and residential mortgage-backed securities ("RMBS"), partially offset by fewer investments in consumer asset-backed securities ("ABS"). For additional information on our investment securities portfolio, see "Investment securities" and Note 4 of the Notes to Consolidated Financial Statements.

Loans were $59.1 billion, or 17% of total assets, at Sept. 30, 2017, compared with $64.5 billion, or 19% of total assets, at Dec. 31, 2016. The decrease in loans was primarily driven by lower margin loans and loans to financial institutions. For additional information on our loan portfolio, see "Loans" and Note 5 of the Notes to Consolidated Financial Statements.

Long-term debt totaled $28.4 billion at Sept. 30, 2017 and $24.5 billion at Dec. 31, 2016. The increase reflects issuances of $4.75 billion, partially offset by the maturity of $500 million and the redemption of trust preferred securities. For additional information on long-term debt, see "Liquidity and dividends."

The Bank of New York Mellon Corporation total shareholders' equity increased to $40.5 billion from $38.8 billion at Dec. 31, 2016. For additional information on our capital, see "Capital."

Country risk exposure

We have exposure to certain countries with higher risk profiles. Exposure described below reflects the country of operations and risk of the immediate counterparty. We continue to monitor our exposure to these and other countries as part of our risk management process. See "Risk management" in our 2016 Annual Report for additional information on how our exposures are managed.

BNY Mellon has a limited economic interest in the performance of assets of consolidated investment management funds, and therefore they are excluded from this disclosure.

Italy and Spain

Events in recent years have resulted in increased focus on Italy and Spain. We had net exposure of $1.3 billion to Italy and $2.0 billion to Spain at Sept. 30, 2017. We had net exposure of $1.2 billion to Italy and $2.0 billion to Spain at Dec. 31, 2016. At both Sept. 30, 2017 and Dec. 31, 2016, exposure to Italy and Spain primarily consisted of investment grade sovereign debt. Investment securities exposure totaled $1.2 billion in Italy and $1.7 billion in Spain at Sept. 30, 2017 and $1.1 billion in Italy and $1.8 billion in Spain at Dec. 31, 2016.

Brazil

Current conditions in Brazil have resulted in increased focus on its economic and political stability. We have operations in Brazil providing investment services and investment management services. In addition, at Sept. 30, 2017 and Dec. 31, 2016, we had total net exposure to Brazil of $1.4 billion and $1.3 billion, respectively. This included $1.2 billion and $1.3 billion, respectively, in loans, which are primarily short-term trade finance loans extended to large financial institutions. At Sept. 30, 2017 and Dec. 31, 2016, we held $140 million and $73 million, respectively, of noninvestment grade sovereign debt.

Turkey

Events in recent years have resulted in increased focus on exposure to Turkey. We mainly provide treasury and issuer services, as well as foreign exchange products primarily to the top-10 largest financial institutions in the country. As of Sept. 30, 2017 and Dec. 31, 2016, our exposure totaled $780 million and $713 million, respectively, consisting primarily of syndicated credit facilities and trade finance loans.

Investment securities

In the discussion of our investment 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 for our investment securities portfolio could indicate increased credit risk for us and could be accompanied by a reduction in the fair value of our investment securities portfolio.

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

Investment securities portfolio	June 30, 2017	3Q17 change in unrealized gain (loss)	**Sept. 30, 2017**		Fair value as a % of amortized cost *(a)*	Unrealized gain (loss)	Ratings *(b)*				
(dollars in millions)	Fair value		Amortized cost	Fair value			AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Not rated
Agency RMBS	$ 49,544	$ 81	**$ 50,121**	**$ 49,917**	100%	$ (204)	100%	—%	—%	—%	—%
U.S. Treasury	25,325	(5)	**25,256**	**25,159**	100	(97)	100	—	—	—	—
Sovereign debt/sovereign guaranteed *(c)*	14,025	6	**13,951**	**14,102**	101	151	72	6	21	1	—
Non-agency RMBS *(d)*	1,239	9	**885**	**1,185**	84	300	—	1	3	87	9
Non-agency RMBS	627	9	**555**	**594**	97	39	7	4	17	71	1
European floating rate notes *(e)*	523	(1)	**393**	**387**	98	(6)	63	37	—	—	—
Commercial MBS	10,574	5	**11,051**	**11,033**	100	(18)	99	1	—	—	—
State and political subdivisions	3,299	1	**3,109**	**3,141**	101	32	80	17	—	—	3
Foreign covered bonds *(f)*	2,471	1	**2,612**	**2,626**	101	14	100	—	—	—	—
Corporate bonds	1,318	4	**1,262**	**1,275**	101	13	17	69	14	—	—
CLOs	2,642	1	**2,542**	**2,550**	100	8	99	—	—	1	—
U.S. government agencies	2,210	2	**2,480**	**2,496**	101	16	100	—	—	—	—
Consumer ABS	1,330	1	**1,152**	**1,157**	100	5	89	4	5	2	—
Other *(g)*	3,758	(8)	**4,118**	**4,122**	100	4	81	17	—	—	2
Total investment securities	$ 118,885 *(h)*	**$ 106**	**$ 119,487**	**$ 119,744** *(h)*	**100%**	**$ 257** *(h)(i)*	**93%**	**3%**	**3%**	**1%**	**—%**

(a) *Amortized cost before impairments.*
(b) *Represents ratings by S&P, or the equivalent.*
(c) *Primarily consists of exposure to UK, France, Germany, Spain, Italy and the Netherlands.*
(d) *These RMBS were included in the former Grantor Trust and were marked-to-market in 2009. We believe these RMBS would receive higher credit ratings if these ratings incorporated, as additional credit enhancements, the difference between the written-down amortized cost and the current face amount of each of these securities.*
(e) *Includes RMBS and commercial MBS. Primarily consists of exposure to UK and the Netherlands.*
(f) *Primarily consists of exposure to Canada, Australia, the Netherlands, Norway and UK.*
(g) *Includes commercial paper with a fair value of $700 million and $700 million and money market funds with a fair value of $896 million and $939 million at June 30, 2017 and Sept. 30, 2017, respectively.*
(h) *Includes net unrealized losses on derivatives hedging securities available-for-sale of $251 million at June 30, 2017 and $238 million at Sept. 30, 2017.*
(i) *Unrealized gains of $324 million at Sept. 30, 2017 related to available-for-sale securities, net of hedges.*

The fair value of our investment securities portfolio was $119.7 billion at Sept. 30, 2017, compared with $114.3 billion at Dec. 31, 2016. The higher level of securities primarily reflects additional investments in commercial MBS and agency RMBS, partially offset by a decrease in consumer ABS.

At Sept. 30, 2017, the total investment securities portfolio had a net unrealized pre-tax gain of $257 million compared with a pre-tax loss of $221 million at Dec. 31, 2016, including the impact of related hedges. The net unrealized pre-tax gain was primarily driven by a decrease in long-term interest rates.

The unrealized gain, net of tax, on our available-for-sale investment securities portfolio included in accumulated other comprehensive income ("OCI") was $226 million at Sept. 30, 2017, compared with $45 million at Dec. 31, 2016.

At Sept. 30, 2017, 93% of the securities in our portfolio were rated AAA/AA-, unchanged compared with Dec. 31, 2016.

We routinely test our investment securities for OTTI. See "Critical accounting estimates" for additional information regarding OTTI.

The following table presents the amortizable purchase premium (net of discount) related to the investment securities portfolio and accretable discount related to the 2009 restructuring of the investment securities portfolio.

Net premium amortization and discount accretion of investment securities *(a)* *(dollars in millions)*	**3Q17**	2Q17	1Q17	4Q16	3Q16
Amortizable purchase premium (net of discount) relating to investment securities:					
Balance at period end	**$ 2,053**	$ 2,111	$ 2,058	$ 2,188	$ 2,267
Estimated average life remaining at period end *(in years)*	**5.0**	5.0	4.9	4.9	4.5
Amortization	**$ 140**	$ 134	$ 138	$ 146	$ 163
Accretable discount related to the prior restructuring of the investment securities portfolio:					
Balance at period end	**$ 302**	$ 279	$ 299	$ 315	$ 331
Estimated average life remaining at period end *(in years)*	**6.5**	6.3	6.2	6.2	5.9
Accretion	**$ 24**	$ 25	$ 25	$ 25	$ 24

(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.

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

Net securities gains (losses) *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Agency RMBS	**$ 4**	$ —	$ 9	**$ 5**	$ 22
U.S. Treasury	**1**	(1)	(1)	**—**	4
Foreign covered bonds	**—**	—	—	**—**	10
Non-agency RMBS	**(1)**	—	(1)	**(2)**	1
Other	**15**	1	17	**26**	28
Total net securities gains	**$ 19**	$ —	$ 24	**$ 29**	$ 65

On a quarterly basis, we perform our impairment analysis using several factors, including projected loss severities and default rates. In the third quarter of 2017, this analysis resulted in other-than-temporary credit losses of $1 million primarily in our non-agency RMBS portfolio. At Sept. 30, 2017, if we were to increase or decrease each of our projected loss severity and default rates by 100 basis points on each of the positions in our non-agency RMBS portfolio, including the securities previously held by the Grantor Trust, credit-related impairment charges on these securities would have increased or decreased by less than $1 million (pre-tax). See Note 4 of the Notes to Consolidated Financial Statements for the projected weighted-average default rates and loss severities.

The following table shows the fair value of the European floating rate notes by geographical location at Sept. 30, 2017. The net unrealized loss on these securities was $6 million at Sept. 30, 2017, compared with $11 million at Dec. 31, 2016.

European floating rate notes at Sept. 30, 2017 *(a)* *(in millions)*	RMBS	Other	Total fair value
United Kingdom	$ 169	$ 58	$ 227
Netherlands	160	—	160
Total fair value	$ 329	$ 58	$ 387

(a) Sixty-three percent of these securities are in the AAA to AA- ratings category.

See Note 14 of the Notes to Consolidated Financial Statements for details of securities by level in the fair value hierarchy.

Loans

Total exposure – consolidated	**Sept. 30, 2017**			Dec. 31, 2016		
(in billions)	**Loans**	**Unfunded commitments**	**Total exposure**	Loans	Unfunded commitments	Total exposure
Non-margin loans:						
Financial institutions	**$ 11.9**	**$ 32.7**	**$ 44.6**	$ 14.7	$ 33.7	$ 48.4
Commercial	**3.0**	**16.6**	**19.6**	2.6	17.5	20.1
Subtotal institutional	**14.9**	**49.3**	**64.2**	17.3	51.2	68.5
Wealth management loans and mortgages	**16.3**	**1.1**	**17.4**	15.6	1.3	16.9
Commercial real estate	**4.9**	**3.5**	**8.4**	4.7	3.2	7.9
Lease financings	**1.3**	**—**	**1.3**	1.7	—	1.7
Other residential mortgages	**0.7**	**—**	**0.7**	0.9	—	0.9
Overdrafts	**5.8**	**—**	**5.8**	5.5	—	5.5
Other	**1.3**	**—**	**1.3**	1.2	—	1.2
Subtotal non-margin loans	**45.2**	**53.9**	**99.1**	46.9	55.7	102.6
Margin loans	**13.9**	**—**	**13.9**	17.6	0.1	17.7
Total	**$ 59.1**	**$ 53.9**	**$ 113.0**	$ 64.5	$ 55.8	$ 120.3

At Sept. 30, 2017, total exposures of $113.0 billion decreased 6% compared with Dec. 31, 2016, primarily reflecting lower margin loans and exposure to financial institutions, partially offset by higher wealth management loans and mortgages.

Our financial institutions and commercial portfolios comprise our largest concentrated risk. These portfolios comprised 57% of our total exposure at both Sept. 30, 2017 and Dec. 31, 2016. Additionally, most of our overdrafts relate to financial institutions.

Financial institutions

The financial institutions portfolio is shown below.

Financial institutions portfolio exposure	**Sept. 30, 2017**					Dec. 31, 2016		
(dollar amounts in billions)	**Loans**	**Unfunded commitments**	**Total exposure**	**% Inv. grade**	**% due <1 yr.**	Loans	Unfunded commitments	Total exposure
Securities industry	**$ 2.9**	**$ 19.0**	**$ 21.9**	**99%**	**99%**	$ 3.8	$ 19.2	$ 23.0
Asset managers	**1.6**	**6.5**	**8.1**	**97**	**87**	1.5	6.2	7.7
Banks	**6.3**	**1.4**	**7.7**	**68**	**94**	7.9	2.0	9.9
Insurance	**0.1**	**3.4**	**3.5**	**99**	**17**	0.1	3.8	3.9
Government	**—**	**1.0**	**1.0**	**91**	**46**	0.1	0.9	1.0
Other	**1.0**	**1.4**	**2.4**	**98**	**45**	1.3	1.6	2.9
Total	**$ 11.9**	**$ 32.7**	**$ 44.6**	**93%**	**86%**	$ 14.7	$ 33.7	$ 48.4

The financial institutions portfolio exposure was $44.6 billion at Sept. 30, 2017, compared with $48.4 billion at Dec. 31, 2016. The decrease primarily reflects lower exposure in the banks and securities industry portfolios.

Financial institution exposures are high-quality, with 93% of the exposures meeting the investment grade equivalent criteria of our internal credit rating classification at Sept. 30, 2017. 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. The exposure to financial institutions is generally short-term. Of these exposures, 86% expire within one year and 61% expire within 90 days. In addition, 80% of the financial institutions exposure is secured. For example, securities industry clients and asset managers often borrow against marketable securities held in custody.

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.

At Sept. 30, 2017, the secured intraday credit provided to dealers in connection with their tri-party repo activity totaled $18.5 billion and was primarily included in the securities industry portfolio. Dealers secure the outstanding intraday credit with high-quality liquid collateral having a market value in excess of the amount of the outstanding credit.

Our bank exposure primarily relates to our global trade finance. These exposures are short-term in nature, with 94% due in less than one year. The investment grade percentage of our bank exposure was 68% at Sept. 30, 2017, compared with 69% at Dec. 31, 2016.

The asset manager portfolio exposure was high-quality with 97% of the exposures meeting our investment grade equivalent ratings criteria as of Sept. 30, 2017. These exposures are generally short-term liquidity facilities, with the vast majority to regulated mutual funds.

Commercial

The commercial portfolio is presented below.

Commercial portfolio exposure	**Sept. 30, 2017**					Dec. 31, 2016		
(dollar amounts in billions)	**Loans**	**Unfunded commitments**	**Total exposure**	**% Inv. grade**	**% due <1 yr.**	Loans	Unfunded commitments	Total exposure
Manufacturing	**$ 1.4**	**$ 6.3**	**$ 7.7**	**96%**	**22%**	$ 1.1	$ 6.7	$ 7.8
Services and other	**0.9**	**4.4**	**5.3**	**95**	**28**	0.6	4.3	4.9
Energy and utilities	**0.6**	**4.5**	**5.1**	**95**	**7**	0.6	4.7	5.3
Media and telecom	**0.1**	**1.4**	**1.5**	**95**	**15**	0.3	1.8	2.1
Total	**$ 3.0**	**$ 16.6**	**$ 19.6**	**95%**	**19%**	$ 2.6	$ 17.5	$ 20.1

The commercial portfolio exposure decreased to $19.6 billion at Sept. 30, 2017, from $20.1 billion at Dec. 31, 2016, primarily reflecting lower exposure in the media and telecom portfolio.

Utilities-related exposure represents approximately 78% of the energy and utilities portfolio. The remaining exposure in the energy and utilities portfolio, which includes exposure to exploration and production companies, refining, pipelines and integrated companies, was 76% investment grade at both Sept. 30, 2017 and Dec. 31, 2016.

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	**Sept. 30, 2017**	June 30, 2017	March 31, 2017	Dec. 31, 2016	Sept. 30, 2016
Financial institutions	**93%**	93%	93%	92%	93%
Commercial	**95%**	96%	95%	94%	94%

Our credit strategy is to focus on investment grade clients that are active users of our non-credit services. The execution of our strategy has resulted in 93% of our financial institutions portfolio and 95% of our commercial portfolio rated as investment grade at Sept. 30, 2017.

Wealth management loans and mortgages

Our wealth management exposure was $17.4 billion at Sept. 30, 2017, compared with $16.9 billion at Dec. 31, 2016. 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. In the wealth management portfolio, less than 1% of the mortgages were past due at Sept. 30, 2017.

At Sept. 30, 2017, the wealth management mortgage portfolio consisted of the following geographic concentrations: California - 24%; New York - 19%; Massachusetts - 11%; Florida - 8%; and other - 38%.

Commercial real estate

Our commercial real estate exposure totaled $8.4 billion at Sept. 30, 2017, compared with $7.9 billion at Dec. 31, 2016. 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, 2017, 59% of our commercial real estate portfolio was secured. The secured portfolio is diverse by project type, with 45% secured by residential buildings, 35% secured by office buildings, 12% secured by retail properties and 8% secured by other categories. Approximately 97% of the unsecured portfolio consists of real estate investment trusts ("REITs") and real estate operating companies, which are both predominantly investment grade.

At Sept. 30, 2017, our commercial real estate portfolio consists of the following concentrations: New York metro - 40%; REITs and real estate operating companies - 40%; and other - 20%.

Lease financings

The leasing portfolio exposure totaled $1.3 billion at Sept. 30, 2017 compared with $1.7 billion at Dec. 31, 2016. At Sept. 30, 2017, approximately 94% of the leasing portfolio exposure was investment grade, or investment grade equivalent.

At Sept. 30, 2017, the lease financings portfolio consisted of exposures backed by well-diversified assets, including large-ticket transportation equipment.

Other residential mortgages

The other residential mortgages portfolio primarily consists of 1-4 family residential mortgage loans and totaled $741 million at Sept. 30, 2017 and $854 million at Dec. 31, 2016. Included in this portfolio at Sept. 30, 2017 are $181 million of mortgage loans purchased in 2005, 2006 and the first quarter of 2007 that are predominantly prime mortgage loans, with a small portion of Alt-A loans. As of Sept. 30, 2017, the purchased loans in this portfolio had a weighted-average loan-to-value ratio of 76% at origination and 11% of the serviced loan balance was at least 60 days delinquent. The properties securing the prime and Alt-A mortgage loans were located (in order of concentration) in California, Florida, Virginia, the tri-state area (New York, New Jersey and Connecticut) and Maryland.

To determine the projected loss on the prime and Alt-A mortgage portfolios, we calculate the total estimated defaults of these mortgages and multiply that amount by an estimate of realizable value upon sale in the marketplace (severity).

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients. Overdrafts occur on a daily basis in the custody and securities clearance business 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 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. Margin loans included $4.2 billion at Sept. 30, 2017 and $6.3 billion at Dec. 31, 2016 related to a term loan program that offers fully collateralized loans to broker-dealers.

Asset quality and 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.

Allowance for credit losses activity *(dollar amounts in millions)*	**Sept. 30, 2017**	June 30, 2017	Dec. 31, 2016	Sept. 30, 2016
Non-margin loans	**$ 45,196**	$ 47,516	$ 46,868	$ 48,411
Margin loans	**13,872**	14,157	17,590	17,557
Total loans	**$ 59,068**	$ 61,673	$ 64,458	$ 65,968
Beginning balance of allowance for credit losses	**$ 270**	$ 276	$ 274	$ 280
Provision for credit losses	**(6)**	(7)	7	(19)
Net recoveries:				
Other residential mortgages	**1**	1	—	—
Financial institutions	**—**	—	—	13
Net recoveries	**1**	1	—	13
Ending balance of allowance for credit losses	**$ 265**	$ 270	$ 281	$ 274
Allowance for loan losses	**$ 161**	$ 165	$ 169	$ 148
Allowance for lending-related commitments	**104**	105	112	126
Allowance for loan losses as a percentage of total loans	**0.27%**	0.27%	0.26%	0.22%
Allowance for loan losses as a percentage of non-margin loans	**0.36**	0.35	0.36	0.31
Total allowance for credit losses as a percentage of total loans	**0.45**	0.44	0.44	0.42
Total allowance for credit losses as a percentage of non-margin loans	**0.59**	0.57	0.60	0.57

Net recoveries were $1 million in the third quarter of 2017 and second quarter of 2017. Net recoveries in the third quarter of 2016 of $13 million were recorded in the financial institutions portfolio.

The provision for credit losses was a credit of $6 million in the third quarter of 2017, a credit of $7 million in the second quarter of 2017 and a credit of $19 million in the third quarter of 2016.

The total allowance for credit losses was $265 million at Sept. 30, 2017, $281 million at Dec. 31, 2016 and $274 million at Sept. 30, 2016. The ratio of the total allowance for credit losses to non-margin loans was 0.59% at Sept. 30, 2017, 0.60% at Dec. 31, 2016 and 0.57% at Sept. 30, 2016. The ratio of the allowance for loan losses to non-margin loans was 0.36% at Sept. 30, 2017, 0.36% at Dec. 31, 2016 and 0.31% at Sept. 30, 2016.

We had $13.9 billion of secured margin loans on our balance sheet at Sept. 30, 2017 compared with $17.6 billion at Dec. 31, 2016 and $17.6 billion at Sept. 30, 2016. We have rarely suffered a loss on these types of loans and do not allocate any of our allowance for credit losses to them. As a result, we believe that the ratio of total allowance for credit losses 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 probable losses inherent in our credit portfolio. This evaluation process is subject to numerous estimates and judgments. For additional information on this process, see "Critical accounting estimates" in our 2016 Annual Report. 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" and Note 1 of the Notes to Consolidated Financial Statements, both in our 2016 Annual Report, we have allocated our allowance for credit losses as follows.

Allocation of allowance	**Sept. 30, 2017**	June 30, 2017	Dec. 31, 2016	Sept. 30, 2016
Commercial	**31%**	30%	29%	33%
Commercial real estate	**28**	28	26	23
Foreign	**13**	13	13	11
Financial institutions	**9**	8	9	11
Wealth management *(a)*	**8**	9	8	7
Other residential mortgages	**8**	8	10	10
Lease financing	**3**	4	5	5
Total	**100%**	100%	100%	100%

(a) Includes the allowance for 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 loss.

The credit rating assigned to each credit is a significant variable in determining the allowance. If each credit were rated one grade better, the allowance would have decreased by $65 million, while if each credit were rated one grade worse, the allowance would have increased by $109 million. Similarly, if the loss given default were one rating worse, the allowance would have increased by $41 million, while if the loss given default were one rating better, the allowance would have decreased by $29 million. For impaired credits, if the net carrying value of the loans was 10% higher or lower, the allowance would have decreased or increased by less than $1 million, respectively.

Nonperforming assets

The following table shows the distribution of nonperforming assets.

Nonperforming assets *(dollars in millions)*	**Sept. 30, 2017**	June 30, 2017	Dec. 31, 2016
Nonperforming loans:			
Other residential mortgages	**$ 80**	$ 84	$ 91
Wealth management loans and mortgages	**8**	10	8
Financial institutions	**2**	2	—
Lease financings	**—**	—	4
Total nonperforming loans	**90**	96	103
Other assets owned	**4**	4	4
Total nonperforming assets	**$ 94**	$ 100	$ 107
Nonperforming assets ratio	**0.16%**	0.16%	0.17%
Nonperforming assets ratio, excluding margin loans	**0.21**	0.21	0.23
Allowance for loan losses/nonperforming loans	**178.9**	171.9	164.1
Allowance for loan losses/nonperforming assets	**171.3**	165.0	157.9
Total allowance for credit losses/nonperforming loans	**294.4**	281.3	272.8
Total allowance for credit losses/nonperforming assets	**281.9**	270.0	262.6

Nonperforming assets activity *(in millions)*	**Sept. 30, 2017**	June 30, 2017	Dec. 31, 2016
Balance at beginning of quarter	**$ 100**	$ 107	$ 109
Additions	**3**	2	4
Return to accrual status	**(1)**	—	—
Charge-offs	**—**	—	—
Paydowns/sales	**(8)**	(9)	(6)
Balance at end of quarter	**$ 94**	$ 100	$ 107

Nonperforming assets decreased $13 million compared with Dec. 31, 2016, primarily reflecting lower other residential mortgages and lease financings.

The nonperforming assets ratio was 0.16% at Sept. 30, 2017, 0.16% at June 30, 2017 and 0.17% at Dec. 31, 2016. The ratio of the allowance for loan losses to nonperforming loans was 178.9% at Sept. 30, 2017, 171.9% at June 30, 2017 and 164.1% at Dec. 31, 2016. The ratio of the total allowance for credit losses to nonperforming loans was 294.4% at Sept. 30, 2017, 281.3% at June 30, 2017 and 272.8% at Dec. 31, 2016.

Deposits

Total deposits were $231.0 billion at Sept. 30, 2017, an increase of 4% compared with $221.5 billion at Dec. 31, 2016. The increase in deposits primarily reflects higher interest-bearing deposits in non-U.S. offices and noninterest-bearing deposits in U.S. offices, partially offset by lower interest-bearing deposits in U.S. offices.

Noninterest-bearing deposits were $80.4 billion at Sept. 30, 2017 compared with $78.3 billion at Dec. 31, 2016. Interest-bearing deposits were $150.6 billion at Sept. 30, 2017 compared with $143.2 billion at Dec. 31, 2016.

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 other borrowings, for example, securities sold under repurchase agreements, require the delivery of securities as collateral.

See “Liquidity and dividends” for a discussion of long-term debt and liquidity metrics that we monitor.

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, 2017**	June 30, 2017	Sept. 30, 2016
Maximum month-end balance during the quarter	**$ 21,850**	$ 19,786	$ 11,184
Average daily balance	**$ 21,403**	$ 17,970	$ 9,585
Weighted-average rate during the quarter	**1.30%**	0.84%	0.24%
Ending balance	**$ 10,314**	$ 10,934	$ 8,052
Weighted-average rate at period end	**1.35%**	0.93%	0.25%

Fluctuations of federal funds purchased and securities sold under repurchase agreements between periods resulted from changes in overnight borrowing opportunities. The increase in the weighted-average rates, compared with Sept. 30, 2016, primarily reflects increases in the Fed Funds effective rate.

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, 2017**	June 30, 2017	Sept. 30, 2016
Maximum month-end balance during the quarter	**$ 21,563**	$ 21,622	$ 21,162
Average daily balance *(a)*	**$ 21,280**	$ 21,078	$ 20,616
Weighted-average rate during the quarter *(a)*	**0.42%**	0.30%	0.07%
Ending balance	**$ 21,176**	$ 21,622	$ 21,162
Weighted-average rate at period end	**0.43%**	0.34%	0.07%

(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 $18,516 million in the third quarter of 2017, $20,609 million in the second quarter of 2017 and $16,873 million in the third quarter of 2016.

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

Information related to commercial paper is presented below.

Commercial paper	Quarter ended		
(dollars in millions)	**Sept. 30, 2017**	June 30, 2017	Sept. 30, 2016
Maximum month-end balance during the quarter	**$ 4,277**	$ 2,193	$ 1,000
Average daily balance	**$ 2,736**	$ 2,215	$ 1,173
Weighted-average rate during the quarter	**1.15%**	0.95%	0.35%
Ending balance	**$ 2,501**	$ 876	$ —
Weighted-average rate at period end	**1.18%**	0.98%	—%

The Bank of New York Mellon, our largest bank subsidiary, issues commercial paper that matures within 397 days from date of issue and is not redeemable prior to maturity or subject to voluntary prepayment. The increase in commercial paper balances, compared with prior periods, primarily reflects management of overall liquidity. The increase in weighted-average rates, compared with prior periods, primarily reflects increases in the Fed Funds effective rate and the issuance of higher-yielding term commercial paper.

Information related to other borrowed funds is presented below.

Other borrowed funds	Quarter ended		
(dollars in millions)	**Sept. 30, 2017**	June 30, 2017	Sept. 30, 2016
Maximum month-end balance during the quarter	**$ 3,353**	$ 2,379	$ 993
Average daily balance	**$ 2,197**	$ 1,193	$ 874
Weighted-average rate during the quarter	**1.38%**	1.24%	0.76%
Ending balance	**$ 3,353**	$ 1,338	$ 993
Weighted-average rate at period end	**1.56%**	1.69%	0.75%

Other borrowed funds primarily include borrowings from the Federal Home Loan Bank ("FHLB"), overdrafts of sub-custodian account balances in our Investment Services businesses, capital lease obligations and borrowings under lines of credit by our Pershing subsidiaries. Overdrafts typically relate to timing differences for settlements. The increase in other borrowed funds balances compared with both prior periods primarily reflects borrowings from the FHLB. The increase compared with Sept. 30, 2016 also reflects an increase in capital lease obligations as a result of converting an operating lease to a capital lease.

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 rollover 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 to cash, the inability to hold or raise cash, low overnight deposits, deposit run-off or contingent liquidity events.

We also manage liquidity risks on an intra-day basis. Intraday liquidity risk is the risk that BNY Mellon cannot access funds during the business day to make payments or settle immediate obligations, usually in real time. Intraday liquidity risk can arise from timing mismatches, market constraints from an inability to convert assets to cash, an inability to raise cash intraday, low overnight deposits and/or adverse stress 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.

The Parent's policy is to have access to sufficient unencumbered cash and cash equivalents at each quarter-end to cover 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, 2017, the Parent was in compliance with this policy. For additional information on our liquidity policy, see "Risk Management - Liquidity risk" in our 2016 Annual Report. Our overall approach to liquidity management is further described in "Liquidity and dividends" in our 2016 Annual Report.

We define available funds for internal liquidity management purposes as liquid funds (which include interest-bearing deposits with banks and federal funds sold and securities purchased under resale agreements), cash and due from banks, and interest-bearing deposits with the Federal Reserve and other central banks. The following table presents our total available funds, including liquid funds, at period end and on an average basis.

Available and liquid funds *(dollars in millions)*	**Sept. 30, 2017**	Dec. 31, 2016	Average **3Q17**	Average 2Q17	Average 3Q16
Available funds:					
Liquid funds:					
Interest-bearing deposits with banks	**$ 15,256**	$ 15,086	**$ 15,899**	$ 14,832	$ 14,066
Federal funds sold and securities purchased under resale agreements	**27,883**	25,801	**28,120**	26,873	26,376
Total liquid funds	**43,139**	40,887	**44,019**	41,705	40,442
Cash and due from banks	**5,557**	4,822	**4,961**	4,972	4,189
Interest-bearing deposits with the Federal Reserve and other central banks	**75,808**	58,041	**70,430**	69,316	74,102
Total available funds	**$ 124,504**	$ 103,750	**$ 119,410**	$ 115,993	$ 118,733
Total available funds as a percentage of total assets	**35%**	31%	**35%**	34%	34%

We had $43 billion of liquid funds at Sept. 30, 2017 and $41 billion at Dec. 31, 2016. Of the $43 billion in liquid funds held at Sept. 30, 2017, $15 billion was placed in interest-bearing deposits with large, highly rated global financial institutions with a weighted-average life to maturity of approximately nine days. Of the $15 billion, $3 billion was placed with banks in the Eurozone.

Total available funds were $125 billion at Sept. 30, 2017, compared with $104 billion at Dec. 31, 2016. The increase was primarily due to an increase in interest-bearing deposits with the Federal Reserve and other central banks.

On an average basis for the nine months ended Sept. 30, 2017 and the nine months ended Sept. 30, 2016, non-core sources of funds, such as money market rate accounts, federal funds purchased and securities sold under repurchase agreements, trading liabilities, commercial paper and other borrowings, were $31.9 billion and $25.9 billion, respectively. The increase primarily reflects an increase in securities sold under repurchase agreements.

Average foreign deposits, primarily from our European-based Investment Services business, were $94.1 billion for the nine months ended Sept. 30, 2017, compared with $105.6 billion for the nine months ended Sept. 30, 2016. Domestic savings, interest-bearing demand and time deposits averaged $40.0 billion for the nine months ended Sept. 30, 2017 and $47.8 billion for the nine months ended Sept. 30, 2016. The decrease primarily reflects a decrease in time deposits, partially offset by an increase in demand deposits.

Average payables to customers and broker-dealers were $19.4 billion for the nine months ended Sept. 30, 2017 and $16.9 billion for the nine months ended Sept. 30, 2016. Payables to customers and broker-dealers are driven by customer trading activity and market volatility.

Long-term debt averaged $27.1 billion for the nine months ended Sept. 30, 2017 and $22.8 billion for the nine months ended Sept. 30, 2016, reflecting issuances of long-term debt.

Average noninterest-bearing deposits decreased to $72.5 billion for the nine months ended Sept. 30, 2017 from $82.9 billion for the nine months ended Sept. 30, 2016, reflecting a decrease in client deposits.

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

In the second quarter of 2017, we entered into a support agreement with certain key subsidiaries to facilitate the provision of capital and liquidity resources in the event of material financial distress or failure. Pursuant to the support agreement, the Parent transferred its intercompany loans and most of its cash to our intermediate holding company (“IHC”), and will continue to transfer cash and other liquid financial assets to the IHC, subject to certain amounts retained by the Parent to meet its near-term cash needs. In connection with the initial transfer, the IHC issued unsecured subordinated funding notes to the Parent. The IHC has also provided the Parent with a committed line of credit that allows the Parent to draw funds necessary to service near-term obligations. The Parent’s and the IHC’s obligations under the support agreement are secured.

The Parent’s three 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 IHC.

The Parent had cash of $416 million at Sept. 30, 2017, compared with $8.7 billion at Dec. 31, 2016, a decrease of $8.3 billion, primarily reflecting the transfer of cash to the IHC pursuant to the support agreement.

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, 2017	Moody's	S&P	Fitch	DBRS
Parent:				
Long-term senior debt	A1	A	AA-	AA (low)
Subordinated debt	A2	A-	A+	A (high)
Preferred stock	Baa1	BBB	BBB	A (low)
Outlook - Parent:	Stable	Stable	Stable	Stable
The Bank of New York Mellon:				
Long-term senior debt	Aa2	AA-	AA	AA
Subordinated debt	Aa3	A	A+	NR
Long-term deposits	Aa1	AA-	AA+	AA
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	AA-	AA *(a)*	AA
Long-term deposits	Aa1	AA-	AA+	AA
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 $28.4 billion at Sept. 30, 2017 and $24.5 billion at Dec. 31, 2016. The increase reflects issuances of $4.75 billion, partially offset by the maturity of $500 million and the redemption of trust preferred securities. The Parent has $250 million of long-term debt that will mature in the remainder of 2017.

In August 2017, we issued $750 million of fixed rate senior subordinated notes maturing in 2029 at an annual interest rate of 3.30%.

The Bank of New York Mellon, our largest bank subsidiary, issues commercial paper that matures within 397 days from date of issue and is not redeemable prior to maturity or subject to voluntary prepayment. The average commercial paper borrowings were $2.7 billion in the third quarter of 2017 and $1.2 billion in the third quarter of 2016. Commercial paper outstanding was $2.5 billion at Sept. 30, 2017. There was no commercial paper outstanding at Dec. 31, 2016.

Subsequent to Sept. 30, 2017, our U.S. bank subsidiaries could declare dividends to the Parent of approximately $6.2 billion, without the need for a regulatory waiver. In addition, at Sept. 30, 2017, non-bank subsidiaries of the Parent had liquid assets of approximately $1.6 billion. Restrictions on our ability to obtain funds from our subsidiaries are discussed in more detail in "Supervision and Regulation - Capital Planning and Stress Testing - Payment of Dividends, Stock Repurchases and Other Capital Distributions" and in Note 17 of the Notes to Consolidated Financial Statements in our 2016 Annual Report.

Pershing has uncommitted lines of credit in place for liquidity purposes which are guaranteed by the Parent. Pershing has eight separate uncommitted lines of credit amounting to $1.5 billion in aggregate. There were no borrowings under these lines in the third quarter of 2017. Pershing Limited, an indirect UK-based subsidiary of BNY Mellon, has two separate uncommitted lines of credit amounting to $250 million in aggregate. Average borrowings under these lines were $6 million, in aggregate, in the third quarter of 2017.

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 deposits and government securities), the Company's cash generating fee-based business model, with fees representing approximately 80% of revenue, and the dividend capacity of our banking subsidiaries. Our double leverage ratio was 123.2% at Sept. 30, 2017 and 119.1% at Dec. 31, 2016, and within the range targeted by management.

Uses of funds

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

In August 2017, a quarterly cash dividend was paid to common shareholders of $0.24 per common share. Our common stock dividend payout ratio was 23% for the first nine months of 2017. The Federal Reserve's instructions for the 2017 CCAR provided that, for large bank holding companies like us, dividend payout ratios exceeding 30% of after-tax net income would receive particularly close scrutiny.

In the third quarter of 2017, we repurchased 12 million common shares at an average price of $52.74 per common share for a total cost of $650 million.

Liquidity coverage ratio

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 the consolidated HQLA at Sept. 30, 2017, and the average HQLA and average LCR for the third quarter of 2017.

Consolidated HQLA and LCR *(dollars in billions)*		**Sept. 30, 2017**
Securities *(a)*	$	**105**
Cash *(b)*		**70**
Total consolidated HQLA *(c)*	**$**	**175**
Total consolidated HQLA - average *(c)*	**$**	**162**
Average LCR		**119%**

(a) Primarily includes U.S. Treasury, U.S. agency, sovereign securities, securities of U.S. government-sponsored enterprises, investment-grade corporate debt and publicly traded common equity.
(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 $137 billion at Sept. 30, 2017 and averaged $126 billion for the third quarter of 2017.

The U.S. LCR rule became fully phased-in on Jan. 1, 2017 and requires BNY Mellon and each of our affected domestic bank subsidiaries to meet an LCR of at least 100%. The LCR for BNY Mellon and each of our domestic bank subsidiaries was compliant with the U.S. LCR requirements for the third quarter of 2017. For additional information on the LCR, see "Supervision and Regulation - Liquidity Standards - Basel III and U.S. Rules and Proposals" in our 2016 Annual Report.

We also perform liquidity stress tests to evaluate whether the Company maintains sufficient liquidity resources under multiple stress scenarios. Stress tests are based on scenarios that measure liquidity risks under unlikely but plausible conditions. We perform these tests under various time horizons ranging from one day to one year in a base case, as well as supplemental tests to determine whether the Company's liquidity is sufficient for severe market events and firm-specific events. Under our scenario testing program, the results of the tests indicate that the Company has sufficient liquidity.

As part of our resolution planning, we monitor, among other measures, our Resolution Liquidity Adequacy and Positioning ("RLAP"). The RLAP methodologies are designed to ensure that the liquidity needs of certain key subsidiaries in a stress environment can be met by available resources held at the entity or at the Parent or IHC, as applicable.

Statement of cash flows

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

Net cash provided by operating activities was $3.4 billion in the nine months ended Sept. 30, 2017, compared with $1.6 billion in the nine months ended Sept. 30, 2016. In the first nine months of 2017, cash flows provided by operations were principally the result of earnings. In the first nine months of 2016, cash flows provided by operations were principally the result of earnings and changes in trading activities, partially offset by changes in accruals.

Net cash used for investing activities was $14.0 billion in the nine months ended Sept. 30, 2017, compared with cash provided by investing activities of $21.1 billion in the nine months ended Sept. 30, 2016. In the first nine months of 2017, changes in interest-bearing deposits with the Federal Reserve and other central banks was a significant use of funds. In the first nine months of 2016, changes in interest-bearing deposits with the Federal Reserve and other central banks was a significant source of funds, partially offset by changes in federal funds sold and securities purchased under resale agreements.

Net cash provided by financing activities was $11.2 billion in the nine months ended Sept. 30, 2017, compared with cash used for financing activities of $24.2 billion in the nine months ended Sept. 30, 2016. In the first nine months of 2017, the proceeds from the issuance of long-term debt, changes in deposits and increases in commercial paper and other borrowed funds were significant sources of funds, partially offset by common stock repurchased. In the first nine months of 2016, changes in deposits, changes in federal funds purchased and securities sold under repurchase agreements, repayment of long-term debt and treasury stock repurchases were significant uses of funds, partially offset by the issuance of long-term debt.

Capital

Capital data *(dollar amounts in millions except per share amounts; common shares in thousands)*	**Sept. 30, 2017**	June 30, 2017	Dec. 31, 2016
Average common equity to average assets	**10.6%**	10.5%	10.2%
At period end:			
BNY Mellon shareholders' equity to total assets ratio	**11.4%**	11.3%	11.6%
BNY Mellon common shareholders' equity to total assets ratio	**10.4%**	10.3%	10.6%
Total BNY Mellon shareholders' equity	**$ 40,523**	$ 39,974	$ 38,811
Total BNY Mellon common shareholders' equity	**$ 36,981**	$ 36,432	$ 35,269
BNY Mellon tangible common shareholders' equity – Non-GAAP *(a)*	**$ 18,630**	$ 18,106	$ 16,957
Book value per common share *(a)*	**$ 36.11**	$ 35.26	$ 33.67
Tangible book value per common share – Non-GAAP *(a)*	**$ 18.19**	$ 17.53	$ 16.19
Closing stock price per common share	**$ 53.02**	$ 51.02	$ 47.38
Market capitalization	**$ 54,294**	$ 52,712	$ 49,630
Common shares outstanding	**1,024,022**	1,033,156	1,047,488
Cash dividends per common share	**$ 0.24**	$ 0.19	$ 0.19
Common dividend payout ratio	**26%**	22%	25%
Common dividend yield	**1.8%**	1.5%	1.6%

(a) See "Supplemental information – Explanation of GAAP and Non-GAAP financial measures" beginning on page 49 for a reconciliation of GAAP to Non-GAAP.

The Bank of New York Mellon Corporation total shareholders' equity increased to $40.5 billion at Sept. 30, 2017 from $38.8 billion at Dec. 31, 2016. The increase primarily reflects earnings, foreign currency translation adjustments, $638 million resulting from stock awards, the exercise of stock options and stock issued for employee benefit plans, and the unrealized gain in our investment securities portfolio, partially offset by share repurchases and dividends.

The unrealized gain, net of tax, on our available-for-sale investment securities portfolio recorded in accumulated other comprehensive income was $226 million at Sept. 30, 2017, compared with $45 million at Dec. 31, 2016. The increase in the unrealized gain, net of tax, was primarily driven by a decrease in long-term interest rates.

Our 2017 capital plan, submitted in connection with our CCAR, included the authorization to repurchase an average of $650 million of common stock each quarter starting in the third quarter of 2017 and continuing through the second quarter of 2018. In the third quarter of 2017, we repurchased 12 million common shares at an average price of $52.74 per common share for a total cost of $650 million.

Also included in the 2017 capital plan was a 26% increase in the quarterly cash dividend to $0.24 per common share. The first payment of the increased quarterly cash dividend was made on Aug. 11, 2017.

Capital adequacy

Regulators establish certain levels of capital for bank holding companies and banks, including BNY Mellon and our bank subsidiaries, in accordance with established quantitative measurements. For the Parent to maintain its status as a financial holding company, our U.S. bank subsidiaries and BNY Mellon must, among other things, qualify as "well capitalized."

As of Sept. 30, 2017 and Dec. 31, 2016, 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" in our 2016 Annual Report.

The "well capitalized" and other capital categories (where applicable), as established by applicable regulations for bank holding companies and depository institutions, have been established by those regulations solely for purposes of implementing their respective requirements (for example, eligibility for financial holding company status in the case of bank holding companies and prompt corrective action measures in the case of depository institutions). A bank holding company's or depository institution's qualification for a capital category may not constitute an accurate representation of the entity's overall financial condition or prospects.

The U.S. banking agencies' capital rules are based on the framework adopted by the Basel Committee on Banking Supervision, as amended from time to time. For additional information on these capital requirements, see "Supervision and Regulation" in our 2016 Annual Report. BNY Mellon is subject to the U.S. capital rules, which are being gradually phased-in over a multi-year period through 2018.

Our estimated CET1 and SLR ratios on a fully phased-in basis are based on our current interpretation of the U.S. capital rules. Our risk-based capital adequacy is determined using the higher of risk-weighted assets ("RWAs") determined using the Advanced Approach and Standardized Approach.

The transitional capital ratios for Sept. 30, 2017 and June 30, 2017 included in the following table were negatively impacted by the additional phase-in requirements that became effective on Jan. 1, 2017.

Consolidated and largest bank subsidiary regulatory capital ratios	**Sept. 30, 2017**				
	Well capitalized	Minimum required *(a)*	Capital ratios	June 30, 2017	Dec. 31, 2016
Consolidated regulatory capital ratios: *(b)*					
Standardized Approach:					
CET1 ratio	N/A *(c)*	6.5%	**12.3%**	12.0%	12.3%
Tier 1 capital ratio	6%	8	**14.6**	14.3	14.5
Total (Tier 1 plus Tier 2) capital ratio	10	10	**15.6**	14.8	15.2
Advanced Approach:					
CET1 ratio	N/A *(c)*	6.5%	**11.1%**	10.8%	10.6%
Tier 1 capital ratio	6%	8	**13.2**	12.9	12.6
Total (Tier 1 plus Tier 2) capital ratio	10	10	**14.0**	13.2	13.0
Leverage capital ratio *(b)*	N/A *(c)*	4	**6.8**	6.7	6.6
SLR *(d)*	5 *(c)(e)*	3	**6.3**	6.2	6.0
Selected regulatory capital ratios – fully phased-in – Non-GAAP: *(c)*					
Estimated CET1 ratio:					
Standardized Approach	8.5% *(e)*	6.5%	**11.9%**	11.5%	11.3%
Advanced Approach	8.5 *(e)*	6.5	**10.7**	10.4	9.7
Estimated SLR	5 *(e)*	3	**6.1**	6.0	5.6
The Bank of New York Mellon regulatory capital ratios: *(b)*					
Advanced Approach:					
CET1 ratio	6.5%	5.75%	**14.8%**	14.1%	13.6%
Tier 1 capital ratio	8	7.25	**15.1**	14.4	13.9
Total (Tier 1 plus Tier 2) capital ratio	10	9.25	**15.5**	14.8	14.2
Leverage capital ratio	5	4	**7.8**	7.6	7.2
SLR *(d)*	6	3	**7.1**	6.9	6.5
Selected regulatory capital ratios – fully phased-in – Non-GAAP:					
Estimated SLR	6%	3%	**6.8%**	6.7%	6.1%

(a) Minimum requirements for Sept. 30, 2017 include Basel III minimum thresholds plus currently applicable buffers.
(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 leverage capital ratio is based on Tier 1 capital, as phased-in and quarterly average total assets.
(c) The Federal Reserve's regulations do not establish well capitalized thresholds for these measures for bank holding companies.
(d) The SLR does not become a binding measure until the first quarter of 2018. The SLR is based on Tier 1 capital, as phased-in, and average quarterly assets and certain off-balance sheet exposures.
(e) Fully phased-in Basel III minimum with expected buffers. See page 41 for the capital ratios with the phase-in of the capital conservation buffer and the U.S. G-SIB surcharge, as well as the introduction of the SLR buffer.

Our CET1 ratio determined under the Advanced Approach was 11.1% at Sept. 30, 2017 and 10.6% at Dec. 31, 2016. The increase primarily reflects CET1 generation, partially offset by the additional phase-in requirements under the U.S. capital rules that became effective Jan. 1, 2017.

Our estimated CET1 ratio (Non-GAAP) calculated under the Advanced Approach on a fully phased-in basis was 10.7% at Sept. 30, 2017 and 9.7% at Dec. 31, 2016. The increase primarily reflects CET1 generation. Our estimated CET1 ratio (Non-GAAP) calculated under the Standardized Approach on a fully phased-in basis was 11.9% at Sept. 30, 2017 and 11.3% at Dec. 31, 2016.

The estimated fully phased-in SLR (Non-GAAP) of 6.1% at Sept. 30, 2017 and 5.6% at Dec. 31, 2016 was based on our interpretation of the U.S. capital rules, as supplemented by the Federal Reserve's final rules on the SLR. BNY Mellon will be subject to an enhanced SLR, which will require a buffer in excess of 2% over the minimum SLR of 3%. The insured depository institution subsidiaries of the U.S. global systemically important banks ("G-SIBs"), including those of BNY Mellon, must maintain a 6% SLR to be considered "well capitalized."

For additional information on the U.S. capital rules, see "Supervision and Regulation - Capital Requirements - Generally" in our 2016 Annual Report.

The Advanced Approach capital ratios are significantly impacted by RWAs for operational risk. 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.

Management views the estimated fully phased-in CET1 and other risk-based capital ratios and SLR as key measures in monitoring BNY Mellon's capital position and progress against future regulatory capital standards. Additionally, the presentation of the estimated fully phased-in CET1 and other risk-based capital ratios and SLR are intended to allow investors to compare these ratios with estimates presented by other companies.

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, 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.

Minimum capital ratios and capital buffers

The U.S. capital rules include a series of buffers and surcharges over required minimums that apply to bank holding companies, including BNY Mellon, which are being phased-in over time. Banking organizations with a risk-based ratio or SLR above the minimum required level, but with a risk-based ratio or SLR below the minimum level with buffers will face constraints on dividends, equity repurchases and discretionary executive compensation based on the amount of the shortfall. Different regulatory capital minimums, buffers and surcharges apply to our banking subsidiaries.

The U.S. capital rules introduced a capital conservation buffer and countercyclical capital buffer that add to the minimum regulatory capital ratios. The capital conservation buffer–1.25% for 2017 and 2.5% when fully phased-in on Jan. 1, 2019–is designed to absorb losses during periods of economic stress and applies to all banking organizations. During periods of excessive growth, the capital conservation buffer may be expanded through the imposition of a countercyclical capital buffer that may be as high as an additional 2.5%. The countercyclical capital buffer, when applicable, applies only to Advanced Approach banking organizations. The countercyclical capital buffer is currently set to zero with respect to U.S. exposures, but it could increase if the banking agencies determine that systemic vulnerabilities are meaningfully above normal.

BNY Mellon is subject to an additional G-SIB surcharge, which is implemented as an extension of the capital conservation buffer and must be satisfied with CET1 capital. For 2017, the G-SIB surcharge applicable to BNY Mellon is 0.75%, and, when fully phased-in on Jan. 1, 2019, as calculated, applying metrics as currently applicable to BNY Mellon, would be 1.5%.

The following table presents the principal minimum capital ratio requirements with buffers and surcharges, as phased-in, applicable to the Parent and The Bank of New York Mellon. This table does not include the imposition of a countercyclical capital buffer. The U.S. capital rules also provide for transitional arrangements for qualifying instruments, deductions and adjustments, which are not reflected in this table. Buffers and surcharges are not applicable to the leverage capital ratio. These buffers, other than the SLR buffer, and surcharge began to phase-in on Jan. 1, 2016 and will be fully implemented on Jan. 1, 2019.

Capital ratio requirements	Well capitalized	Minimum ratios	Minimum ratios with buffers, as phased-in *(a)*		
			2017	2018	2019
Capital conservation buffer (CET1)			1.25%	1.875%	2.5%
U.S. G-SIB surcharge (CET1) *(b)(c)*			0.75%	1.125%	1.5%
Consolidated:					
CET1 ratio	N/A	4.5%	6.5%	7.5%	8.5%
Tier 1 capital ratio	6.0%	6.0%	8.0%	9.0%	10.0%
Total capital ratio	10.0%	8.0%	10.0%	11.0%	12.0%
Enhanced SLR buffer (Tier 1 capital)	N/A		N/A	2.0%	2.0%
SLR	N/A	3.0%	N/A	5.0%	5.0%
Bank subsidiaries: *(c)*					
CET1 ratio	6.5%	4.5%	5.75%	6.375%	7.0%
Tier 1 capital ratio	8.0%	6.0%	7.25%	7.875%	8.5%
Total capital ratio	10.0%	8.0%	9.25%	9.875%	10.5%
SLR	6.0%	3.0%	N/A	6.0% *(d)*	6.0% *(d)*

(a) Countercyclical capital buffer currently set to 0%.
(b) The fully phased-in U.S. G-SIB surcharge of 1.5% applicable to BNY Mellon is subject to change.
(c) The U.S. G-SIB surcharge is not applicable to the regulatory capital ratios of the bank subsidiaries.
(d) Well capitalized threshold.

The table below presents the factors that impacted the transitional and fully phased-in CET1.

Estimated CET1 generation	**Quarter ended Sept. 30, 2017**	
(in millions)	Transitional basis *(a)*	Fully phased-in - Non-GAAP *(b)*
CET1 – Beginning of period	**$ 18,371**	**$ 17,629**
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**983**	**983**
Goodwill and intangible assets, net of related deferred tax liabilities	**(33)**	**(26)**
Gross CET1 generated	**950**	**957**
Capital deployed:		
Common stock dividends	**(253)**	**(253)**
Common stock repurchased	**(650)**	**(650)**
Total capital deployed	**(903)**	**(903)**
Other comprehensive income:		
Foreign currency translation	**281**	**281**
Unrealized loss on assets available-for-sale	**13**	**16**
Defined benefit plans	**12**	**15**
Total other comprehensive income	**306**	**312**
Additional paid-in capital *(c)*	**156**	**156**
Other additions (deductions):		
Deferred tax assets	**(1)**	**(2)**
Embedded goodwill	**(9)**	**(8)**
Total other deductions	**(10)**	**(10)**
Net CET1 generated	**499**	**512**
CET1 – End of period	**$ 18,870**	**$ 18,141**

(a) Reflects transitional adjustments to CET1 required under the U.S. capital rules.
(b) Estimated.
(c) Primarily related to stock awards, the exercise of stock options and stock issued for employee benefit plans.

The following table presents the components of our transitional and fully phased-in CET1, Tier 1 and Tier 2 capital, the RWAs determined under both the Standardized and Advanced Approaches, the average assets used for leverage capital purposes and the total leverage exposure for estimated SLR purposes.

Capital components and ratios	Sept. 30, 2017		June 30, 2017		Dec. 31, 2016	
(dollars in millions)	**Transitional Approach** *(a)*	**Fully phased-in - Non-GAAP** *(b)*	Transitional Approach *(a)*	Fully phased-in - Non-GAAP *(b)*	Transitional Approach *(a)*	Fully phased-in - Non-GAAP *(b)*
CET1:						
Common shareholders' equity	**$ 37,195**	**$ 36,981**	$ 36,652	$ 36,432	$ 35,794	$ 35,269
Goodwill and intangible assets	**(17,876)**	**(18,351)**	(17,843)	(18,325)	(17,314)	(18,312)
Net pension fund assets	**(72)**	**(90)**	(72)	(90)	(55)	(90)
Equity method investments	**(334)**	**(348)**	(325)	(340)	(313)	(344)
Deferred tax assets	**(31)**	**(39)**	(30)	(37)	(19)	(32)
Other	**(12)**	**(12)**	(11)	(11)	—	(1)
Total CET1	**18,870**	**18,141**	18,371	17,629	18,093	16,490
Other Tier 1 capital:						
Preferred stock	**3,542**	**3,542**	3,542	3,542	3,542	3,542
Deferred tax assets	**(8)**	**—**	(7)	—	(13)	—
Net pension fund assets	**(19)**	**—**	(18)	—	(36)	—
Other	**(34)**	**(34)**	(24)	(24)	(121)	(121)
Total Tier 1 capital	**$ 22,351**	**$ 21,649**	$ 21,864	$ 21,147	$ 21,465	$ 19,911
Tier 2 capital:						
Subordinated debt	**$ 1,300**	**$ 1,250**	$ 550	$ 550	$ 550	$ 550
Allowance for credit losses	**265**	**265**	270	270	281	281
Trust preferred securities	**—**	**—**	—	—	148	—
Other	**(7)**	**(7)**	(7)	(7)	(12)	(11)
Total Tier 2 capital - Standardized Approach	**1,558**	**1,508**	813	813	967	820
Excess of expected credit losses	**49**	**49**	59	59	50	50
Less: Allowance for credit losses	**265**	**265**	270	270	281	281
Total Tier 2 capital - Advanced Approach	**$ 1,342**	**$ 1,292**	$ 602	$ 602	$ 736	$ 589
Total capital:						
Standardized Approach	**$ 23,909**	**$ 23,157**	$ 22,677	$ 21,960	$ 22,432	$ 20,731
Advanced Approach	**$ 23,693**	**$ 22,941**	$ 22,466	$ 21,749	$ 22,201	$ 20,500
Risk-weighted assets:						
Standardized Approach	**$ 153,494**	**$ 152,995**	$ 153,179	$ 152,645	$ 147,671	$ 146,475
Advanced Approach:						
Credit Risk	**$ 98,201**	**$ 97,672**	$ 99,030	$ 98,465	$ 97,659	$ 96,391
Market Risk	**2,996**	**2,996**	3,225	3,225	2,836	2,836
Operational Risk	**68,625**	**68,625**	67,788	67,788	70,000	70,000
Total Advanced Approach	**$ 169,822**	**$ 169,293**	$ 170,043	$ 169,478	$ 170,495	$ 169,227
Standardized Approach:						
CET1 ratio	**12.3%**	**11.9%**	12.0%	11.5%	12.3%	11.3%
Tier 1 capital ratio	**14.6**	**14.2**	14.3	13.9	14.5	13.6
Total (Tier 1 plus Tier 2) capital ratio	**15.6**	**15.1**	14.8	14.4	15.2	14.2
Advanced Approach:						
CET1 ratio	**11.1%**	**10.7%**	10.8%	10.4%	10.6%	9.7%
Tier 1 capital ratio	**13.2**	**12.8**	12.9	12.5	12.6	11.8
Total (Tier 1 plus Tier 2) capital ratio	**14.0**	**13.6**	13.2	12.8	13.0	12.1
Average assets for leverage capital purposes	**$ 327,555**		$ 324,423		$ 326,809	
Total leverage exposure for SLR purposes		**$ 355,960**		$ 352,448		$ 355,083

(a) *Reflects transitional adjustments to CET1, Tier 1 capital and Tier 2 capital required in 2017 and 2016 under the U.S. capital rules.*
(b) *Estimated.*

The following table shows the impact on the consolidated capital ratios at Sept. 30, 2017 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, 2017		
	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	7 bps	8 bps
Advanced Approach	6	7
Tier 1 capital:		
Standardized Approach	7	10
Advanced Approach	6	8
Total capital:		
Standardized Approach	7	10
Advanced Approach	6	8
Leverage capital	3	2
SLR	3	2
Estimated CET1 ratio, fully phased-in – Non-GAAP:		
Standardized Approach	7	8
Advanced Approach	6	6
Estimated SLR, fully phased-in – Non-GAAP	3	2

Capital ratios vary depending on the size of the balance sheet at quarter-end and the levels and types of investments in assets. The balance sheet size fluctuates from quarter to quarter 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.

Supplementary Leverage Ratio

BNY Mellon has presented its consolidated and largest bank subsidiary's estimated fully phased-in SLRs based on its interpretation of the U.S. capital rules, which are being gradually phased-in over a multi-year period and on the application of such rules to BNY Mellon's businesses as currently conducted.

The following table presents the components of our SLR on both the transitional and fully phased-in basis for BNY Mellon and our largest bank subsidiary, The Bank of New York Mellon.

SLR	**Sept. 30, 2017**		June 30, 2017		Dec. 31, 2016	
(dollars in millions)	Transitional basis	Fully phased-in - Non-GAAP *(a)*	Transitional basis	Fully phased-in - Non-GAAP *(a)*	Transitional basis	Fully phased-in - Non-GAAP *(a)*
Consolidated:						
Total Tier 1 capital	**$ 22,351**	**$ 21,649**	$ 21,864	$ 21,147	$ 21,465	$ 19,911
Total leverage exposure:						
Quarterly average total assets	**$ 345,709**	**$ 345,709**	$ 342,515	$ 342,515	$ 344,142	$ 344,142
Less: Amounts deducted from Tier 1 capital	**18,154**	**18,856**	18,092	18,810	17,333	18,887
Total on-balance sheet assets, as adjusted	**327,555**	**326,853**	324,423	323,705	326,809	325,255
Off-balance sheet exposures:						
Potential future exposure for derivative contracts (plus certain other items)	**6,213**	**6,213**	6,014	6,014	6,021	6,021
Repo-style transaction exposures	**1,034**	**1,034**	631	631	533	533
Credit-equivalent amount of other off-balance sheet exposures (less SLR exclusions)	**21,860**	**21,860**	22,098	22,098	23,274	23,274
Total off-balance sheet exposures	**29,107**	**29,107**	28,743	28,743	29,828	29,828
Total leverage exposure	**$ 356,662**	**$ 355,960**	$ 353,166	$ 352,448	$ 356,637	$ 355,083
SLR - Consolidated *(b)*	**6.3%**	**6.1%**	6.2%	6.0%	6.0%	5.6%
The Bank of New York Mellon, our largest bank subsidiary:						
Tier 1 capital	**$ 20,718**	**$ 19,955**	$ 19,897	$ 19,125	$ 19,011	$ 17,708
Total leverage exposure	**$ 292,759**	**$ 292,421**	$ 286,983	$ 286,634	$ 291,022	$ 290,230
SLR - The Bank of New York Mellon *(b)*	**7.1%**	**6.8%**	6.9%	6.7%	6.5%	6.1%

(a) *Estimated.*

(b) *The estimated fully phased-in SLR (Non-GAAP) is based on our interpretation of the U.S. capital rules. When the SLR is fully phased-in in 2018 as a required minimum ratio, we expect to maintain an SLR of over 5%. The minimum required SLR is 3% and there is a 2% buffer, in addition to the minimum, that is applicable to U.S. G-SIBs. The insured depository institution subsidiaries of the U.S. G-SIBs, including those of BNY Mellon, must maintain a 6% SLR to be considered "well-capitalized."*

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.

In an effort to improve our enterprise level risk management capabilities, we have changed our VaR model from Monte Carlo simulation to historical simulation for both management and RWA calculations. This change was effective as of Jan. 1, 2017. In addition to this model enhancement, the impact of credit valuation adjustment ("CVA") is now included.

The following tables indicate the calculated VaR amounts for the trading portfolio for the designated periods using the newly implemented historical simulation VaR model. The impact of changes in methodology is not material.

VaR *(a)*	**3Q17**			**Sept. 30,**
(in millions)	**Average**	**Minimum**	**Maximum**	**2017**
Interest rate	**$ 3.3**	**$ 2.8**	**$ 4.2**	**$ 2.7**
Foreign exchange	**3.7**	**3.1**	**5.6**	**4.8**
Equity	**0.9**	**0.8**	**1.1**	**0.9**
Credit	**1.0**	**0.6**	**1.4**	**1.0**
Diversification	**(5.1)**	**N/M**	**N/M**	**(5.3)**
Overall portfolio	**3.8**	**3.2**	**5.3**	**4.1**

VaR *(a)*	2Q17			June 30,
(in millions)	Average	Minimum	Maximum	2017
Interest rate	$ 3.3	$ 2.8	$ 4.1	$ 4.0
Foreign exchange	4.3	3.4	5.8	4.6
Equity	0.2	0.1	1.1	1.1
Credit	1.1	0.5	1.4	0.8
Diversification	(4.8)	N/M	N/M	(5.8)
Overall portfolio	4.1	3.3	5.4	4.7

VaR *(a)*	**YTD17**		
(in millions)	**Average**	**Minimum**	**Maximum**
Interest rate	**$ 3.5**	**$ 2.8**	**$ 4.9**
Foreign exchange	**3.9**	**2.6**	**5.8**
Equity	**0.4**	**0.1**	**1.1**
Credit	**1.1**	**0.5**	**1.7**
Diversification	**(4.9)**	**N/M**	**N/M**
Overall portfolio	**4.0**	**3.2**	**5.4**

(a) Beginning Jan. 1, 2017, the VaR figures reflect the impact of the CVA and hedges as per the guidance included in ASC 820, Fair Value Measurement. 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 following tables indicate the calculated VaR amounts for the trading portfolio for the designated periods as previously reported under the former Monte Carlo simulation VaR model.

VaR *(a)*	3Q16			Sept. 30,
(in millions)	Average	Minimum	Maximum	2016
Interest rate	$ 7.3	$ 5.4	$ 8.9	$ 7.9
Foreign exchange	4.2	3.2	7.5	3.7
Equity	0.6	0.5	0.8	0.6
Credit	0.3	0.3	0.4	0.4
Diversification	(5.8)	N/M	N/M	(5.7)
Overall portfolio	6.6	5.0	7.7	6.9

VaR *(a)*	YTD16		
(in millions)	Average	Minimum	Maximum
Interest rate	$ 6.3	$ 4.3	$ 8.9
Foreign exchange	2.8	1.2	11.1
Equity	0.6	0.4	0.8
Credit	0.3	0.2	0.4
Diversification	(4.0)	N/M	N/M
Overall portfolio	6.0	4.3	7.7

(a) VaR figures do not reflect the impact of the CVA guidance in ASC 820, Fair Value Measurement. This is consistent with the regulatory treatment. 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 predominantly vary with the level or volatility of interest rates. These instruments include, but are not limited to: sovereign debt, 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, exchange-traded futures and 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), over-the-counter ("OTC") equity options, equity total return swaps, equity index futures and other equity derivative products.

The credit component of VaR represents instruments whose values predominantly vary with the credit worthiness of counterparties. These instruments include, but are not limited to, credit derivatives (credit default swaps and exchange-traded credit index instruments) and exposures from corporate credit spreads, and mortgage prepayments. Credit derivatives are used to hedge various credit exposures.

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 2017, interest rate risk generated 37% of average gross VaR, foreign exchange risk generated 42% of average gross VaR, equity risk accounted for 10% of average gross VaR and credit risk generated 11% of average gross VaR. During the third quarter of 2017, our daily trading loss did not exceed our calculated VaR amount of the overall portfolio.

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

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

	Quarter ended				
(dollars in millions)	**Sept. 30, 2017**	June 30, 2017	March 31, 2017	Dec. 31, 2016	Sept. 30, 2016
Revenue range:	Number of days				
Less than $(2.5)	**—**	—	—	—	—
$(2.5) – $0	**1**	2	1	3	6
$0 – $2.5	**29**	31	31	28	22
$2.5 – $5.0	**29**	27	26	23	25
More than $5.0	**4**	4	4	7	11

(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 $4.7 billion at Sept. 30, 2017 and $5.7 billion at Dec. 31, 2016.

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 $3.3 billion at Sept. 30, 2017 and $4.4 billion at Dec. 31, 2016.

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, 2017, our OTC derivative assets of $3.6 billion included a CVA deduction of $30 million. Our OTC derivative liabilities of $3.2 billion included a debit valuation adjustment ("DVA") of $2 million related to our own credit spread. Net of hedges, the CVA decreased by $1 million and the DVA was unchanged in the third quarter of 2017. The net impact of these adjustments increased foreign exchange and other trading revenue by $1 million in the third quarter of 2017.

In the second quarter of 2017, net of hedges, the CVA decreased by $3 million and the DVA decreased by $1 million. The net impact of these adjustments increased foreign exchange and other trading revenue by $2 million in the second quarter of 2017.

In the third quarter of 2016, net of hedges, the CVA decreased by $8 million and the DVA decreased by $4 million. The net impact of these adjustments increased foreign exchange and other trading revenue by $4 million in the third quarter of 2016.

The table below summarizes the risk ratings for our foreign exchange and interest rate derivative counterparty credit exposure during the past five quarters. This information indicates the degree of risk to which we are exposed. Significant changes in ratings classifications for our foreign exchange and other trading activity could result in increased risk for us.

Foreign exchange and other trading counterparty risk rating profile *(a)*	Quarter ended				
	Sept. 30, 2017	June 30, 2017	March 31, 2017	Dec. 31, 2016	Sept. 30, 2016
Rating:					
AAA to AA-	**41%**	44%	43%	35%	45%
A+ to A-	**30**	27	36	39	32
BBB+ to BBB-	**24**	22	17	22	19
Noninvestment grade (BB+ and lower)	**5**	7	4	4	4
Total	**100%**	100%	100%	100%	100%

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

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 are interest rate risk and foreign exchange risk. Our primary market risk is exposure to movements in U.S. dollar interest rates and certain foreign currency interest rates. We actively manage interest rate sensitivity and use earnings simulation and discounted cash flow models to identify interest rate exposures.

An earnings simulation model is the primary tool used to assess changes in pre-tax net interest revenue. The model incorporates management's assumptions regarding interest rates, balance changes on core deposits, market spreads, changes in the prepayment behavior of loans and securities and the impact of derivative financial instruments used for interest rate risk management purposes. These assumptions have been developed through a combination of historical analysis and future expected pricing behavior and are inherently uncertain. As a result, the earnings simulation model cannot precisely estimate net interest revenue or the impact of higher or lower interest rates on net interest revenue. Actual results may differ 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.

The table below relies on certain critical assumptions regarding the balance sheet and depositors' behavior related to interest rate fluctuations and the prepayment and extension risk in certain of our assets. Generally, there has been an inverse relationship between interest rates and client deposit levels. To the extent that actual behavior is different from that assumed in the models, there could be a change in interest rate sensitivity.

We evaluate the effect on earnings by running various interest rate ramp scenarios from a baseline scenario. The interest rate ramp scenarios are reviewed to examine the impact of large interest rate movements. In each scenario, all currencies interest rates are shifted higher or lower. 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 following table shows net interest revenue sensitivity for BNY Mellon.

Estimated changes in net interest revenue *(in millions)*	**Sept. 30, 2017**	June 30, 2017	March 31, 2017	Dec. 31, 2016	Sept. 30, 2016
up 200 bps parallel rate ramp vs. baseline *(a)*	**$ (2)**	$ (69)	$ (136)	$ 6	$ 62
up 100 bps parallel rate ramp vs. baseline *(a)*	**112**	58	87	145	147
Long-term up 50 bps, short-term unchanged *(b)*	**113**	92	92	81	116
Long-term down 50 bps, short-term unchanged *(b)*	**(129)**	(85)	(104)	(88)	(128)

(a) In the parallel rate ramp, both short-term and long-term rates move in four equal quarterly increments.
(b) Long-term is equal to or greater than one year.
bps - basis points.

The baseline scenario used for the calculations in the estimated changes in net interest revenue table above as of Sept. 30, 2017, June 30, 2017, March 31, 2017 and Dec. 31, 2016 are based on our quarter-end balance sheet and the spot yield curve. The baseline scenario used for Sept. 30, 2016 was based on implied forward yield curves. We revised the methodology as of Dec. 31, 2016 as we believe using the spot yield curve for the baseline scenario provides a more accurate reflection of net interest revenue sensitivity given the recent increase in short-term interest rates and the implied forward rates. Because interest rates and the implied forward yield curves were lower in prior periods, the impact of using a spot yield curve versus an implied forward yield curve was not as significant. The 100 basis point ramp scenario assumes rates increase 25 basis points above the yield curve in each of the next four quarters and the 200 basis point ramp scenario assumes a 50 basis point per quarter increase.

Our net interest revenue sensitivity table above incorporates assumptions about the impact of changes in interest rates on depositor behavior based on historical experience. Given the current historically low interest rate environment and the potential change to the implementation of monetary policy, the impact of depositor behavior is highly uncertain. The lower sensitivity in the ramp up 200 basis point scenario compared with the 100 basis point scenario is driven by the assumption of increased deposit runoff and forecasted changes in the deposit pricing.

Growth or contraction of deposits could also be affected by the following factors:

- Monetary policy;
- Global economic uncertainty;
- Our ratings relative to other financial institutions' ratings; and
- Regulatory reform.

Any of these events could change our assumptions about depositor behavior and have a significant impact on our balance sheet and net interest revenue.

Off-balance sheet arrangements

Off-balance sheet arrangements discussed in this section are limited to guarantees, retained or contingent interests and obligations arising out of unconsolidated variable interest entities ("VIEs"). For BNY Mellon, these items include certain credit guarantees and a securitization. Guarantees include lending-related guarantees issued as part of our corporate banking business and securities lending indemnifications issued as part of our Investment Services business. See Note 17 of the Notes to Consolidated Financial Statements for a further discussion of our off-balance sheet arrangements.

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

BNY Mellon has included in this Form 10-Q certain Non-GAAP financial measures based on estimated fully phased-in CET1 and other risk-based capital ratios, the estimated fully phased-in SLR and tangible common shareholders' equity. BNY Mellon believes that the CET1 and other risk-based capital ratios, on a fully phased-in basis, and the SLR, on a fully phased-in basis, are measures of capital strength that provide additional useful information to investors, supplementing the capital ratios which are, or were, required by regulatory authorities. The tangible common shareholders' equity ratio, which excludes goodwill and intangible assets, net of deferred tax liabilities, includes changes in investment securities valuations which are reflected in total shareholders' equity. BNY Mellon believes that the return on tangible common equity measure is an additional useful measure for investors because it presents a measure of those assets that can generate income. BNY Mellon has provided a measure of tangible book value per common share, which it believes provides additional useful information as to the level of tangible assets in relation to shares of common stock outstanding.

BNY Mellon has presented revenue measures, which exclude the effect of noncontrolling interests related to consolidated investment management funds, and expense measures, which exclude amortization of intangible assets and M&I, litigation and restructuring charges. Operating margin, operating leverage and return on equity measures, which exclude some or all of these items, as well as the recovery related to Sentinel, are also presented. Operating margin measures may also exclude the provision for credit losses and distribution and servicing expense. BNY Mellon believes that these measures are useful to investors because they permit a focus on period-to-period comparisons, which relate to the ability of BNY Mellon to enhance revenues and limit expenses in circumstances where such matters are within BNY Mellon's control. M&I expenses primarily relate to acquisitions and generally continue for approximately three years after the transaction. Litigation charges represent accruals for loss contingencies that are both probable and reasonably estimable, but exclude standard business-related legal fees. Restructuring charges relate to our streamlining actions and Operational Excellence Initiatives. Excluding the charges mentioned above permits investors to view expenses on a basis consistent with how management views the business.

The presentation of income from consolidated investment management funds, net of net income attributable to noncontrolling interests related to the consolidation of certain investment management funds, permits investors to view revenue on a basis consistent with how management views the business. BNY Mellon believes that these presentations, as a supplement to GAAP information, give investors a clearer picture of the results of its primary businesses.

Each of these measures as described above is used by management to monitor financial performance, both on a company-wide and on a business-level basis.

The following table presents the reconciliation of the pre-tax operating margin ratio.

Pre-tax operating margin *(dollars in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Income before income taxes – GAAP	**$ 1,368**	$ 1,308	$ 1,317	**$ 3,882**	$ 3,573
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**3**	3	9	**24**	6
Add: Amortization of intangible assets	**52**	53	61	**157**	177
M&I, litigation and restructuring charges	**6**	12	18	**26**	42
Recovery related to Sentinel	**—**	—	(13)	**—**	(13)
Income before income taxes, as adjusted – Non-GAAP *(a)*	**$ 1,423**	$ 1,370	$ 1,374	**$ 4,041**	$ 3,773
Fee and other revenue – GAAP	**$ 3,167**	$ 3,120	$ 3,150	**$ 9,305**	$ 9,119
Income from consolidated investment management funds – GAAP	**10**	10	17	**53**	21
Net interest revenue – GAAP	**839**	826	774	**2,457**	2,307
Total revenue – GAAP	**4,016**	3,956	3,941	**11,815**	11,447
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**3**	3	9	**24**	6
Total revenue, as adjusted – Non-GAAP *(a)*	**$ 4,013**	$ 3,953	$ 3,932	**$ 11,791**	$ 11,441
Pre-tax operating margin – GAAP *(b)(c)*	**34%**	33%	33%	**33%**	31%
Adjusted pre-tax operating margin – Non-GAAP *(a)(b)(c)*	**35%**	35%	35%	**34%**	33%

(a) Non-GAAP information for all periods presented excludes the net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and M&I, litigation and restructuring charges. Non-GAAP information for the third quarter of 2016 and for the first nine months of 2016 also excludes a recovery of the previously impaired Sentinel loan.

(b) Income before taxes divided by total revenue.

(c) Our GAAP earnings include tax-advantaged investments such as low income housing, renewable energy, corporate/bank-owned life insurance and tax-exempt securities. The benefits of these investments are primarily reflected in tax expense. If reported on a tax-equivalent basis, these investments would increase revenue and income before taxes by $102 million for the third quarter of 2017, $106 million for the second quarter of 2017, $74 million for the third quarter of 2016, $309 million for the first nine months of 2017 and $225 million for the first nine months of 2016 and would increase our pre-tax operating margin by approximately 1.6% for the third quarter of 2017, 1.8% for the second quarter of 2017, 1.2% for the third quarter of 2016, 1.7% for the first nine months of 2017 and 1.3% for the first nine months of 2016.

The following table presents the reconciliation of operating leverage.

Operating leverage				**3Q17 vs.**	
(dollars in millions)	**3Q17**	2Q17	3Q16	**2Q17**	**3Q16**
Total revenue – GAAP	**$ 4,016**	$ 3,956	$ 3,941	**1.52%**	**1.90%**
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**3**	3	9		
Total revenue, as adjusted – Non-GAAP	**$ 4,013**	$ 3,953	$ 3,932	**1.52%**	**2.06%**
Total noninterest expense – GAAP	**$ 2,654**	$ 2,655	$ 2,643	**(0.04)%**	**0.42%**
Less: Amortization of intangible assets	**52**	53	61		
M&I, litigation and restructuring charges	**6**	12	18		
Total noninterest expense, as adjusted – Non-GAAP	**$ 2,596**	$ 2,590	$ 2,564	**0.23%**	**1.25%**
Operating leverage – GAAP *(a)*				**156 bps**	**148 bps**
Adjusted operating leverage – Non-GAAP *(a)(b)*				**129 bps**	**81 bps**

(a) Operating leverage is the rate of increase (decrease) in total revenue less the rate of increase (decrease) in total noninterest expense.

(b) Non-GAAP operating leverage for all periods presented excludes the net income attributable to noncontrolling interests of consolidated investment management funds, amortization of intangible assets and M&I, litigation and restructuring charges.

bps - basis points.

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

Return on common equity and tangible common equity *(dollars in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Net income applicable to common shareholders of The Bank of New York Mellon Corporation – GAAP	**$ 983**	$ 926	$ 974	**$ 2,789**	$ 2,603
Add: Amortization of intangible assets	**52**	53	61	**157**	177
Less: Tax impact of amortization of intangible assets	**17**	19	21	**54**	62
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation excluding amortization of intangible assets – Non-GAAP	**1,018**	960	1,014	**2,892**	2,718
Add: M&I, litigation and restructuring charges	**6**	12	18	**26**	42
Recovery related to Sentinel	**—**	—	(13)	**—**	(13)
Less: Tax impact of M&I, litigation and restructuring charges	**—**	3	5	**5**	13
Tax impact of recovery related to Sentinel	**—**	—	(5)	**—**	(5)
Adjusted net income applicable to common shareholders of The Bank of New York Mellon Corporation, as adjusted – Non-GAAP *(a)*	**$ 1,024**	$ 969	$ 1,019	**$ 2,913**	$ 2,739
Average common shareholders' equity	**$ 36,780**	$ 35,862	$ 35,767	**$ 35,876**	$ 35,616
Less: Average goodwill	**17,497**	17,408	17,463	**17,415**	17,549
Average intangible assets	**3,487**	3,532	3,711	**3,532**	3,770
Add: Deferred tax liability – tax deductible goodwill *(b)*	**1,561**	1,542	1,477	**1,561**	1,477
Deferred tax liability – intangible assets *(b)*	**1,092**	1,095	1,116	**1,092**	1,116
Average tangible common shareholders' equity – Non-GAAP	**$ 18,449**	$ 17,559	$ 17,186	**$ 17,582**	$ 16,890
Return on common equity – GAAP *(c)*	**10.6%**	10.4%	10.8%	**10.4%**	9.8%
Adjusted return on common equity – Non-GAAP *(a)(c)*	**11.0%**	10.8%	11.3%	**10.9%**	10.3%
Return on tangible common equity – Non-GAAP *(c)*	**21.9%**	21.9%	23.5%	**22.0%**	21.5%
Adjusted return on tangible common equity – Non-GAAP *(a)(c)*	**22.0%**	22.1%	23.6%	**22.1%**	21.7%

(a) Non-GAAP information for all periods presented excludes the amortization of intangible assets and M&I, litigation and restructuring charges. Non-GAAP information for the third quarter of 2016 and for the first nine months of 2016 also excludes a recovery of the previously impaired Sentinel loan.
(b) Deferred tax liabilities are based on fully phased-in Basel III capital rules.
(c) Quarterly returns are annualized.

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

Book value per common share *(dollars in millions, unless otherwise noted)*	**Sept. 30, 2017**	June 30, 2017	Dec. 31, 2016	Sept. 30, 2016
BNY Mellon shareholders' equity at period end – GAAP	**$ 40,523**	$ 39,974	$ 38,811	$ 39,695
Less: Preferred stock	**3,542**	3,542	3,542	3,542
BNY Mellon common shareholders' equity at period end – GAAP	**36,981**	36,432	35,269	36,153
Less: Goodwill	**17,543**	17,457	17,316	17,449
Intangible assets	**3,461**	3,506	3,598	3,671
Add: Deferred tax liability – tax deductible goodwill *(a)*	**1,561**	1,542	1,497	1,477
Deferred tax liability – intangible assets *(a)*	**1,092**	1,095	1,105	1,116
BNY Mellon tangible common shareholders' equity at period end – Non-GAAP	**$ 18,630**	$ 18,106	$ 16,957	$ 17,626
Period-end common shares outstanding *(in thousands)*	**1,024,022**	1,033,156	1,047,488	1,057,337
Book value per common share – GAAP	**$ 36.11**	$ 35.26	$ 33.67	$ 34.19
Tangible book value per common share – Non-GAAP	**$ 18.19**	$ 17.53	$ 16.19	$ 16.67

(a) Deferred tax liabilities are based on fully phased-in Basel III capital rules.

The following table presents income from consolidated investment management funds, net of noncontrolling interests.

Income from consolidated investment management funds, net of noncontrolling interests *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Income from consolidated investment management funds	**$ 10**	$ 10	$ 17	**$ 53**	$ 21
Less: Net income attributable to noncontrolling interests of consolidated investment management funds	**3**	3	9	**24**	6
Income from consolidated investment management funds, net of noncontrolling interests	**$ 7**	$ 7	$ 8	**$ 29**	$ 15

The following table presents the revenue line items in the Investment Management business impacted by the consolidated investment management funds.

Income from consolidated investment management funds, net of noncontrolling interests - Investment Management business *(in millions)*	**3Q17**	2Q17	1Q17	4Q16	3Q16	**YTD17**	YTD16
Investment management fees	**$ 1**	$ 2	$ 2	$ 4	$ 2	**$ 5**	$ 7
Other (Investment income (loss))	**6**	5	13	(3)	6	**24**	8
Income from consolidated investment management funds, net of noncontrolling interests	**$ 7**	$ 7	$ 15	$ 1	$ 8	**$ 29**	$ 15

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

Pre-tax operating margin - Investment Management business *(dollars in millions)*	**3Q17**	2Q17	1Q17	4Q16	3Q16	**YTD17**	YTD16
Income before income taxes – GAAP	**$ 300**	$ 288	$ 277	$ 260	$ 256	**$ 865**	$ 707
Add: Amortization of intangible assets	**15**	15	15	22	22	**45**	60
Provision for credit losses	**(2)**	—	3	6	—	**1**	—
Adjusted income before income taxes, excluding amortization of intangible assets and provision for credit losses – Non-GAAP	**$ 313**	$ 303	$ 295	$ 288	$ 278	**$ 911**	$ 767
Total revenue – GAAP	**$ 1,000**	$ 986	$ 963	$ 960	$ 958	**$ 2,949**	$ 2,791
Less: Distribution and servicing expense	**110**	104	101	98	104	**315**	306
Adjusted total revenue, net of distribution and servicing expense – Non-GAAP	**$ 890**	$ 882	$ 862	$ 862	$ 854	**$ 2,634**	$ 2,485
Pre-tax operating margin – GAAP *(a)*	**30%**	29%	29%	27%	27%	**29%**	25%
Adjusted pre-tax operating margin, excluding amortization of intangible assets, provision for credit losses and distribution and servicing expense – Non-GAAP *(a)*	**35%**	34%	34%	33%	33%	**35%**	31%

(a) Income before taxes divided by total revenue.

Recent accounting and regulatory developments

Recently issued accounting standards

The following Accounting Standards Updates (“ASUs”) issued by the Financial Accounting Standards Board (“FASB”) have not yet been adopted.

ASU 2017-12, Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities

In August 2017, the FASB issued an ASU, *Derivatives and Hedging: Targeted Improvements to Accounting for Hedging Activities*. The objective of this ASU is to improve the financial reporting of hedging relationships to better portray the economic results of an entity’s risk management activities and to simplify the application of hedge accounting guidance.

The most significant impact of the new guidance to the Company relates to the new accounting alternatives for fair value hedges of interest rate risk, specifically, the ability to hedge only the benchmark component of the contractual cash flows, partial-term hedging and the introduction of the “last of layer” method for hedges of portfolios of prepayable financial assets. The guidance also changed presentation and disclosure requirements and made changes to how the shortcut method is applied which may result in the Company using that method going forward for certain hedging relationships.

This ASU is effective for the first quarter of 2019, with early adoption permitted. Certain transition elections are available including the ability to reclassify a debt security from held-to-maturity to available-for-sale if it is eligible to be hedged under the last of layer method with any unrealized gain or loss at the transfer date being recorded in other comprehensive income. If this ASU is adopted early, the new guidance will be applicable as of the beginning of that year. BNY Mellon is currently assessing the impacts of the new standard.

ASU 2017-07, Compensation-Retirement Benefits - Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost

In March 2017, the FASB issued an ASU, *Compensation-Retirement Benefits - Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. The ASU requires the disaggregation of the service cost component from the other components of the net benefit cost in the income statement. The ASU also permits only the service cost component of net benefit cost to be eligible for capitalization. The ASU is effective for the first quarter of 2018, with early adoption permitted. The guidance in this ASU should be applied retrospectively for the presentation of the service cost component and the other components in the income statement, and prospectively for the capitalization of the service cost component in assets. BNY Mellon is assessing the impacts of the new standard. For information on the components of our pension and post-retirement health plan costs, see Note 9 of the Notes to Consolidated Financial Statements in this Form 10-Q and Note 16 of the Notes to Consolidated Financial Statements in our 2016 Annual Report. To the extent that our recent trend of having a net credit for pension and other post-retirement costs continues, the standard will result in an increase to staff expense and a reduction in other expense.

ASU 2016-18, Statement of Cash Flows – Restricted Cash

In November 2016, the FASB issued an ASU, *Statement of Cash Flows – Restricted Cash*. This ASU provides guidance on the presentation of restricted cash or restricted cash equivalents in the statement of cash flows and is effective for the first quarter of 2018. Earlier application is permitted. BNY Mellon is assessing the impacts of the new standard, and expects to include restricted cash (which totaled $4 billion as of Sept. 30, 2017) with cash and due from banks when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows.

ASU 2016-15, Statement of Cash Flows – Classification of Certain Cash Receipts and Cash Payments

In August 2016, the FASB issued an ASU, *Statement of Cash Flows – Classification of Certain Cash Receipts and Cash Payments*. This ASU provides guidance on eight specific cash flow presentation issues and is effective for the first quarter of 2018. Earlier application is permitted, however all of the amendments must be adopted in the same period. BNY Mellon is assessing the impacts of the new standard, and does not expect this ASU to materially affect the results of operations or financial condition.

ASU 2016-13, Financial Instruments – Credit Losses

In June 2016, the FASB issued an ASU, *Financial Instruments – Credit Losses*. This ASU introduces a new current expected credit losses model, which will apply to financial assets subject to credit losses and measured at amortized cost, including held-to-maturity securities and certain off-balance sheet credit exposures. The guidance will also change current practice for the impairment model for available-for-sale debt securities. The available-for-sale debt securities model will require the use of an allowance to record estimated credit losses and subsequent recoveries. This ASU is effective for the first quarter of 2020. Earlier application is permitted beginning with the first quarter of 2019. BNY Mellon has begun its implementation efforts and is currently identifying key interpretive issues, and will assess existing credit loss forecasting models and processes against the new guidance to determine what modifications may be required. The extent of the impact to our financial statements upon adoption depends on several factors including the remaining expected life of financial instruments at the time of adoption, the establishment of an allowance for expected credit loss on held-to-maturity securities, and the macroeconomic conditions and forecasts that exist at that date.

ASU 2014-09, Revenue from Contracts with Customers

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers*. This ASU, as amended, provides guidance on the recognition of revenue related to the transfer of promised goods or services to customers, guidance on accounting for certain contract costs and additional disclosure requirements about revenue and contract costs. The standard supersedes most existing revenue recognition guidance and is effective for the first quarter of 2018 using either the retrospective or cumulative effect transition method upon adoption.

The Company has completed its evaluation of the potential impact of this guidance on our accounting policies, and based on that evaluation, the timing of most of our revenue recognition will remain the same and the impacts will not be material. The impacts primarily relate to deferring and amortizing certain sales commission costs related to obtaining customer contracts and the timing of recognizing the contra revenue related to certain payments made to customers. The Company plans to adopt the guidance as of Jan. 1, 2018 using the cumulative effect transition method. The Company is currently developing the disclosures required about revenue and contract costs and finalizing changes to internal control.

ASU 2016-02, Leases

In February 2016, the FASB issued ASU 2016-02, *Leases*. The primary objective of this ASU is to increase transparency and comparability by recognizing lease assets and liabilities on the balance sheet and expand related disclosures. ASU 2016-02 requires a "right-of-use" asset and a payment obligation liability on the balance sheet for most leases and subleases. Additionally, depending on the lease classification under the standard, it may result in different expense recognition patterns and classification than under existing accounting principles. For leases classified as finance leases, it will result in higher expense recognition in the earlier periods and lower expense in the later periods of the lease.

The standard is effective for the first quarter of 2019, with early adoption permitted. We will utilize the modified retrospective transition approach as of the beginning of the earliest period presented, which will result in a cumulative effect recorded in the earliest period presented. Additionally, the standard allows for various optional practical expedients to assist with the implementation and reporting requirements. We are currently evaluating the potential impact of the leasing standard on our consolidated financial statements and evaluating the practical expedients that may be elected. Upon adoption, the implementation of the leasing standard is expected to result in an immaterial increase in both assets and liabilities.

ASU 2016-01, Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the FASB issued ASU 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities*. The ASU requires investments in equity securities that do not result in consolidation and are not accounted for under the equity method to be measured at fair value with changes in the fair value recognized through net income, unless one of two available exceptions apply. The first exception, a scope exception, allows Federal Reserve Bank stock, FHLB stock and other exchange memberships held by broker dealers to remain accounted for at cost, less impairment. The second exception, a practicability exception, will be available for equity investments that do not have readily determinable fair values and do not qualify for the practical expedient to estimate fair value under ASC 820, *Fair Value Measurement*. To the extent the practicability exception applies, such investments will be accounted for at cost adjusted for impairment, if any, plus or minus changes from observable price changes.

The amendments also require an entity to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from the entity's "own credit risk" when the entity has elected to measure the liability at fair value. The amendments also eliminate the requirement to disclose the methods and significant assumptions used to estimate the fair values of financial instruments measured at amortized cost that are on the balance sheet.

The Company plans to adopt this guidance in the first quarter of 2018 using the cumulative effect method of adoption. BNY Mellon does not expect the adoption of this ASU to have a material impact to the financial statements.

Recent regulatory developments

For a summary of additional regulatory matters relevant to our operations, see Supervision and Regulation in our 2016 Annual Report.

Final Rule on Qualified Financial Contracts

On Sept. 1, 2017, the Federal Reserve adopted a final rule to require U.S. global systemically important banking organizations ("G-SIBs") and the U.S. operations of foreign G-SIBs to amend their covered qualified financial contracts ("QFCs"). The FDIC adopted a substantially equivalent proposal on Oct. 30, 2017 and the Office of the Comptroller of the Currency is expected to do so in the near future. QFCs generally include derivatives, repurchase agreements and securities lending arrangements, among others. The final rule includes two key requirements. First, the final rule generally requires that QFCs of G-SIBs explicitly provide that any resolution stays applicable to the exercise of default rights with respect to such QFCs and to any resolution transfers under U.S. special resolution regimes apply to such covered QFCs. Second, the final rule requires that QFCs of G-SIBs be amended to neither permit the exercise of default or cross-default rights against entities covered by the final rule based on the resolution or bankruptcy of an affiliate of such entities, nor allow for any transfer restrictions with respect to such QFCs.

The final rule allows G-SIBs to comply with the rule by adhering to the International Swaps and Derivatives Association 2015 Universal Resolution Stay Protocol (the "Protocol") or a similar protocol that accomplishes the contractual amendments required by the rule. BNY Mellon entities that engage in QFC activities covered by the Protocol have adhered to the Protocol. Compliance with the Federal Reserve's final rule will be required on a phased-in basis beginning on Jan. 1, 2019. BNY Mellon is evaluating the impact of the new regulations on its activities.

Resolution plan

As required by the Dodd-Frank Act, BNY Mellon must submit annually to the Federal Reserve and the FDIC a plan for its rapid and orderly resolution in the event of material financial distress or failure. BNY Mellon filed its most recent resolution plan on July 1, 2017. We believe the 2017 resolution plan addresses all shortcomings and deficiencies identified by the FDIC and the Federal Reserve in the Company's 2015 resolution plan. The public portion of our 2017 resolution plan is available on the Federal Reserve's and FDIC's websites.

In September 2017, the Federal Reserve and FDIC extended the filing deadline by one year to July 1, 2019 for the Parent's next resolution plan.

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 SEC filings, 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, SEC Forms 3, 4 and 5 and any proxy statement mailed by us in connection with the solicitation of proxies;
- Financial statements and footnotes prepared using eXtensible Business Reporting Language ("XBRL");
- 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 and Nominating, Corporate Social Responsibility, Human Resources and Compensation, Risk and Technology Committees of our Board of Directors.

The contents of the website listed above or any other websites referenced herein are not incorporated into this Quarterly Report on Form 10-Q.

Consolidated Income Statement (unaudited)

(in millions)	Quarter ended Sept. 30, 2017	Quarter ended June 30, 2017	Quarter ended Sept. 30, 2016	Year-to-date Sept. 30, 2017	Year-to-date Sept. 30, 2016
Fee and other revenue					
Investment services fees:					
Asset servicing	**$ 1,105**	$ 1,085	$ 1,067	**$ 3,253**	$ 3,176
Clearing services	**383**	394	349	**1,153**	1,049
Issuer services	**288**	241	337	**780**	815
Treasury services	**141**	140	137	**420**	407
Total investment services fees	**1,917**	1,860	1,890	**5,606**	5,447
Investment management and performance fees	**901**	879	860	**2,622**	2,502
Foreign exchange and other trading revenue	**173**	165	183	**502**	540
Financing-related fees	**54**	53	58	**162**	169
Distribution and servicing	**40**	41	43	**122**	125
Investment and other income	**63**	122	92	**262**	271
Total fee revenue	**3,148**	3,120	3,126	**9,276**	9,054
Net securities gains — including other-than-temporary impairment	**18**	—	27	**28**	67
Noncredit-related portion of other-than-temporary impairment (recognized in other comprehensive income)	**(1)**	—	3	**(1)**	2
Net securities gains	**19**	—	24	**29**	65
Total fee and other revenue	**3,167**	3,120	3,150	**9,305**	9,119
Operations of consolidated investment management funds					
Investment income	**10**	10	20	**57**	27
Interest of investment management fund note holders	**—**	—	3	**4**	6
Income from consolidated investment management funds	**10**	10	17	**53**	21
Net interest revenue					
Interest revenue	**1,151**	1,052	874	**3,163**	2,647
Interest expense	**312**	226	100	**706**	340
Net interest revenue	**839**	826	774	**2,457**	2,307
Total revenue	**4,016**	3,956	3,941	**11,815**	11,447
Provision for credit losses	**(6)**	(7)	(19)	**(18)**	(18)
Noninterest expense					
Staff	**1,469**	1,417	1,467	**4,358**	4,338
Professional, legal and other purchased services	**305**	319	292	**936**	860
Software	**175**	173	156	**514**	470
Net occupancy	**141**	139	143	**416**	437
Distribution and servicing	**109**	104	105	**313**	307
Sub-custodian	**62**	65	59	**191**	188
Furniture and equipment	**58**	59	59	**174**	187
Bank assessment charges *(a)*	**51**	59	61	**167**	166
Business development	**49**	63	52	**163**	174
Other *(a)*	**177**	192	170	**536**	546
Amortization of intangible assets	**52**	53	61	**157**	177
Merger and integration, litigation and restructuring charges	**6**	12	18	**26**	42
Total noninterest expense	**2,654**	2,655	2,643	**7,951**	7,892
Income					
Income before income taxes	**1,368**	1,308	1,317	**3,882**	3,573
Provision for income taxes	**348**	332	324	**949**	897
Net income	**1,020**	976	993	**2,933**	2,676
Net (income) loss attributable to noncontrolling interests (includes $(3), $(3), $(9), $(24) and $(6) related to consolidated investment management funds, respectively)	**(2)**	(1)	(6)	**(18)**	1
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**1,018**	975	987	**2,915**	2,677
Preferred stock dividends	**(35)**	(49)	(13)	**(126)**	(74)
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 983**	$ 926	$ 974	**$ 2,789**	$ 2,603

(a) *In the first quarter of 2017, we began disclosing bank assessment charges on a quarterly basis. The bank assessment charges were previously included in other expense. All prior periods were reclassified.*

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, 2017**	Quarter ended June 30, 2017	Quarter ended Sept. 30, 2016	Year-to-date **Sept. 30, 2017**	Year-to-date Sept. 30, 2016
Net income applicable to common shareholders of The Bank of New York Mellon Corporation	**$ 983**	$ 926	$ 974	**$ 2,789**	$ 2,603
Less: Earnings allocated to participating securities *(a)*	**8**	13	15	**35**	39
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	**$ 975**	$ 913	$ 959	**$ 2,754**	$ 2,564

Average common shares and equivalents outstanding of The Bank of New York Mellon Corporation *(a)* *(in thousands)*	Quarter ended **Sept. 30, 2017**	Quarter ended June 30, 2017	Quarter ended Sept. 30, 2016	Year-to-date **Sept. 30, 2017**	Year-to-date Sept. 30, 2016
Basic	**1,035,337**	1,035,829	1,062,248	**1,037,431**	1,071,457
Common stock equivalents	**9,226**	15,598	15,406	**14,216**	15,306
Less: Participating securities	**(3,425)**	(9,548)	(9,972)	**(8,062)**	(9,613)
Diluted	**1,041,138**	1,041,879	1,067,682	**1,043,585**	1,077,150
Anti-dilutive securities *(b)*	**8,059**	16,256	32,232	**13,906**	32,699

Earnings per share applicable to common shareholders of The Bank of New York Mellon Corporation *(c)* *(in dollars)*	Quarter ended **Sept. 30, 2017**	Quarter ended June 30, 2017	Quarter ended Sept. 30, 2016	Year-to-date **Sept. 30, 2017**	Year-to-date Sept. 30, 2016
Basic	**$ 0.94**	$ 0.88	$ 0.90	**$ 2.66**	$ 2.39
Diluted	**$ 0.94**	$ 0.88	$ 0.90	**$ 2.64**	$ 2.38

(a) Beginning in the third quarter of 2017, vested stock awards to retirement eligible employees are included in common shares outstanding for earnings per share purposes. This change increased both average basic and average diluted shares outstanding by approximately 6 million and reduced earnings allocated to participating securities by $6 million for the quarter, which resulted in a de minimis impact to both basic and diluted earnings per share.

(b) 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.

(c) Basic and diluted earnings per share under the two-class method are determined on the net income applicable to common shareholders of The Bank of New York Mellon Corporation reported on the income statement less earnings allocated to participating securities.

See accompanying Notes to Consolidated Financial Statements.

Consolidated Comprehensive Income Statement (unaudited)

	Quarter ended			Year-to-date	
(in millions)	**Sept. 30, 2017**	June 30, 2017	Sept. 30, 2016	**Sept. 30, 2017**	Sept. 30, 2016
Net income	**$ 1,020**	$ 976	$ 993	**$ 2,933**	$ 2,676
Other comprehensive income (loss), net of tax:					
Foreign currency translation adjustments	**286**	330	(186)	**741**	(433)
Unrealized gain on assets available-for-sale:					
Unrealized gain (loss) arising during the period	**28**	91	(53)	**213**	227
Reclassification adjustment	**(12)**	(1)	(15)	**(19)**	(43)
Total unrealized gain (loss) on assets available-for-sale	**16**	90	(68)	**194**	184
Defined benefit plans:					
Net gain arising during the period	**—**	—	—	**2**	2
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost	**15**	16	14	**49**	43
Total defined benefit plans	**15**	16	14	**51**	45
Net unrealized gain (loss) on cash flow hedges	**—**	1	2	**11**	(4)
Total other comprehensive income (loss), net of tax *(a)*	**317**	437	(238)	**997**	(208)
Total comprehensive income	**1,337**	1,413	755	**3,930**	2,468
Net (income) loss attributable to noncontrolling interests	**(2)**	(1)	(6)	**(18)**	1
Other comprehensive (income) loss attributable to noncontrolling interests	**(5)**	(6)	5	**(13)**	23
Comprehensive income applicable to shareholders of The Bank of New York Mellon Corporation	**$ 1,330**	$ 1,406	$ 754	**$ 3,899**	$ 2,492

(a) Other comprehensive income (loss) attributable to The Bank of New York Mellon Corporation shareholders was $312 million for the quarter ended Sept. 30, 2017, $431 million for the quarter ended June 30, 2017, $(233) million for the quarter ended Sept. 30, 2016, $984 million for the nine months ended Sept. 30, 2017 and $(185) million for the nine months ended Sept. 30, 2016.

See accompanying Notes to Consolidated Financial Statements.

Consolidated Balance Sheet (unaudited)

(dollars in millions, except per share amounts)	**Sept. 30, 2017**	Dec. 31, 2016
Assets		
Cash and due from:		
Banks	**$ 5,557**	$ 4,822
Interest-bearing deposits with the Federal Reserve and other central banks	**75,808**	58,041
Interest-bearing deposits with banks	**15,256**	15,086
Federal funds sold and securities purchased under resale agreements	**27,883**	25,801
Securities:		
Held-to-maturity (fair value of $39,928 and $40,669)	**39,995**	40,905
Available-for-sale	**80,054**	73,822
Total securities	**120,049**	114,727
Trading assets	**4,666**	5,733
Loans	**59,068**	64,458
Allowance for loan losses	**(161)**	(169)
Net loans	**58,907**	64,289
Premises and equipment	**1,631**	1,303
Accrued interest receivable	**547**	568
Goodwill	**17,543**	17,316
Intangible assets	**3,461**	3,598
Other assets (includes $827 and $1,339, at fair value)	**22,287**	20,954
Subtotal assets of operations	**353,595**	332,238
Assets of consolidated investment management funds, at fair value	**802**	1,231
Total assets	**$ 354,397**	$ 333,469
Liabilities		
Deposits:		
Noninterest-bearing (principally U.S. offices)	**$ 80,380**	$ 78,342
Interest-bearing deposits in U.S. offices	**46,023**	52,049
Interest-bearing deposits in non-U.S. offices	**104,593**	91,099
Total deposits	**230,996**	221,490
Federal funds purchased and securities sold under repurchase agreements	**10,314**	9,989
Trading liabilities	**3,253**	4,389
Payables to customers and broker-dealers	**21,176**	20,987
Commercial paper	**2,501**	—
Other borrowed funds	**3,353**	754
Accrued taxes and other expenses	**6,070**	5,867
Other liabilities (including allowance for lending-related commitments of $104 and $112, also includes $812 and $597, at fair value)	**7,195**	5,635
Long-term debt (includes $369 and $363, at fair value)	**28,408**	24,463
Subtotal liabilities of operations	**313,266**	293,574
Liabilities of consolidated investment management funds, at fair value	**27**	315
Total liabilities	**313,293**	293,889
Temporary equity		
Redeemable noncontrolling interests	**197**	151
Permanent equity		
Preferred stock – par value $0.01 per share; authorized 100,000,000 shares; issued 35,826 and 35,826 shares	**3,542**	3,542
Common stock – par value $0.01 per share; authorized 3,500,000,000 shares; issued 1,352,363,932 and 1,333,706,427 shares	**14**	13
Additional paid-in capital	**26,588**	25,962
Retained earnings	**24,757**	22,621
Accumulated other comprehensive loss, net of tax	**(2,781)**	(3,765)
Less: Treasury stock of 328,341,579 and 286,218,126 common shares, at cost	**(11,597)**	(9,562)
Total The Bank of New York Mellon Corporation shareholders' equity	**40,523**	38,811
Nonredeemable noncontrolling interests of consolidated investment management funds	**384**	618
Total permanent equity	**40,907**	39,429
Total liabilities, temporary equity and permanent equity	**$ 354,397**	$ 333,469

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Cash Flows (unaudited)

(in millions)	Nine months ended Sept. 30, 2017	2016
Operating activities		
Net income	**$ 2,933**	$ 2,676
Net (income) loss attributable to noncontrolling interests	**(18)**	1
Net income applicable to shareholders of The Bank of New York Mellon Corporation	**2,915**	2,677
Adjustments to reconcile net income to net cash provided by operating activities:		
Provision for credit losses	**(18)**	(18)
Pension plan contributions	**(12)**	(17)
Depreciation and amortization	**1,044**	1,118
Deferred tax expense (benefit)	**272**	(282)
Net securities (gains)	**(29)**	(65)
Change in trading assets and liabilities	**(66)**	1,680
Originations of loans held-for-sale	**—**	(350)
Proceeds from the sales of loans originated for sale	**—**	802
Change in accruals and other, net	**(756)**	(3,988)
Net cash provided by operating activities	**3,350**	1,557
Investing activities		
Change in interest-bearing deposits with banks	**507**	880
Change in interest-bearing deposits with the Federal Reserve and other central banks	**(14,467)**	33,473
Purchases of securities held-to-maturity	**(5,878)**	(4,169)
Paydowns of securities held-to-maturity	**3,332**	3,577
Maturities of securities held-to-maturity	**3,412**	2,933
Purchases of securities available-for-sale	**(18,974)**	(21,491)
Sales of securities available-for-sale	**3,531**	5,624
Paydowns of securities available-for-sale	**7,047**	6,552
Maturities of securities available-for-sale	**4,820**	7,610
Net change in loans	**5,283**	(2,884)
Sales of loans and other real estate	**369**	172
Change in federal funds sold and securities purchased under resale agreements	**(2,082)**	(10,456)
Net change in seed capital investments	**(52)**	(57)
Purchases of premises and equipment/capitalized software	**(933)**	(495)
Proceeds from the sale of premises and equipment	**—**	65
Acquisitions, net of cash	**—**	(38)
Dispositions, net of cash	**—**	1
Other, net	**82**	(239)
Net cash (used for) provided by investing activities	**(14,003)**	21,058
Financing activities		
Change in deposits	**4,459**	(18,378)
Change in federal funds purchased and securities sold under repurchase agreements	**325**	(6,950)
Change in payables to customers and broker-dealers	**177**	(743)
Change in other borrowed funds	**2,187**	427
Change in commercial paper	**2,501**	—
Net proceeds from the issuance of long-term debt	**4,739**	4,982
Repayments of long-term debt	**(796)**	(2,453)
Proceeds from the exercise of stock options	**383**	129
Issuance of common stock	**24**	20
Issuance of preferred stock	**—**	990
Treasury stock acquired	**(2,035)**	(1,550)
Common cash dividends paid	**(653)**	(576)
Preferred cash dividends paid	**(126)**	(74)
Other, net	**46**	(2)
Net cash provided by (used for) financing activities	**11,231**	(24,178)
Effect of exchange rate changes on cash	**157**	(17)
Change in cash and due from banks		
Change in cash and due from banks	**735**	(1,580)
Cash and due from banks at beginning of period	**4,822**	6,537
Cash and due from banks at end of period	**$ 5,557**	$ 4,957
Supplemental disclosures		
Interest paid	**$ 721**	$ 371
Income taxes paid	**316**	597
Income taxes refunded	**19**	293

See accompanying Notes to Consolidated Financial Statements.

Consolidated Statement of Changes in Equity (unaudited)

	The Bank of New York Mellon Corporation shareholders								
(in millions, except per share amount)	Preferred stock	Common stock	Additional paid-in capital	Retained earnings	Accumulated other comprehensive (loss) income, net of tax	Treasury stock	Non-redeemable noncontrolling interests of consolidated investment management funds	Total permanent equity	Redeemable non-controlling interests/ temporary equity
Balance at Dec. 31, 2016	$ 3,542	$ 13	$ 25,962	$ 22,621	$ (3,765)	$ (9,562)	$ 618	$ 39,429 *(a)*	$ 151
Shares issued to shareholders of noncontrolling interests	—	—	—	—	—	—	—	—	**40**
Redemption of subsidiary shares from noncontrolling interests	—	—	—	—	—	—	—	—	**(16)**
Other net changes in noncontrolling interests	—	—	**(11)**	—	—	—	**(258)**	**(269)**	**15**
Net income (loss)	—	—	—	**2,915**	—	—	**24**	**2,939**	**(6)**
Other comprehensive income	—	—	—	—	**984**	—	—	**984**	**13**
Dividends:									
Common stock at $0.62 per share	—	—	—	**(653)**	—	—	—	**(653)**	—
Preferred stock	—	—	—	**(126)**	—	—	—	**(126)**	—
Repurchase of common stock	—	—	—	—	—	**(2,035)**	—	**(2,035)**	—
Common stock issued under:									
Employee benefit plans	—	—	**21**	—	—	—	—	**21**	—
Direct stock purchase and dividend reinvestment plan	—	—	**18**	—	—	—	—	**18**	—
Stock awards and options exercised	—	**1**	**598**	—	—	—	—	**599**	—
Balance at Sept. 30, 2017	**$ 3,542**	**$ 14**	**$ 26,588**	**$ 24,757**	**$ (2,781)**	**$(11,597)**	**$ 384**	**$ 40,907** *(a)*	**$ 197**

(a) Includes total The Bank of New York Mellon Corporation common shareholders' equity of $35,269 million at Dec. 31, 2016 and $36,981 million at Sept. 30, 2017.

See accompanying Notes to Consolidated Financial Statements.

Note 1 - Basis of presentation

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.

The accompanying consolidated financial statements are unaudited. In the opinion of management, all adjustments necessary for a fair presentation of financial position, results of operations and cash flows for the periods presented have been made. These financial statements should be read in conjunction with BNY Mellon’s Annual Report on Form 10-K for the year ended Dec. 31, 2016. Certain immaterial reclassifications have been made to prior periods to place them on a basis comparable with 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. Amounts subject to estimates are items such as the allowance for loan losses and lending-related commitments, the fair value of financial instruments and derivatives, other-than-temporary impairment, goodwill and other intangibles and pension accounting. Among other effects, such changes in estimates could result in future impairments of investment securities, goodwill and intangible assets and establishment of allowances for loan losses and lending-related commitments as well as changes in pension and post-retirement expense.

Note 2 - Accounting change and new accounting guidance

ASU 2017-04, Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued ASU 2017-04, *Simplifying the Test for Goodwill Impairment*. This ASU simplifies the annual goodwill impairment test by eliminating Step 2. The Step 2 calculation estimated the implied goodwill using the fair values of all assets, including previously unrecorded intangibles, and liabilities at the date of the test. Step 2 was required if the first step of the annual test indicated that the fair value of a reporting unit is less than its carrying value. After adopting this ASU, the amount of any goodwill impairment will be determined by the excess of the carrying value of a reporting unit over its fair value. The Company early adopted this ASU in the second quarter of 2017, in conjunction with its annual goodwill impairment test. The annual test did not result in any impairment.

ASU 2016-09, Compensation – Stock Compensation

In March 2016, the FASB issued ASU 2016-09, *Compensation – Stock Compensation*. This ASU simplifies several aspects of the accounting for share-based payment transactions, including income tax consequences, recognition of forfeitures and classification on the statement of cash flows. The Company adopted this ASU effective Jan. 1, 2017.

For the first nine months of 2017, we recorded an income tax benefit of $45 million related to the vesting of stock awards and option exercises in the provision for income taxes. Previously, this had been recorded directly to additional paid-in capital. The impact in future periods will vary depending on the number of restricted stock units vesting (which primarily occurs in the first quarter of each year), the number of stock options exercised and the change in value since the grant date.

We continue to apply our accounting policy election for estimating forfeitures. Additionally, beginning in the quarter ended March 31, 2017, we report excess tax benefits related to stock-based compensation as operating activities on the statement of cash flows and the employee taxes paid will continue to be reported as financing activities.

Note 3 - Acquisitions

We sometimes structure our acquisitions with both an initial payment and later contingent payments tied to post-closing revenue or income growth. Contingent payments totaled $2 million in the third quarter of 2017 and the first nine months of 2017.

At Sept. 30, 2017, we are potentially obligated to pay additional consideration which, using reasonable assumptions, could range from $0 million to $16 million over the next two years, but could be higher as certain of the arrangements do not contain a contractual maximum. The acquisition described below did not have a material impact on BNY Mellon's results of operations.

Acquisition in 2016

On April 1, 2016, BNY Mellon acquired the assets of Atherton Lane Advisers, LLC, a U.S.-based investment manager with approximately $2.45 billion in AUM and servicer for approximately 700 high-net-worth clients, for cash of $38 million, plus contingent payments measured at $22 million. Goodwill related to this acquisition totaled $29 million and is included in the Investment Management business. The customer relationship intangible asset related to this acquisition is included in the Investment Management business, with an estimated life of 14 years, and totaled $30 million at acquisition.

Note 4 - Securities

The following tables present the amortized cost, the gross unrealized gains and losses and the fair value of securities at Sept. 30, 2017 and Dec. 31, 2016.

Securities at Sept. 30, 2017 *(in millions)*	Amortized cost	Gross unrealized Gains	Gross unrealized Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 15,389	$ 236	$ 123	$ 15,502
U.S. government agencies	866	4	6	864
State and political subdivisions	3,091	57	24	3,124
Agency RMBS	24,546	135	250	24,431
Non-agency RMBS	491	37	3	525
Other RMBS	270	3	8	265
Commercial MBS	960	9	4	965
Agency commercial MBS	9,026	41	57	9,010
CLOs	2,542	9	1	2,550
Other asset-backed securities	1,152	5	—	1,157
Foreign covered bonds	2,529	20	7	2,542
Corporate bonds	1,262	21	8	1,275
Sovereign debt/ sovereign guaranteed	12,393	195	23	12,565
Other debt securities	3,149	12	10	3,151
Equity securities	2	2	—	4
Money market funds	939	—	—	939
Non-agency RMBS *(a)*	885	304	4	1,185
Total securities available-for-sale *(b)*	$ 79,492	$ 1,090	$ 528	$ 80,054
Held-to-maturity:				
U.S. Treasury	$ 9,867	$ 21	$ 29	$ 9,859
U.S. government agencies	1,614	—	6	1,608
State and political subdivisions	18	—	1	17
Agency RMBS	25,575	96	185	25,486
Non-agency RMBS	64	5	—	69
Other RMBS	65	—	1	64
Commercial MBS	6	—	—	6
Agency commercial MBS	1,118	5	5	1,118
Foreign covered bonds	83	1	—	84
Sovereign debt/ sovereign guaranteed	1,558	32	—	1,590
Other debt securities	27	—	—	27
Total securities held-to-maturity	$ 39,995	$ 160	$ 227	$ 39,928
Total securities	$ 119,487	$ 1,250	$ 755	$ 119,982

(a) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

(b) Includes gross unrealized gains of $53 million and gross unrealized losses of $155 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains and losses are primarily related to Agency RMBS and will be amortized into net interest revenue over the contractual lives of the securities.

Securities at Dec. 31, 2016 *(in millions)*	Amortized cost	Gross unrealized Gains	Gross unrealized Losses	Fair value
Available-for-sale:				
U.S. Treasury	$ 14,373	$ 115	$ 181	$ 14,307
U.S. government agencies	366	2	9	359
State and political subdivisions	3,392	38	52	3,378
Agency RMBS	22,929	148	341	22,736
Non-agency RMBS	620	31	13	638
Other RMBS	517	4	8	513
Commercial MBS	931	8	11	928
Agency commercial MBS	6,505	28	84	6,449
CLOs	2,593	6	1	2,598
Other asset-backed securities	1,729	4	6	1,727
Foreign covered bonds	2,126	24	9	2,141
Corporate bonds	1,391	22	17	1,396
Sovereign debt/ sovereign guaranteed	12,248	261	20	12,489
Other debt securities	1,952	19	10	1,961
Equity securities	2	1	—	3
Money market funds	842	—	—	842
Non-agency RMBS *(a)*	1,080	286	9	1,357
Total securities available-for-sale *(b)*	$ 73,596	$ 997	$ 771	$ 73,822
Held-to-maturity:				
U.S. Treasury	$ 11,117	$ 22	$ 41	$ 11,098
U.S. government agencies	1,589	—	6	1,583
State and political subdivisions	19	—	1	18
Agency RMBS	25,221	57	299	24,979
Non-agency RMBS	78	4	2	80
Other RMBS	142	—	4	138
Commercial MBS	7	—	—	7
Agency commercial MBS	721	1	10	712
Foreign covered bonds	74	1	—	75
Sovereign debt/ sovereign guaranteed	1,911	42	—	1,953
Other debt securities	26	—	—	26
Total securities held-to-maturity	$ 40,905	$ 127	$ 363	$ 40,669
Total securities	$ 114,501	$1,124	$1,134	$ 114,491

(a) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

(b) Includes gross unrealized gains of $62 million and gross unrealized losses of $190 million recorded in accumulated other comprehensive income related to investment securities that were transferred from available-for-sale to held-to-maturity. The unrealized gains 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 gross securities gains, losses and impairments.

Net securities gains (losses) *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Realized gross gains	**$ 20**	$ 3	$ 26	**$ 34**	$ 71
Realized gross losses	**—**	(2)	(1)	**(2)**	(1)
Recognized gross impairments	**(1)**	(1)	(1)	**(3)**	(5)
Total net securities gains	**$ 19**	$ —	$ 24	**$ 29**	$ 65

In September 2017, other residential mortgage-backed securities with an aggregate amortized cost of $74 million and fair value of $76 million were transferred from held-to-maturity securities to available-for-sale securities. Due to recent ratings downgrades, the Company no longer intends to hold these securities to maturity.

Temporarily impaired securities

At Sept. 30, 2017, the unrealized losses on the investment securities portfolio were primarily attributable to an increase in interest rates from 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, $155 million of the unrealized losses at Sept. 30, 2017 and $190 million at Dec. 31, 2016 reflected in the available-for-sale sections of the tables below relate to certain securities (primarily Agency RMBS) that were transferred in prior periods from available-for-sale to held-to-maturity. The unrealized losses will be amortized into net interest revenue over the contractual lives of the securities. The transfer created a new cost basis for the securities. As a result, if these securities have experienced unrealized losses since the date of transfer, the corresponding fair value and unrealized losses would be reflected in the held-to-maturity sections of 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 related fair value of investments 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 at Sept. 30, 2017 and Dec. 31, 2016.

Temporarily impaired securities at Sept. 30, 2017	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:						
U.S. Treasury	**$ 7,900**	**$ 111**	**$ 495**	**$ 12**	**$ 8,395**	**$ 123**
U.S. government agencies	**399**	**6**	**—**	**—**	**399**	**6**
State and political subdivisions	**310**	**4**	**384**	**20**	**694**	**24**
Agency RMBS	**8,935**	**72**	**4,145**	**178**	**13,080**	**250**
Non-agency RMBS	**5**	**—**	**156**	**3**	**161**	**3**
Other RMBS	**72**	**4**	**83**	**4**	**155**	**8**
Commercial MBS	**193**	**2**	**92**	**2**	**285**	**4**
Agency commercial MBS	**3,610**	**47**	**561**	**10**	**4,171**	**57**
CLOs	**449**	**1**	**—**	**—**	**449**	**1**
Foreign covered bonds	**1,017**	**7**	**28**	**—**	**1,045**	**7**
Corporate bonds	**306**	**3**	**144**	**5**	**450**	**8**
Sovereign debt/sovereign guaranteed	**2,263**	**20**	**137**	**3**	**2,400**	**23**
Other debt securities	**1,347**	**9**	**84**	**1**	**1,431**	**10**
Non-agency RMBS *(a)*	**8**	**2**	**13**	**2**	**21**	**4**
Total securities available-for-sale *(b)*	**$ 26,814**	**$ 288**	**$ 6,322**	**$ 240**	**$ 33,136**	**$ 528**
Held-to-maturity:						
U.S. Treasury	**$ 7,281**	**$ 29**	**$ —**	**$ —**	**$ 7,281**	**$ 29**
U.S. government agencies	**1,459**	**5**	**99**	**1**	**1,558**	**6**
State and political subdivisions	**—**	**—**	**4**	**1**	**4**	**1**
Agency RMBS	**17,125**	**172**	**847**	**13**	**17,972**	**185**
Other RMBS	**15**	**—**	**35**	**1**	**50**	**1**
Agency commercial MBS	**557**	**5**	**—**	**—**	**557**	**5**
Total securities held-to-maturity	**$ 26,437**	**$ 211**	**$ 985**	**$ 16**	**$ 27,422**	**$ 227**
Total temporarily impaired securities	**$ 53,251**	**$ 499**	**$ 7,307**	**$ 256**	**$ 60,558**	**$ 755**

(a) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

(b) Gross unrealized losses for 12 months or more of $155 million were recorded in accumulated other comprehensive income and related to investment 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.

Temporarily impaired securities at Dec. 31, 2016	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:						
U.S. Treasury	$ 8,489	$ 181	$ —	$ —	$ 8,489	$ 181
U.S. government agencies	257	9	—	—	257	9
State and political subdivisions	1,058	33	131	19	1,189	52
Agency RMBS	14,766	141	1,673	200	16,439	341
Non-agency RMBS	21	—	332	13	353	13
Other RMBS	26	—	136	8	162	8
Commercial MBS	302	7	163	4	465	11
Agency commercial MBS	3,570	78	589	6	4,159	84
CLOs	443	1	404	—	847	1
Other asset-backed securities	276	1	357	5	633	6
Foreign covered bonds	712	9	—	—	712	9
Corporate bonds	594	16	7	1	601	17
Sovereign debt/sovereign guaranteed	1,521	20	63	—	1,584	20
Other debt securities	742	10	50	—	792	10
Non-agency RMBS *(a)*	25	—	47	9	72	9
Total securities available-for-sale *(b)*	$ 32,802	$ 506	$ 3,952	$ 265	$ 36,754	$ 771
Held-to-maturity:						
U.S. Treasury	$ 6,112	$ 41	$ —	$ —	$ 6,112	$ 41
U.S. government agencies	1,533	6	—	—	1,533	6
State and political subdivisions	—	—	4	1	4	1
Agency RMBS	19,498	297	102	2	19,600	299
Non-agency RMBS	4	—	48	2	52	2
Other RMBS	15	—	123	4	138	4
Agency commercial MBS	621	10	—	—	621	10
Total securities held-to-maturity	$ 27,783	$ 354	$ 277	$ 9	$ 28,060	$ 363
Total temporarily impaired securities	$ 60,585	$ 860	$ 4,229	$ 274	$ 64,814	$ 1,134

(a) *Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.*
(b) *Includes gross unrealized losses for 12 months or more of $190 million recorded in accumulated other comprehensive income related to investment 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 table shows the maturity distribution by carrying amount and yield (on a tax equivalent basis) of our investment securities portfolio at Sept. 30, 2017.

Maturity distribution and yield on investment securities at Sept. 30, 2017	U.S. Treasury		U.S. government agencies		State and political subdivisions		Other bonds, notes and debentures		Mortgage/ asset-backed and equity securities		
(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	$ 2,223	1.02%	$ —	—%	$ 438	2.60%	$ 3,852	1.01%	$ —	—%	**$ 6,513**
Over 1 through 5 years	5,790	1.66	174	1.29	1,576	3.07	12,648	0.99	—	—	**20,188**
Over 5 through 10 years	4,002	1.90	690	2.46	912	3.34	2,835	0.81	—	—	**8,439**
Over 10 years	3,487	3.11	—	—	198	2.36	198	1.64	—	—	**3,883**
Mortgage-backed securities	—	—	—	—	—	—	—	—	36,381	2.78	**36,381**
Asset-backed securities	—	—	—	—	—	—	—	—	3,707	2.32	**3,707**
Equity securities *(b)*	—	—	—	—	—	—	—	—	943	—	**943**
Total	$ 15,502	1.96%	$ 864	2.23%	$ 3,124	3.04%	$ 19,533	0.97%	$ 41,031	2.68%	**$ 80,054**
Securities held-to-maturity:											
One year or less	$ 4,943	0.97%	$ 731	0.99%	$ —	—%	$ 700	0.60%	$ —	—%	**$ 6,374**
Over 1 through 5 years	3,517	1.67	883	1.38	2	6.88	307	0.59	—	—	**4,709**
Over 5 through 10 years	1,407	1.92	—	—	2	6.86	661	0.73	—	—	**2,070**
Over 10 years	—	—	—	—	14	5.32	—	—	—	—	**14**
Mortgage-backed securities	—	—	—	—	—	—	—	—	26,828	2.80	**26,828**
Total	$ 9,867	1.36%	$ 1,614	1.20%	$ 18	5.64%	$ 1,668	0.65%	$ 26,828	2.80%	**$ 39,995**

(a) *Yields are based upon the amortized cost of securities.*
(b) *Includes money market funds.*

Other-than-temporary impairment

We conduct periodic reviews of all securities to determine whether OTTI has occurred. Such reviews may incorporate the use of economic models. Various inputs to the economic models are used to determine if an unrealized loss on securities is other-than-temporary. For example, the most significant inputs related to non-agency RMBS are:

- Default rate - the number of mortgage loans expected to go into default over the life of the transaction, which is driven by the roll rate of loans in each performance bucket that will ultimately migrate to default; and
- Severity - the loss expected to be realized when a loan defaults.

To determine if an unrealized loss is other-than-temporary, we project total estimated defaults of the underlying assets (mortgages) and multiply that calculated amount by an estimate of realizable value upon sale of these assets in the marketplace (severity) in order to determine the projected collateral loss. In determining estimated default rate and severity assumptions, we review the performance of the underlying securities, industry studies and market forecasts, as well as our view of the economic outlook affecting collateral. We also evaluate the current credit enhancement underlying the bond to determine the impact on cash flows. If we determine that a given security will be subject to a write-down or loss, we record the expected credit loss as a charge to earnings.

The table below shows the projected weighted-average default rates and loss severities for the 2007, 2006 and late 2005 non-agency RMBS and the securities previously held in the Grantor Trust that we established in connection with the restructuring of our investment securities portfolio in 2009, at Sept. 30, 2017 and Dec. 31, 2016.

Projected weighted-average default rates and loss severities				
	Sept. 30, 2017		Dec. 31, 2016	
	Default rate	**Severity**	Default rate	Severity
Alt-A	**22%**	**54%**	30%	54%
Subprime	**38%**	**66%**	49%	70%
Prime	**13%**	**39%**	18%	39%

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

Net securities gains (losses) *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Agency RMBS	**$ 4**	$ —	$ 9	**$ 5**	$ 22
U.S. Treasury	**1**	(1)	(1)	**—**	4
Foreign covered	**—**	—	—	**—**	10
Non-agency RMBS	**(1)**	—	(1)	**(2)**	1
Other	**15**	1	17	**26**	28
Total net securities gains	**$ 19**	$ —	$ 24	**$ 29**	$ 65

The following tables reflect investment securities credit losses recorded in earnings. The beginning balance represents the credit loss component for which OTTI occurred on debt securities in prior periods. The additions represent the first time a debt security was credit impaired or when subsequent credit impairments have occurred. The deductions represent credit losses on securities that have been sold, are required to be sold, or for which it is our intention to sell.

Debt securities credit loss roll forward *(in millions)*	**3Q17**	3Q16
Beginning balance as of June 30	**$ 85**	$ 91
Add: Initial OTTI credit losses	**—**	—
Subsequent OTTI credit losses	**1**	1
Less: Realized losses for securities sold	**2**	5
Ending balance as of Sept. 30	**$ 84**	$ 87

Debt securities credit loss roll forward *(in millions)*	**YTD17**	YTD16
Beginning balance as of Jan. 1	**$ 88**	$ 91
Add: Initial OTTI credit losses	**—**	—
Subsequent OTTI credit losses	**3**	5
Less: Realized losses for securities sold	**7**	9
Ending balance as of Sept. 30	**$ 84**	$ 87

Pledged assets

At Sept. 30, 2017, BNY Mellon had pledged assets of $108 billion, including $87 billion pledged as collateral for potential borrowings at the Federal Reserve Discount Window and $4 billion pledged as collateral for borrowing at the Federal Home Loan Bank. The components of the assets pledged at Sept. 30, 2017 included $92 billion of securities, $13 billion of loans, $2 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, 2016, BNY Mellon had pledged assets of $102 billion, including $84 billion pledged as collateral for potential borrowing at the Federal Reserve Discount Window. The components of the assets pledged at Dec. 31, 2016 included $87 billion of securities, $8 billion of loans, $4 billion of interest-bearing deposits with banks and $3 billion of trading assets.

At Sept. 30, 2017 and Dec. 31, 2016, pledged assets included $13 billion and $6 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, 2017 and Dec. 31, 2016, the market value of the securities received that can be sold or repledged was $68 billion and $50 billion, respectively. We routinely sell or repledge these securities through delivery to third parties. As of Sept. 30, 2017 and Dec. 31, 2016, the market value of securities collateral sold or repledged was $39 billion and $20 billion, respectively.

Restricted cash and securities

Cash and securities may also be segregated under federal and other regulations or requirements. At Sept. 30, 2017 and Dec. 31, 2016, 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 for these purposes were $2 billion at Sept. 30, 2017 and $2 billion at Dec. 31, 2016. Restricted securities were sourced from securities purchased under resale agreements at Sept. 30, 2017 and Dec. 31, 2016 and are included in federal funds sold and securities purchased under resale agreements on the consolidated balance sheet.

Note 5 - Loans and asset quality

Loans

The table below provides the details of our loan portfolio and industry concentrations of credit risk at Sept. 30, 2017 and Dec. 31, 2016.

Loans *(in millions)*	**Sept. 30, 2017**	Dec. 31, 2016
Domestic:		
Financial institutions	**$ 5,155**	$ 6,342
Commercial	**2,698**	2,286
Wealth management loans and mortgages	**16,161**	15,555
Commercial real estate	**4,921**	4,639
Lease financings	**823**	989
Other residential mortgages	**741**	854
Overdrafts	**1,487**	1,055
Other	**1,159**	1,202
Margin loans	**13,720**	17,503
Total domestic	**46,865**	50,425
Foreign:		
Financial institutions	**6,741**	8,347
Commercial	**305**	331
Wealth management loans and mortgages	**104**	99
Commercial real estate	**6**	15
Lease financings	**522**	736
Other (primarily overdrafts)	**4,373**	4,418
Margin loans	**152**	87
Total foreign	**12,203**	14,033
Total loans *(a)*	**$ 59,068**	$ 64,458

(a) Net of unearned income of $414 million at Sept. 30, 2017 and $527 million at Dec. 31, 2016 primarily on 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 receivable and provide additional information about our credit risks and the adequacy of our allowance for credit losses.

Allowance for credit losses

Transactions in the allowance for credit losses are summarized as follows.

Allowance for credit losses activity for the quarter ended Sept. 30, 2017 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other	Foreign	Total
Beginning balance	$ 80	$ 75	$ 23	$ 10	$ 25	$ 23	$ —	$ 34	$ 270
Charge-offs	—	—	—	—	—	—	—	—	—
Recoveries	—	—	—	—	—	1	—	—	1
Net recoveries	—	—	—	—	—	1	—	—	1
Provision	1	—	—	(1)	(4)	(3)	—	1	(6)
Ending balance	**$ 81**	**$ 75**	**$ 23**	**$ 9**	**$ 21**	**$ 21**	**$ —**	**$ 35**	**$ 265**
Allowance for:									
Loan losses	$ 26	$ 57	$ 7	$ 9	$ 17	$ 21	$ —	$ 24	$ 161
Lending-related commitments	55	18	16	—	4	—	—	11	104
Individually evaluated for impairment:									
Loan balance	$ —	$ —	$ 2	$ —	$ 5	$ —	$ —	$ —	$ 7
Allowance for loan losses	—	—	2	—	—	—	—	—	2
Collectively evaluated for impairment:									
Loan balance	$ 2,698	$ 4,921	$ 5,153	$ 823	$ 16,156	$ 741	$ 16,366 *(a)*	$ 12,203	$ 59,061
Allowance for loan losses	26	57	5	9	17	21	—	24	159

(a) Includes $1,487 million of domestic overdrafts, $13,720 million of margin loans and $1,159 million of other loans at Sept. 30, 2017.

Allowance for credit losses activity for the quarter ended June 30, 2017 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other	Foreign	Total
Beginning balance	$ 82	$ 73	$ 23	$ 10	$ 26	$ 25	$ —	$ 37	$ 276
Charge-offs	—	—	—	—	—	—	—	—	—
Recoveries	—	—	—	—	—	1	—	—	1
Net recoveries	—	—	—	—	—	1	—	—	1
Provision	(2)	2	—	—	(1)	(3)	—	(3)	(7)
Ending balance	$ 80	$ 75	$ 23	$ 10	$ 25	$ 23	$ —	$ 34	$ 270
Allowance for:									
Loan losses	$ 26	$ 55	$ 7	$ 10	$ 21	$ 23	$ —	$ 23	$ 165
Lending-related commitments	54	20	16	—	4	—	—	11	105
Individually evaluated for impairment:									
Loan balance	$ —	$ —	$ 2	$ —	$ 7	$ —	$ —	$ —	$ 9
Allowance for loan losses	—	—	2	—	3	—	—	—	5
Collectively evaluated for impairment:									
Loan balance	$ 2,580	$ 5,017	$ 5,952	$ 847	$ 16,024	$ 780	$ 15,950 *(a)*	$ 14,514	$ 61,664
Allowance for loan losses	26	55	5	10	18	23	—	23	160

(a) Includes $855 million of domestic overdrafts, $13,973 million of margin loans and $1,122 million of other loans at June 30, 2017.

Allowance for credit losses activity for the quarter ended Sept. 30, 2016 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other	Foreign	Total
Beginning balance	$ 90	$ 63	$ 29	$ 14	$ 18	$ 29	$ —	$ 37	$ 280
Charge-offs	—	—	—	—	—	(1)	—	—	(1)
Recoveries	—	—	13	—	—	1	—	—	14
Net recoveries	—	—	13	—	—	—	—	—	13
Provision	1	—	(13)	—	—	(1)	—	(6)	(19)
Ending balance	$ 91	$ 63	$ 29	$ 14	$ 18	$ 28	$ —	$ 31	$ 274
Allowance for:									
Loan losses	$ 22	$ 45	$ 9	$ 14	$ 14	$ 28	$ —	$ 16	$ 148
Lending-related commitments	69	18	20	—	4	—	—	15	126
Individually evaluated for impairment:									
Loan balance	$ —	$ 1	$ —	$ 4	$ 4	$ —	$ —	$ —	$ 9
Allowance for loan losses	—	1	—	2	—	—	—	—	3
Collectively evaluated for impairment:									
Loan balance	$ 2,292	$ 4,693	$ 6,783	$ 1,013	$ 15,027	$ 901	$ 20,189 *(a)*	$ 15,061	$ 65,959
Allowance for loan losses	22	44	9	12	14	28	—	16	145

(a) Includes $1,580 million of domestic overdrafts, $17,487 million of margin loans and $1,122 million of other loans at Sept. 30, 2016.

Allowance for credit losses activity for the nine months ended Sept. 30, 2017 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other	Foreign	Total
Beginning balance	$ 82	$ 73	$ 26	$ 13	$ 23	$ 28	$ —	$ 36	$ 281
Charge-offs	—	—	—	—	—	(1)	—	—	(1)
Recoveries	—	—	—	—	—	3	—	—	3
Net recoveries	—	—	—	—	—	2	—	—	2
Provision	(1)	2	(3)	(4)	(2)	(9)	—	(1)	(18)
Ending balance	**$ 81**	**$ 75**	**$ 23**	**$ 9**	**$ 21**	**$ 21**	**$ —**	**$ 35**	**$ 265**

Allowance for credit losses activity for the nine months ended Sept. 30, 2016 *(in millions)*	Commercial	Commercial real estate	Financial institutions	Lease financings	Wealth management loans and mortgages	Other residential mortgages	All other	Foreign	Total
Beginning balance	$ 82	$ 59	$ 31	$ 15	$ 19	$ 34	$ —	$ 35	$ 275
Charge-offs	—	—	—	—	—	(1)	—	—	(1)
Recoveries	—	—	13	—	—	4	—	1	18
Net recoveries	—	—	13	—	—	3	—	1	17
Provision	9	4	(15)	(1)	(1)	(9)	—	(5)	(18)
Ending balance	$ 91	$ 63	$ 29	$ 14	$ 18	$ 28	$ —	$ 31	$ 274

Nonperforming assets

The table below presents our nonperforming assets.

Nonperforming assets *(in millions)*	**Sept. 30, 2017**	Dec. 31, 2016
Nonperforming loans:		
Other residential mortgages	**$ 80**	$ 91
Wealth management loans and mortgages	**8**	8
Financial institutions	**2**	—
Lease financings	**—**	4
Total nonperforming loans	**90**	103
Other assets owned	**4**	4
Total nonperforming assets	**$ 94**	$ 107

At Sept. 30, 2017, undrawn commitments to borrowers whose loans were classified as nonaccrual or reduced rate were not material.

Lost interest

The table below presents the amount of lost interest income.

Lost interest *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Amount by which interest income recognized on nonperforming loans exceeded reversals	**$ —**	$ —	$ —	**$ —**	$ —
Amount by which interest income would have increased if nonperforming loans at period end had been performing for the entire period	**$ 1**	$ 1	$ 1	**$ 4**	$ 4

Impaired loans

The tables below present information about our impaired loans. We use the discounted cash flow method as the primary method for valuing impaired loans.

Impaired loans	**3Q17**		2Q17		3Q16		**YTD17**		YTD16	
(in millions)	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized	Average recorded investment	Interest income recognized
Impaired loans with an allowance:										
Commercial real estate	**$ —**	**$ —**	$ —	$ —	$ 1	$ —	**$ —**	**$ —**	$ 1	$ —
Financial institutions	**2**	**—**	1	—	—	—	**1**	**—**	—	—
Wealth management loans and mortgages	**2**	**—**	3	—	3	—	**3**	**—**	5	—
Lease financings	**—**	**—**	—	—	4	—	**1**	**—**	3	—
Total impaired loans with an allowance	**4**	—	4	—	8	—	**5**	**—**	9	—
Impaired loans without an allowance*:*										
Commercial real estate	**—**	**—**	—	—	1	—	**—**	**—**	1	—
Financial institutions	**—**	**—**	—	—	85	—	**—**	**—**	128	—
Wealth management loans and mortgages	**4**	**—**	3	—	3	—	**3**	**—**	2	—
Total impaired loans without an allowance *(a)*	**4**	**—**	3	—	89	**—**	**3**	**—**	131	**—**
Total impaired loans	**$ 8**	**$ —**	$ 7	$ —	$ 97	$ —	**$ 8**	**$ —**	$ 140	$ —

(a) *When the discounted cash flows, collateral value or market price equals or exceeds the carrying value of the loan, then the loan does not require an allowance under the accounting standard related to impaired loans.*

Impaired loans	**Sept. 30, 2017**			Dec. 31, 2016		
(in millions)	Recorded investment	Unpaid principal balance	Related allowance *(a)*	Recorded investment	Unpaid principal balance	Related allowance *(a)*
Impaired loans with an allowance:						
Commercial real estate	**$ —**	**$ 3**	**$ —**	$ —	$ 3	$ —
Financial institutions	**2**	**2**	**2**	—	—	—
Wealth management loans and mortgages	**1**	**1**	**—**	3	3	3
Lease financings	**—**	**—**	**—**	4	4	2
Total impaired loans with an allowance	**3**	**6**	**2**	7	10	5
Impaired loans without an allowance*:*						
Wealth management loans and mortgages	**4**	**4**	**N/A**	2	2	N/A
Total impaired loans without an allowance *(b)*	**4**	**4**	**N/A**	2	2	N/A
Total impaired loans *(c)*	**$ 7**	**$ 10**	**$ 2**	$ 9	$ 12	$ 5

(a) The allowance for impaired loans is included in the allowance for loan losses.
(b) When the discounted cash flows, collateral value or market price equals or exceeds the carrying value of the loan, then the loan does not require an allowance under the accounting standard related to impaired loans.
(c) Excludes an aggregate of less than $1 million of impaired loans in amounts individually less than $1 million at both Sept. 30, 2017 and Dec. 31, 2016, respectively. The allowance for loan losses associated with these loans totaled less than $1 million at both Sept. 30, 2017 and Dec. 31, 2016, respectively.

Past due loans

The table below presents our past due loans.

Past due loans and still accruing interest	**Sept. 30, 2017**				Dec. 31, 2016			
	Days past due			Total	Days past due			Total
(in millions)	30-59	60-89	≥90	past due	30-59	60-89	≥90	past due
Commercial real estate	**$ 51**	**$ 60**	**$ —**	**$ 111**	$ 78	$ —	$ —	$ 78
Wealth management loans and mortgages	**86**	**15**	**1**	**102**	21	2	—	23
Other residential mortgages	**20**	**3**	**5**	**28**	20	6	7	33
Financial institutions	**—**	**—**	**—**	**—**	1	27	—	28
Total past due loans	**$ 157**	**$ 78**	**$ 6**	**$ 241**	$ 120	$ 35	$ 7	$ 162

Troubled debt restructurings ("TDRs")

A modified loan is considered a TDR if the debtor is experiencing financial difficulties and the creditor grants a concession to the debtor that would not otherwise be considered. A TDR may include a transfer of real estate or other assets from the debtor to the creditor, or a modification of the term of the loan. Not all modified loans are considered TDRs.

The following table presents our TDRs.

TDRs	**3Q17**			2Q17			3Q16		
		Outstanding recorded investment			Outstanding recorded investment			Outstanding recorded investment	
(dollars in millions)	Number of contracts	Pre-modification	Post-modification	Number of contracts	Pre-modification	Post-modification	Number of contracts	Pre-modification	Post-modification
Other residential mortgages	**19**	**$ 5**	**$ 5**	16	$ 4	$ 4	17	$ 4	$ 4
Wealth management loans and mortgages	**1**	**2**	**2**	—	—	—	—	—	—
Total TDRs	**20**	**$ 7**	**$ 7**	16	$ 4	$ 4	17	$ 4	$ 4

Other residential mortgages

The modifications of the other residential mortgage loans in the third quarter of 2017, second quarter of 2017 and third quarter of 2016 consisted of reducing the stated interest rates and, in certain cases, a forbearance of default and extending the maturity dates. The modified loans are primarily collateral dependent for which the value is based on the fair value of the collateral.

TDRs that subsequently defaulted

There were three residential mortgage loans that had been restructured in a TDR during the previous 12 months and have subsequently defaulted in the third quarter of 2017. The total recorded investment of these loans was less than $1 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 following tables present information about credit quality indicators.

Commercial loan portfolio

Commercial loan portfolio – Credit risk profile by creditworthiness category	Commercial		Commercial real estate		Financial institutions	
(in millions)	**Sept. 30, 2017**	Dec. 31, 2016	**Sept. 30, 2017**	Dec. 31, 2016	**Sept. 30, 2017**	Dec. 31, 2016
Investment grade	**$ 2,857**	$ 2,397	**$ 4,339**	$ 3,823	**$ 9,217**	$ 11,459
Non-investment grade	**146**	220	**588**	831	**2,679**	3,230
Total	**$ 3,003**	$ 2,617	**$ 4,927**	$ 4,654	**$ 11,896**	$ 14,689

The commercial loan portfolio is divided into investment grade and non-investment grade categories based on rating criteria largely consistent with those of the public rating agencies. Each customer in the portfolio is assigned an internal credit rating. These internal credit ratings are generally consistent with the ratings categories 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.

Wealth management loans and mortgages

Wealth management loans and mortgages – Credit risk profile by internally assigned grade		
(in millions)	**Sept. 30, 2017**	Dec. 31, 2016
Wealth management loans:		
Investment grade	**$ 7,128**	$ 7,127
Non-investment grade	**135**	260
Wealth management mortgages	**9,002**	8,267
Total	**$ 16,265**	$ 15,654

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. In the wealth management portfolio, less than 1% of the mortgages were past due at Sept. 30, 2017.

At Sept. 30, 2017, the wealth management mortgage portfolio consisted of the following geographic concentrations: California - 24%; New York - 19%; Massachusetts - 11%; Florida - 8%; and other - 38%.

Other residential mortgages

The other residential mortgage portfolio primarily consists of 1-4 family residential mortgage loans and totaled $741 million at Sept. 30, 2017 and $854 million at Dec. 31, 2016. These loans are not typically correlated to external ratings. Included in this portfolio at Sept. 30, 2017 are $181 million of mortgage loans purchased in 2005, 2006 and the first quarter of 2007 that are predominantly prime mortgage loans, with a small portion of Alt-A loans. As of Sept. 30, 2017, the purchased loans in this portfolio had a weighted-average loan-to-value ratio of 76% at origination and 11% of the serviced loan balance was at least 60 days delinquent. The properties securing the prime and Alt-A mortgage loans were located (in order of concentration) in California, Florida, Virginia, the tri-state area (New York, New Jersey and Connecticut) and Maryland.

Overdrafts

Overdrafts primarily relate to custody and securities clearance clients and totaled $5.8 billion at Sept. 30, 2017 and $5.5 billion at Dec. 31, 2016. Overdrafts occur on a daily basis in the custody and securities clearance business 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 $13.9 billion of secured margin loans on our balance sheet at Sept. 30, 2017 compared with $17.6 billion at Dec. 31, 2016. 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 and do not allocate any of our allowance for credit losses to margin loans.

Reverse repurchase agreements

Reverse repurchase agreements are transactions fully collateralized with high-quality liquid securities. These transactions carry minimal credit risk and therefore are not allocated an allowance for credit losses.

Note 6 - Goodwill and intangible assets

Goodwill

The tables below provide a breakdown of goodwill by business.

Goodwill by business *(in millions)*	Investment Management	Investment Services	Other	Consolidated
Balance at Dec. 31, 2016	$ 9,000	$ 8,269	$ 47	$ 17,316
Foreign currency translation	120	107	—	227
Balance at Sept. 30, 2017	**$ 9,120**	**$ 8,376**	**$ 47**	**$ 17,543**

Goodwill by business *(in millions)*	Investment Management	Investment Services	Other	Consolidated
Balance at Dec. 31, 2015	$ 9,207	$ 8,366	$ 45	$ 17,618
Acquisitions	29	(1)	—	28
Foreign currency translation	(167)	(30)	—	(197)
Other *(a)*	2	(4)	2	—
Balance at Sept. 30, 2016	$ 9,071	$ 8,331	$ 47	$ 17,449

(a) Other changes in goodwill include purchase price adjustments and certain other reclassifications.

Intangible assets

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

Intangible assets – net carrying amount by business *(in millions)*	Investment Management	Investment Services	Other	Consolidated
Balance at Dec. 31, 2016	$ 1,717	$ 1,032	$ 849	$ 3,598
Amortization	(45)	(112)	—	(157)
Foreign currency translation	16	4	—	20
Balance at Sept. 30, 2017	**$ 1,688**	**$ 924**	**$ 849**	**$ 3,461**

Intangible assets – net carrying amount by business *(in millions)*	Investment Management	Investment Services	Other	Consolidated
Balance at Dec. 31, 2015	$ 1,807	$ 1,186	$ 849	$ 3,842
Acquisitions	30	2	—	32
Amortization	(60)	(117)	—	(177)
Foreign currency translation	(27)	1	—	(26)
Balance at Sept. 30, 2016	$ 1,750	$ 1,072	$ 849	$ 3,671

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

Intangible assets	**Sept. 30, 2017**				Dec. 31, 2016		
(in millions)	Gross carrying amount	Accumulated amortization	Net carrying amount	Remaining weighted-average amortization period	Gross carrying amount	Accumulated amortization	Net carrying amount
Subject to amortization: *(a)*							
Customer relationships—Investment Management	**$ 1,483**	**$ (1,221)**	**$ 262**	**11 years**	$ 1,439	$ (1,136)	$ 303
Customer contracts—Investment Services	**2,257**	**(1,705)**	**552**	**10 years**	2,249	(1,590)	659
Other	**25**	**(22)**	**3**	**2 years**	37	(33)	4
Total subject to amortization	**3,765**	**(2,948)**	**817**	**10 years**	3,725	(2,759)	966
Not subject to amortization: *(b)*							
Trade name	**1,350**	**N/A**	**1,350**	**N/A**	1,348	N/A	1,348
Customer relationships	**1,294**	**N/A**	**1,294**	**N/A**	1,284	N/A	1,284
Total not subject to amortization	**2,644**	**N/A**	**2,644**	**N/A**	2,632	N/A	2,632
Total intangible assets	**$ 6,409**	**$ (2,948)**	**$ 3,461**	**N/A**	$ 6,357	$ (2,759)	$ 3,598

(a) *Excludes fully amortized intangible assets.*
(b) *Intangible assets not subject to amortization have an indefinite life.*

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)*
2017	**$ 209**
2018	**180**
2019	**109**
2020	**98**
2021	**75**

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 eight reporting units for which goodwill impairment testing is performed on an annual basis. In the second quarter of 2017, BNY Mellon conducted an annual goodwill impairment test on all eight reporting units.

As a result of the annual goodwill impairment test of the eight reporting units, no goodwill impairment was recognized.

Note 7 - Other assets

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

Other assets *(in millions)*	**Sept. 30, 2017**	Dec. 31, 2016
Corporate/bank-owned life insurance	**$ 4,824**	$ 4,789
Accounts receivable	**3,899**	4,060
Fails to deliver	**3,532**	1,732
Software	**1,513**	1,451
Renewable energy investments	**1,344**	1,282
Equity in a joint venture and other investments	**1,153**	1,063
Income taxes receivable	**1,020**	1,172
Qualified affordable housing project investments	**988**	914
Prepaid pension assets	**951**	836
Prepaid expenses	**512**	438
Federal Reserve Bank stock	**474**	466
Fair value of hedging derivatives	**344**	784
Due from customers on acceptances	**318**	340
Seed capital	**302**	395
Other *(a)*	**1,113**	1,232
Total other assets	**$ 22,287**	$ 20,954

(a) At Sept. 30, 2017, other assets include $76 million of Federal Home Loan Bank stock, at cost.

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 $988 million at Sept. 30, 2017 and $914 million at Dec. 31, 2016. Commitments to fund future investments in qualified affordable housing projects totaled $439 million at Sept. 30, 2017 and $369 million at Dec. 31, 2016. A summary of the commitments to fund future investments is as follows: 2017 – $75 million; 2018 – $161 million; 2019 – $107 million; 2020 – $79 million; 2021 – $1 million; and 2022 and thereafter – $16 million.

Tax credits and other tax benefits recognized were $39 million in the third quarter of 2017, $39 million in the third quarter of 2016, $38 million in the second quarter of 2017, $115 million in the first nine months of 2017 and $115 million in the first nine months of 2016.

Amortization expense included in the provision for income taxes was $29 million in the third quarter of 2017, $30 million in the third quarter of 2016, $28 million in the second quarter of 2017, $84 million in the first nine months of 2017 and $86 million in the first nine months of 2016.

Certain seed capital and private equity investments valued using net asset value per share

In our Investment Management business, we manage investment assets, including equities, fixed income, money market and alternative investment funds for institutions and other investors. As part of that activity, we make seed capital investments in certain funds. BNY Mellon also holds private equity investments, specifically in small business investment companies ("SBICs"), which are compliant with the Volcker Rule. Seed capital and private equity investments are generally included in other assets. Certain risk retention investments in our CLOs are classified as available-for-sale securities.

The fair value of certain of these investments has been estimated using the NAV per share of BNY Mellon's ownership interest in the funds. The table below presents information about our investments in seed capital and private equity investments that have been valued using NAV.

Seed capital and private equity investments valued using NAV

	Sept. 30, 2017				Dec. 31, 2016			
(dollar amounts in millions)	Fair value	Unfunded commitments	Redemption frequency	Redemption notice period	Fair value	Unfunded commitments	Redemption frequency	Redemption notice period
Seed capital and other funds *(a)*	**$ 97**	**$ 2**	**Daily-quarterly**	**1-95 days**	$ 171	$ 1	Daily-quarterly	1-180 days
Private equity investments (SBICs) *(b)*	**54**	**47**	**N/A**	**N/A**	43	46	N/A	N/A
Total	**$ 151**	**$ 49**			$ 214	$ 47		

(a) Other funds include various leveraged loans, hedge funds and structured credit funds. Redemption notice periods vary by fund.

(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 are liquidated.

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, 2017**	June 30, 2017	Sept. 30, 2016	**Sept. 30, 2017**	Sept. 30, 2016
Interest revenue					
Non-margin loans	**$ 283**	$ 272	$ 218	**$ 800**	$ 637
Margin loans	**87**	87	67	**249**	194
Securities:					
Taxable	**510**	476	434	**1,447**	1,307
Exempt from federal income taxes	**16**	16	17	**49**	53
Total securities	**526**	492	451	**1,496**	1,360
Deposits with banks	**34**	27	26	**83**	76
Deposits with the Federal Reserve and other central banks	**89**	71	37	**217**	170
Federal funds sold and securities purchased under resale agreements	**119**	86	62	**272**	167
Trading assets	**13**	17	13	**46**	43
Total interest revenue	**1,151**	1,052	874	**3,163**	2,647
Interest expense					
Deposits	**57**	32	(6)	**98**	21
Federal funds purchased and securities sold under repurchase agreements	**70**	38	6	**132**	28
Trading liabilities	**2**	2	2	**6**	5
Other borrowed funds	**7**	4	1	**13**	5
Commercial paper	**8**	5	1	**18**	5
Customer payables	**19**	16	3	**42**	9
Long-term debt	**149**	129	93	**397**	267
Total interest expense	**312**	226	100	**706**	340
Net interest revenue	**839**	826	774	**2,457**	2,307
Provision for credit losses	**(6)**	(7)	(19)	**(18)**	(18)
Net interest revenue after provision for credit losses	**$ 845**	$ 833	$ 793	**$ 2,475**	$ 2,325

Note 9 - Employee benefit plans

The components of net periodic benefit (credit) cost are as follows.

Net periodic benefit (credit) cost	Quarter ended								
	Sept. 30, 2017			June 30, 2017			Sept. 30, 2016		
(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	**$ —**	**$ 7**	**$ —**	$ —	$ 7	$ —	$ —	$ 8	$ 1
Interest cost	**45**	**8**	**2**	45	8	2	45	9	2
Expected return on assets	**(81)**	**(12)**	**(2)**	(81)	(12)	(2)	(82)	(13)	(2)
Other	**17**	**9**	**(1)**	17	9	(1)	17	4	(1)
Net periodic benefit (credit) cost	**$ (19)**	**$ 12**	**$ (1)**	$ (19)	$ 12	$ (1)	$ (20)	$ 8	$ —

Net periodic benefit (credit) cost	Year-to-date					
	Sept. 30, 2017			Sept. 30, 2016		
(in millions)	Domestic pension benefits	Foreign pension benefits	Health care benefits	Domestic pension benefits	Foreign pension benefits	Health care benefits
Service cost	**$ —**	**$ 21**	**$ —**	$ —	$ 24	$ 3
Interest cost	**135**	**24**	**6**	135	27	6
Expected return on assets	**(243)**	**(36)**	**(6)**	(246)	(39)	(6)
Other	**51**	**27**	**(3)**	52	13	(3)
Net periodic benefit (credit) cost	**$ (57)**	**$ 36**	**$ (3)**	$ (59)	$ 25	$ —

Note 10 - Income taxes

BNY Mellon recorded an income tax provision of $348 million (25.4% effective tax rate) in the third quarter of 2017. The income tax provision was $324 million (24.6% effective tax rate) in the third quarter of 2016 and $332 million (25.4% effective tax rate) in the second quarter of 2017.

Our total tax reserves as of Sept. 30, 2017 were $157 million compared with $143 million at June 30, 2017. If these tax reserves were unnecessary, $157 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, 2017 is accrued interest, where applicable, of $24 million. The additional tax expense related to interest for the nine months ended Sept. 30, 2017 was $7 million, compared with $2 million for the nine months ended Sept. 30, 2016.

It is reasonably possible the total reserve for uncertain tax positions could decrease within the next 12 months by approximately $57 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 2013. Our New York State, New York City and UK income tax returns are closed to examination through 2012.

Note 11 - Variable interest entities and securitization

BNY Mellon has variable interests in VIEs, which include investments in retail, institutional and alternative investment funds, including collateralized loan obligation ("CLO") structures in which we provide asset management services, some of which are consolidated. The investment funds are offered to our retail and institutional clients to provide them with access to investment vehicles with specific investment objectives and strategies that address the client's investment needs.

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

Additionally, BNY Mellon invests in qualified affordable housing and renewable energy projects, which are designed to generate a return primarily through the realization of tax credits by the Company. The projects, which are structured as limited partnerships and LLCs, are also VIEs, but are not consolidated.

The VIEs discussed above are included in the scope of ASU 2015-02, which was adopted effective Jan. 1, 2015, and are reviewed for consolidation based on the guidance in ASC 810, *Consolidation*. We reconsider and reassess whether or not we are the primary beneficiary of a VIE when governing documents or contractual arrangements are changed that would reallocate the obligation to absorb expected losses or receive expected residual returns between BNY Mellon and the other investors. This could occur when BNY Mellon disposes of its variable interests in the fund, when additional variable interests are issued to other investors or when we acquire additional variable interests in the VIE.

The following tables present the incremental assets and liabilities included in BNY Mellon's consolidated financial statements, after applying intercompany eliminations, as of Sept. 30, 2017 and Dec. 31, 2016. 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 invested in the VIE by BNY Mellon.

Investments consolidated at Sept. 30, 2017				
(in millions)	Investment Management funds		Securitization	Total consolidated investments
Securities - Available-for-sale	**$ —**		**$ 400**	**$ 400**
Trading assets	**576**		**—**	**576**
Other assets	**226**		**—**	**226**
Total assets	**$ 802**	*(a)*	**$ 400**	**$ 1,202**
Other liabilities	**$ 27**		**$ 369**	**$ 396**
Total liabilities	**$ 27**	*(a)*	**$ 369**	**$ 396**
Nonredeemable noncontrolling interests	**$ 384**	*(a)*	**$ —**	**$ 384**

(a) Includes voting model entities ("VMEs") with assets of $90 million, liabilities of $2 million and nonredeemable noncontrolling interests of $20 million.

Investments consolidated at Dec. 31, 2016				
(in millions)	Investment Management funds		Securitization	Total consolidated investments
Securities - Available-for-sale	$ —		$ 400	$ 400
Trading assets	979		—	979
Other assets	252		—	252
Total assets	$ 1,231	*(a)*	$ 400	$ 1,631
Trading liabilities	$ 282		$ —	$ 282
Other liabilities	33		363	396
Total liabilities	$ 315	*(a)*	$ 363	$ 678
Nonredeemable noncontrolling interests	$ 618	*(a)*	$ —	$ 618

(a) Includes VMEs with assets of $114 million, liabilities of $3 million and nonredeemable noncontrolling interests of $25 million.

BNY Mellon has 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, 2017 and Dec. 31, 2016, the following assets and liabilities related to the VIEs where BNY Mellon is not the primary beneficiary are included in our consolidated financial statements and primarily relate to accounting for our investments in qualified affordable housing and renewable energy projects.

Non-consolidated VIEs at Sept. 30, 2017			
(in millions)	Assets	Liabilities	Maximum loss exposure
Securities - Available-for-sale *(a)*	**$ 143**	**$ —**	**$ 143**
Other	**2,559**	**439**	**3,321**

(a) Investments in the Company's sponsored CLOs.

Non-consolidated VIEs at Dec. 31, 2016			
(in millions)	Assets	Liabilities	Maximum loss exposure
Securities - Available-for-sale *(a)*	$ 42	$ —	$ 42
Other	2,400	369	2,769

(a) Investments in the Company's sponsored CLOs.

The maximum loss exposure indicated in the above tables relates solely to BNY Mellon's investments in, and unfunded commitments to, the VIEs.

Note 12 - Preferred stock

BNY Mellon has 100 million authorized shares of preferred stock with a par value of $0.01 per share. The following table summarizes BNY Mellon's preferred stock issued and outstanding at Sept. 30, 2017 and Dec. 31, 2016.

Preferred stock summary *(a)*		**Total shares issued and outstanding**		**Carrying value** *(b)* *(in millions)*	
	Per annum dividend rate	**Sept. 30, 2017**	Dec. 31, 2016	**Sept. 30, 2017**	Dec. 31, 2016
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 C	5.2%	**5,825**	5,825	**568**	568
Series D	4.50% 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	4.95% to and including 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 and including Sept. 20, 2026, then a floating rate equal to the three-month LIBOR plus 3.131%	**10,000**	10,000	**990**	990
Total		**35,826**	35,826	**$ 3,542**	$ 3,542

(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 C, Series D, Series E and Series F preferred stock is recorded net of issuance costs.

On Sept. 20, 2017, The Bank of New York Mellon Corporation paid the following dividends for the noncumulative perpetual preferred stock for the dividend period ending in September 2017 to holders of record as of the close of business on Sept. 5, 2017:

- $1,022.22 per share on the Series A Preferred Stock (equivalent to $10.2222 per Normal Preferred Capital Security of Mellon Capital IV, each representing a 1/100th interest in a share of the Series A Preferred Stock);
- $1,300.00 per share on the Series C Preferred Stock (equivalent to $0.3250 per depositary share, each representing a 1/4,000th interest in a share of the Series C Preferred Stock); and
- $2,312.50 per share on the Series F Preferred Stock (equivalent to $23.1250 per depositary share, each representing a 1/100th interest in a share of the Series F Preferred Stock).

For additional information on the preferred stock, see Note 13 of the Notes to Consolidated Financial Statements in our 2016 Annual Report.

Terms of the Series A, Series C, Series D, Series E and Series F preferred stock are more fully described in each of their Certificates of Designations, each of which is filed as an Exhibit to this Form 10-Q.

Note 13 - Other comprehensive income (loss)

Components of other comprehensive income (loss) (in millions)	Quarter ended								
	Sept. 30, 2017			June 30, 2017			Sept. 30, 2016		
	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)*	**$ 221**	**$ 65**	**$ 286**	$ 249	$ 81	$ 330	$ (104)	$ (82)	$ (186)
Total foreign currency translation	**221**	**65**	**286**	249	81	330	(104)	(82)	(186)
Unrealized gain (loss) on assets available-for-sale:									
Unrealized gain (loss) arising during period	**47**	**(19)**	**28**	146	(55)	91	(87)	34	(53)
Reclassification adjustment *(b)*	**(19)**	**7**	**(12)**	—	(1)	(1)	(24)	9	(15)
Net unrealized gain (loss) on assets available-for-sale	**28**	**(12)**	**16**	146	(56)	90	(111)	43	(68)
Defined benefit plans:									
Net gain (loss) arising during the period	**—**	**—**	**—**	—	—	—	—	—	—
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost *(b)*	**25**	**(10)**	**15**	24	(8)	16	22	(8)	14
Total defined benefit plans	**25**	**(10)**	**15**	24	(8)	16	22	(8)	14
Unrealized gain (loss) on cash flow hedges:									
Unrealized hedge gain (loss) arising during period	**(2)**	**—**	**(2)**	(8)	4	(4)	(24)	7	(17)
Reclassification adjustment *(b)*	**3**	**(1)**	**2**	9	(4)	5	28	(9)	19
Net unrealized gain (loss) on cash flow hedges	**1**	**(1)**	**—**	1	—	1	4	(2)	2
Total other comprehensive income (loss)	**$ 275**	**$ 42**	**$ 317**	$ 420	$ 17	$ 437	$ (189)	$ (49)	$ (238)

(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 staff expense on the Consolidated Income Statement. See Note 16 of the Notes to Consolidated Financial Statements for the location of the reclassification adjustment related to cash flow hedges on the Consolidated Income Statement.*

Components of other comprehensive income (loss) (in millions)	Year-to-date					
	Sept. 30, 2017			Sept. 30, 2016		
	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)*	**$ 566**	**$ 175**	**$ 741**	$ (223)	$ (210)	$ (433)
Total foreign currency translation	**566**	**175**	**741**	(223)	(210)	(433)
Unrealized gain (loss) on assets available-for-sale:						
Unrealized gain (loss) arising during period	**357**	**(144)**	**213**	338	(111)	227
Reclassification adjustment *(b)*	**(29)**	**10**	**(19)**	(65)	22	(43)
Net unrealized gain (loss) on assets available-for-sale	**328**	**(134)**	**194**	273	(89)	184
Defined benefit plans:						
Net gain (loss) arising during the period	**3**	**(1)**	**2**	3	(1)	2
Amortization of prior service credit, net loss and initial obligation included in net periodic benefit cost *(b)*	**74**	**(25)**	**49**	65	(22)	43
Total defined benefit plans	**77**	**(26)**	**51**	68	(23)	45
Unrealized gain (loss) on cash flow hedges:						
Unrealized hedge gain (loss) arising during period	**4**	**(1)**	**3**	(115)	38	(77)
Reclassification adjustment *(b)*	**13**	**(5)**	**8**	110	(37)	73
Net unrealized gain (loss) on cash flow hedges	**17**	**(6)**	**11**	(5)	1	(4)
Total other comprehensive income (loss)	**$ 988**	**$ 9**	**$ 997**	$ 113	$ (321)	$ (208)

(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 staff expense on the Consolidated Income Statement. See Note 16 of the Notes to Consolidated Financial Statements for the location of the reclassification adjustment related to cash flow hedges 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 18 of the Notes to Consolidated Financial Statements in our 2016 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, 2017 and Dec. 31, 2016, 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. There were no material transfers between Level 1 and Level 2 during the third quarter of 2017.

Assets measured at fair value on a recurring basis at Sept. 30, 2017 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Available-for-sale securities:					
U.S. Treasury	$ 15,502	$ —	$ —	$ —	$ 15,502
U.S. government agencies	—	864	—	—	864
Sovereign debt/sovereign guaranteed	74	12,491	—	—	12,565
State and political subdivisions	—	3,124	—	—	3,124
Agency RMBS	—	24,431	—	—	24,431
Non-agency RMBS	—	525	—	—	525
Other RMBS	—	265	—	—	265
Commercial MBS	—	965	—	—	965
Agency commercial MBS	—	9,010	—	—	9,010
CLOs	—	2,550	—	—	2,550
Other asset-backed securities	—	1,157	—	—	1,157
Equity securities	4	—	—	—	4
Money market funds *(b)*	939	—	—	—	939
Corporate bonds	—	1,275	—	—	1,275
Other debt securities	—	3,151	—	—	3,151
Foreign covered bonds	2,284	258	—	—	2,542
Non-agency RMBS *(c)*	—	1,185	—	—	1,185
Total available-for-sale securities	18,803	61,251	—	—	80,054
Trading assets:					
Debt and equity instruments *(b)*	433	1,016	—	—	1,449
Derivative assets not designated as hedging:					
Interest rate	3	6,731	—	(5,301)	1,433
Foreign exchange	—	4,879	—	(3,120)	1,759
Equity and other contracts	1	73	—	(49)	25
Total derivative assets not designated as hedging	4	11,683	—	(8,470)	3,217
Total trading assets	437	12,699	—	(8,470)	4,666
Other assets:					
Derivative assets designated as hedging:					
Interest rate	—	307	—	—	307
Foreign exchange	—	37	—	—	37
Total derivative assets designated as hedging	—	344	—	—	344
Other assets *(d)*	148	184	—	—	332
Other assets measured at net asset value *(d)*					151
Total other assets	148	528	—	—	827
Subtotal assets of operations at fair value	**19,388**	**74,478**	**—**	**(8,470)**	**85,547**
Percentage of assets of operations prior to netting	21%	79%	—%		
Assets of consolidated investment management funds	398	404	—	—	802
Total assets	**$ 19,786**	**$ 74,882**	**$ —**	**$ (8,470)**	**$ 86,349**
Percentage of total assets prior to netting	21%	79%	—%		

Liabilities measured at fair value on a recurring basis at Sept. 30, 2017 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Trading liabilities:					
Debt and equity instruments	$ 684	$ 159	$ —	$ —	$ 843
Derivative liabilities not designated as hedging:					
Interest rate	3	6,681	—	(5,705)	979
Foreign exchange	—	4,463	—	(3,095)	1,368
Equity and other contracts	3	135	—	(75)	63
Total derivative liabilities not designated as hedging	6	11,279	—	(8,875)	2,410
Total trading liabilities	690	11,438	—	(8,875)	3,253
Long-term debt *(b)*	—	369	—	—	369
Other liabilities – derivative liabilities designated as hedging:					
Interest rate	—	494	—	—	494
Foreign exchange	—	318	—	—	318
Total other liabilities – derivative liabilities designated as hedging	—	812	—	—	812
Subtotal liabilities of operations at fair value	**690**	**12,619**	**—**	**(8,875)**	**4,434**
Percentage of liabilities of operations prior to netting	5%	95%	—%		
Liabilities of consolidated investment management funds	2	25	—	—	27
Total liabilities	**$ 692**	**$ 12,644**	**$ —**	**$ (8,875)**	**$ 4,461**
Percentage of total liabilities prior to netting	5%	95%	—%		

(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 certain interests in securitizations.

(c) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

(d) Includes private equity investments and seed capital.

Assets measured at fair value on a recurring basis at Dec. 31, 2016 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Available-for-sale securities:					
U.S. Treasury	$ 14,307	$ —	$ —	$ —	$ 14,307
U.S. government agencies	—	359	—	—	359
Sovereign debt/sovereign guaranteed	66	12,423	—	—	12,489
State and political subdivisions	—	3,378	—	—	3,378
Agency RMBS	—	22,736	—	—	22,736
Non-agency RMBS	—	638	—	—	638
Other RMBS	—	513	—	—	513
Commercial MBS	—	928	—	—	928
Agency commercial MBS	—	6,449	—	—	6,449
CLOs	—	2,598	—	—	2,598
Other asset-backed securities	—	1,727	—	—	1,727
Equity securities	3	—	—	—	3
Money market funds *(b)*	842	—	—	—	842
Corporate bonds	—	1,396	—	—	1,396
Other debt securities	—	1,961	—	—	1,961
Foreign covered bonds	1,876	265	—	—	2,141
Non-agency RMBS *(c)*	—	1,357	—	—	1,357
Total available-for-sale securities	17,094	56,728	—	—	73,822
Trading assets:					
Debt and equity instruments *(b)*	240	2,013	—	—	2,253
Derivative assets not designated as hedging:					
Interest rate	4	7,583	—	(6,047)	1,540
Foreign exchange	—	6,104	—	(4,172)	1,932
Equity and other contracts	—	46	—	(38)	8
Total derivative assets not designated as hedging	4	13,733	—	(10,257)	3,480
Total trading assets	244	15,746	—	(10,257)	5,733
Other assets*:*					
Derivative assets designated as hedging:					
Interest rate	—	415	—	—	415
Foreign exchange	—	369	—	—	369
Total derivative assets designated as hedging	—	784	—	—	784
Other assets *(d)*	268	73	—	—	341
Other assets measured at net asset value *(d)*					214
Total other assets	268	857	—	—	1,339
Subtotal assets of operations at fair value	17,606	73,331	—	(10,257)	80,894
Percentage of assets of operations prior to netting	19%	81%	—%		
Assets of consolidated investment management funds	464	767	—	—	1,231
Total assets	$ 18,070	$ 74,098	$ —	$ (10,257)	$ 82,125
Percentage of total assets prior to netting	20%	80%	—%		

Liabilities measured at fair value on a recurring basis at Dec. 31, 2016 *(dollar amounts in millions)*	Level 1	Level 2	Level 3	Netting *(a)*	Total carrying value
Trading liabilities:					
Debt and equity instruments	$ 349	$ 236	$ —	$ —	$ 585
Derivative liabilities not designated as hedging:					
Interest rate	4	7,629	—	(6,634)	999
Foreign exchange	—	6,103	—	(3,363)	2,740
Equity and other contracts	—	115	—	(50)	65
Total derivative liabilities not designated as hedging	4	13,847	—	(10,047)	3,804
Total trading liabilities	353	14,083	—	(10,047)	4,389
Long-term debt (*b*)	—	363	—	—	363
Other liabilities – derivative liabilities designated as hedging:					
Interest rate	—	545	—	—	545
Foreign exchange	—	52	—	—	52
Total other liabilities – derivative liabilities designated as hedging	—	597	—	—	597
Subtotal liabilities of operations at fair value	353	15,043	—	(10,047)	5,349
Percentage of liabilities of operations prior to netting	2%	98%	—%		
Liabilities of consolidated investment management funds	3	312	—	—	315
Total liabilities	$ 356	$ 15,355	$ —	$ (10,047)	$ 5,664
Percentage of total liabilities prior to netting	2%	98%	—%		

(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 certain interests in securitizations.

(c) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

(d) Includes private equity investments and seed capital.

Details of certain items measured at fair value on a recurring basis	**Sept. 30, 2017**					Dec. 31, 2016				
		Ratings *(a)*					Ratings *(a)*			
(dollar amounts in millions)	Total carrying value *(b)*	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower	Total carrying value *(b)*	AAA/ AA-	A+/ A-	BBB+/ BBB-	BB+ and lower
Non-agency RMBS, originated in:										
2007	**$ 42**	**—%**	**—%**	**—%**	**100%**	$ 58	—%	—%	—%	100%
2006	**85**	**—**	**—**	**—**	**100**	98	—	—	—	100
2005	**152**	**20**	**3**	**18**	**59**	180	23	5	9	63
2004 and earlier	**246**	**4**	**2**	**27**	**67**	302	5	3	24	68
Total non-agency RMBS	**$ 525**	**8%**	**2%**	**14%**	**76%**	$ 638	9%	3%	14%	74%
Commercial MBS - Domestic, originated in:										
2009-2017	**$ 909**	**89%**	**11%**	**—%**	**—%**	$ 674	84%	16%	—%	—%
2008	**5**	**100**	**—**	**—**	**—**	14	100	—	—	—
2007	**—**	**—**	**—**	**—**	**—**	190	71	29	—	—
2006	**—**	**—**	**—**	**—**	**—**	3	7	93	—	—
Total commercial MBS - Domestic	**$ 914**	**89%**	**11%**	**—%**	**—%**	$ 881	81%	19%	—%	—%
Foreign covered bonds:										
Canada	**$ 1,648**	**100%**	**—%**	**—%**	**—%**	$ 1,320	100%	—%	—%	—%
Australia	**261**	**100**	**—**	**—**	**—**	40	100	—	—	—
Netherlands	**177**	**100**	**—**	**—**	**—**	160	100	—	—	—
United Kingdom	**136**	**100**	**—**	**—**	**—**	280	100	—	—	—
Other	**320**	**100**	**—**	**—**	**—**	341	100	—	—	—
Total foreign covered bonds	**$ 2,542**	**100%**	**—%**	**—%**	**—%**	$ 2,141	100%	—%	—%	—%
European floating rate notes - available-for-sale:										
United Kingdom	**$ 204**	**87%**	**13%**	**—%**	**—%**	$ 379	90%	10%	—%	—%
Netherlands	**113**	**37**	**63**	**—**	**—**	125	100	—	—	—
Ireland	**—**	**—**	**—**	**—**	**—**	58	—	—	100	—
Total European floating rate notes - available-for-sale	**$ 317**	**69%**	**31%**	**—%**	**—%**	$ 562	83%	7%	10%	—%
Sovereign debt/sovereign guaranteed:										
United Kingdom	**$ 3,036**	**100%**	**—%**	**—%**	**—%**	$ 3,209	100%	—%	—%	—%
France	**1,993**	**100**	**—**	**—**	**—**	1,998	100	—	—	—
Spain	**1,740**	**—**	**—**	**100**	**—**	1,749	—	—	100	—
Germany	**1,688**	**100**	**—**	**—**	**—**	1,347	100	—	—	—
Italy	**1,169**	**—**	**—**	**100**	**—**	1,130	—	—	100	—
Netherlands	**1,016**	**100**	**—**	**—**	**—**	1,061	100	—	—	—
Ireland	**832**	**—**	**100**	**—**	**—**	736	—	100	—	—
Belgium	**809**	**100**	**—**	**—**	**—**	1,005	100	—	—	—
Other *(c)*	**282**	**48**	**3**	**—**	**49**	254	71	—	—	29
Total sovereign debt/sovereign guaranteed	**$ 12,565**	**69%**	**7%**	**23%**	**1%**	$ 12,489	70%	6%	23%	1%
Non-agency RMBS *(d)*, originated in:										
2007	**$ 337**	**—%**	**—%**	**—%**	**100%**	$ 387	—%	—%	—%	100%
2006	**345**	**—**	**—**	**—**	**100**	391	—	—	—	100
2005	**387**	**1**	**1**	**1**	**97**	437	—	2	1	97
2004 and earlier	**116**	**2**	**2**	**22**	**74**	142	2	2	17	79
Total non-agency RMBS *(d)*	**$ 1,185**	**—%**	**1%**	**3%**	**96%**	$ 1,357	—%	1%	2%	97%

(a) Represents ratings by S&P, or the equivalent.
(b) At Sept. 30, 2017 and Dec. 31, 2016, foreign covered bonds and 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 noninvestment grade sovereign debt/sovereign guaranteed securities related to Brazil of $140 million at Sept. 30, 2017 and $73 million at Dec. 31, 2016.
(d) Previously included in the Grantor Trust. The Grantor Trust was dissolved in 2011.

Changes in Level 3 fair value measurements

Our classification of a financial instrument in Level 3 of the valuation hierarchy is based on the significance of the unobservable factors to the overall fair value measurement. However, these instruments generally include other observable components that are actively quoted or validated to third-party sources; accordingly, the gains and losses in the table below include changes in fair value due to observable parameters as well as the unobservable parameters in our valuation methodologies. We also manage the risks of Level 3 financial instruments using securities and derivatives positions that are Level 1 or Level 2 instruments which are not included in the table; accordingly, the gains or losses below do not reflect the effect of our risk management activities related to the Level 3 instruments.

The Company has a Level 3 Pricing Committee which evaluates the valuation techniques used in determining the fair value of Level 3 assets and liabilities.

There were no financial instruments recorded at fair value on a recurring basis classified in Level 3 of the valuation hierarchy in the first nine months of 2017.

The table below includes a roll forward of the balance sheet amount for the three and nine months ended Sept. 30, 2016 (including the change in fair value), for financial instruments classified in Level 3 of the valuation hierarchy.

Fair value measurements for assets using significant unobservable inputs	Loans	
(in millions)	3Q16	YTD16
Fair value at the beginning of the period	$ 101	$ —
Transfers into Level 3	—	19
Total gains for the period included in earnings *(a)*	—	2
Purchases and sales:		
Purchases	—	113
Issuances	1	1
Sales	(102)	(135)
Fair value at Sept. 30, 2016	**$ —**	**$ —**
Change in unrealized gains for the period included in earnings for assets held at the end of the reporting period	**$ —**	**$ —**

(a) *Reported in investment and other income.*

Assets and liabilities measured at fair value on a nonrecurring basis

Under certain circumstances, we make adjustments to fair value our assets, liabilities and unfunded lending-related commitments although they are not measured at fair value on an ongoing basis. An example would be the recording of an impairment of an asset.

The following tables present the financial instruments carried on the consolidated balance sheet by caption and by level in the fair value hierarchy as of Sept. 30, 2017 and Dec. 31, 2016, for which a nonrecurring change in fair value has been recorded during the quarters ended Sept. 30, 2017 and Dec. 31, 2016.

Assets measured at fair value on a nonrecurring basis at Sept. 30, 2017 *(in millions)*	Level 1	Level 2	Level 3	Total carrying value
Loans *(a)*	$ —	$ 75	$ 7	$ 82
Other assets *(b)*	—	4	—	4
Total assets at fair value on a nonrecurring basis	**$ —**	**$ 79**	**$ 7**	**$ 86**

Assets measured at fair value on a nonrecurring basis at Dec. 31, 2016 *(in millions)*	Level 1	Level 2	Level 3	Total carrying value
Loans *(a)*	$ —	$ 84	$ 7	$ 91
Other assets *(b)*	—	4	—	4
Total assets at fair value on a nonrecurring basis	$ —	$ 88	$ 7	$ 95

(a) *During the quarters ended Sept. 30, 2017 and Dec. 31, 2016, the fair value of these loans decreased less than $1 million and $1 million, respectively, based on the fair value of the underlying collateral based on guidance in ASC 310, Receivables, with an offset to the allowance for credit losses.*
(b) *Includes 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, 2017 and Dec. 31, 2016, by caption on the consolidated balance sheet and by the valuation hierarchy. See Note 18 of the Notes to Consolidated Financial Statements in our 2016 Annual Report for additional information regarding the financial instruments within the scope of this disclosure, and the methods and significant assumptions used to estimate their fair value.

Summary of financial instruments	**Sept. 30, 2017**				
(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	**$ —**	**$ 75,808**	**$ —**	**$ 75,808**	**$ 75,808**
Interest-bearing deposits with banks	**—**	**15,254**	**—**	**15,254**	**15,256**
Federal funds sold and securities purchased under resale agreements	**—**	**27,883**	**—**	**27,883**	**27,883**
Securities held-to-maturity	**9,943**	**29,985**	**—**	**39,928**	**39,995**
Loans *(a)*	**—**	**57,709**	**—**	**57,709**	**57,562**
Other financial assets	**5,557**	**1,169**	**—**	**6,726**	**6,726**
Total	**$ 15,500**	**$ 207,808**	**$ —**	**$ 223,308**	**$ 223,230**
Liabilities:					
Noninterest-bearing deposits	**$ —**	**$ 80,380**	**$ —**	**$ 80,380**	**$ 80,380**
Interest-bearing deposits	**—**	**148,967**	**—**	**148,967**	**150,616**
Federal funds purchased and securities sold under repurchase agreements	**—**	**10,314**	**—**	**10,314**	**10,314**
Payables to customers and broker-dealers	**—**	**21,176**	**—**	**21,176**	**21,176**
Commercial paper	**—**	**2,501**	**—**	**2,501**	**2,501**
Borrowings	**—**	**3,544**	**—**	**3,544**	**3,544**
Long-term debt	**—**	**28,335**	**—**	**28,335**	**28,039**
Total	**$ —**	**$ 295,217**	**$ —**	**$ 295,217**	**$ 296,570**

(a) Does not include the leasing portfolio.

Summary of financial instruments	Dec. 31, 2016				
(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	$ —	$ 58,041	$ —	$ 58,041	$ 58,041
Interest-bearing deposits with banks	—	15,091	—	15,091	15,086
Federal funds sold and securities purchased under resale agreements	—	25,801	—	25,801	25,801
Securities held-to-maturity	11,173	29,496	—	40,669	40,905
Loans *(a)*	—	62,829	—	62,829	62,564
Other financial assets	4,822	1,112	—	5,934	5,934
Total	$ 15,995	$ 192,370	$ —	$ 208,365	$ 208,331
Liabilities:					
Noninterest-bearing deposits	$ —	$ 78,342	$ —	$ 78,342	$ 78,342
Interest-bearing deposits	—	141,418	—	141,418	143,148
Federal funds purchased and securities sold under repurchase agreements	—	9,989	—	9,989	9,989
Payables to customers and broker-dealers	—	20,987	—	20,987	20,987
Borrowings	—	960	—	960	960
Long-term debt	—	24,184	—	24,184	24,100
Total	$ —	$ 275,880	$ —	$ 275,880	$ 277,526

(a) Does not include the leasing portfolio.

The table below summarizes the carrying amount of the hedged financial instruments, the notional amount of the hedge and the unrealized gain (loss) (estimated fair value) of the derivatives.

Hedged financial instruments	Carrying amount	Notional amount of hedge	Unrealized	
(in millions)			Gain	(Loss)
Sept. 30, 2017				
Securities available-for-sale	**$ 12,416**	**$ 12,333**	**$ 56**	**$ (337)**
Long-term debt	**24,249**	**24,200**	**249**	**(157)**
Dec. 31, 2016				
Securities available-for-sale	$ 9,184	$ 9,233	$ 83	$ (342)
Long-term debt	20,511	20,450	330	(203)

Note 15 - Fair value option

We elected fair value as an alternative measurement for selected financial assets and financial liabilities.

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

Assets and liabilities of consolidated investment management funds, at fair value *(in millions)*	Sept. 30, 2017	Dec. 31, 2016
Assets of consolidated investment management funds:		
Trading assets	**$ 576**	$ 979
Other assets	**226**	252
Total assets of consolidated investment management funds	**$ 802**	$ 1,231
Liabilities of consolidated investment management funds:		
Trading liabilities	**$ —**	$ 282
Other liabilities	**27**	33
Total liabilities of consolidated investment management funds	**$ 27**	$ 315

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 in the income statement as investment income of consolidated investment management funds and in the interest of investment management fund note holders, respectively.

We have elected the fair value option on $240 million of long-term debt. The fair value of this long-term debt was $369 million at Sept. 30, 2017 and $363 million at Dec. 31, 2016. 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 and certain loans for which we elected the fair value option that we previously held in 2016, and the location of the changes in the income statement.

Impact of changes in fair value in the income statement *(a)* *(in millions)*	3Q17	2Q17	3Q16	YTD17	YTD16
Loans:					
Investment and other income	**$ —**	$ —	$ (1)	**$ —**	$ 13
Long-term debt:					
Foreign exchange and other trading revenue	**$ (1)**	$ (4)	$ 2	**$ (6)**	$ (17)

(a) *The changes in fair value of the loans and long-term debt are approximately offset by economic hedges included in foreign exchange and 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 2017 or the third quarter of 2016.

Hedging derivatives

We utilize interest rate swap agreements to manage our exposure to interest rate fluctuations. For hedges of available-for-sale investment securities, deposits and long-term debt, the hedge documentation specifies the terms of the hedged items and the interest rate swaps and indicates that the derivative is hedging a fixed rate item and is a fair value hedge, that the hedge exposure is to the changes in the fair value of the hedged item due to changes in benchmark interest rates, and that the strategy is to eliminate fair value variability by converting fixed rate interest payments to LIBOR.

The available-for-sale investment securities hedged consist of U.S. Treasury bonds, agency commercial MBS, sovereign debt and covered bonds that had original maturities of 30 years or less at initial purchase. The swaps on all of these investment securities are not callable. All of these securities are hedged with "pay fixed rate, receive variable rate" swaps of similar maturity, repricing and fixed rate coupon. At Sept. 30, 2017, $12.4 billion face amount of securities were hedged with interest rate swaps that had notional values of $12.3 billion.

The fixed rate long-term debt instruments hedged generally have original maturities of five to 30 years. We issue both callable and non-callable debt. The non-callable debt is hedged with "receive fixed rate, pay variable rate" swaps with similar maturity, repricing and fixed rate coupon. Callable debt is hedged with callable swaps where the call dates of the swaps exactly match the call dates of the debt. At Sept. 30, 2017, $24.2 billion par value of debt was hedged with interest rate swaps that had notional values of $24.2 billion.

In addition, we enter into foreign exchange hedges. We use forward foreign exchange contracts with maturities of nine months or less to hedge our Indian rupee, British pound, Hong Kong dollar, Singapore dollar, Polish zloty, Canadian dollar and Japanese yen foreign exchange exposure with respect to foreign currency forecasted revenue and expense transactions in entities that have the U.S. dollar as their functional currency. As of Sept. 30, 2017, the hedged forecasted foreign currency transactions and designated forward foreign exchange contract hedges were $539 million (notional), with a pre-tax loss of $9 million recorded in accumulated other comprehensive income. This loss will be reclassified to income or expense over the next nine months.

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 two years. The derivatives employed are designated as hedges of changes in value of our foreign investments due to exchange rates. Changes in the value of the forward foreign exchange contracts offset the changes in value of the foreign investments due to changes in foreign exchange rates. The change in fair market value of these forward foreign exchange contracts is deferred and reported within foreign currency translation adjustments in shareholders' equity, net of tax. At Sept. 30, 2017, forward foreign exchange contracts with notional amounts totaling $7.8 billion were designated as hedges.

In addition to forward foreign exchange contracts, we also designate non-derivative financial instruments as hedges of our net investments in foreign subsidiaries. Those non-derivative financial instruments designated as hedges of our net investments in foreign subsidiaries were all long-term liabilities of BNY Mellon in various currencies, and, at Sept. 30, 2017, had a combined U.S. dollar equivalent value of $181 million.

Ineffectiveness related to derivatives and hedging relationships was recorded in income as follows:

Ineffectiveness	Nine months ended	
(in millions)	**Sept. 30, 2017**	Sept. 30, 2016
Fair value hedges of securities	**$ (13.3)**	$ (5.4)
Fair value hedges of long-term debt	**0.1**	(23.0)
Cash flow hedges	**—**	—
Other *(a)*	**—**	—
Total	**$ (13.2)**	$ (28.4)

(a) *Includes ineffectiveness recorded on foreign exchange hedges.*

The following table summarizes the notional amount and credit exposure of our total derivative portfolio at Sept. 30, 2017 and Dec. 31, 2016.

Impact of derivative instruments on the balance sheet *(in millions)*	Notional value Sept. 30, 2017	Notional value Dec. 31, 2016	Asset derivatives fair value Sept. 30, 2017	Asset derivatives fair value Dec. 31, 2016	Liability derivatives fair value Sept. 30, 2017	Liability derivatives fair value Dec. 31, 2016
Derivatives designated as hedging instruments: *(a)*						
Interest rate contracts	**$ 36,533**	$ 29,683	**$ 307**	$ 415	**$ 494**	$ 545
Foreign exchange contracts	**8,399**	7,796	**37**	369	**318**	52
Total derivatives designated as hedging instruments			**$ 344**	$ 784	**$ 812**	$ 597
Derivatives not designated as hedging instruments: *(b)*						
Interest rate contracts	**$ 283,384**	$ 325,412	**$ 6,734**	$ 7,587	**$ 6,684**	$ 7,633
Foreign exchange contracts	**639,336**	530,729	**4,879**	6,104	**4,463**	6,103
Equity contracts	**1,354**	1,167	**74**	46	**134**	112
Credit contracts	**180**	160	**—**	—	**4**	3
Total derivatives not designated as hedging instruments			**$ 11,687**	$ 13,737	**$ 11,285**	$ 13,851
Total derivatives fair value *(c)*			**$ 12,031**	$ 14,521	**$ 12,097**	$ 14,448
Effect of master netting agreements *(d)*			**(8,470)**	(10,257)	**(8,875)**	(10,047)
Fair value after effect of master netting agreements			**$ 3,561**	$ 4,264	**$ 3,222**	$ 4,401

(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 balance sheet.
(b) 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 balance sheet.
(c) Fair values are on a gross basis, before consideration of master netting agreements, as required by ASC 815, Derivatives and Hedging.
(d) Effect of master netting agreements includes cash collateral received and paid of $834 million and $1,239 million, respectively, at Sept. 30, 2017, and $1,119 million and $909 million, respectively, at Dec. 31, 2016.

The following tables present the impact of derivative instruments used in fair value, cash flow and net investment hedging relationships in the income statement.

Impact of derivative instruments in the income statement
(in millions)

Derivatives in fair value hedging relationships	Location of gain or (loss) recognized in income on derivatives	Gain or (loss) recognized in income on derivatives 3Q17	2Q17	3Q16	Location of gain or (loss) recognized in income on hedged item	Gain or (loss) recognized in hedged item 3Q17	2Q17	3Q16
Interest rate contracts	Net interest revenue	**$ (33)**	$ 2	$ (174)	Net interest revenue	**$ 31**	$ (9)	$ 168

Derivatives in cash flow hedging relationships	Gain or (loss) recognized in accumulated OCI on derivatives (effective portion) 3Q17	2Q17	3Q16	Location of gain or (loss) reclassified from accumulated OCI into income (effective portion)	Gain or (loss) reclassified from accumulated OCI into income (effective portion) 3Q17	2Q17	3Q16	Location of gain or (loss) recognized in income on derivatives (ineffective portion and amount excluded from effectiveness testing)	Gain or (loss) recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing) 3Q17	2Q17	3Q16
FX contracts	**$ —**	$ —	$ (7)	Net interest revenue	**$ —**	$ —	$ (6)	Net interest revenue	**$ —**	$ —	$ —
FX contracts	**3**	(1)	—	Other revenue	**—**	—	—	Other revenue	**—**	—	—
FX contracts	**(1)**	—	(19)	Trading revenue	**(1)**	—	(19)	Trading revenue	**—**	—	—
FX contracts	**(4)**	(7)	2	Salary expense	**(2)**	(9)	(3)	Salary expense	**—**	—	—
Total	**$ (2)**	$ (8)	$ (24)		**$ (3)**	$ (9)	$ (28)		**$ —**	$ —	$ —

Derivatives in net investment hedging relationships	Gain or (loss) recognized in accumulated OCI on derivatives (effective portion)			Location of gain or (loss) reclassified from accumulated OCI into income (effective portion)	Gain or (loss) reclassified from accumulated OCI into income (effective portion)			Location of gain or (loss) recognized in income on derivatives (ineffective portion and amount excluded from effectiveness testing)	Gain or (loss) recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing)		
	3Q17	2Q17	3Q16		**3Q17**	2Q17	3Q16		**3Q17**	2Q17	3Q16
FX contracts	**$ (206)**	$ (274)	$ 47	Net interest revenue	**$ —**	$ —	$ —	Other revenue	**$ —**	$ —	$ —

Impact of derivative instruments in the income statement
(in millions)

Derivatives in fair value hedging relationships	Location of gain or (loss) recognized in income on derivatives	Gain or (loss) recognized in income on derivatives		Location of gain or (loss) recognized in income on hedged item	Gain or (loss) recognized in hedged item	
		YTD17	YTD16		**YTD17**	YTD16
Interest rate contracts	Net interest revenue	**$ (21)**	$ (445)	Net interest revenue	**$ 8**	$ 417

Derivatives in cash flow hedging relationships	Gain or (loss) recognized in accumulated OCI on derivatives (effective portion)		Location of gain or (loss) reclassified from accumulated OCI into income (effective portion)	Gain or (loss) reclassified from accumulated OCI into income (effective portion)		Location of gain or (loss) recognized in income on derivatives (ineffective portion and amount excluded from effectiveness testing)	Gain or (loss) recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing)	
	YTD17	YTD16		**YTD17**	YTD16		**YTD17**	YTD16
FX contracts	**$ —**	$ (16)	Net interest revenue	**$ —**	$ (16)	Net interest revenue	**$ —**	$ —
FX contracts	**2**	—	Other revenue	**—**	—	Other revenue	**—**	—
FX contracts	**2**	(89)	Trading revenue	**2**	(89)	Trading revenue	**—**	—
FX contracts	**—**	(10)	Salary expense	**(15)**	(5)	Salary expense	**—**	—
Total	**$ 4**	$ (115)		**$ (13)**	$ (110)		**$ —**	$ —

Derivatives in net investment hedging relationships	Gain or (loss) recognized in accumulated OCI on derivatives (effective portion)		Location of gain or (loss) reclassified from accumulated OCI into income (effective portion)	Gain or (loss) reclassified from accumulated OCI into income (effective portion)		Location of gain or (loss) recognized in income on derivatives (ineffective portion and amount excluded from effectiveness testing)	Gain or (loss) recognized in income on derivatives (ineffectiveness portion and amount excluded from effectiveness testing)	
	YTD17	YTD16		**YTD17**	YTD16		**YTD17**	YTD16
FX contracts	**$ (576)**	$ 320	Net interest revenue	**$ —**	$ —	Other revenue	**$ —**	$ —

Trading activities (including trading derivatives)

We manage trading risk through a system of position limits, a 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.

As the VaR methodology does not evaluate risk attributable to extraordinary financial, economic or other occurrences, 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 in other risk management materials.

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

Foreign exchange and other trading revenue *(in millions)*	**3Q17**	2Q17	3Q16	**YTD17**	YTD16
Foreign exchange	**$ 158**	$ 151	$ 175	**$ 463**	$ 512
Other trading revenue	**15**	14	8	**39**	28
Total foreign exchange and other trading revenue	**$ 173**	$ 165	$ 183	**$ 502**	$ 540

Foreign exchange revenue includes income from purchasing and selling foreign currencies and currency forwards, futures and options. Other trading revenue reflects results from futures and forward contracts, interest rate swaps, structured foreign currency swaps, options, equity derivatives and fixed income and equity securities.

Counterparty credit risk and collateral

We assess 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 or highly liquid government securities. Collateral requirements are monitored and adjusted daily.

Additional disclosures concerning derivative financial instruments are provided in Note 14 of the Notes to Consolidated Financial Statements.

Disclosure of contingent features in OTC derivative instruments

Certain OTC derivative contracts and/or collateral agreements of The Bank of New York Mellon, our largest banking subsidiary and the subsidiary through which BNY Mellon enters into the substantial majority of its OTC derivative contracts and/or collateral agreements, contain provisions that may require us to take certain actions if The Bank of New York Mellon's public debt rating fell to a certain level. Early termination provisions, or "close-out" agreements, in those contracts could trigger immediate payment of outstanding contracts that are in net liability positions. Certain collateral agreements would require The Bank of New York Mellon to immediately post additional collateral to cover some or all of The Bank of New York Mellon's liabilities to a counterparty.

The following table shows the fair value of contracts falling under early termination provisions that were in net liability positions as of Sept. 30, 2017 for three key ratings triggers.

If The Bank of New York Mellon's rating was changed to (Moody's/S&P)	**Potential close-out exposures (fair value)** *(a)*
A3/A-	$ 92 million
Baa2/BBB	$ 430 million
Ba1/BB+	$ 1,899 million

(a) The amounts represent potential total close-out values if The Bank of New York Mellon's rating were to immediately drop to the indicated levels.

The aggregated fair value of contracts impacting potential trade close-out amounts and collateral obligations can fluctuate from quarter to quarter due to changes in market conditions, changes in the composition of counterparty trades, new business or changes to the agreement definitions establishing close-out or collateral obligations.

Additionally, if The Bank of New York Mellon's debt rating had fallen below investment grade on Sept. 30, 2017, existing collateral arrangements would have required us to post an additional $151 million of collateral.

Offsetting assets and liabilities

The following tables present derivative instruments and financial instruments that are either subject to an enforceable netting agreement or offset by collateral arrangements. 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, 2017

(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet	*(a)*	Net assets recognized on the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral received	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	**$ 6,182**	**$ 5,301**		**$ 881**	**$ 189**	**$ —**	**$ 692**
Foreign exchange contracts	**4,281**	**3,120**		**1,161**	**82**	**—**	**1,079**
Equity and other contracts	**69**	**49**		**20**	**—**	**—**	**20**
Total derivatives subject to netting arrangements	**10,532**	**8,470**		**2,062**	**271**	**—**	**1,791**
Total derivatives not subject to netting arrangements	**1,499**	**—**		**1,499**	**—**	**—**	**1,499**
Total derivatives	**12,031**	**8,470**		**3,561**	**271**	**—**	**3,290**
Reverse repurchase agreements	**36,118**	**19,171**	*(b)*	**16,947**	**16,890**	**—**	**57**
Securities borrowing	**10,936**	**—**		**10,936**	**10,627**	**—**	**309**
Total	**$ 59,085**	**$ 27,641**		**$ 31,444**	**$ 27,788**	**$ —**	**$ 3,656**

(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, 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, 2016

(in millions)	Gross assets recognized	Gross amounts offset in the balance sheet	*(a)*	Net assets recognized on the balance sheet	Gross amounts not offset in the balance sheet: Financial instruments	Gross amounts not offset in the balance sheet: Cash collateral received	Net amount
Derivatives subject to netting arrangements:							
Interest rate contracts	$ 7,205	$ 6,047		$ 1,158	$ 321	$ —	$ 837
Foreign exchange contracts	5,265	4,172		1,093	202	—	891
Equity and other contracts	44	38		6	—	—	6
Total derivatives subject to netting arrangements	12,514	10,257		2,257	523	—	1,734
Total derivatives not subject to netting arrangements	2,007	—		2,007	—	—	2,007
Total derivatives	14,521	10,257		4,264	523	—	3,741
Reverse repurchase agreements	17,588	481	*(b)*	17,107	17,104	—	3
Securities borrowing	8,694	—		8,694	8,425	—	269
Total	$ 40,803	$ 10,738		$ 30,065	$ 26,052	$ —	$ 4,013

(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, 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, 2017

(in millions)	Gross liabilities recognized	Gross amounts offset in the balance sheet		Net liabilities recognized on 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
			(a)				
Derivatives subject to netting arrangements:							
Interest rate contracts	**$ 7,103**	**$ 5,705**		**$ 1,398**	**$ 1,311**	**$ —**	**$ 87**
Foreign exchange contracts	**4,074**	**3,095**		**979**	**234**	**—**	**745**
Equity and other contracts	**130**	**75**		**55**	**49**	**—**	**6**
Total derivatives subject to netting arrangements	**11,307**	**8,875**		**2,432**	**1,594**	**—**	**838**
Total derivatives not subject to netting arrangements	**790**	**—**		**790**	**—**	**—**	**790**
Total derivatives	**12,097**	**8,875**		**3,222**	**1,594**	**—**	**1,628**
Repurchase agreements	**27,321**	**19,171**	*(b)*	**8,150**	**8,149**	**—**	**1**
Securities lending	**1,904**	**—**		**1,904**	**1,812**	**—**	**92**
Total	**$ 41,322**	**$ 28,046**		**$ 13,276**	**$ 11,555**	**$ —**	**$ 1,721**

(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 Fixed Income Clearing Corporation, 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, 2016

(in millions)	Gross liabilities recognized	Gross amounts offset in the balance sheet		Net liabilities recognized on 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
			(a)				
Derivatives subject to netting arrangements:							
Interest rate contracts	$ 8,116	$ 6,634		$ 1,482	$ 1,266	$ —	$ 216
Foreign exchange contracts	4,957	3,363		1,594	355	—	1,239
Equity and other contracts	104	50		54	54	—	—
Total derivatives subject to netting arrangements	13,177	10,047		3,130	1,675	—	1,455
Total derivatives not subject to netting arrangements	1,271	—		1,271	—	—	1,271
Total derivatives	14,448	10,047		4,401	1,675	—	2,726
Repurchase agreements	8,703	481	*(b)*	8,222	8,222	—	—
Securities lending	1,615	—		1,615	1,522	—	93
Total	$ 24,766	$ 10,528		$ 14,238	$ 11,419	$ —	$ 2,819

(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 Fixed Income Clearing Corporation, where we settle government securities transactions on a net basis for payment and delivery through the Fedwire system.

Secured borrowings

The following tables present 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 at Sept. 30, 2017

	Remaining contractual maturity of the agreements			
(in millions)	Overnight and continuous	Up to 30 days	30 days or more	Total
Repurchase agreements:				
U.S. Treasury	**$ 21,432**	**$ —**	**$ —**	**$ 21,432**
U.S. government agencies	**489**	**110**	**—**	**599**
Agency RMBS	**1,798**	**190**	**—**	**1,988**
Corporate bonds	**282**	**—**	**940**	**1,222**
Other debt securities	**254**	**—**	**871**	**1,125**
Equity securities	**466**	**—**	**489**	**955**
Total	**$ 24,721**	**$ 300**	**$ 2,300**	**$ 27,321**
Securities lending:				
U.S. government agencies	**$ 15**	**$ —**	**$ —**	**$ 15**
Other debt securities	**477**	**—**	**—**	**477**
Equity securities	**1,412**	**—**	**—**	**1,412**
Total	**$ 1,904**	**$ —**	**$ —**	**$ 1,904**
Total borrowings	**$ 26,625**	**$ 300**	**$ 2,300**	**$ 29,225**

Repurchase agreements and securities lending transactions accounted for as secured borrowings at Dec. 31, 2016

	Remaining contractual maturity of the agreements			
(in millions)	Overnight and continuous	Up to 30 days	30 days or more	Total
Repurchase agreements:				
U.S. Treasury	$ 2,488	$ 4	$ —	$ 2,492
U.S. government agencies	396	10	—	406
Agency RMBS	3,294	386	—	3,680
Corporate bonds	304	—	694	998
Other debt securities	146	—	563	709
Equity securities	375	—	43	418
Total	$ 7,003	$ 400	$ 1,300	$ 8,703
Securities lending:				
U.S. government agencies	$ 39	$ —	$ —	$ 39
Other debt securities	477	—	—	477
Equity securities	1,099	—	—	1,099
Total	$ 1,615	$ —	$ —	$ 1,615
Total borrowings	$ 8,618	$ 400	$ 1,300	$ 10,318

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 risk 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, 2017**	Dec. 31, 2016
Lending commitments	**$ 49,983**	$ 51,270
Standby letters of credit *(a)*	**3,619**	4,185
Commercial letters of credit	**265**	339
Securities lending indemnifications *(b)*	**406,434**	317,690

(a) Net of participations totaling $681 million at Sept. 30, 2017 and $662 million at Dec. 31, 2016.
(b) Excludes the indemnification for securities for which BNY Mellon acts as an agent on behalf of CIBC Mellon clients, which totaled $65 billion at Sept. 30, 2017 and $61 billion at Dec. 31, 2016.

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

Since many of the lending commitments are expected to expire without being drawn upon, the total amount does not necessarily represent future cash requirements. A summary of lending commitment maturities is as follows: $29.8 billion in less than one year, $20.0 billion in one to five years and $158 million over five years.

Standby letters of credit ("SBLC") principally support corporate obligations and were collateralized with cash and securities of $178 million at Sept. 30, 2017 and $293 million at Dec. 31, 2016. At Sept. 30, 2017, $2.3 billion of the SBLCs will expire within one year and $1.2 billion in one to five years and $48 million in 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. The allowance for lending-related commitments was $104 million at Sept. 30, 2017 and $112 million at Dec. 31, 2016.

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, 2017**	Dec. 31, 2016
Investment grade	**86%**	89%
Non-investment grade	**14%**	11%

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 $265 million at Sept. 30, 2017 and $339 million at Dec. 31, 2016.

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.

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, which normally matures in less than 90 days.

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 $424 billion at Sept. 30, 2017 and $331 billion at Dec. 31, 2016.

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, 2017 and Dec. 31, 2016, $65 billion and $61 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 $69 billion and $64 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.

Industry concentrations

We have significant industry concentrations related to credit exposure at Sept. 30, 2017. The tables below present our credit exposure in the financial institutions and commercial portfolios.

Financial institutions portfolio exposure *(in billions)*	**Sept. 30, 2017**		
	Loans	**Unfunded commitments**	**Total exposure**
Securities industry	**$ 2.9**	**$ 19.0**	**$ 21.9**
Asset managers	**1.6**	**6.5**	**8.1**
Banks	**6.3**	**1.4**	**7.7**
Insurance	**0.1**	**3.4**	**3.5**
Government	**—**	**1.0**	**1.0**
Other	**1.0**	**1.4**	**2.4**
Total	**$ 11.9**	**$ 32.7**	**$ 44.6**

Commercial portfolio exposure *(in billions)*	**Sept. 30, 2017**		
	Loans	**Unfunded commitments**	**Total exposure**
Manufacturing	**$ 1.4**	**$ 6.3**	**$ 7.7**
Services and other	**0.9**	**4.4**	**5.3**
Energy and utilities	**0.6**	**4.5**	**5.1**
Media and telecom	**0.1**	**1.4**	**1.5**
Total	**$ 3.0**	**$ 16.6**	**$ 19.6**

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

Exposure for certain administrative errors

In connection with certain offshore tax-exempt funds that we manage, we may be liable to the funds for certain administrative errors. The errors relate to the resident status of such funds, potentially exposing the Company to a tax liability related to the funds' earnings. The Company is in discussions with tax authorities regarding the funds. We believe we are appropriately accrued and the additional reasonably possible exposure is not significant.

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, 2017 and Dec. 31, 2016, 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, 2017 and Dec. 31, 2016, we have not recorded any material liabilities under these arrangements.

Legal proceedings

In the ordinary course of business, BNY Mellon 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 net income in a given period.

In view of the inherent unpredictability of outcomes in litigation and governmental 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 governmental 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, BNY Mellon establishes accruals for litigation and governmental 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. BNY Mellon will continue to 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, BNY Mellon does not establish an accrual and the matter will continue to be monitored for any developments that would make the loss contingency both probable and reasonably estimable. BNY Mellon believes that its 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 net income in a given period.

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 $940 million in excess of the accrued liability (if any) related to those matters.

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. These actions include a lawsuit brought in New York State court on June 18, 2014, and later re-filed in federal court, by a group of institutional investors who purport to sue on behalf of 253 MBS trusts.

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 ("SIB"), also controlled by Stanford, issued certificates of deposit ("CDs"). Some investors allegedly wired funds from their SGC accounts to purchase CDs. In 2009, the SEC 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 15 lawsuits against Pershing that are pending in Texas, including two putative class actions. The purchasers allege that Pershing, as SGC's clearing firm, assisted Stanford in a fraudulent scheme and assert contractual, statutory and common law claims. The remaining FINRA action has been resolved and dismissed.

Brazilian Postalis Litigation
BNY Mellon Servicos Financeiros DTVM S.A. ("DTVM"), a subsidiary that provides a number of asset services in Brazil, acts as administrator for certain investment funds in which the exclusive investor is a public pension fund for postal workers called Postalis-Instituto de Seguridade Social dos Correios e Telégrafos ("Postalis"). On Aug. 22, 2014, Postalis sued DTVM in Rio de Janeiro, Brazil for losses related to a Postalis investment fund for which DTVM serves as fund administrator. Postalis alleges that DTVM failed to properly perform alleged duties, including duties to conduct due diligence of and exert control over the fund manager, Atlântica Administração de Recursos ("Atlântica"), and Atlântica's investments. 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 alleged duties relating to another fund of which DTVM is administrator and Ativos is investment manager. On Dec. 14, 2015, Associaceão Dos Profissionais Dos Correiros ("ADCAP"), a Brazilian postal workers association, filed a lawsuit in São Paulo against DTVM and other defendants alleging that DTVM improperly contributed to investment losses in the Postalis portfolio. On March 20, 2017, the lawsuit was dismissed without prejudice, and ADCAP has appealed that decision. On Dec. 17, 2015, Postalis filed three additional lawsuits in Rio de Janeiro against DTVM and Ativos alleging failure to properly perform alleged duties and liabilities for losses with respect to investments in several other funds. On Feb. 4, 2016, Postalis filed another lawsuit in Brasilia against DTVM, Ativos and BNY Mellon Alocação de Patrimônio Ltda., an investment management subsidiary, alleging failure to properly perform duties and liability for losses with respect to investments in various other funds of which the defendants were administrator and/or manager. The lawsuit has been transferred to São Paulo.

Depositary Receipt Litigation
Between late December 2015 and February 2016, four putative class action lawsuits were filed against BNY Mellon asserting claims relating to BNY Mellon's foreign exchange pricing when converting dividends and other distributions from non-U.S. companies in its role as depositary bank to Depositary Receipt issuers. The claims are for breach of contract and violations of ERISA. The lawsuits have been consolidated into two suits that are pending in federal court in the Southern District of New York.

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.

Depositary Receipt Pre-Release Inquiry
In March 2014, the Staff of the U.S. Securities and Exchange Commission's Enforcement Division (the "Staff") commenced an investigation into certain issuers of American Depositary Receipts ("ADRs"), including BNY Mellon, for the period of 2011 to 2015. The Staff has issued several requests to BNY Mellon for information relating to the pre-release of ADRs. In May 2017, BNY Mellon began discussions with the Staff about a possible resolution of the investigation. BNY Mellon has fully cooperated with this matter.

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.

Business accounting principles

Our business data has been determined on an internal management basis of accounting, rather than the generally accepted accounting principles 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 when improvements are made in the measurement principles.

The accounting policies of the businesses are the same as those described in Note 1 of the Notes to Consolidated Financial Statements in our 2016 Annual Report.

The primary types of revenue for our two principal businesses and the Other segment are presented below.

Business	Primary types of revenue
Investment Management	• Investment management and performance fees from: Mutual funds Institutional clients Private clients High-net-worth individuals and families, endowments and foundations and related entities • Distribution and servicing fees • Other revenue from seed capital investments
Investment Services	• Asset servicing fees, including custody fees, fund services, broker-dealer services, securities finance and collateral and liquidity services • Issuer services fees, including Depositary Receipts and Corporate Trust • Clearing services fees • Treasury services fees, including global payments, trade finance and cash management • Foreign exchange revenue • Financing-related fees and net interest revenue from credit-related activities
Other segment	• Net interest revenue and lease-related gains (losses) from leasing operations • Gain (loss) on securities and net interest revenue from corporate treasury activity • Other trading revenue from derivatives and other trading activity • Results of business exits

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. 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 is allocated to the businesses.
- Support and other indirect expenses are allocated to businesses based on internally developed methodologies.
- 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 investment 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 included in the Other segment.
- Client deposits serve as the primary funding source for our investment securities portfolio. We typically allocate all interest revenue to the businesses generating the deposits. Accordingly, accretion related to the portion of the investment securities portfolio restructured in 2009 has been included in the results of the businesses.
- M&I expense is a corporate level item and is recorded in the Other segment.
- Restructuring charges relate to corporate-level initiatives and were therefore recorded in the Other segment.
- 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 presents the contribution of our businesses to our overall profitability.

For the quarter ended Sept. 30, 2017 *(dollar amounts in millions)*	**Investment Management**		**Investment Services**	**Other**	**Consolidated**	
Fee and other revenue	**$ 918**	*(a)*	**$ 2,187**	**$ 69**	**$ 3,174**	*(a)*
Net interest revenue (expense)	**82**		**777**	**(20)**	**839**	
Total revenue	**1,000**	*(a)*	**2,964**	**49**	**4,013**	*(a)*
Provision for credit losses	**(2)**		**(2)**	**(2)**	**(6)**	
Noninterest expense	**702**		**1,874**	**77**	**2,653**	*(b)*
Income (loss) before taxes	**$ 300**	*(a)*	**$ 1,092**	**$ (26)**	**$ 1,366**	*(a)(b)*
Pre-tax operating margin *(c)*	**30%**		**37%**	**N/M**	**34%**	
Average assets	**$ 31,689**		**$ 252,461**	**$ 61,559**	**$ 345,709**	

(a) Both fee and other revenue and total revenue include the net income from consolidated investment management funds of $7 million representing $10 million of income and noncontrolling interests of $3 million. Income before taxes is net of noncontrolling interests of $3 million.
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $1 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.
N/M - Not meaningful.

For the quarter ended June 30, 2017 *(dollar amounts in millions)*	Investment Management		Investment Services	Other	Consolidated	
Fee and other revenue	$ 899	*(a)*	$ 2,115	$ 113	$ 3,127	*(a)*
Net interest revenue (expense)	87		761	(22)	826	
Total revenue	986	*(a)*	2,876	91	3,953	*(a)*
Provision for credit losses	—		(3)	(4)	(7)	
Noninterest expense	698		1,927	28	2,653	*(b)*
Income before taxes	$ 288	*(a)*	$ 952	$ 67	$ 1,307	*(a)(b)*
Pre-tax operating margin *(c)*	29%		33%	N/M	33%	
Average assets	$ 31,355		$ 254,724	$ 56,436	$ 342,515	

(a) Both fee and other revenue and total revenue include the net income from consolidated investment management funds of $7 million, representing $10 million of income and noncontrolling interests of $3 million. Income before taxes is net of noncontrolling interests of $3 million.
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $2 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.
N/M - Not meaningful.

For the quarter ended Sept. 30, 2016 *(dollar amounts in millions)*	Investment Management		Investment Services	Other	Consolidated	
Fee and other revenue	$ 876	*(a)*	$ 2,183	$ 100	$ 3,159	*(a)*
Net interest revenue (expense)	82		715	(23)	774	
Total revenue	958	*(a)*	2,898	77	3,933	*(a)*
Provision for credit losses	—		1	(20)	(19)	
Noninterest expense	702		1,851	88	2,641	*(b)*
Income before taxes	$ 256	*(a)*	$ 1,046	$ 9	$ 1,311	*(a)(b)*
Pre-tax operating margin *(c)*	27%		36%	N/M	33%	
Average assets	$ 30,392		$ 275,714	$ 45,124	$ 351,230	

(a) Both fee and other revenue and total revenue include net income from consolidated investment management funds of $8 million, representing $17 million of income and noncontrolling interests of $9 million. Income before taxes is net of noncontrolling interests of $9 million.
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $2 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.
N/M - Not meaningful.

For the nine months ended Sept. 30, 2017 *(dollar amounts in millions)*	**Investment Management**		**Investment Services**	**Other**	**Consolidated**	
Fee and other revenue	**$ 2,694**	*(a)*	**$ 6,386**	**$ 254**	**$ 9,334**	*(a)*
Net interest revenue (expense)	**255**		**2,245**	**(43)**	**2,457**	
Total revenue	**2,949**	*(a)*	**8,631**	**211**	**11,791**	*(a)*
Provision for credit losses	**1**		**(5)**	**(14)**	**(18)**	
Noninterest expense	**2,083**		**5,650**	**212**	**7,945**	*(b)*
Income before taxes	**$ 865**	*(a)*	**$ 2,986**	**$ 13**	**$ 3,864**	*(a)(b)*
Pre-tax operating margin *(c)*	**29%**		**35%**	**N/M**	**33%**	
Average assets	**$ 31,372**		**$ 252,675**	**$ 57,463**	**$ 341,510**	

(a) Both total fee and other revenue and total revenue include net income from consolidated investment management funds of $29 million, representing $53 million of income and noncontrolling interests of $24 million. Income before taxes is net of noncontrolling interests of $24 million.
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $6 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.
N/M - Not meaningful.

For the nine months ended Sept. 30, 2016 *(dollar amounts in millions)*	Investment Management		Investment Services	Other	Consolidated	
Fee and other revenue	$ 2,544	*(a)*	$ 6,267	$ 324	$ 9,135	*(a)*
Net interest revenue (expense)	247		2,084	(24)	2,307	
Total revenue	2,791	*(a)*	8,351	300	11,442	*(a)*
Provision for credit losses	—		8	(26)	(18)	
Noninterest expense	2,084		5,518	284	7,886	*(b)*
Income before taxes	$ 707	*(a)*	$ 2,825	$ 42	$ 3,574	*(a)(b)*
Pre-tax operating margin *(c)*	25%		34%	N/M	31%	
Average assets	$ 30,048		$ 275,410	$ 57,832	$ 363,290	

(a) Both total fee and other revenue and total revenue include net income from consolidated investment management funds of $15 million, representing $21 million of income and noncontrolling interests of $6 million. Income before taxes is net of a loss attributable to noncontrolling interests of $6 million.
(b) Noninterest expense includes a loss attributable to noncontrolling interest of $6 million related to other consolidated subsidiaries.
(c) Income before taxes divided by total revenue.
N/M - Not meaningful.

Note 19 - Supplemental information to the Consolidated Statement of Cash Flows

Noncash investing and financing transactions that, appropriately, are not reflected in the Consolidated Statement of Cash Flows are listed below.

Noncash investing and financing transactions	Nine months ended Sept. 30,	
(in millions)	**2017**	2016
Transfers from loans to other assets for other real estate owned (“OREO”)	**$ 3**	$ 4
Change in assets of consolidated VIEs	**429**	392
Change in liabilities of consolidated VIEs	**288**	14
Change in nonredeemable noncontrolling interests of consolidated investment management funds	**234**	238
Securities purchased not settled	**1,277**	229
Securities sales not settled	**—**	218
Securities matured not settled	**350**	—
Held-to-maturity securities transferred to available-for-sale	**74**	10
Premises and equipment/capitalized software funded by capital lease obligations	**347**	12

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 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Some statements in this document are forward-looking. These include all 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 and capital management and processes, goals, strategies, outlook, objectives, expectations (including those regarding our performance results, regulatory, technology, market, economic or accounting developments, legal proceedings and other contingencies, effective tax rate, estimates (including those regarding capital ratios), intentions (including those regarding our resolution strategy), targets, opportunities and initiatives.

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" 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 the "Risk Factors" section of our 2016 Annual Report and this Form 10-Q, such as: an information security event or technology disruption that results in a loss of information or impacts our ability to provide services to our clients and any material adverse effect on our business and results of operations; failure of our technology or that of a third party or vendor, or if we neglect to update our technology, develop and market new technology to meet clients' needs or protect our intellectual property and any material adverse effect on our business; a determination that our resolution plan is not credible and any material negative impact on our business, reputation, results of operations and financial condition and the application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority and any adverse effects on our liquidity, financial condition and security holders; extensive government rulemaking regulation, and supervision, which have, and in the future may, compel us to change how we manage our businesses, could have a material adverse effect on our business, financial condition and results of operations and have increased our compliance and operational risks and costs; failure to satisfy regulatory standards, including "well capitalized" and "well managed" status or capital adequacy and liquidity rules, and any resulting limitations on our activities, or adverse effects on our business and financial condition; regulatory or enforcement actions or litigation and any material adverse effect on our results of operations or harm to our businesses or reputation; adverse events, publicity, government scrutiny or other reputational harm and any negative effect on our businesses; operational risk and any material adverse effect on our business; failure or circumvention of our controls and procedures and any material adverse effect on our business, reputation, results of operations and financial condition; failure of our risk management framework to be effective in mitigating risk and reducing the potential for losses; change or uncertainty in monetary, tax and other governmental policies and the impact on our businesses, profitability and ability to compete; political, economic, legal, operational and other risks inherent in operating globally and any adverse effect on our business; acts of terrorism, natural disasters, pandemics and global conflicts and any negative impact on our business and operations; ongoing concerns about the financial stability of certain countries, the failure or instability of any of our significant global counterparties, new barriers to global trade or a breakup of the EU or Eurozone and any material adverse effect on our business and results of operations; the United Kingdom's referendum decision to leave the EU and any negative effects on global economic conditions, global financial markets, and our business and results of operations; weakness and volatility in financial markets and the economy generally and any material adverse effect on our business, results of operations and financial condition; changes in interest rates and any material adverse effect on our profitability; write-downs of securities that we own and other losses related to volatile and illiquid market conditions and any reduction in our earnings or impact on our financial condition; our dependence on fee-based business for a substantial majority of our revenue and the adverse effects of a slowing in market activity, weak financial markets, underperformance and/or negative trends in savings rates or in investment preferences; any adverse effect on our foreign exchange revenues from decreased market volatility or cross-border investment activity of our clients; the failure or perceived weakness of any of our significant counterparties, and our assumption of credit and counterparty risk, which could expose us to loss and adversely affect our business; any material reduction in our credit ratings or the credit ratings of our principal bank subsidiaries, which could increase the cost of funding and borrowing to us and our rated subsidiaries and have a material adverse effect on our results of operations and financial condition and on the value of the securities we issue; any adverse effect on our business, financial condition and results of operations of not effectively managing our liquidity; the potential to incur losses if our allowance for credit losses is inadequate; the risks relating to new lines of business, new products and services or transformational or strategic project initiatives and the failure to implement these initiatives, which could affect our results of operations; the risks and uncertainties relating to our strategic transactions and any adverse effect on our business, results of operations and financial condition; competition in all aspects of our business and any negative effect on our ability to maintain or increase our profitability; failure to attract and retain employees and any adverse effect on our business; tax law changes or challenges to our tax positions and any adverse effect on our net income, effective tax rate and overall results of operations and financial condition; changes in accounting standards and any material impact on our reported financial condition, results of operations, cash flows and other financial data; risks associated with being a non-operating holding company, including our dependence on dividends from our subsidiaries to meet obligations, to provide funds for payment of dividends and for stock repurchases; and the impact of provisions of U.S. banking laws and regulations, including those governing capital and the approval of our capital plan, applicable provisions of Delaware law or failure to pay full and timely dividends on our preferred stock, on our ability to return capital to shareholders.

Investors should consider all risk factors discussed in our 2016 Annual Report, this Form 10-Q 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 websites 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 1A. Risk Factors

The following discussion supplements the discussion of risk factors that could affect our business, financial condition or results of operations set forth in Part I, Item 1A, Risk Factors, on pages 90 through 116 of our 2016 Annual Report. The discussion of Risk Factors, as so supplemented, sets forth our most significant risk factors that could affect our business, financial condition or results of operations. However, other factors, besides that discussed below or in our 2016 Annual Report or other of our reports filed with or furnished to the SEC, also could adversely affect our business or results. We cannot assure you that the risk factors described below or elsewhere in this report and such other reports address all potential risks that we may face. These risk factors also serve to describe factors which may cause our results to differ materially from those described in forward-looking statements included herein or in other documents or statements that make reference to this Form 10-Q. See Forward-looking Statements.

If our resolution plan is determined not to be credible or not to facilitate an orderly resolution under the U.S. Bankruptcy Code, our business, reputation, results of operations and financial condition could be materially negatively impacted. The application of our Title I preferred resolution strategy or resolution under the Title II orderly liquidation authority could adversely affect our liquidity and financial condition and our security holders.

Large BHCs must develop and submit to the Federal Reserve and the FDIC for review plans for their rapid and orderly resolution in the event of material financial distress or failure. BNY Mellon and The Bank of New York Mellon each file periodic complementary resolution plans. In April 2016, the Federal Reserve and the FDIC jointly determined that our 2015 resolution plan was not credible or would not facilitate an orderly resolution under the U.S. Bankruptcy Code. The agencies issued a joint notice of deficiencies and shortcomings and the actions that must be taken to address them, which we responded to in an Oct. 1, 2016 submission. In December 2016, the agencies jointly determined that our Oct. 1, 2016 submission adequately remedied the identified deficiencies. If the agencies determine that our future submissions are not credible or would not facilitate an orderly resolution under the U.S. Bankruptcy Code, and we fail to address the deficiencies in a timely manner, the agencies may jointly impose more stringent capital, leverage or liquidity requirements or restrictions on our growth, activities or operations. If we continue to fail to adequately remedy any deficiencies identified in future submissions, we could be required to divest assets or operations that the agencies determine necessary to facilitate our orderly resolution.

Following the receipt of feedback from the Federal Reserve and the FDIC in April 2016 on our 2015 resolution plan, we determined that, in the event of our material financial distress or failure, our preferred resolution strategy under Title I of the Dodd-Frank Act is a single point of entry strategy.

In connection with our single point of entry resolution strategy, we have established the IHC to facilitate the provision of capital and liquidity resources to certain key subsidiaries in the event of material financial distress or failure. In the second quarter of 2017, we entered into a binding support agreement that required the IHC to provide that support. The support agreement required the Parent to transfer its intercompany loans and most of its cash to the IHC, and requires the Parent to continue to transfer cash and other liquid financial assets to the IHC.

If our projected liquidity resources deteriorate so severely that resolution of the Parent becomes imminent, the committed line of credit the IHC provided to the Parent will automatically terminate, with all amounts outstanding becoming due and payable, and the support agreement will require the Parent to transfer most of its remaining assets (other than stock in subsidiaries and a cash reserve to fund bankruptcy expenses) to the IHC. As a result, during a period of severe financial stress the Parent might commence bankruptcy proceedings at an earlier time than it otherwise would if the support agreement had not been implemented.

If the Parent were to become subject to a bankruptcy proceeding and our single point of entry strategy is successful, creditors of some or all of our material entities would receive full recoveries on their claims, while the Parent's security holders, including unsecured debt holders, could face significant losses, potentially including the loss of their entire investment. It is possible that the application of the single point of entry strategy – in which the Parent would be the only legal entity to enter resolution proceedings – could result in greater losses to holders of our unsecured debt securities and other securities than the losses that could result from the application of a different resolution strategy. Further, if the single point of entry strategy is not successful, our liquidity and financial condition would be adversely affected and our security holders may, as a consequence, be in a worse position than if the strategy had not been implemented.

In addition, Title II of the Dodd-Frank Act established an orderly liquidation process in the event of the failure of a large systemically important financial institution, such as BNY Mellon, in order to avoid or mitigate serious adverse effects on the U.S. financial system. Specifically, when a U.S. G-SIB, such as BNY Mellon is in default or danger of default, and certain specified conditions are met, the FDIC may be appointed receiver under the orderly liquidation authority, and BNY Mellon would be resolved under that authority instead of the U.S. Bankruptcy Code. U.S. supervisors have indicated that a single point of entry strategy may be a desirable strategy to resolve a large financial institution such as BNY Mellon under Title II in a manner that would, similar to our preferred strategy under our Title I resolution plan, impose losses on shareholders, unsecured debt holders and other unsecured creditors of the top-tier holding company (in our case, the Parent), while permitting the holding company's subsidiaries to continue to operate and remain solvent. Under such a strategy, assuming the Parent entered resolution proceedings and its subsidiaries remained solvent, losses at the subsidiary level could be transferred to the Parent and ultimately borne by the Parent's security holders (including holders of the Parent's unsecured debt securities), while third-party creditors of the Parent's subsidiaries would receive full recoveries on their claims. Accordingly, the Parent's security holders (including holders of unsecured debt securities and other unsecured creditors) could face losses in excess of what otherwise would have been the case.

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 2017. 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 2017 *(dollars in millions, except per share information; 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, 2017
July 2017	7	$ 51.08	7	$ 2,600
August 2017	12,300	52.74	12,300	1,951
September 2017	9	52.29	9	1,950
Third quarter of 2017 *(a)*	**12,316**	**$ 52.74**	**12,316**	**$ 1,950** *(b)*

(a) Includes 32 thousand shares repurchased at a purchase price of $2 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 purchases was $52.74.

(b) Represents the maximum value of the shares authorized to be repurchased through the second quarter of 2018, including employee benefit plan repurchases, in connection with the Federal Reserve's non-objection to our 2017 capital plan.

On June 28, 2017, in connection with the Federal Reserve's non-objection to our 2017 capital plan, BNY Mellon announced a share repurchase plan providing for the repurchase of up to $2.6 billion of common stock and up to an additional $500 million of common stock contingent on a prior issuance of $500 million of noncumulative perpetual preferred stock. The 2017 capital plan began in the third quarter of 2017 and continues through the second quarter of 2018. This new share repurchase plan replaces all previously authorized share repurchase plans.

Share repurchases may be executed through repurchase plans designed to comply with Rule 10b5-1 and through 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 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 Commission on July 2, 2007, and incorporated herein by reference.
3.2	Certificate of Designations of The Bank of New York Mellon Corporation with respect to 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.
3.3	Certificate of Designations of The Bank of New York Mellon Corporation with respect to Series C Noncumulative Perpetual Preferred Stock, dated Sept. 13, 2012.	Previously filed as Exhibit 3.2 to the Company's Registration Statement on Form 8A12B (File No. 001-35651) as filed with the Commission on Sept. 14, 2012, 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	Amended and Restated By-Laws of The Bank of New York Mellon Corporation, as amended and restated on Oct. 13, 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 Oct. 19, 2015, and incorporated herein by reference.
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, 2017. The Company hereby agrees to furnish to the Commission, upon request, a copy of any such instrument.	N/A

Exhibit No.	Description	Method of Filing
12.1	Computation of Ratio of Earnings to Combined Fixed Charges and Preferred Stock Dividends.	Filed herewith.
31.1	Certification of the Chief Executive Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
31.2	Certification of the Chief Financial Officer pursuant to Rule 13a-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	Filed herewith.
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	Furnished herewith.
101.INS	XBRL Instance Document.	Filed herewith.
101.SCH	XBRL Taxonomy Extension Schema Document.	Filed herewith.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	Filed herewith.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.	Filed herewith.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.	Filed herewith.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	Filed herewith.

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 7, 2017	By:	/s/ Kurtis R. Kurimsky
		Kurtis R. Kurimsky Corporate Controller (Duly Authorized Officer and Principal Accounting Officer of the Registrant)

Exhibit 12.1

COMPUTATION OF RATIO OF EARNINGS TO COMBINED FIXED CHARGES AND PREFERRED STOCK DIVIDENDS

The Bank of New York Mellon Corporation

(dollar amounts in millions)	Quarter ended			Year-to-date	
	Sept. 30, 2017	June 30, 2017	Sept. 30, 2016	**Sept. 30, 2017**	Sept. 30, 2016
Earnings					
Income before income taxes	**$ 1,368**	$ 1,308	$ 1,317	**$ 3,882**	$ 3,573
Net (income) loss attributable to noncontrolling interests	**(2)**	(1)	(6)	**(18)**	1
Income before income taxes attributable to shareholders of The Bank of New York Mellon Corporation	**1,366**	1,307	1,311	**3,864**	3,574
Fixed charges, excluding interest on deposits	**279**	217	130	**679**	394
Income before income taxes and fixed charges, excluding interest on deposits applicable to the shareholders of The Bank of New York Mellon Corporation	**1,645**	1,524	1,441	**4,543**	3,968
Interest on deposits	**57**	32	(6)	**98**	21
Income before income taxes and fixed charges, including interest on deposits applicable to shareholders of The Bank of New York Mellon Corporation	**$ 1,702**	$ 1,556	$ 1,435	**$ 4,641**	$ 3,989
Fixed charges					
Interest expense, excluding interest on deposits	**$ 255**	$ 194	$ 106	**$ 608**	$ 319
One-third net rental expense *(a)*	**24**	23	24	**71**	75
Total fixed charges, excluding interest on deposits	**279**	217	130	**679**	394
Interest on deposits	**57**	32	(6)	**98**	21
Total fixed charges, including interests on deposits	**$ 336**	$ 249	$ 124	**$ 777**	$ 415
Preferred stock dividends	**$ 35**	$ 49	$ 13	**$ 126**	$ 74
Total fixed charges and preferred stock dividends, excluding interest on deposits	**$ 314**	$ 266	$ 143	**$ 805**	$ 468
Total fixed charges and preferred stock dividends, including interest on deposits	**$ 371**	$ 298	$ 137	**$ 903**	$ 489
Earnings to fixed charges ratios					
Excluding interest on deposits	**5.90**	7.02	11.08	**6.69**	10.07
Including interest on deposits	**5.07**	6.25	11.57	**5.97**	9.61
Earnings to fixed charges and preferred stock dividends ratios					
Excluding interest on deposits	**5.24**	5.73	10.08	**5.64**	8.48
Including interest on deposits	**4.59**	5.22	10.47	**5.14**	8.16

(a) The proportion deemed representative of the interest factor.

Exhibit 31.1

CERTIFICATION

I, Charles W. Scharf, 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 7, 2017

/s/ Charles W. Scharf

Name: Charles W. Scharf
Title: Chief Executive Officer

Exhibit 31.2

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 7, 2017

/s/ Thomas P. Gibbons

Name: Thomas P. Gibbons
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, 2017 (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 7, 2017	/s/ Charles W. Scharf	
	Name:	Charles W. Scharf
	Title:	Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

CERTIFICATION

Pursuant to 18 U.S.C. Section 1350, the undersigned officer of The Bank of New York Mellon Corporation (“BNY Mellon”), hereby certifies, to his knowledge, that BNY Mellon’s Quarterly Report on Form 10-Q for the quarter ended Sept. 30, 2017 (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 7, 2017

/s/ Thomas P. Gibbons

Name: Thomas P. Gibbons

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.