NORTHERN TRUST CORP Form 10-Q May 04, 2018 <u>Table of Contents</u>

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

FORM 10-Q QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the Quarterly Period Ended March 31, 2018 OR "TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from to Commission File No. 001-36609 NORTHERN TRUST CORPORATION (Exact name of registrant as specified in its charter) Delaware 36-2723087 (State or other jurisdiction of (I.R.S. Employer incorporation or organization) Identification No.) 50 South LaSalle Street 60603 Chicago, Illinois (Address of principal executive offices) (Zip Code) Registrant's telephone number, including area code: (312) 630-6000

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 $x \, \text{No}^{-1}$ 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 during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes $x \, \text{No}^{-1}$

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. (Check one): Large accelerated filer Accelerated filer "

Non-accelerated filer " (Do not check if a smaller reporting company) Smaller reporting company "

Emerging growth company "

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes "No x 224,991,295 Shares – \$1.66 2/3 Par Value (Shares of Common Stock Outstanding on March 31, 2018)

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CONSOLIDATED FINANCIAL HIGHLIGHTS (UNAUDITED)

CONDENSED INC Noninterest Income Net Interest Income Provision for Credit Noninterest Expens Income before Inco Provision for Incom Net Income	t Losses e me Taxes	EMENTS (I	n Million	\$1,092.0 384.0	2017 \$930.9 353.5 (1.0) 894.5 390.9 114.8	% Char 17 9 200 11 24 (11	
PER COMMON SH	JADE						
			¢ 1 50	¢ 1 10 1507			
Net Income — Basi	lC			\$1.10 45%			
— Diluted	1 10 0	01	1.58	1.09 45			
Cash Dividends De				0.38 11			
Book Value — End		UCP)	41.66	39.62 5			
Market Price — EO	PP		103.13	86.58 19			
	NCE QUEE		M(111:				
SELECTED BALA	INCE SHEE	I DATA (In	Willions)		Desemb	~ ~	
				March 31, 2018		<i>V</i> ₀ (Change ⁽¹⁾
End of Period:				2018	31, 2017		
				¢ 100 670 0	¢ 1 2 9 5 0	05 (6)07
Assets				\$129,672.2)%
Earning Assets				120,384.4		-)
Deposits				105,191.4		-)
Stockholders' Equit	ty			10,226.0	10,216.2		
	Three Mon	ths Ended M	arch 31,				
			%				
	2018	2017	Change				
			(1)				
Average Balances:							
Assets	\$124,493.3	\$116,476.4	7 %				
Earning Assets	115,686.3		6				
Deposits	98,197.5	94,933.6	3				
Stockholders' Equit	ty10,137.7	9,791.4	4				
CLIENT ASSETS (In Billions)	Ma	arch 31, I	December $\%$	Change (1	1)	
		20	10 5	, 2017			
Assets Under Custo	•				%		
Assets Under Custo	•		11.7 8	-	-		
Assets Under Mana			65.7 1		-		
(1) Percentage calcu	lations are b	ased on actua	al balance	es rather than	the round	led amo	unts presen
Financial Highli	ahte						

(1) Percentage calculations are based on actual balances rather than the rounded amounts presented in the Consolidated Financial Highlights.

(2) For the purposes of disclosing Assets Under Custody/Administration, to the extent that both custody and administration services are provided, the value of the assets is included only once.

Table of Contents SELECTED RATIOS AND METRICS

		Three I	Months			
		Ended	March			
		31,				
		2018	2017			
Financial Ratios:						
Return on Average Common	Equity	16.0%	11.6%			
Return on Average Assets	1 2	1.24	0.96			
Dividend Payout Ratio		26.6	34.9			
Net Interest Margin ⁽¹⁾		1.38	1.35			
1 (00 1100 050 1100 gm		1100	1100			
	March	31, 20	18	Decem	ber 31,	2017
		-		Advanc Standardized		
	Appro	acAppro	bach	Approach Approach		
Capital Ratios:	II.	II I		II ···	II -	
Northern Trust Corporation						
Common Equity Tier 1	13.0%	12.3	%	13.5%	12.6	%
Tier 1	14.3	13.6	,0	14.8	13.8	,.
Total	16.2			16.7	15.8	
Tier 1 Leverage	7.6	7.6		7.8	7.8	
Supplementary Leverage	6.6	N/A		6.8	N/A	
Supplementary Leverage	0.0	1 1/ / 1		0.0	11/11	
The Northern Trust Company						
Common Equity Tier 1	13.6%	12.6	%	13.7%	12.6	%
Tier 1	13.6	12.6		13.7	12.6	
Total	15.2	14.3		15.4	14.3	
Tier 1 Leverage	7.0	7.0		7.0	7.0	
Supplementary Leverage	6.1	N/A		6.1	N/A	
Net interest margin is prese			v taxahl			TE) bas

Net interest margin is presented on a fully taxable equivalent (FTE) basis, a non-generally accepted accounting (1) principle (GAAP) financial measure that facilitates the analysis of asset yields. The net interest margin on a GAAP basis and a reconciliation of net interest income on a GAAP basis to net interest income on an FTE basis are presented on page 22.

PART I – FINANCIAL INFORMATION

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

FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS

General

Northern Trust Corporation (the Corporation) is a financial holding company that is a leading provider of asset servicing, fund administration, asset management, fiduciary and banking solutions for corporations, institutions, families and individuals worldwide. The Corporation focuses on managing and servicing client assets through its two client-focused reporting segments: Corporate & Institutional Services (C&IS) and Wealth Management. Asset management and related services are provided to C&IS and Wealth Management clients primarily by the Asset Management business. Except where the context requires otherwise, the term "Northern Trust," "we," "us," "our" or similar terms mean the Corporation and its subsidiaries on a consolidated basis.

The following should be read in conjunction with the consolidated financial statements and related footnotes included in this report. Investors also should read the section entitled "Forward-Looking Statements." Overview

Net income per diluted common share was \$1.58 in the current quarter, up from \$1.09 in the first quarter of 2017. Net income was \$381.6 million in the current quarter as compared to \$276.1 million in the prior-year quarter. Annualized return on average common equity was 16.0% in the current quarter and 11.6% in the prior-year quarter. The annualized return on average assets was 1.24% in the current quarter as compared to 0.96% in the prior-year quarter.

Revenue of \$1.48 billion in the current quarter was up \$191.6 million, or 15%, from \$1.28 billion in the prior-year quarter.

Noninterest income increased \$161.1 million, or 17%, to \$1.09 billion from \$930.9 million in the prior-year quarter, primarily reflecting higher trust, investment and other servicing fees and foreign exchange trading income.

Net interest income increased \$30.5 million, or 9%, to \$384.0 million in the current quarter as compared to \$353.5 million in the prior-year quarter, primarily the result of a higher net interest margin and an increase in earning assets.

The provision for credit losses was a credit of \$3.0 million in the current quarter, as compared to a credit of \$1.0 million in the prior-year quarter.

Noninterest expense totaled \$995.3 million in the current quarter, up \$100.8 million, or 11%, from \$894.5 million in the prior-year quarter, primarily attributable to higher compensation, outside services, employee benefits, and equipment and software expense.

The provision for income taxes in the current quarter totaled \$102.1 million, representing an effective tax rate of 21.1%. The provision for income taxes in the prior-year quarter totaled \$114.8 million, representing an effective tax rate of 29.4%.

<u>Table of Contents</u> FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued) Noninterest Income

The components of noninterest income are provided below. Table 1: Noninterest Income

Noninterest Income	Three Months						
Noninterest income	Ended March 31,						
(\$ In Millions)	2018	2017	Change				
Trust, Investment and Other Servicing Fees	\$937.7	\$808.2	\$129.5 16 %				
Foreign Exchange Trading Income	78.5	48.1	30.4 63				
Treasury Management Fees	14.0	14.7	(0.7) (5)				
Security Commissions and Trading Income	27.2	20.5	6.7 33				
Other Operating Income	34.8	39.7	(4.9) (12)				
Investment Security (Losses) Gains, net	(0.2)	(0.3)	0.1 (33)				
Total Noninterest Income	\$1,092.0	\$930.9	\$161.1 17 %				

Trust, investment and other servicing fees are based primarily on the market value of assets held in custody, managed or serviced; the volume of transactions; securities lending volume and spreads; and fees for other services rendered. Certain market value calculations on which fees are based are performed on a monthly or quarterly basis in arrears. For a further discussion of trust, investment and other servicing fees and how they are derived, refer to the "Reporting Segments" section.

When considering the impact of markets on the Corporation's results, the following tables present selected market indices and the percentage changes year over year.

Table 2: Equity Market Indices

	Daily Averages				Period-End			
	Three Months Ended March 31,				As of March 31,			
	2018	2017	Chan	ige	2018	2017	Cha	inge
S&P 500 MSCI EAFE (U.S. dollars)	2,072	1,749	18 9	%	2,002		12	%
MSCI EAFE (local currency) Table 3: Fixed Income Marke			8 9	%	1,105	1,078	2	
	As of March 31, 2018 2017 Change						;	

Barclays Capital U.S. Aggregate Bond Index2,0161,9931%Barclays Capital Global Aggregate Bond Index4914597

Assets under custody/administration (AUC/A) and assets under management form the primary drivers of our trust, investment and other servicing fees. For the purposes of disclosing AUC/A, to the extent that both custody and administration services are provided, the value of the assets is included only once. The following table presents AUC/A by reporting segment.

Table 4: Assets Under Custody / Administration

Assets Under Custody / Administration	March 31,	December	March	Chai	nge	Chang	e
(\$ In Billions)	2018	31, 2017	31, 2017	Q1-1	18/Q4-17	Q1-18	/Q1-17
Corporate & Institutional	\$10,131.7	\$10,066.8	\$8,338.2	1	%	22	%
Wealth Management	654.0	655.8	586.5			12	
Total Assets Under Custody / Administration	\$10,785.7	\$10,722.6	\$8,924.7	1	%	21	%

<u>Table of Contents</u> FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued) Noninterest Income (continued)

The following table presents Northern Trust's assets under custody, a component of AUC/A, by reporting segment. Table 5: Assets Under Custody

Assets Under Custody	March	December	March	Change	Change	e
(\$ In Billions)	31, 2018	31, 2017	31, 2017	Q1-18/Q4-17	Q1-18/	Q1-17
Corporate & Institutional	\$7,466.5	\$7,439.1	\$6,533.3	_%	14	%
Wealth Management	645.2	645.5	574.4		12	
Total Assets Under Custody	\$8,111.7	\$8,084.6	\$7,107.7	_%	14	%
		-				

The 14% increase in consolidated assets under custody from \$7.11 trillion as of March 31, 2017 to \$8.11 trillion as of March 31, 2018 primarily reflected the impact of favorable markets, new business, and the favorable impact of movements in foreign exchange rates.

The following table presents the allocation of Northern Trust's custodied assets by reporting segment. Table 6: Allocation of Assets Under Custody

	Marc	ch 31, 1	2018		mber	31,	March 31, 2017			
				2017						
Assets Under Custody	C&I	SWM	Total	C&IS	SWM	Total	C&IS	SWM	Total	
Equities	45%	58%	46%	46%	58%	47~%	45%	56%	46 %	
Fixed Income	37	18	36	37	19	35	37	21	36	
Cash and Other Assets	15	24	16	15	23	16	16	23	16	
Securities Lending Collateral	3		2	2		2	2		2	
The following table presents	North	ern Tr	ust's a	ssets	under	manag	gemen	t by re	porting se	egment.
Table 7: Assets Under Manag	gemer	nt								-
Assets Under Management	N	March	Dec	cembe	r Mar	ch (Chang	e	Chang	e
(\$ In Billions)	3	51, 201	8 31,	2017	31, 2	2017	Q1-18	/Q4-1	7 Q1-18	/Q1-17
Corporate & Institutional	\$	878.3	\$87	71.2	\$74	1.1	1	%	19	%
Wealth Management	2	287.4	289	9.8	260.	.2	(1)	10	
Total Assets Under Managen	nent \$	51,165	.7 \$1,	161.0	\$1,0	01.3 -		%	16	%
The 16% increase in consolid	lated a	assets	under	manag	remen	t from	\$1.00	trillic	on at Marc	h 31 201

The 16% increase in consolidated assets under management from \$1.00 trillion at March 31, 2017 to \$1.17 trillion as of March 31, 2018 was primarily due to net inflows in securities lending collateral and cash, as well as favorable markets.

The following table presents Northern Trust's assets under management by investment type.

Table 8: Assets Under Management by Investment Type

(\$ In Billions)	March	December 31, March			
(\$ III BIIIIOIIS)	31, 2018	2017	31, 2017		
Equities	\$583.7	\$ 592.3	\$516.8		
Fixed Income	177.7	183.5	165.8		
Cash and Other Assets	216.8	217.5	195.1		
Securities Lending Collateral	187.5	167.7	123.6		
Total Assets Under Management	\$1,165.7	\$ 1,161.0	\$1,001.3		

<u>Table of Contents</u> FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued) Noninterest Income (continued)

The following table presents the allocation of Northern Trust's assets under management by reporting segment. Table 9: Allocation of Assets Under Management

	March 31, 2018		Dece 2017	December 31, 2017			March 31, 2017		
Assets Under Management							C&IS	SWM	Total
Equities						51 %			
1									
Fixed Income	12	25	15	13	25	16	13	27	17
Cash and Other Assets	17	23	19	17	24	19	18	24	19
Securities Lending Collateral	1 21		16	19		14	17		12

The following table presents activity in consolidated assets under management by investment type. Table 10: Activity in Consolidated Assets Under Management by Investment Type

	Three Months Ended									
(\$ In Billions)	March 3	1,December 3	31,September 3	30,June 30,	March 3	31,				
(\$ III DIIIIOIIS)	2018	2017	2017	2017	2017					
Beginning Balance of AUM	\$1,161.0	\$ 1,125.1	\$ 1,028.8	\$1,001.3	\$ \$942.4					
Inflows by Investment Type										
Equity	44.2	63.0	51.2	36.3	41.6					
Fixed Income	17.4	23.0	19.8	11.6	13.7					
Cash & Other Assets	114.4	116.3	101.6	98.2	91.8					
Securities Lending Collateral	68.1	32.4	45.5	24.9	29.6					
Total Inflows	244.1	234.7	218.1	171.0	176.7					
Total Innows	244.1	234.7	210.1	1/1.0	170.7					
Outflows by Investment Type										
Equity	(47.8)(67.7) (41.0) (38.6)(38.4)				
Fixed Income	(24.0)(20.7) (13.0) (10.5)(13.0)				
Cash & Other Assets	(117.4)(111.8) (83.0) (99.5)(89.7)				
Securities Lending Collateral	(48.3)(26.8) (14.4) (17.5)(18.0)				
Total Outflows	(237.5)(227.0) (151.4) (166.1)(159.1)				
Net Inflows / (Outflows)	6.6	7.7	66.7	4.9	17.6					
Market Performance, Currency	y									
& Other										
Market Performance & Other	(4.6)27.9	26.6	18.2	38.9					
Currency	2.7	0.3	3.0	4.4	2.4					
Total Market Performance, Currency & Other	(1.9)28.2	29.6	22.6	41.3					
Ending Balance of AUM	\$1,165.7	\$ 1,161.0	\$ 1,125.1	\$1,028.8	3 \$1,001.	.3				

Foreign exchange trading income totaled \$78.5 million in the current quarter, up \$30.4 million, or 63%, compared to \$48.1 million in the prior-year quarter. The increase was primarily due to higher client volumes and increased foreign exchange swap activity in Treasury as compared to the prior-year quarter.

Security commissions and trading income totaled \$27.2 million, up \$6.7 million, or 33%, compared to \$20.5 million in the prior-year quarter. The increase was primarily due to higher core brokerage and transition management revenue as compared to the prior-year quarter.

<u>Table of Contents</u> FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued) Noninterest Income (continued)

Other operating income totaled \$34.8 million in the current quarter, down \$4.9 million, or 12%, compared to \$39.7 million in the prior-year quarter, primarily due to foreign currency adjustments. The components of other operating income are provided below.

Table 11: Other Operating Income

	Three								
Other Operating Income	Months								
Other Operating Income	Ended								
(\$ In Millions)	March 31,								
(\$ In Millions)	2018	2017	Change	e					
Loan Service Fees	\$12.5	\$12.4	\$0.1	1	%				
Banking Service Fees	12.5	12.4	0.1	1					
Other Income	9.8	14.9	(5.1)	35					
Total Other Operating Income	\$34.8	\$39.7	(4.9)	(12)%				

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FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued) Net Interest Income

The following table presents an analysis of average balances and interest rate changes affecting net interest income. Table 12: Average Consolidated Balance Sheets with Analysis of Net Interest Income

(Interest and Rate on a Fully Taxable Equivalent Basis)		NORTHERN TRUST CORPORATION FIRST QUARTER				
(Interest and Kate on a Pully Taxaole Equivalent Basis)	2018			2017		
(\$ In Millions)	Interes	t Average Balance	Rate ⁽⁵⁾	Interest	Average Balance	Rate ⁽⁵⁾
Average Earning Assets						
Federal Reserve and Other Central Bank Deposits	\$47.4	\$26,495.1	0.72 %	\$29.7	\$21,806.9	0.55 %
Interest-Bearing Due from and Deposits with Banks ⁽¹⁾	19.9	6,920.4	1.17	14.9	6,684.3	0.91
Federal Funds Sold and Securities Purchased under Agreements to Resell	6.8	1,467.1	1.89	6.5	2,011.7	1.32
Securities	22.0	5 725 4	1 (0	0 <i>5 5</i>	7 012 0	1 4 4
U.S. Government	23.8	5,735.4 678.2	1.68 1.42	25.5 3.6	7,213.8	1.44
Obligations of States and Political Subdivisions Government Sponsored Agency	2.4 81.4	18,848.3	1.42	5.0 68.9	989.7 17,796.8	1.47 1.57
Other ⁽²⁾	79.2	23,073.8	1.75	54.6	18,777.4	1.18
Total Securities	186.8	48,335.7	1.59	152.6	44,777.7	1.18
Loans and Leases ⁽³⁾	253.7	32,468.0	3.17	215.5	33,671.2	2.59
Total Earning Assets	514.6	115,686.3	1.80	419.2	108,951.8	1.56
Allowance for Credit Losses Assigned to Loans and	514.0		1.00	-17,2		1.50
Leases		(131.0)			(160.8)	
Cash and Due from Banks and Other Central Bank Deposits ⁽⁴⁾	_	2,593.2		_	2,116.6	
Buildings and Equipment		457.0			465.9	
Client Security Settlement Receivables		1,012.0			829.6	
Goodwill		611.0			519.7	
Other Assets		4,264.8			3,753.6	
Total Assets	\$—	\$124,493.3	%	\$ —	\$116,476.4	%
Average Source of Funds						
Deposits						
Savings, Money Market and Other	\$12.9	\$15,916.4	0.33 %	\$3.2	\$15,446.7	0.09 %
Savings Certificates and Other Time	2.1	1,058.5	0.82	2.3	1,338.5	0.70
Non-U.S. Offices — Interest-Bearing	48.1	59,199.7	0.33	22.1	52,435.9	0.17
Total Interest-Bearing Deposits	63.1	76,174.6	0.34	27.6	69,221.1	0.16
Short-Term Borrowings	34.5	9,405.3	1.49	9.0	5,659.1	0.65
Senior Notes	11.8	1,497.4	3.18	11.7	1,496.7	3.17
Long-Term Debt	11.0	1,426.5	3.14	7.4	1,324.9	2.26
Floating Rate Capital Debt	1.5	277.5	2.21	1.1	277.4	1.56
Total Interest-Related Funds	121.9	88,781.3	0.56	56.8	77,979.2	0.30
Interest Rate Spread			1.24			1.26
Demand and Other Noninterest-Bearing Deposits		22,022.9			25,712.5	—
Other Liabilities		3,551.4			2,993.3	
Stockholders' Equity		10,137.7		<u> </u>	9,791.4	—
Total Liabilities and Stockholders' Equity	\$ <u> </u>	\$124,493.3		\$—	\$116,476.4	— %
Net Interest Income/Margin (FTE Adjusted)	\$392.7	\$—	1.38 %	\$362.4	\$—	1.35 %

Net Interest Income/Margin (Unadjusted)	\$384.0 \$—	1.35 % \$353.5 \$-	1.32 %

Table of Contents FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued) Net Interest Income (continued)

ANALYSIS OF NET INTEREST INCOME CHANGES DUE TO VOLUME AND RATE

	Three Months Ended March 31,
	2018/2017 Change Due To
(In Millions)	Average Balance Total
Earning Assets (FTE)	\$25.4 \$70.0 \$95.4
Interest-Related Funds	10.6 54.5 65.1
Net Interest Income (FTE)	\$14.8 \$15.5 \$30.3

(1) Interest-Bearing Due from and Deposits with Banks includes the interest-bearing component of Cash and Due from Banks and Interest-Bearing Deposits with Banks as presented on the consolidated balance sheets.

Other securities include certain community development investments and Federal Home Loan Bank and Federal

- (2) Reserve stock, which are classified in other assets in the consolidated balance sheets as of March 31, 2018 and 2017.
- (3) Average balances include nonaccrual loans. Lease financing receivable balances are reduced by deferred income.
- Cash and Due from Banks and Other Central Bank Deposits includes the noninterest-bearing component of Federal $(4)_{\rm P}$ Reserve and Other Central Bank Deposits as presented on the consolidated balance sheets.
- (5) Rate calculations are based on actual balances rather than the rounded amounts presented in the Average Consolidated Balance Sheets with Analysis of Net Interest Income.

Net Interest Income (FTE Adjusted), a non-generally accepted accounting principle (GAAP) financial measure, includes adjustments to a fully taxable equivalent basis for loans and securities. Such adjustments are based on a blended federal and state tax rate of 24.8% and 37.8% for the three months ended March 31, 2018 and 2017,

Notes: respectively. Total taxable equivalent interest adjustments amounted to \$8.7 million and \$8.9 million for the three months ended March 31, 2018 and 2017, respectively. A reconciliation of net interest income and net interest margin on a GAAP basis to net interest income and net interest margin on an FTE basis (each of which is a non-GAAP financial measure) is provided on page 22.

Interest revenue on cash collateral positions is reported above within interest-bearing deposits with banks and within loans and leases. Interest expense on cash collateral positions is reported above within non-U.S. offices interest-bearing deposits. Related cash collateral received from and deposited with derivative counterparties is recorded net of the associated derivative contract within other assets and other liabilities, respectively. Net interest income is defined as the total of interest income and amortized fees on earning assets, less interest expense on deposits and borrowed funds, adjusted for the impact of interest-related hedging activity. Net interest income on a fully taxable equivalent (FTE) basis totaled \$392.7 million in the current quarter, up \$30.3 million, or 8%, compared to \$362.4 million in the prior-year quarter. The increase was primarily the result of a higher net interest margin and an increase in earning assets. Average earning assets for the current quarter were \$115.7 billion, up \$6.7 billion, or 6%, from \$109.0 billion in the prior-year quarter, primarily resulting from higher levels of short-term interest-bearing deposits and securities, partially offset by reductions in loans and leases. Earning asset growth was funded primarily by higher levels of interest-bearing deposits and borrowed funds, partially offset by lower demand and other noninterest-bearing deposits.

The net interest margin on an FTE basis increased to 1.38% in the current quarter from 1.35% in the prior-year quarter, primarily due to higher short-term interest rates, partially offset by higher premium amortization due to a change in estimation methodology and a balance sheet mix shift.

When adjusted to an FTE basis, yields on taxable, nontaxable, and partially taxable assets are comparable; however, the adjustment to an FTE basis has no impact on net income. A reconciliation of net interest income and net interest margin on a GAAP basis to net interest income and net interest margin on an FTE basis (each of which is a non-GAAP financial measure) is provided on page 22.

Federal Reserve and other central bank deposits averaged \$26.5 billion, up \$4.7 billion, or 21%, from \$21.8 billion in the prior-year quarter. Average securities were \$48.3 billion, up \$3.5 billion, or 8%, from \$44.8 billion in the prior-year quarter and include certain community development investments, Federal Home Loan Bank stock, and Federal Reserve stock of \$412.3 million, \$203.3 million and \$53.1 million, respectively, which are recorded in other assets in the consolidated balance sheets.

Loans and leases averaged \$32.5 billion, down \$1.2 billion, or 4%, from \$33.7 billion in the prior-year quarter, primarily reflecting lower levels of residential real estate, commercial real estate, and commercial and institutional loans, partially offset by increases in private client loans. Residential real estate loans averaged \$7.3 billion, down \$655.9 million, or 8%, from \$7.9 billion for the prior-year quarter. Commercial real estate loans averaged \$3.5 billion, down \$460.9 million, or 12%, from \$4.0 billion for the prior-year quarter. Commercial and institutional loans averaged \$9.1 billion, down \$409.9 million, or 4%, from \$9.6 billion for

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FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued)

Net Interest Income (continued)

the prior-year quarter. Private client loans averaged \$10.4 billion, up \$480.5 million, or 5%, from \$10.0 billion for the prior-year quarter.

Northern Trust utilizes a diverse mix of funding sources. Total interest-bearing deposits averaged \$76.2 billion in the current quarter, compared to \$69.2 billion in the prior-year quarter, an increase of \$7.0 billion. Other interest-bearing funds averaged \$12.6 billion in the current quarter, compared to \$8.8 billion in the prior-year quarter. The balances within short-term borrowing classifications vary based on funding requirements and strategies, interest rate levels, changes in the volume of lower-cost deposit sources, and the availability of collateral to secure these borrowings. Average net noninterest-related funds decreased \$4.1 billion, or 13%, to \$26.9 billion in the current quarter from \$31.0 billion in the prior-year quarter, primarily resulting from lower levels of demand and other noninterest-bearing deposits.

Provision for Credit Losses

The provision for credit losses was a credit of \$3.0 million in the current quarter, as compared to a credit of \$1.0 million in the prior-year quarter. The credit provision in the current quarter was primarily driven by reductions in outstanding loans and undrawn loan commitments that resulted in a reduction in the inherent allowance ascribed to the commercial real estate, residential real estate, and commercial and institutional portfolios, partially offset by charge-offs in the current quarter. Net charge-offs in the current quarter were \$3.0 million, resulting from charge-offs of \$4.3 million and recoveries of \$1.3 million. The prior-year quarter included \$2.0 million of net charge-offs, reflecting \$4.7 million of charge-offs and \$2.7 million of recoveries. Nonperforming assets of \$128.9 million decreased 31% from \$186.8 million in the prior-year quarter. Residential real estate, commercial real estate, and commercial and institutional loans accounted for 91%, 5% and 4%, respectively, of total nonperforming loans and leases at March 31, 2018. For additional discussion of the provision and allowance for credit losses, refer to the "Asset Quality" section beginning on page 16.

Noninterest Expense

The components of noninterest expense are provided below.

Table 13: Noninterest Expense

Three Months					
Noninterest Expense	Ended I	March			
	31,				
(\$ In Millions)	2018	2017	Change		
Compensation	\$471.7	\$425.8	\$45.9	11%	
Employee Benefits	91.7	77.8	13.9	18	
Outside Services	171.4	153.1	18.3	12	
Equipment and Software	140.0	127.3	12.7	10	
Occupancy	51.5	45.4	6.1	13	
Other Operating Expense	69.0	65.1	3.9	6	
Total Noninterest Expense	\$995.3	\$894.5	\$100.8	11%	

Compensation expense, the largest component of noninterest expense, totaled \$471.7 million in the current quarter, up \$45.9 million, or 11%, compared to \$425.8 million in the prior-year quarter, primarily reflecting increased salary expense, higher cash-based incentive accruals, and higher severance charges of \$6.1 million. The increase in salary expense was driven by the unfavorable impact of movements in foreign exchange rates, staff growth including the acquisition and integration of UBS Asset Management's fund administration units in Luxembourg and Switzerland (the UBS acquisition), and base pay adjustments.

Employee benefits expense totaled \$91.7 million in the current quarter, up \$13.9 million, or 18%, compared to \$77.8 million in the prior-year quarter, primarily due to higher retirement plan expenses and costs associated with the UBS acquisition.

Outside services expense totaled \$171.4 million in the current quarter, up \$18.3 million, or 12%, compared to \$153.1 million in the prior-year quarter, primarily reflecting a change in presentation of third-party advisor costs resulting from the adoption of the new revenue recognition accounting standard, higher sub-custodian expenses, and increased costs associated with the UBS acquisition, partially offset by lower sub-advisor costs. There is a corresponding increase to trust, investment and other servicing fees as a result of the adoption of the new revenue recognition accounting standard.

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FIRST QUARTER CONSOLIDATED RESULTS OF OPERATIONS (continued)

Noninterest Expense (continued)

Equipment and software expense totaled \$140.0 million in the current quarter, up \$12.7 million, or 10%, compared to \$127.3 million in the prior-year quarter, primarily reflecting increased software amortization.

Occupancy expense totaled \$51.5 million in the current quarter, up \$6.1 million, or 13%, compared to \$45.4 million in the prior-year quarter, primarily reflecting accelerated depreciation expense related to a previously announced facility exit.

Other operating expense totaled \$69.0 million in the current quarter up 6% from \$65.1 million in the prior-year quarter, primarily reflecting higher costs associated with the UBS acquisition and increases in various other operating expense categories.

The components of other operating expense are provided below.

Three

Table 14: Other Operating Expense

	Inree				
Other Operating Expanse	Month	IS			
Other Operating Expense	Ended				
	March	31,			
(\$ In Millions)	2018	2017	Chang	ge	
Business Promotion	\$16.1	\$16.1	\$—		%
Staff Related	5.4	8.7	(3.3)	(38)
FDIC Insurance Premiums	8.9	8.4	0.5	5	
Other Intangibles Amortization	4.5	2.4	2.1	91	
Other Expenses	34.1	29.5	4.6	16	
Total Other Operating Expense	\$69.0	\$65.1	\$3.9	6	%
Description for Language Transf					

Provision for Income Taxes

Income tax expense for the three months ended March 31, 2018 was \$102.1 million, representing an effective tax rate of 21.1%, compared to \$114.8 million in the prior-year quarter, representing an effective tax rate of 29.4%. The decrease in the provision for income taxes was primarily attributable to the reduction in the U.S. federal corporate income tax rate from 35% to 21% as a result of the Tax Cuts and Jobs Act ("TCJA"). Also contributing to the decrease in the provision for income taxes compared to the prior-year quarter was a tax benefit resulting from a change in accounting method regarding the timing of tax deductions for software development-related expenses of \$22.6 million, partially offset by a \$15.8 million net provision recorded in the current period representing adjustments to the initial estimated impact of the TCJA, tax accounting changes in 2018 brought about by the TCJA including the tax accounting associated with non-U.S. branches and subsidiaries, and a reduction in the income tax benefit derived from the vesting of restricted stock units and stock option exercises. The initial estimated impact of the TCJA may continue to be refined in future periods as further information becomes available.

REPORTING SEGMENTS

Northern Trust is organized around its two client-focused reporting segments: C&IS and Wealth Management. Asset management and related services are provided to C&IS and Wealth Management clients primarily by the Asset Management business. The revenue and expenses of Asset Management and certain other support functions are allocated fully to C&IS and Wealth Management. Income and expense associated with the wholesale funding activities and investment portfolios of the Corporation and its principal subsidiary, The Northern Trust Company (the Bank), as well as certain corporate-based expense, executive level compensation and nonrecurring items, are not allocated to C&IS and Wealth Management, and are reported in Northern Trust's third reporting segment, Treasury and Other, in the following pages.

Table of Contents REPORTING SEGMENTS (continued)

The following tables reflect the earnings contributions and average assets of Northern Trust's reporting segments for the three month periods ended March 31, 2018 and 2017. Reporting segment financial information, presented on an internal management-reporting basis, is determined by accounting systems that are used to allocate revenue and expense related to each segment and incorporates processes for allocating assets, liabilities, equity and the applicable interest income and expense.

Table 15: Results of Reporting Segments

Three	
Imco	

Inree								
	Corporate &		Wealth		Treasury and		Total	
Ended March 31,	Institutional	Services	Management	t	Other		Consolidated	
(\$ In Millions) Noninterest Income	2018	2017	2018	2017	2018	2017	2018	2017
Trust, Investment and Other Servicing Fees	\$544.3	\$462.9	\$393.4	\$345.3	\$—	\$—	\$937.7	\$808.2
Foreign Exchange Trading Income Other	62.4	49.1	1.2	0.9	14.9	(1.9)	78.5	48.1
	46.6	44.2	25.7	25.5	3.5	4.9	75.8	74.6
Income Net Interest Income*	229.4	166.5	198.8	177.0	(35.5)	18.9	392.7	362.4
	882.7	722.7	619.1	548.7	(17.1)	21.9	1,484.7	1,293.3
Provision for Credit Losses	(3.9)	0.3	0.9	(1.3)		—	(3.0)	(1.0)
Noninterest Expense Income	585.6	510.8	365.7	346.3	44.0	37.4	995.3	894.5
before Income Taxes*	301.0	211.6	252.5	203.7	(61.1)	(15.5)	492.4	399.8
Provision for Income Taxes*	66.8	66.9	62.4	76.8	(18.4)	(20.0)	110.8	123.7
Net Income Percentage of		\$144.7	\$190.1	\$126.9	\$(42.7)	\$4.5	\$381.6	\$276.1
Consolidated Net Income		52 %	50 %	46 %	(11)%	2 %	100 %	100 %
Average Assets	\$83,637.0	\$77,803.5	\$26,108.0	\$26,661.8	\$14,748.3	\$12,011.1	\$124,493.3	\$116,476.4

)

%

* Non-GAAP financial measures stated on a fully taxable equivalent basis (FTE). Total consolidated includes FTE adjustments of \$8.7 million for 2018 and \$8.9 million for 2017. A reconciliation of total consolidated revenue, net interest income and net interest margin on a GAAP basis to revenue, net interest income and net interest margin on an FTE basis (each of which is a non-GAAP financial measure) is provided on page 22.

Corporate & Institutional Services

C&IS net income totaled \$234.2 million in the current quarter compared to \$144.7 million in the prior-year quarter, an increase of \$89.5 million, or 62%. Noninterest income was \$653.3 million in the current quarter, up \$97.1 million, or 17%, from \$556.2 million in the prior-year quarter, reflecting higher trust, investment and other servicing fees, foreign exchange trading income, and security commissions and trading income.

Table 16: C&IS Trust, Investment and Other Servicing Fees

	Three M	Aonths		
	Ended 1	March		
	31,			
(\$ In Millions)	2018	2017	Change	;
Custody and Fund Administration	\$373.9	\$307.5	\$66.4	22~%
Investment Management	109.7	93.5	16.2	17
Securities Lending	26.0	23.8	2.2	9
Other	34.7	38.1	(3.4)	(9)
Total C & IS Trust Investment and Other Servicing Free	¢ 5 1 1 2	¢ 162 0	¢01 /	10 07

Total C&IS Trust, Investment and Other Servicing Fees \$544.3 \$462.9 \$81.4 18 %

Custody and fund administration fees, the largest component of C&IS fees, are driven primarily by values of client AUC/A, transaction volumes and number of accounts. The asset values used to calculate these fees vary depending on the individual fee arrangements negotiated with each client. Custody fees related to asset values are client specific and are priced based on quarter-end or month-end values, values at the beginning of each quarter or average values for a month or quarter. The fund administration fees that are asset-value-related are priced using month-end, quarter-end, or average daily balances. Investment management fees are based generally on market values of client assets under management throughout the period.

Custody and fund administration fees increased \$66.4 million, or 22%, from the prior-year quarter, primarily due to new business, the favorable impact of movements in foreign exchange rates, and favorable markets. Investment management fees increased \$16.2

<u>Table of Contents</u> REPORTING SEGMENTS (continued) Corporate & Institutional Services (continued)

million, or 17%, primarily due to favorable markets, new business, and the favorable impact of movements in foreign exchange rates. Securities lending fees increased 9%, primarily due to higher loan volumes, partially offset by lower spreads and fee splits. Other fees decreased 9%, primarily due to lower sub-advisor fees. The income associated with sub-advisor fees has an associated expense in outside services.

Foreign exchange trading income totaled \$62.4 million in the current quarter, an increase of \$13.3 million, or 27%, from \$49.1 million in the prior-year quarter. The increase was driven primarily by higher client volumes. Other noninterest income in C&IS totaled \$46.6 million in the current quarter, up 5%, from \$44.2 million in the prior-year quarter, primarily due to higher security commissions and trading income, partially offset by decreases in various other operating income categories.

Net interest income stated on an FTE basis was \$229.4 million in the current quarter, up \$62.9 million, or 38%, from \$166.5 million in the prior-year quarter. The increase in net interest income was primarily attributable to an increase in the net interest margin and higher levels of earning assets. The net interest margin increased to 1.20% from 0.93% in the prior-year quarter, primarily due to higher short-term interest rates. The average earning assets totaled \$77.7 billion, up from \$72.6 billion in the prior-year quarter. The earning assets in C&IS consisted primarily of intercompany assets and leases. Funding sources were primarily comprised of non-U.S. custody-related interest-bearing deposits, which averaged \$55.2 billion in the current quarter, up from \$47.3 billion in the prior-year quarter.

The provision for credit losses was a credit of \$3.9 million in the current quarter, compared with a provision of \$0.3 million in the prior-year quarter. The current quarter provision reflected reductions in outstanding loans and undrawn loan commitments that resulted in a reduction in the inherent allowance. The prior-year quarter provision reflected a specific reserve requirement, partially offset by a reduction in the inherent reserve requirement.

Total C&IS noninterest expense, which includes the direct expense of the reporting segment, indirect expense allocations for product and operating support and indirect expense allocations for certain corporate support services, totaled \$585.6 million in the current quarter, up \$74.8 million, or 15%, from \$510.8 million in the prior-year quarter, primarily reflecting higher compensation expense, indirect expense allocations, outside services expense, other operating expense, and employee benefits expense.

The provision for income taxes was \$66.8 million in the current quarter compared to \$66.9 million in the prior-year quarter, primarily attributable to the reduction in the U.S. federal corporate income tax rate from 35% to 21% as a result of the TCJA, partially offset by an increase in income before income taxes.

Wealth Management

Wealth Management net income was \$190.1 million in the current quarter, up \$63.2 million, or 50%, from \$126.9 million in the prior-year quarter. Noninterest income was \$420.3 million, up \$48.6 million, or 13%, from \$371.7 million in the prior-year quarter, primarily reflecting higher trust, investment and other servicing fees. Trust, investment and other servicing fees in Wealth Management totaled \$393.4 million in the current quarter, increasing \$48.1 million, or 14%, from \$345.3 million in the prior-year quarter. The following table provides a summary of Wealth Management trust, investment and other servicing fees.

Table 17: Wealth Management Trust, Investment and Other Servicing Fees

	Three M	Months		
	Ended	March		
	31,			
(\$ In Millions)	2018	2017	Chang	e
Central	\$153.9	\$137.4	\$16.5	12%
East	98.9	85.2	13.7	16
West	78.6	69.6	9.0	13
Global Family Office	62.0	53.1	8.9	17
Total Wealth Management Trust, Investment and Other Servicing Fees	\$393.4	\$345.3	\$48.1	14%

Wealth Management fee income is calculated primarily based on market values. The increase in Wealth Management fees across all regions was primarily attributable to favorable markets, a change in presentation of certain fees resulting from the adoption of

<u>Table of Contents</u> REPORTING SEGMENTS (continued) Wealth Management (continued)

the new revenue recognition accounting standard, and new business. The 17% increase in Global Family Office fees was primarily attributable to new business and favorable markets.

Other noninterest income of \$25.7 million in the current quarter was up slightly from \$25.5 million in the prior-year quarter, primarily reflecting an increase in securities commissions and trading income.

Net interest income stated on an FTE basis was \$198.8 million in the current quarter, up \$21.8 million, or 12%, from \$177.0 million in the prior-year quarter, primarily reflecting an increase in the net interest margin, partially offset by lower levels of earning assets. The net interest margin increased to 3.12% from 2.72% in the prior-year quarter, reflecting higher yields on earning assets. Average earning assets decreased \$589.5 million to \$25.8 billion from the prior-year quarter's \$26.4 billion. Earning assets and funding sources were primarily comprised of loans and domestic interest-bearing deposits, respectively.

The provision for credit losses was \$0.9 million in the current quarter, compared with a credit provision of \$1.3 million in the prior-year quarter. The current quarter provision reflected net charge-offs in the current quarter, partially offset by reductions in outstanding loans that resulted in a reduction in the inherent allowance. The prior-year quarter provision reflected reductions in outstanding loans and undrawn loan commitments and standby letters of credit that resulted in a reduction in the inherent allowance requirement, partially offset by an increase in the specific reserve requirement.

Total noninterest expense, which includes the direct expense of the reporting segment, indirect expense allocations for product and operating support and indirect expense allocations for certain corporate support services, totaled \$365.7 million in the current quarter, compared to \$346.3 million in the prior-year quarter, an increase of \$19.4 million, or 6%, primarily reflecting higher indirect expense allocations and compensation expense.

The provision for income taxes was \$62.4 million in the current quarter compared to \$76.8 million in the prior-year quarter, primarily attributable to the reduction in the U.S. federal corporate income tax rate from 35% to 21% as a result of the TCJA, partially offset by an increase in income before income taxes.

Treasury and Other

Treasury and Other includes income and expense associated with the wholesale funding activities and the investment portfolios of the Corporation and the Bank, and certain corporate-based expenses, executive-level compensation and nonrecurring items not allocated to C&IS and Wealth Management.

Treasury and Other noninterest income increased \$15.4 million, from \$3.0 million in the prior-year quarter to \$18.4 million in the current quarter, primarily due to higher foreign exchange trading income due to increased foreign exchange swap activity in treasury, partially offset by lower other noninterest income.

Net interest income decreased \$54.4 million from \$18.9 million in the prior-year quarter to net interest expense of \$35.5 million in the current quarter. The reduction in net interest income in Treasury and Other was driven by higher net funds transfer pricing credits in the C&IS and Wealth Management segments, higher premium amortization in the securities portfolio, and an unfavorable currency mix shift. This was partially offset by the favorable impact of higher rates. Average earning assets increased \$2.2 billion to \$12.2 billion from \$10.0 billion in the prior-year quarter. Noninterest expense totaled \$44.0 million in the current quarter, up \$6.6 million, or 18%, from \$37.4 million in the prior-year quarter, primarily reflecting higher compensation expense, equipment and software expense, and outside services expense, employee benefit expense, and occupancy expense, partially offset by higher indirect expense allocations to C&IS and Wealth Management as compared to the prior-year quarter.

The provision for income taxes was a benefit of \$18.4 million in the current quarter compared to a \$20.0 million benefit in the prior-year quarter, impacted by the reduction in the U.S. federal corporate income tax rate from 35% to 21% as a result of the TCJA. Also contributing to the change in the provision for income taxes compared to the prior-year quarter was a tax benefit resulting from a change in accounting method regarding the timing of tax deductions for software development-related expenses of \$22.6 million and a decrease in income before income taxes, partially offset by a \$15.8 million net provision recorded in the current period representing adjustments to the initial estimated impact of the TCJA and a reduction in the income tax benefit derived from the vesting of restricted stock units and stock option exercises.

Table of Contents CONSOLIDATED BALANCE SHEETS

Total assets were \$129.7 billion and \$138.6 billion at March 31, 2018 and December 31, 2017, respectively, and averaged \$124.5 billion in the current quarter compared with \$116.5 billion in the quarter ended March 31, 2017. Average balances are considered to be a better measure of balance sheet trends, as period-end balances can be impacted by the timing of deposit and withdrawal activity involving large client balances. Loans and leases totaled \$32.1 billion and \$32.6 billion at March 31, 2018 and December 31, 2017, respectively, and averaged \$32.5 billion in the current quarter, down 4% from \$33.7 billion in the quarter ended March 31, 2017. Securities, inclusive of Federal Reserve stock, Federal Home Loan Bank stock, and certain community development investments, which are classified in other assets in the consolidated balance sheets, totaled \$49.6 billion and \$47.4 billion at March 31, 2018 and December 31, 2017, respectively, and averaged \$48.3 billion for the current quarter, up 8% from \$44.8 billion in the quarter ended March 31, 2017. In aggregate, the categories of federal funds sold and securities purchased under agreements to resell, interest-bearing due from and deposits with banks, and Federal Reserve and other central bank deposits totaled \$38.7 billion and \$49.6 billion at March 31, 2018 and December 31, 2017, respectively, and averaged \$34.9 billion in the current guarter, up 14% from \$30.5 billion in the guarter ended March 31, 2017, primarily reflecting increased Federal Reserve and other central bank deposits. Interest-bearing client deposits at March 31, 2018 and December 31, 2017, totaled \$77.2 billion and \$83.8 billion, respectively, and averaged \$76.2 billion in the current guarter compared to \$69.2 billion in the guarter ended March 31, 2017. Noninterest-bearing client deposits at March 31, 2018 and December 31, 2017 totaled \$28.0 billion and \$28.6 billion, respectively, and averaged \$22.0 billion in the current quarter, down 14% from \$25.7 billion in the quarter ended March 31, 2017.

Total stockholders' equity was \$10.2 billion at both March 31, 2018 and December 31, 2017, respectively, and averaged \$10.1 billion for the current quarter, up 4% from \$9.8 billion for the quarter ended March 31, 2017. The increase in stockholders' equity was primarily attributable to earnings, partially offset by the repurchase of common stock pursuant to the Corporation's share repurchase program and dividend declarations.

During the three months ended March 31, 2018, the Corporation declared cash dividends totaling \$96.4 million to common stockholders, and cash dividends totaling \$17.3 million to preferred stockholders. During the three months ended March 31, 2018, the Corporation repurchased 2,518,409 shares of common stock, including 379,123 shares withheld related to share-based compensation, at a total cost of \$263.2 million (\$104.51 average price per share). CAPITAL RATIOS

The capital ratios of Northern Trust and its principal subsidiary, The Northern Trust Company, remained strong at March 31, 2018, exceeding the minimum requirements for classification as "well-capitalized" under applicable U.S. regulatory requirements.

The table below provides capital ratios for Northern Trust Corporation and The Northern Trust Company determined by Basel III phased in requirements.

Table 25: Regulatory Capital Ratios

	March 31, 2018	December 31, 2017	March 31, 2017
Capital Ratios — Northern Trust Corporati	orAdvancStandardized	Advanc Standardized	Advanc Standardized
	Approach Approach	Approach Approach	Approach Approach
Common Equity Tier 1	13.0% 12.3 %	13.5% 12.6 %	12.9% 12.2 %
Tier 1	14.3% 13.6 %	14.8% 13.8 %	14.2% 13.4 %
Total	16.2% 15.5 %	16.7% 15.8 %	15.6% 15.0 %
Tier 1 Leverage	7.6 % 7.6 %	7.8 % 7.8 %	8.2 % 8.2 %
Supplementary Leverage	6.6 % N/A	6.8 % N/A	6.9 % N/A

	March 31, 2018	December 31, 2017	March 31, 2017
Capital Ratios — The Northern Trust Compa	nyAdvanc St andardized	AdvancStandardized	Advanc Standardized
	Approach Approach	Approack Approach	Approack Approach
Common Equity Tier 1	13.6% 12.6 %	13.7% 12.6 %	12.9% 12.0 %
Tier 1	13.6% 12.6 %	13.7% 12.6 %	12.9% 12.0 %

Total	15.2% 14.3	%	15.4% 14.3	%	14.6% 13.8	%
Tier 1 Leverage	7.0 % 7.0	%	7.0 % 7.0	%	7.2 % 7.2	%
Supplementary Leverage	6.1 % N/A		6.1 % N/A		6.1 % N/A	

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Net cash used in operating activities of \$477.8 million for the three months ended March 31, 2018 was primarily attributable to higher net collateral deposited with derivative counterparties and net changes in other operating activities, primarily due to incentive payments, an increase in prepaid expenses, and a decrease in accounts payable, partially offset by period earnings. For the three months ended March 31, 2017, net cash provided by operating activities of \$784.7 million was primarily attributable to lower net collateral deposited with counterparties and period earnings, partially offset by net changes in other operating activities due to incentive payments and a decrease in accounts payable.

Net cash provided by investing activities of \$11.2 billion for the three months ended March 31, 2018 was primarily attributable to decreased levels of Federal Reserve and other central bank deposits, client security settlement receivables, interest-bearing deposits with banks, and loans and leases, partially offset by net purchases of debt securities held to maturity and available for sale, and higher levels of federal funds sold and securities purchased under agreements to resell. For the three months ended March 31, 2017, net cash provided by investing activities of \$1.0 billion was primarily attributable to decreased levels of Federal Reserve and other central bank deposits and net proceeds from sale, maturity and redemption of debt securities available for sale and held to maturity, partially offset by increased client security settlement receivables.

Net cash used in financing activities of \$9.2 billion for the three months ended March 31, 2018 was primarily attributable to decreased levels of total deposits and federal funds purchased and the repurchase of common stock pursuant to the Corporation's share repurchase program, partially offset by higher short-term other borrowings. The decrease in total deposits was primarily attributable to lower levels of interest-bearing non-U.S. office client deposits. For the three months ended March 31, 2017, net cash used in financing activities of \$2.7 billion was primarily attributable to decrease levels of total deposits and short-term other borrowings. The decrease in total deposits was attributable to lower levels of interest-bearing non-U.S. office and savings and money market client deposits. ASSET OUALITY

Securities Portfolio

Northern Trust maintains a high quality debt securities portfolio, with 79% of the combined available for sale, held to maturity, and trading account portfolios at March 31, 2018, composed of U.S. Treasury and government sponsored agency securities and triple-A rated corporate notes, asset-backed securities, covered bonds, sub-sovereign, supranational, sovereign and non-U.S. agency bonds, commercial mortgage-backed securities and obligations of states and political subdivisions. The remaining portfolio was comprised of corporate notes, asset-backed securities, negotiable certificates of deposit, obligations of states and political subdivisions, auction rate securities and other securities, of which as a percentage of the total securities portfolio, 9% was rated double-A, 2% was rated below double-A, and 10% was not rated by Moody's Investors Service or Standard and Poor's (primarily negotiable certificates of deposits of banks and non-U.S. sovereign securities whose long term ratings are at least A). Net unrealized losses within the investment securities portfolio totaled \$272.3 million at March 31, 2018, compared to net unrealized losses of \$160.8 million as of December 31, 2017. Net unrealized losses as of March 31, 2018 were comprised of \$91.7 million and \$364.0 million of gross unrealized gains and losses, respectively. Unrealized losses as of March 31, 2018 of \$147.9 million and \$52.1 million related to government sponsored agency and U.S. government securities, respectively, are primarily attributable to changes in market rates since purchase. \$49.1 million of unrealized losses in securities classified as "other" related to securities primarily purchased at a premium or par by Northern Trust to fulfill its obligation under the Community Reinvestment Act (CRA). Unrealized losses on these CRA-related securities were attributable to yields that were below market rates for the purpose of supporting institutions and programs that benefit low- to moderate-income communities within Northern Trust's market area. Also, \$29.6 million of the unrealized losses related to corporate debt securities, primarily reflecting widened credit spreads and higher market rates since purchase. As of March 31, 2018, 38% of the corporate debt portfolio was backed by guarantees provided by U.S. and non-U.S. governmental entities.

For the three months ended March 31, 2018, charges of \$0.2 million were recorded relating to the other-than-temporary impairment (OTTI) of certain CRA-eligible securities. There were \$0.1 million OTTI losses for

the three months ended March 31, 2017. Northern Trust has evaluated all securities with unrealized losses for possible OTTI in accordance with GAAP and Northern Trust's security impairment review policy. Northern Trust participates in the repurchase agreement market as a relatively low cost alternative for short-term funding. Securities purchased under agreements to resell and securities sold under agreements to repurchase are accounted for as collateralized financings and recorded at the amounts at which the securities were acquired or sold plus accrued interest. To minimize potential credit risk associated with these transactions, the fair value of the securities purchased or sold is monitored, limits are set on

<u>Table of Contents</u> ASSET QUALITY (continued) Securities Portfolio (continued)

exposure with counterparties, and the financial condition of counterparties is regularly assessed. It is Northern Trust's policy to take possession, either directly or via third-party custodians, of securities purchased under agreements to resell. Securities sold under agreements to repurchase are held by the counterparty until their repurchase. Nonperforming Loans and Leases and Other Real Estate Owned

Nonperforming assets consist of nonperforming loans and leases and other real estate owned (OREO). OREO is comprised of commercial and residential properties acquired in partial or total satisfaction of loans.

The following table provides the amounts of nonperforming loans and leases, by loan and lease segment and class, and of OREO that were outstanding at the dates shown, as well as the balance of loans that was delinquent 90 days or more and still accruing interest. The balance of loans delinquent 90 days or more and still accruing interest can fluctuate widely based on the timing of cash collections, renegotiations and renewals.

Table 26: Nonperforming Assets

(¢ In Milliana)	March	December	March	
(\$ In Millions)		31, 2017	31, 2017	7
Nonperforming Loans and Leases				
Commercial				
Commercial and Institutional	\$4.4	\$26.0	\$25.9	
Commercial Real Estate	6.2	8.3	12.1	
Total Commercial	10.6	34.3	38.0	
Personal				
Residential Real Estate	\$114.1	\$116.4	\$141.7	
Private Client	—		0.2	
Total Personal	114.1	116.4	141.9	
Total Nonperforming Loans and Leases	124.7	150.7	179.9	
Other Real Estate Owned	4.2	4.6	6.9	
Total Nonperforming Assets	\$128.9	\$155.3	\$186.8	
90 Day Past Due Loans Still Accruing	\$6.2	\$8.0	\$9.9	
Nonperforming Loans and Leases to Total Loans and Leases	0.39 %	0.46 %	0.54 %	Ъ
Coverage of Loan and Lease Allowance to Nonperforming Loans and Leases	1.0 x	0.9 x	0.9 x	-

Nonperforming assets of \$128.9 million as of March 31, 2018, primarily reflected decreases within the residential real estate and commercial and institutional portfolios as a result of payments and charge-offs, partially offset by new nonperforming assets as compared to the prior year. In addition to the negative impact on net interest income and the risk of credit losses, nonperforming assets also increase operating costs due to the expense associated with collection efforts. Changes in the level of nonperforming assets may be indicative of changes in the credit quality of one or more loan classes. Changes in credit quality impact the allowance for credit losses through the resultant adjustment of the specific allowance and of the qualitative factors used in the determination of the inherent allowance levels within the allowance for credit losses.

Northern Trust's underwriting standards do not allow for the origination of loan types generally considered to be high risk in nature, such as option adjustable rate mortgages, subprime loans, loans with initial "teaser" rates and loans with excessively high loan-to-value ratios. Residential real estate loans consist of first lien mortgages and equity credit lines, which generally require loan-to-collateral values of no more than 65% to 80% at inception. Revaluations of supporting collateral are obtained upon refinancing or default or when otherwise considered warranted. Collateral revaluations for mortgages are performed by independent third parties.

The commercial real estate class consists of commercial mortgages and construction, acquisition and development loans extended to experienced investors well known to Northern Trust. Underwriting standards generally reflect conservative loan-to-value ratios and debt service coverage requirements. Recourse to borrowers through guarantees is also commonly required.

<u>Table of Contents</u> ASSET QUALITY (continued) Provision and Allowance for Credit Losses

The provision for credit losses is the charge to current period earnings that is determined by management, through a disciplined credit review process, to be the amount needed to maintain the allowance for credit losses at an appropriate level to absorb probable credit losses that have been identified with specific borrower relationships (specific loss component) and for probable losses that are believed to be inherent in the loan and lease portfolios, undrawn commitments and standby letters of credit (inherent loss component). Control processes and analyses employed to evaluate the appropriateness of the allowance for credit losses are reviewed on at least an annual basis and modified as necessary.

The amount of specific allowance is determined through an individual evaluation of loans and lending-related commitments considered impaired that is based on expected future cash flows, collateral value and other factors that may impact the borrower's ability to pay. The inherent component of the allowance addresses exposure relating to probable but unidentified credit-related losses. The inherent component of the allowance also covers the credit exposure associated with undrawn loan commitments and standby letters of credit. To estimate the allowance for credit losses on these instruments, management uses conversion rates to determine the estimated amount that will be drawn and assigns an allowance factor determined in accordance with the methodology utilized for outstanding loans. The provision for credit losses was a credit of \$3.0 million in the current quarter, compared to a credit of \$1.0 million in the prior-year quarter. Net charge-offs were \$3.0 million, resulting from \$4.3 million of charge-offs and \$1.3 million of recoveries, compared to \$2.0 million of net charge-offs in the prior-year quarter, resulting from \$4.7 million of charge-offs and \$2.7 million of recoveries. Residential real estate loans accounted for 91% and 79% of total nonperforming loans and leases at March 31, 2018 and 2017, respectively.

Note 7 to the consolidated financial statements includes a table that details the changes in the allowance for credit losses during the three months ended March 31, 2018 and 2017 due to charge-offs, recoveries and provisions for credit losses.

<u>Table of Contents</u> ASSET QUALITY (continued) Provision and Allowance for Credit Losses (continued)

The following table shows the specific portion of the allowance and the inherent portion of the allowance and its components by loan and lease segment and class. Table 27: Allocation of the Allowance for Credit Losses

	March 31, 2018 December 31, 2017 March 31, 2017						
		Percent o	of Percent		f Percent of		
(\$ In Millions)	AllowanceLoans to Allowand		ceLoans to Allowan		ceLoans to		
(\$ III WIIIIOIIS)	Amount	unt Total Amount		Total Amount		Total	
		Loans	Loans		ins Loans		
Specific Allowance	\$5.0	%	\$5.4	%	\$8.7	%	
Allocated Inherent Allowance							
Commercial							
Commercial and Institutional	33.7	28	34.7	27	34.9	28	
Commercial Real Estate	40.9	11	43.3	11	68.1	12	
Lease Financing, net	0.1	1	0.2	1	0.3	1	
Non-U.S.		5		5		5	
Other	1.5	1	1.5	1	0.6	1	
Total Commercial	76.2	46	79.7	45	103.9	47	
Personal							
Residential Real Estate	55.5	22	57.3	22	65.9	22	
Private Client	9.5	32	9.5	33	8.3	31	
Other	1.6		1.9		2.2		
Total Personal	66.6	54	68.7	55	76.4	53	
Total Allocated Inherent Allowance	\$142.8	100 %	\$148.4	100 %	\$180.3	100 %	
Total Allowance for Credit Losses	\$147.8		\$153.8		\$189.0		
Allowance Assigned to							
Loans and Leases	\$125.4		\$131.2		\$162.0		
Undrawn Commitments and Standby Letters of Credit	22.4		22.6		27.0		
Total Allowance for Credit Losses	\$147.8		\$153.8		\$189.0		
Allowance Assigned to Loans and Leases to Total	0.39 %)	0.40 %)	0.48 %)	
Loans and Leases							

<u>Table of Contents</u> MARKET RISK MANAGEMENT

There are two types of market risk, interest rate risk and trading risk. Interest rate risk is the potential for movements in interest rates to cause changes in net interest income and the market value of equity. Trading risk is the potential for movements in market variables such as foreign exchange and interest rates to cause changes in the value of trading positions.

Northern Trust uses two primary measurement techniques to manage interest rate risk: Net Interest Income (NII) sensitivity and Market Value of Equity (MVE) sensitivity. NII sensitivity provides management with a short-term view of the impact of interest rate changes on NII. MVE sensitivity provides management with a long-term view of interest rate changes on MVE as of the period-end balance sheet. Both simulation models use the same initial market interest rates and product balances.

As part of its risk management activities, Northern Trust also measures daily the risk of loss associated with all non-U.S. currency positions using a Value-at-Risk (VaR) model and applying the historical simulation methodology. The following information about Northern Trust's management of market risk should be read in conjunction with the Annual Report on Form 10-K for the year ended December 31, 2017.

NII Sensitivity — The modeling of NII sensitivity incorporates on-balance-sheet positions, as well as derivative financial instruments (principally interest rate swaps) that are used to manage interest rate risk. Northern Trust uses market implied forward interest rates as the base case and measures the sensitivity (i.e., change) of a static balance sheet to changes in interest rates. Stress testing of interest rates is performed to include such scenarios as immediate parallel shocks to rates, nonparallel (i.e., twist) changes to yield curves that result in their becoming steeper or flatter, and changes to the relationship among the yield curves (i.e., basis risk).

The NII sensitivity analysis incorporates certain critical assumptions such as interest rates and client behaviors under changing rate environments. These assumptions are based on a combination of historical analysis and future expected pricing behavior. The simulation cannot precisely estimate NII sensitivity given uncertainty in the assumptions. The following key assumptions are incorporated into the simulation:

the balance sheet size and mix remains constant over the simulation horizon with maturing assets and liabilities replaced with instruments with similar terms as those that are maturing, with the exception of certain non-maturity deposits that are considered short-term in nature and therefore receive a more conservative interest-bearing treatment; prepayments on mortgage loans and securities collateralized by mortgages are projected under each rate scenario using a third-party mortgage analytics system that incorporates market prepayment assumptions;

cash flows for structured securities are estimated using a third-party vendor in conjunction with the prepayments provided by the third-party mortgage analytics vendor;

nonmaturity deposit pricing and lives are projected based on Northern Trust's actual historical patterns and management judgment, depending upon the availability of historical data and current pricing strategies/or judgment; and

new business rates are based on current spreads to market indices.

The following table shows the estimated NII impact over the next twelve months of 100 and 200 basis point upward and 50 basis point downward movements in interest rates relative to forward rates. Each rate movement is assumed to occur gradually over a one-year period. Given the low level of interest rates, the simulation of NII for downward movements in interest rates of more than 50 basis points would not provide meaningful results.

Table 28: Net Interest Income Sensitivity as of March 31, 2018

(\$ In Millions)	Increase/(Decrease) Estimated Impact on Next Twelve Months of Net Interest Income		
Increase in Interest Rates Above Market Implied Forward Rates			
100 Basis Points	\$	71	
200 Basis Points	110		

Decrease in Interest Rates Below Market Implied Forward Rates 50 Basis Points (64) The NII sensitivity analysis does not incorporate any management actions that may be used to mitigate adverse effects of actual interest rate movement. For that reason and others, the estimated impacts do not reflect the likely actual results but serve as estimates of interest rate risk. NII sensitivity is not comparable to actual results disclosed elsewhere or directly predictive of future values

Table of Contents MARKET RISK MANAGEMENT (continued)

of other measures provided. Further, the estimated impacts presented above are not directly comparable to those presented in documents filed with or furnished to the U.S. Securities and Exchange Commission by the Corporation prior to its Annual Report on Form 10-K for the year ended December 31, 2017 due to changes to client deposit pricing assumptions and the implementation of interest rate risk model enhancements.

MVE Sensitivity — MVE is defined as the present value of assets minus the present value of liabilities, net of the value of instruments that are used to manage the interest rate risk of balance sheet items. The potential effect of interest rate changes on MVE is derived from the impact of such changes on projected future cash flows and the present value of these cash flows and is then compared to the established limit. Northern Trust uses current market rates (and the future rates implied by these market rates) as the base case and measures MVE sensitivity under various rate scenarios. Stress testing of interest rates is performed to include such scenarios as immediate parallel shocks to rates, nonparallel (i.e., twist) changes to yield curves that result in their becoming steeper or flatter, and changes to the relationship among the yield curves (i.e., basis risk).

The MVE sensitivity analysis incorporates certain critical assumptions such as interest rates and client behaviors under changing rate environments. These assumptions are based on a combination of historical analysis and future expected pricing behavior. The simulation cannot precisely estimate MVE sensitivity given uncertainty in the assumptions. Many of the assumptions that apply to NII sensitivity also apply to MVE sensitivity simulations, with the following separate key assumptions incorporated into the MVE simulation:

the present value of nonmaturity deposits are estimated using remaining lives, which are based on a combination of Northern Trust's actual historical runoff patterns and management judgment — some balances are assumed to be core and have long lives while other balances are assumed to be temporary and have comparatively shorter lives; and the present values of most noninterest-related balances (such as receivables, equipment, and payables) are the same as their book values.

The following table shows the estimated impact on MVE of 100 and 200 basis point shocks up and a 50 basis point shock down from current market implied forward rates. Given the low level of interest rates and assumed interest rate floors as rates approach zero, the simulation of MVE for downward movements in interest rates of more than 50 basis points would not provide meaningful results.

Table 29: Market Value of Equity Sensitivity as of March 31, 2018

(\$ In Millions)		Increase/(Decrease) Estimated Impact on				
		arket Value of Equity				
Increase in Interest Rates Above Market Implied Forward Rates						
100 Basis Points	\$	228				
200 Basis Points	10					
Decrease in Interest Rates Below Market Implied Forward Rates						
50 Basis Points	(352	52)				
The MVE simulations do not incompare only monogement estion	a that	t may be used to mitig	at c			

The MVE simulations do not incorporate any management actions that may be used to mitigate adverse effects of actual interest rate movements. For that reason and others, the estimated impacts do not reflect the likely actual results but serve as estimates of interest rate risk. MVE sensitivity is not comparable to actual results disclosed elsewhere or directly predictive of future values of other measures provided. Further, the estimated impacts presented above are not directly comparable to those presented in documents filed with or furnished to the U.S. Securities and Exchange Commission by the Corporation prior to its Annual Report on Form 10-K for the year ended December 31, 2017 due to changes to client deposit pricing assumptions and the implementation of interest rate risk model enhancements. During the period ended March 31, 2018, Northern Trust did not exceed its NII sensitivity limits or its MVE sensitivity limits.

Foreign Currency Value-At-Risk (VaR) — Northern Trust measures daily the risk of loss associated with all non-U.S. currency positions using a VaR model and applying the historical simulation methodology. This statistical model

provides estimates, based on a variety of high confidence levels, of the potential loss in value that might be incurred if an adverse shift in non-U.S. currency exchange rates were to occur over a small number of days. The model incorporates foreign currency and interest rate volatilities and correlations in price movements among the currencies. VaR is computed for each trading desk and for the global portfolio.

Table of Contents MARKET RISK MANAGEMENT (continued)

Northern Trust monitors several variations of the foreign exchange VaR measures to meet specific regulatory and internal management needs. Variations include different methodologies (historical, variance-covariance and Monte Carlo), equally weighted and exponentially weighted volatilities, horizons of one day and ten days, confidence levels ranging from 95% to 99.95% and look back periods of one year and four years. Those alternative measures provide management an array of corroborating metrics and alternative perspectives on Northern Trust's market risks. The table below presents the levels of total regulatory VaR and its subcomponents for global foreign currency in the years indicated below, based on the historical simulation methodology, a 99% confidence level, a one-day horizon and equally weighted volatility. The total VaR for foreign currency is typically less than the sum of its two components due to diversification benefits derived from the two subcomponents.

Table 30: Foreign Currency Value-At-Risk

	Total VaR (Spot and Forward)		Foreign E	xchange	Foreign		
			Spot VaR	e	Exchange		
			Spot var		Forward VaR		
(\$ In Millions)	March 31, 2018	December 31, 2017	March 31, 2018	December 31, 2017	Marc 31, 2018	h December 31, 2017	
High	\$ 0.3	\$ 1.0	\$ 0.2	\$ 0.4		\$ 1.0	
Low	0.1	0.1		_	0.1	0.1	
Average	0.2	0.5	0.1	0.1	0.2	0.5	
Quarter-End	0.1	0.3		_	0.1	0.3	
DEGOVICITY	TIONIOT	OFF INT	DEDODE		TO T		

RECONCILIATION OF CERTAIN REPORTED ITEMS TO FULLY TAXABLE EQUIVALENTS

The following table presents a reconciliation of interest income, net interest income, net interest margin, and revenue prepared in accordance with GAAP to such measures on an FTE basis, which are non-GAAP financial measures. Management believes this presentation provides a clearer indication of these financial measures for comparative purposes. When adjusted to an FTE basis, yields on taxable, nontaxable and partially taxable assets are comparable; however, the adjustment to an FTE basis has no impact on net income.

Table 31: Reconciliation of Reported Revenue and Net Interest Income to Fully Taxable Equivalent

	Three Mont	hs	Ended						
	March 31, 2	201	8		March 31, 2	201	7		
(\$ In Millions)	Reported	FT	TE Adj.	FTE	Reported	Fl	TE Adj.	FTE	
Interest Income	\$505.9	\$	8.7	\$514.6	\$410.3	\$	8.9	\$419.2	
Interest Expense	121.9			121.9	56.8		-	56.8	
Net Interest Income	\$384.0	\$	8.7	\$392.7	\$353.5	\$	8.9	\$362.4	
Net Interest Margin	1.35 %			1.38 %	1.32 %			1.35	%
Revenue	\$1,476.0	\$	8.7	\$1,484.7	\$1,284.4	\$	8.9	\$1,293.3	

RECENT ACCOUNTING PRONOUNCEMENTS AND DEVELOPMENTS

In February 2016, the FASB issued ASU No. 2016-02, "Leases (Topic 842)" (ASU 2016-02). ASU 2016-02 introduces a lessee model that brings most leases on the balance sheet, with certain specified scope exceptions. Specifically within the lessee model under ASU 2016-02, a lessee is required to recognize on the balance sheet a liability to make future lease payments, known as the lease liability, and a right-of-use asset (ROU asset) representing its right to use the underlying asset over the lease term. ASU 2016-02 is effective for interim and annual reporting periods beginning after December 15, 2018, with certain practical expedients available. Northern Trust has established an overall governance structure and a detailed project plan for its implementation efforts, has taken further action in defining the future operating model for lease accounting and is continuing to refine its lease inventory. Although Northern Trust is currently assessing the impact of ASU 2016-02, it is expected to have a significant impact on Northern Trust's

consolidated financial condition, with the most significant changes related to the recognition of ROU assets and lease liabilities for operating leases. ASU 2016-02 is not expected to impact significantly Northern Trust's consolidated results of operations.

<u>Table of Contents</u> RECENT ACCOUNTING PRONOUNCEMENTS AND DEVELOPMENTS (continued)

In June 2016, the FASB issued ASU No. 2016-13, "Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments" (ASU 2016-13). ASU 2016-13 significantly changes the way impairment of financial instruments is recognized by requiring immediate recognition of estimated credit losses expected to occur over the remaining life of financial instruments. The main provisions of ASU 2016-13 include (1) replacing the "incurred loss" approach under current GAAP with an "expected loss" model for instruments measured at amortized cost, (2) requiring entities to record an allowance for available-for-sale debt securities rather than reduce the carrying amount of the investments, as is required by the other-than-temporary-impairment model under current GAAP, and (3) a simplified accounting model for purchased credit-impaired debt securities and loans. ASU 2016-13 is effective for interim and annual reporting periods beginning after December 15, 2019, although early adoption is permitted. Northern Trust has established a working group across various functions, an overall governance structure, and has finalized a detailed project plan for its implementation efforts. Further, Northern Trust assessed its current inventory of underlying credit models along with the suitability of these models for the overall expected loss impairment model under ASU 2016-13 and prepared a comprehensive gap analysis. Northern Trust is currently focusing efforts on development activities for new and modified credit loss models and defining its forecasting process. Northern Trust continues to evaluate specific application issues and the overall impact of the adoption of ASU 2016-13. In August 2017, the FASB issued ASU No. 2017-12, "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities" (ASU 2017-12). The main provisions of ASU 2017-12 better align an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships. ASU 2017-12 eliminates the requirement to separately measure and report hedge ineffectiveness and generally requires the entire change in the fair value of a hedging instrument to be presented in the same income statement line as the hedged item. Further, ASU 2017-12 eases certain documentation and assessment requirements and modifies the accounting for components excluded from the assessment of hedge effectiveness. ASU 2017-12 is effective for interim and annual reporting periods beginning after December 15, 2018, although early adoption is permitted. Northern Trust has adopted ASU 2017-12 as of April 1, 2018. Northern Trust currently applies the "shortcut" method of accounting available under GAAP for substantially all fair value hedges and other aspects of Northern Trust's current hedge accounting program and therefore ASU 2017-12 did not impact significantly Northern Trust's consolidated financial condition or results of operations upon adoption.

<u>Table of Contents</u> FORWARD-LOOKING STATEMENTS

This report may include statements which constitute "forward-looking statements" within the meaning of the safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are identified typically by words or phrases such as "believe," "expect," "anticipate," "intend," "estimate," "project," "likely," "plan," "goal, "strategy," and similar expressions or future or conditional verbs such as "may," "will," "should," "would," and "could." Forward-looking statements include statements, other than those related to historical facts, that relate to Northern Trust's financial results and outlook; capital adequacy; dividend policy and share repurchase program; accounting estimates and assumptions; credit quality including allowance levels; future pension plan contributions; effective tax rate; anticipated expense levels; contingent liabilities; acquisitions; strategies; industry trends; and expectations regarding the impact of accounting pronouncements and legislation. These statements are based on Northern Trust's current beliefs and expectations of future events or future results, and involve risks and uncertainties that are difficult to predict and subject to change. These statements are also based on assumptions about many important factors, including:

financial market disruptions or economic recession, whether in the United States, Europe, the Middle East, Asia or other regions;

volatility or changes in financial markets, including debt and equity markets, that impact the value, liquidity, or credit ratings of financial assets in general, or financial assets held in particular investment funds or client portfolios, including those funds, portfolios, and other financial assets with respect to which Northern Trust has taken, or may in the future take, actions to provide asset value stability or additional liquidity;

the impact of equity markets on fee revenue;

the downgrade of U.S. government-issued and other securities;

changes in foreign exchange trading client volumes and volatility in foreign currency exchange rates, changes in the valuation of the U.S. dollar relative to other currencies in which Northern Trust records revenue or accrues expenses, and Northern Trust's success in assessing and mitigating the risks arising from all such changes and volatility; a decline in the value of securities held in Northern Trust's investment portfolio, particularly asset-backed securities, the liquidity and pricing of which may be negatively impacted by periods of economic turmoil and financial market disruptions;

Northern Trust's ability to address operating risks, including those related to cyber-security, data security, human errors or omissions, pricing or valuation of securities, fraud, systems performance or defects, systems interruptions, and breakdowns in processes or internal controls;

Northern Trust's success in responding to and investing in changes and advancements in technology; a significant downgrade of any of Northern Trust's debt ratings;

the health and soundness of the financial institutions and other counterparties with which Northern Trust conducts business;

uncertainties inherent in the complex and subjective judgments required to assess credit risk and establish appropriate allowances therefor;

the pace and extent of continued globalization of investment activity and growth in worldwide financial assets; changes in interest rates or in the monetary or other policies of various regulatory authorities or central banks; changes in the legal, regulatory and enforcement framework and oversight applicable to financial institutions, including changes that may affect leverage limits and risk-based capital and liquidity requirements, require financial institutions to pay higher assessments, expose financial institutions to certain liabilities of their subsidiary depository institutions, or restrict or increase the regulation of certain activities carried on by financial institutions, including Northern Trust;

increased costs of compliance and other risks associated with changes in regulation, the current regulatory environment, and areas of increased regulatory emphasis and oversight in the United States and other countries, such as anti-money laundering, anti-bribery, and client privacy;

failure to address in the Corporation's resolution plan submitted in December 2017 the "shortcomings" jointly identified by the Federal Reserve Board and FDIC in the resolution plan submitted by the Corporation in December 2015; failure to satisfy regulatory standards or to obtain regulatory approvals when required, including for the use and distribution of capital;

changes in tax laws, accounting requirements or interpretations and other legislation in the United States or other countries that could affect Northern Trust or its clients including with respect to the adoption of the Tax Cuts and Jobs Act;

geopolitical risks and the risks of extraordinary events such as natural disasters, terrorist events and war, and the responses of the United States and other countries to those events;

the pending departure of the United Kingdom from the European Union, commonly referred to as "Brexit," and any negative effects thereof on global economic conditions, global financial markets, and our business and results of operations;

changes in the nature and activities of Northern Trust's competition;

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FORWARD-LOOKING STATEMENTS (continued)

Northern Trust's success in maintaining existing business and continuing to generate new business in existing and targeted markets and its ability to deploy deposits in a profitable manner consistent with its liquidity requirements; Northern Trust's ability to address the complex needs of a global client base and manage compliance with legal, tax, regulatory and other requirements;

Northern Trust's ability to maintain a product mix that achieves acceptable margins;

Northern Trust's ability to continue to generate investment results that satisfy clients and to develop an array of investment products;

Northern Trust's success in recruiting and retaining the necessary personnel to support business growth and expansion and maintain sufficient expertise to support increasingly complex products and services;

Northern Trust's success in implementing its expense management initiatives, including its "Value for Spend" initiative; uncertainties inherent in Northern Trust's assumptions concerning its pension plan, including discount rates and expected contributions, returns and payouts;

Northern Trust's success in continuing to enhance its risk management practices and controls and managing risks inherent in its businesses, including credit risk, operational risk, market and liquidity risk, fiduciary risk, compliance risk and strategic risk;

risks and uncertainties inherent in the litigation and regulatory process, including the possibility that losses may be in excess of Northern Trust's recorded liability and estimated range of possible loss for litigation exposures; risks associated with being a holding company, including Northern Trust's dependence on dividends from its principal subsidiary;

the risk of damage to Northern Trust's reputation which may undermine the confidence of clients, counterparties, rating agencies, and stockholders; and

other factors identified elsewhere in the Corporation's Annual Report on Form 10-K for the year ended December 31, 2017, including those factors described in Item 1A, "Risk Factors," and other filings with the SEC, all of which are available on Northern Trust's website.

Actual results may differ materially from those expressed or implied by forward-looking statements. The information contained herein is current only as of the date of that information. All forward-looking statements included in this document are based upon information presently available, and Northern Trust assumes no obligation to update its forward-looking statements.

Item 1. Consolidated Financial Statements (unaudited)

CONSOLIDATED BALANCE SHEETS NORTHERN TRUST CORPORATION						
(In Millions Except Share Information)		December				
(in Minons Except Share Mitorination)	2018	31, 2017				
	(Unaudited)					
Assets						
Cash and Due from Banks	\$6,081.4	\$4,518.1				
Federal Reserve and Other Central Bank Deposits	29,446.8	40,479.1				
Interest-Bearing Deposits with Banks	4,931.4	5,611.9				
Federal Funds Sold and Securities Purchased under Agreements to Resell	1,534.0	1,324.3				
Debt Securities						
Available for Sale	34,258.0	33,742.1				
Held to Maturity (Fair value of \$14,260.4 and \$13,010.9)	14,334.6	13,049.0				
Trading Account	8.9	0.5				
Total Debt Securities	48,601.5	46,791.6				
Loans and Leases						
Commercial	14,615.2	14,558.0				
Personal	17,493.7	18,034.2				
Total Loans and Leases (Net of unearned income of \$30.2 and \$35.5)	32,108.9	32,592.2				
Allowance for Credit Losses Assigned to Loans and Leases		(131.2)				
Buildings and Equipment	442.6	464.6				
Client Security Settlement Receivables	581.5	1,647.0				
Goodwill	611.6	605.6				
Other Assets	5,457.9	4,687.3				
Total Assets	\$129,672.2	\$138,590.5				
Liabilities	¢12>,07212	¢ 10 0,0 > 0.0				
Deposits						
Demand and Other Noninterest-Bearing	\$18,349.4	\$18,712.2				
Savings, Money Market and Other Interest-Bearing	16,142.9	16,975.3				
Savings Certificates and Other Time	947.5	1,152.3				
Non U.S. Offices — Noninterest-Bearing	9,676.3	9,878.8				
— Interest-Bearing	60,075.3	65,672.2				
Total Deposits	105,191.4	112,390.8				
Federal Funds Purchased	332.8	2,286.1				
Securities Sold Under Agreements to Repurchase	810.0	834.0				
Other Borrowings	7,033.6	6,051.1				
Senior Notes	1,497.5	1,497.3				
Long-Term Debt	1,422.6	1,449.5				
Floating Rate Capital Debt	277.5	277.5				
Other Liabilities	2,880.8	3,588.0				
Total Liabilities	119,446.2	128,374.3				
Stockholders' Equity						
Preferred Stock, No Par Value; Authorized 10,000,000 shares:	200 5	200 5				
Series C, outstanding shares of 16,000	388.5	388.5				
Series D, outstanding shares of 5,000	493.5	493.5				
Common Stock, \$1.66 2/3 Par Value; Authorized 560,000,000 shares;	100 6	100 C				
Outstanding shares of 224,991,295 and 226,126,674	408.6	408.6				
Additional Paid-In Capital	1,020.4	1,047.2				

CONSOLIDATED BALANCE SHEETS NORTHERN TRUST CORPORATION

Retained Earnings	9,973.8	9,685.1	
Accumulated Other Comprehensive Loss	(505.7) (414.3)
Treasury Stock (20,180,229 and 19,044,850 shares, at cost)	(1,553.1) (1,392.4)
Total Stockholders' Equity	10,226.0	10,216.2	
Total Liabilities and Stockholders' Equity	\$129,672.	2 \$138,590.	.5

See accompanying notes to the consolidated financial statements.

CONSOLIDATED STATEMENTS OF INCOME (UNAUDITED) NORTHERN TRUST CORPORATION

	Three Months Ended		led
	March 3	1,	
(In Millions Except Share Information)	2018	2017	
Noninterest Income			
Trust, Investment and Other Servicing Fees	\$937.7	\$ 808.2	
Foreign Exchange Trading Income	78.5	48.1	
Treasury Management Fees	14.0	14.7	
Security Commissions and Trading Income	27.2	20.5	
Other Operating Income	34.8	39.7	
Investment Security Gains (Losses), net (Note)	(0.2)	(0.3)
Total Noninterest Income	1,092.0	930.9	
Net Interest Income			
Interest Income	505.9	410.3	
Interest Expense	121.9	56.8	
Net Interest Income	384.0	353.5	
Provision for Credit Losses	(3.0)	(1.0)
Net Interest Income after Provision for Credit Losses	387.0	354.5	
Noninterest Expense			
Compensation	471.7	425.8	
Employee Benefits	91.7	77.8	
Outside Services	171.4	153.1	
Equipment and Software	140.0	127.3	
Occupancy	51.5	45.4	
Other Operating Expense	69.0	65.1	
Total Noninterest Expense	995.3	894.5	
Income before Income Taxes	483.7	390.9	
Provision for Income Taxes	102.1	114.8	
Net Income	\$381.6	\$ 276.1	
Preferred Stock Dividends	17.3	20.7	
Net Income Applicable to Common Stock	\$364.3	\$ 255.4	
Per Common Share			
Net Income — Basic	\$1.59	\$ 1.10	
— Diluted	1.58	1.09	
Average Number of Common Shares Outstanding	005 (01	DOT D 0.50 /	5 40
— Basic	225,681	,12219,059,5	540
— Diluted	227,047	,521590,630,8	876
Note: Changes in Other-Than-Temporary-Impairment (OTTI) Losses	\$(0.2)	\$ (0.1)
Other Security Gains (Losses), net		(0.2)
Investment Security Gains (Losses), net	\$(0.2)	\$ (0.3)
• • •		THERN	-
CONSOLIDATED STATEMENTS OF	TRUS	ST	
COMPREHENSIVE INCOME (UNAUDITED)	COR	PORATIO	N

	Three Months Ended March 31,
(In Millions)	2018 2017
Net Income	\$381.6 \$276.1
Other Comprehensive Income (Loss) (Net of Tax and Reclassifications)	
Net Unrealized (Losses) Gains on Debt Securities Available for Sale	(55.0) 19.3
Net Unrealized (Losses) Gains on Cash Flow Hedges	(3.7) (5.3)
Foreign Currency Translation Adjustments	(13.1) 2.0
Pension and Other Postretirement Benefit Adjustments	5.7 2.0
Other Comprehensive Income	(66.1) 18.0
Comprehensive Income	\$315.5 \$294.1
See accompanying notes to the consolidated financial statements.	

CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (UNAUDITED)	N STOCKHOLDERS' NORTHERN TRUST CORPORATION			
		Three Mon	ths Ende	d
		March 31,		
(In Millions)		2018	2017	
Preferred Stock		*****	****	
Series C, Balance at January 1 and March 31		\$388.5	\$388.5	
Series D, Balance at January 1 and March 31		493.5	493.5	
Balance at January 1 and March 31		882.0	882.0	
Common Stock				
Balance at January 1 and March 31		408.6	408.6	
Additional Paid-in Capital				
Balance at January 1		1,047.3	1,035.8	
Treasury Stock Transactions — Stock Options and Awards) (81.8)
Stock Options and Awards — Amortization		56.6	56.2	
Balance at March 31		1,020.4	1,010.2	
Retained Earnings				
Balance at January 1		9,685.1	8,908.4	
Reclassification of Certain Tax Effects from Accumulated Other Comprehensi	ve Income	25.3		
Change in Accounting Principle		(4.5)) —	
Net Income		381.6	276.1	
Dividends Declared — Common Stock		(96.4)) (89.4)
Dividends Declared — Preferred Stock		(17.3)	(20.7)
Balance at March 31		9,973.8	9,074.4	
Accumulated Other Comprehensive Income (Loss)				
Balance at January 1		(414.3)	(370.0)
Reclassification of Certain Tax Effects from Accumulated Other Comprehensi	ve Income	(25.3)) —	
Net Unrealized Gains on Debt Securities Available for Sale		(55.0)	19.3	
Net Unrealized Gains (Losses) on Cash Flow Hedges		(3.7)) (5.3)
Foreign Currency Translation Adjustments		(13.1)	2.0	
Pension and Other Postretirement Benefit Adjustments		5.7	2.0	
Balance at March 31		(505.7)	(352.0)
Treasury Stock		. ,	,	
Balance at January 1		(1,392.4)	(1,094.4	1)
Stock Options and Awards		102.5	119.0	
Stock Purchased		(263.2)	(70.1)
Balance at March 31			(1,045.5	5)
Total Stockholders' Equity at March 31		\$10,226.0	\$9,977.	
· · · · · · · · · ·		,	,	

See accompanying notes to the consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS (UNAUDITED) NORTHERN TRUST		
		onths Ended
	March 31	
(In Millions)	2018	2017
Cash Flows from Operating Activities:	¢201 (\$ 27 (1
Net Income	\$381.6	\$276.1
Adjustments to Reconcile Net Income to Net Cash (Used in) Provided by Operating Activities:	0.0	0.0
Investment Security Losses, net	0.2	0.3
Amortization and Accretion of Securities and Unearned Income, net	35.6	18.9
Provision for Credit Losses) (1.0)
Depreciation on Buildings and Equipment	27.8	23.3
Amortization of Computer Software	83.6	75.6
Amortization of Intangibles	4.5	2.4
Pension Plan Contributions) (11.5)
Change in Receivables) (5.6)
Change in Interest Payable	5.7	5.9
Change in Collateral With Derivative Counterparties, net) 572.5
Other Operating Activities, net	· ,) (172.2)
Net Cash (Used in) Provided by Operating Activities	(477.8)) 784.7
Cash Flows from Investing Activities:		
Net Change in Federal Funds Sold and Securities Purchased under Agreements to Resell) 52.7
Change in Interest-Bearing Deposits with Banks	660.2	(327.8)
Net Change in Federal Reserve and Other Central Bank Deposits	11,533.0	
Purchases of Debt Securities — Held to Maturity) (2,284.1)
Proceeds from Maturity and Redemption of Debt Securities — Held to Maturity	4,678.4	
Purchases of Debt Securities — Available for Sale) (2,633.6)
Proceeds from Sale, Maturity and Redemption of Debt Securities — Available for Sale	2,044.4	3,235.9
Change in Loans and Leases	491.2	153.0
Purchases of Buildings and Equipment) (14.3)
Purchases and Development of Computer Software	. ,) (79.9)
Change in Client Security Settlement Receivables	1,058.2	(519.8)
Other Investing Activities, net) 226.4
Net Cash Provided by Investing Activities	11,156.2	1,026.5
Cash Flows from Financing Activities:		
Change in Deposits	,) (1,671.8)
Change in Federal Funds Purchased	(1,953.3)	
Change in Securities Sold under Agreements to Repurchase) (40.4)
Change in Short-Term Other Borrowings	997.7	(1,030.6)
Repayments of Senior Notes and Long-Term Debt) (3.8)
Treasury Stock Purchased) (70.1)
Net Proceeds from Stock Options	19.1	37.2
Cash Dividends Paid on Common Stock) (86.9)
Cash Dividends Paid on Preferred Stock) (5.9)
Net Cash Used in Financing Activities) (2,707.6)
Effect of Foreign Currency Exchange Rates on Cash	52.1	213.6
Change in Cash and Due from Banks	1,563.3	(682.8)

Cash and Due from Banks at Beginning of Year	4,518.1	5,332.0
Cash and Due from Banks at End of Period	\$6,081.4	\$4,649.2
Supplemental Disclosures of Cash Flow Information:		
Interest Paid	\$116.0	\$50.8
Income Taxes Paid	29.7	43.5
Transfers from Loans to OREO	1.1	2.3

See accompanying notes to the consolidated financial statements.

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Notes to Consolidated Financial Statements (unaudited)

Note 1 - Basis of Presentation

The consolidated financial statements include the accounts of Northern Trust Corporation (the Corporation) and its wholly-owned subsidiary, The Northern Trust Company (the Bank), and various other wholly-owned subsidiaries of the Corporation and the Bank. Throughout the notes, the term "Northern Trust" refers to the Corporation and its subsidiaries. Intercompany balances and transactions have been eliminated in consolidation. The consolidated financial statements, as of and for the periods ended March 31, 2018 and 2017, have not been audited by the Corporation's independent registered public accounting firm. In the opinion of management, all accounting entries and adjustments, including normal recurring accruals, necessary for a fair presentation of the financial position and the results of operations for the interim periods have been made. The accounting and financial reporting policies of Northern Trust conform to U.S. generally accepted accounting principles (GAAP) and reporting practices prescribed by the banking industry. The consolidated statements of income include results of acquired subsidiaries from the dates of acquisition. Certain amounts in prior periods have been reclassified to conform with the current year's presentation. For a description of Northern Trust's significant accounting policies, refer to Note 1 of the Notes to Consolidated Financial Statements in the Annual Report on Form 10-K for the year ended December 31, 2017. Note 2 – Recent Accounting Pronouncements

On January 1, 2018, Northern Trust adopted ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" (ASU 2014-09). The primary objective of ASU 2014-09 is revenue recognition that represents the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Northern Trust adopted ASU 2014-09 using the modified retrospective method applied to contracts not yet completed as of the date of adoption. Results for reporting periods beginning January 1, 2018 are presented under ASU 2014-09, including certain changes to gross versus net presentation, whereas prior period amounts are not adjusted. The impact of adopting ASU 2014-09 resulted in a \$4.0 million reduction in retained earnings. Please refer to Note 14 – "Revenue from Contracts with Clients" for further information.

On January 1, 2018, Northern Trust adopted ASU No. 2016-01, "Financial Instruments - Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities" (ASU 2016-01). ASU 2016-01 requires equity investments (except those accounted for under the equity method or those that result in consolidation) to be measured at fair value with changes in fair value recognized in net income unless a policy election is made for investments without readily determinable fair values. Additionally, ASU 2016-01 requires public entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes and eliminates the requirement to disclose the method(s) and significant assumptions used to estimate the fair value of financial instruments measured at amortized cost on the balance sheet. Furthermore, it requires separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or in the accompanying notes to the financial statements. The impact of adopting ASU 2016-01 resulted in a \$0.5 million reduction in retained earnings.

On January 1, 2018, Northern Trust adopted ASU No. 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" (ASU 2016-15). ASU 2016-15 provides guidance on eight specific cash flow issues, thereby reducing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. Upon adoption of ASU 2016-15, there was no significant impact to Northern Trust's consolidated statement of cash flows.

On January 1, 2018, Northern Trust adopted ASU No. 2016-16, "Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory" (ASU 2016-16). ASU 2016-16 requires an entity to recognize the income tax consequences of intra-entity transfers of assets (excluding inventory) in the period in which the transfer occurs. Upon

adoption of ASU 2016-16, there was no significant impact to Northern Trust's consolidated financial condition or results of operations.

On January 1, 2018, Northern Trust adopted ASU No. 2016-18, "Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force)" (ASU 2016-18). ASU 2016-18 requires an entity to include amounts generally described as restricted cash and cash equivalents with cash and cash equivalents when reconciling beginning and end of period total cash balances in the statement of cash flows and as a result, transfers between cash and cash equivalents, and restricted cash and cash equivalents, will not be presented in the statement of cash flows as cash flow activities. Additionally, if the balance sheet includes more than one line item for cash, cash equivalents, restricted cash, and restricted cash and cash equivalents, an entity needs to disclose a reconciliation between the balance sheet and the statement of cash flows. Furthermore, if restricted cash and cash equivalents are material, an entity should disclose information about the nature of restrictions. Upon adoption of ASU 2016-18, there was no significant impact to Northern Trust's consolidated statement of cash flows.

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Notes to Consolidated Financial Statements (unaudited) (continued)

On January 1, 2018, Northern Trust adopted ASU No. 2017-01, "Business Combinations (Topic 805): Clarifying the Definition of a Business" (ASU 2017-01). ASU 2017-01 clarifies the definition of a business with the objective of adding guidance to assist companies with evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The amendments in ASU 2017-01 provide a more robust framework to use in determining when a set of assets and activities is a business. Upon adoption of ASU 2017-01, there was no significant impact to Northern Trust's consolidated financial condition or results of operations.

On January 1, 2018, Northern Trust adopted ASU No. 2017-05, "Other Income-Gains and Losses from the Derecognition of Nonfinancial Assets (Subtopic 610-20): Clarifying the Scope of Asset Derecognition Guidance and Accounting for Partial Sales of Nonfinancial Assets" (ASU 2017-05). ASU 2017-05 clarifies that an in substance nonfinancial asset is an asset or group of assets for which substantially all of the fair value consists of nonfinancial assets and the group or subsidiary is not a business. Transfers of nonfinancial assets to another entity in exchange for a noncontrolling ownership interest in that entity will be accounted for under Accounting Standards Codification 610-20 - Gains and Losses from the Derecognition of Nonfinancial Assets. ASU 2017-05 also impacts the accounting for partial sales of nonfinancial assets, and provides that when an entity transfers its controlling financial interest in a nonfinancial asset, but retains a noncontrolling ownership interest, the entity will measure the retained interest at fair value. This will result in full gain or loss recognition upon the sale of a controlling interest in a nonfinancial asset. Upon adoption of ASU 2017-05, there was no significant impact to Northern Trust's consolidated financial condition or results of operations.

On January 1, 2018, Northern Trust adopted ASU No. 2017-07, "Compensation-Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost" (ASU 2017-07). Under previous GAAP, net benefit cost on pension and postretirement benefit plans included multiple components, including current period employee service cost, interest cost on the obligation, expected return on plan assets, and amortization of various amounts deferred from previous periods. ASU 2017-07 requires the bifurcation of the net benefit cost by presenting separately the service cost component from the other components of net benefit cost. Northern Trust provides a detailed breakdown of its net periodic pension costs components including a reference to the respective income statement line in the footnotes and therefore there were no changes to the presentation of net periodic pension costs in the results of operations upon adoption of ASU 2017-07.

On January 1, 2018, Northern Trust adopted ASU No. 2017-09, "Compensation - Stock Compensation (Topic 718): Scope of Modification Accounting" (ASU 2017-09). ASU 2017-09 clarifies which types of changes to share-based payment awards are in scope of modification accounting. ASU 2017-09 also provides clarification related to the fair value assessment with respect to determining whether a fair value calculation is required and the appropriate unit of account to apply. Upon adoption of ASU 2017-09, there was no impact to Northern Trust's consolidated financial condition or results of operations.

On January 1, 2018, Northern Trust adopted ASU No. 2018-02, "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income" (ASU 2018-02). The amendments in ASU 2018-02 allow an entity to elect to reclassify from accumulated other comprehensive income to retained earnings the stranded tax effects resulting from the Tax Cuts and Jobs Act. ASU 2018-02 is effective for interim and annual reporting periods beginning after December 15, 2018, however early adoption is permitted. The amendments in ASU 2018-02 may be applied either in the period of adoption or retrospectively to each period (or periods) in which the effect of the change in the U.S. federal corporate income tax rate in the Tax Cuts and Jobs Act is recognized. Upon adoption of ASU 2018-02, Northern Trust elected to reclassify \$25.3 million of income tax effects from the Tax Cuts and Jobs Act from accumulated other comprehensive income to retained earnings. In the normal course, it is Northern Trust's policy to release income tax effects from accumulated other comprehensive income on an aggregate portfolio basis. Please refer to Note 12 – "Accumulated Other

Comprehensive Income (Loss)" for further information.

Note 3 – Fair Value Measurements

Fair Value Hierarchy. The following describes the hierarchy of valuation inputs (Levels 1, 2, and 3) used to measure fair value and the primary valuation methodologies used by Northern Trust for financial instruments measured at fair value on a recurring basis. Observable inputs reflect market data obtained from sources independent of the reporting entity; unobservable inputs reflect the entity's own assumptions about how market participants would value an asset or liability based on the best information available. GAAP requires an entity measuring fair value to maximize the use of observable inputs and minimize the use of unobservable inputs and establishes a fair value hierarchy of inputs. Financial instruments are categorized within the hierarchy based on the lowest level input that is significant to their valuation. Northern Trust's policy is to recognize transfers into and transfers out of fair value levels as of the end of the reporting period in which the transfer occurred. No transfers between fair value levels occurred during the three months ended March 31, 2018 or the year ended December 31, 2017.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Level 1 — Quoted, active market prices for identical assets or liabilities.

Northern Trust's Level 1 assets are comprised of available for sale investments in U.S. treasury securities. Level 2 — Observable inputs other than Level 1 prices, such as quoted active market prices for similar assets or liabilities, quoted prices for identical or similar assets in inactive markets, and model-derived valuations in which all significant inputs are observable in active markets.

Northern Trust's Level 2 assets include available for sale and trading account debt securities, the fair values of which are determined predominantly by external pricing vendors. Prices received from vendors are compared to other vendor and third-party prices. If a security price obtained from a pricing vendor is determined to exceed pre-determined tolerance levels that are assigned based on an asset type's characteristics, the exception is researched and, if the price is not able to be validated, an alternate pricing vendor is utilized, consistent with Northern Trust's pricing source hierarchy. As of March 31, 2018, Northern Trust's available for sale debt securities portfolio included 1,426 Level 2 debt securities with an aggregate market value of \$28.6 billion. All 1,426 debt securities portfolio included 1,436 Level 2 debt securities with an aggregate market value of \$28.0 billion. All 1,436 debt securities were valued by external pricing vendors. Trading account debt securities, which totaled \$8.9 million and \$0.5 million as of March 31, 2017, northern 31, 2018 and December 31, 2017, respectively, were all valued using external pricing vendors.

Level 2 assets and liabilities also include derivative contracts which are valued internally using widely accepted income-based models that incorporate inputs readily observable in actively quoted markets and reflect the contractual terms of the contracts. Observable inputs include foreign exchange rates and interest rates for foreign exchange contracts; interest rates for interest rate swap contracts and forward contracts; and interest rates and volatility inputs for interest rate option contracts. Northern Trust evaluates the impact of counterparty credit risk and its own credit risk on the valuation of its derivative instruments. Factors considered include the likelihood of default by Northern Trust and its counterparties, the remaining maturities of the instruments, net exposures after giving effect to master netting arrangements or similar agreements, available collateral, and other credit enhancements in determining the appropriate fair value of derivative instruments. The resulting valuation adjustments have not been considered material. Level 3 — Valuation techniques in which one or more significant inputs are unobservable in the marketplace. Northern Trust's Level 3 assets consist of auction rate securities purchased in 2008 from Northern Trust clients. To estimate the fair value of auction rate securities, Northern Trust uses external pricing vendors that incorporate transaction details and market- based inputs such as past auction results, trades and bids. The significant unobservable inputs used in the fair value measurement are the prices of the securities supported by little market activity and for which trading is limited.

Northern Trust's Level 3 liabilities consist of swaps that Northern Trust entered into with the purchaser of 1.1 million and 1.0 million shares of Visa Inc. Class B common stock (Visa Class B common shares) previously held by Northern Trust and sold in June 2016 and 2015, respectively. Pursuant to the swaps, Northern Trust retains the risks associated with the ultimate conversion of the Visa Class B common shares into shares of Visa Inc. Class A common stock (Visa Class A common shares), such that the counterparty will be compensated for any dilutive adjustments to the conversion ratio and Northern Trust will be compensated for any anti-dilutive adjustments to the ratio. The swaps also require periodic payments from Northern Trust to the counterparty calculated by reference to the market price of Visa Class A common shares and a fixed rate of interest. The fair value of the swaps is determined using a discounted cash flow methodology. The significant unobservable inputs used in the fair value measurement are Northern Trust's own assumptions about estimated changes in the conversion rate of the Visa Class B common shares into Visa Class A common shares, the date on which such conversion is expected to occur and the estimated growth rate of the Visa Class A common share price. See "Visa Class B Common Shares" under Note 20 – "Contingent Liabilities" for further information.

Northern Trust believes its valuation methods for its assets and liabilities carried at fair value are appropriate; however, the use of different methodologies or assumptions, particularly as applied to Level 3 assets and liabilities, could have a material effect on the computation of their estimated fair values.

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Notes to Consolidated Financial Statements (unaudited) (continued)

The following table presents the fair values of Northern Trust's Level 3 assets and liabilities as of March 31, 2018 and December 31, 2017, as well as the valuation techniques, significant unobservable inputs, and quantitative information used to develop significant unobservable inputs for such assets and liabilities as of such dates.

 Table 32: Level 3 Significant Unobservable Inputs

 March 31

	March 51, 201	10		
Financial Instrument	Fair Value	Valuation Technique	Unobservable Inputs	Range of Inputs
Auction Rate Securities	\$2.9 million	Comparables	Price	\$89 10 0
	\$31.3 million	Discounted Cash	Visa Class A Appreciation	7.0 %44.0%
Swaps Related to Sale of Certain		Flow	Conversion Rate	1.63x 1. 65x
Visa Class B Common Shares			Expected Duration	1.5 $\frac{4.0}{\text{years}}$
	December 31,	2017		
Financial Instrument	Fair Value	Valuation Technique	Unobservable Inputs	Range of Inputs
Auction Rate Securities	\$4.3 million	Comparables	Price	\$92 -100
	\$29.7 million	Discounted Cash	Visa Class A Appreciation	n 7.0 %++1.0%
Swap Related to Sale of Certain		Flow	Conversion Rate	1.63 x 1. 65 x
Visa Class B Common Shares			Expected Duration	1.5 $\frac{4.0}{\text{years}}$

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Notes to Consolidated Financial Statements (unaudited) (continued)

The following tables present assets and liabilities measured at fair value on a recurring basis as of March 31, 2018 and December 31, 2017, segregated by fair value hierarchy level. Table 33: Recurring Basis Hierarchy Leveling

(In Millions)	Level 1	Level 2	Level 3	Netting	Assets/Liabilities at Fair Value
March 31, 2018					
Debt Securities					
Available for Sale					
U.S. Government	\$5,651.7	\$—	\$ —	\$—	\$ 5,651.7
Obligations of States and Political Subdivisions		687.7			687.7
Government Sponsored Agency	—	19,554.7		—	19,554.7
Non-U.S. Government	—	141.0		—	141.0
Corporate Debt		2,706.7			2,706.7
Covered Bonds		842.2			842.2
Sub-Sovereign, Supranational and Non-U.S. Agency Bonds		1,983.0			1,983.0
Other Asset-Backed		2,224.2			2,224.2
Auction Rate			2.9		2.9
Commercial Mortgage-Backed	—	442.9		—	442.9
Other	—	21.0		—	21.0
Total Available for Sale	5,651.7	28,603.4	2.9		34,258.0
Trading Account		8.9			8.9
Total Available for Sale and Trading Debt Securities	5,651.7	28,612.3	2.9		34,266.9
Other Assets					
Derivative Assets					
Foreign Exchange Contracts		2,052.6			2,052.6
Interest Rate Contracts		89.7			89.7
Other Financial Derivatives ⁽¹⁾		0.2			0.2
Total Derivative Assets		2,142.5		(1,160.8)	981.7
Other Liabilities					
Derivative Liabilities					
Foreign Exchange Contracts		2,059.1			2,059.1
Interest Rate Contracts	_	98.7			98.7
Other Financial Derivatives ⁽²⁾			31.3		31.3
Total Derivative Liabilities	\$—	\$2,157.8	\$ 31.3	\$(1,529.7)	\$ 659.4

Note: Northern Trust has elected to net derivative assets and liabilities when legally enforceable master netting arrangements or similar agreements exist between Northern Trust and the counterparty. As of March 31, 2018, derivative assets and liabilities shown above also include reductions of \$74.9 million and \$443.8 million, respectively, as a result of cash collateral received from and deposited with derivative counterparties.

⁽¹⁾ This line consists of total return swaps.

⁽²⁾ This line consists of swaps related to the sale of certain Visa Class B common shares.

Notes to Consolidated Financial Statements (unaudited) (continued)

(In Millions)	Level 1	Level 2	Level 3	Netting	Assets/Liabilities at Fair Value
December 31, 2017					
Debt Securities					
Available for Sale					
U.S. Government	\$5,700.3	\$—	\$ —	\$—	\$ 5,700.3
Obligations of States and Political Subdivisions		746.4			746.4
Government Sponsored Agency		18,676.6			18,676.6
Non-U.S. Government		177.2			177.2
Corporate Debt		2,993.0			2,993.0
Covered Bonds		875.6			875.6
Sub-Sovereign, Supranational and Non-U.S. Agency Bonds	; —	1,820.0			1,820.0
Other Asset-Backed		2,291.3			2,291.3
Auction Rate			4.3		4.3
Commercial Mortgage-Backed		435.1			435.1
Other		22.3			22.3
Total Available for Sale	5,700.3	28,037.5	4.3		33,742.1
Trading Account		0.5			0.5
Total Available for Sale and Trading Debt Securities	5,700.3	28,038.0	4.3		33,742.6
Other Assets					
Derivative Assets					
Foreign Exchange Contracts		2,557.1			2,557.1
Interest Rate Contracts		97.0			97.0
Total Derivative Assets		2,654.1		(1,860.0)	794.1
Other Liabilities					
Derivative Liabilities					
Foreign Exchange Contracts		2,715.1			2,715.1
Interest Rate Contracts		83.5			83.5
Other Financial Derivatives ⁽¹⁾		0.7	29.7		30.4
Total Derivative Liabilities	\$—	\$2,799.3	\$ 29.7	\$(1,621.4)	\$ 1,207.6
Note: Northern Trust has elected to net derivative assets and	d liabilitie	s when leg	ally enfo	orceable mas	ter netting

arrangements or similar agreements exist between Northern Trust and the counterparty. As of December 31, 2017, derivative assets and liabilities shown above also include reductions of \$427.6 million and \$189.0 million, respectively, as a result of cash collateral received from and deposited with derivative counterparties. (1) This line consists of swaps related to the sale of certain Visa Class B common shares and total return swaps.

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Notes to Consolidated Financial Statements (unaudited) (continued)

The following tables present the changes in Level 3 assets and liabilities for the three months ended March 31, 2018 and 2017.

...

Table 34: Changes in Level 3 Assets

	Auction	on
Level 3 Assets (In Millions)	Rate	
	Secur	ities
Three Months Ended March 31,	2018	2017
Fair Value at January 1	\$4.3	\$4.7
Total Gains (Losses):		
Included in Other Comprehensive Income ⁽¹⁾		
Purchases, Issues, Sales, and Settlements		
Sales		
Settlements	(1.4)	(0.4)
Fair Value at March 31	\$2.9	\$4.3

(1) Unrealized gains (losses) are included in net unrealized gains (losses) on debt securities available for sale in the consolidated statements of comprehensive income.

Table 35: Changes in Level 3 Liabilities

	Swaps Relat	ed to Sale of
Level 3 Liabilities (In Millions)	Certain Visa	t Class B
	Common Sh	ares
Three Months Ended March 31,	2018	2017
Fair Value at January 1	\$ 29.7	\$ 25.2
Total (Gains) Losses:		
Included in Earnings ⁽¹⁾	4.2	2.9
Purchases, Issues, Sales, and Settlements		
Purchases		
Settlements	(2.6)	(1.7)
Fair Value at March 31	\$ 31.3	\$ 26.4

⁽¹⁾ (Gains) losses are recorded in other operating income in the consolidated statements of income.

During the three months ended March 31, 2018 and 2017, there were no transfers into or out of Level 3 assets or liabilities.

Carrying values of assets and liabilities that are not measured at fair value on a recurring basis may be adjusted to fair value in periods subsequent to their initial recognition, for example, to record an impairment of an asset. GAAP requires entities to disclose separately these subsequent fair value measurements and to classify them under the fair value hierarchy.

Assets measured at fair value on a nonrecurring basis at March 31, 2018 and 2017, all of which were categorized as Level 3 under the fair value hierarchy, were comprised of impaired loans whose values were based on real estate and other available collateral, and of other real estate owned (OREO) properties. Fair values of real-estate loan collateral were estimated using a market approach typically supported by third-party valuations and property-specific fees and taxes, and were subject to adjustments to reflect management's judgment as to realizable value. Other loan collateral, which typically consists of accounts receivable, inventory and equipment, is valued using a market approach adjusted for asset-specific characteristics and in limited instances third-party valuations are used. OREO assets are carried at the lower of cost or fair value less estimated costs to sell, with fair value typically based on third-party appraisals. Collateral-based impaired loans and OREO assets that have been adjusted to fair value totaled \$9.7 million and \$0.4 million, respectively, at March 31, 2018, and \$28.7 million and \$0.6 million, respectively, at March 31, 2017. Assets

measured at fair value on a nonrecurring basis reflect management's judgment as to realizable value.

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Notes to Consolidated Financial Statements (unaudited) (continued)

The following table presents the fair values of Northern Trust's Level 3 assets that were measured at fair value on a nonrecurring basis as of March 31, 2018 and December 31, 2017, as well as the valuation technique, significant unobservable inputs and quantitative information used to develop the significant unobservable inputs for such assets as of such dates.

Table 36: Level 3 Nonrecurring Basis Significant Unobservable Inputs

March 31, 2018

Financial Instrument	Fair Value	Valuation Technique	Unobservable Input	Range of Discounts Applied
Loans	\$9.7 million	Market Approach	Discount to reflect realizable value	15.0%-25.0%
OREO	\$0.4 million	Market Approach	Discount to reflect realizable value	15.0%-20.0%
	December 31	, 2017		
Financial Instrument	Fair Value	Valuation Technique	Unobservable Input	Range of Discounts Applied
Loans	\$12.2 million	Market Approach	Discount to reflect realizable value	15.0%-25.0%
OREO	\$0.3 million	Market Approach	Discount to reflect realizable value	15.0%-20.0%
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Notes to Consolidated Financial Statements (unaudited) (continued)

The following tables summarize the fair values of all financial instruments.

Table 37: Fair Value of Financial Instruments

(In Millions)	March 31	, 2018				
		Total	Fair Value	e		
	Book	Fair	Laval 1	Level	Laval	12
	Value	Value	Level 1	2	Level	13
Assets	.			<i>.</i>	.	
Cash and Due from Banks	\$6,081.4	\$6,081.4	\$6,081.4	\$ <u> </u>	\$	
Federal Reserve and Other Central Bank Deposits	29,446.8	29,446.8		29,44		
Interest-Bearing Deposits with Banks	4,931.4	4,931.4		4,931		
Federal Funds Sold and Resell Agreements	1,534.0	1,534.0		1,534	.0—	
Debt Securities	24.250.0	24.250.0		20.00	a a a	
Available for Sale (Note)	34,258.0	34,258.0		28,60		
Held to Maturity	14,334.6	14,260.4	87.9	14,17	2. 5 -	
Trading Account	8.9	8.9		8.9		
Loans (excluding Leases)		21.041.1			01 04	
Held for Investment	31,786.7	31,841.1			31,84	1.1
Held for Sale	0.8	0.8			0.8	
Client Security Settlement Receivables	581.5	581.5		581.5		
Other Assets	0 (0.1	2 (0.1		a (a 1		
Federal Reserve and Federal Home Loan Bank Stock	268.1	268.1		268.1		
Community Development Investments	405.5	405.5		405.5		
Employee Benefit and Deferred Compensation	210.9	204.6	132.3	72.3	—	
Liabilities						
Deposits						
Demand, Noninterest-Bearing, Savings, Money Market and Other	\$44,168.6	\$44,168.6	\$44,168.6	\$—	\$	
Interest-Bearing						
Savings Certificates and Other Time	947.5	947.4		947.4		
Non U.S. Offices Interest-Bearing	60,075.3	60,075.3		60,07		
Federal Funds Purchased	332.8	332.8		332.8		
Securities Sold under Agreements to Repurchase	810.0	810.0		810.0		
Other Borrowings	7,033.6	7,035.2		7,035		
Senior Notes	1,497.5	1,505.1		1,505	. I—	
Long Term Debt (excluding Leases)	1 410 0	1 410 6		1 410	(
Subordinated Debt	1,410.0	1,412.6		1,412		
Floating Rate Capital Debt	277.5	260.5		260.5	—	
Other Liabilities	2 0 4	20.4			2 0 4	
Standby Letters of Credit	29.4	29.4			29.4	
Loan Commitments	32.1	32.1			32.1	
Derivative Instruments						
Asset/Liability Management						
Foreign Exchange Contracts	ф <i>5</i> с 0	ф <i>.</i>	¢	ф г с 0	¢	
Assets	\$56.8	\$56.8	\$—	\$56.8	\$	
Liabilities	59.3	59.3		59.3		
Interest Rate Contracts	26.5	26.5		06.5		
Assets	26.5	26.5		26.5		
Liabilities	18.0	18.0		18.0		
Other Financial Derivatives						

Assets ⁽¹⁾	0.2	0.2		0.2 —	
Liabilities ⁽²⁾	31.3	31.3	_	— 31.3	
Client-Related and Trading					
Foreign Exchange Contracts					
Assets	1,995.8	1,995.8	_	1,995.8—	
Liabilities	1,999.8	1,999.8	_	1,999.8—	
Interest Rate Contracts					
Assets	63.2	63.2	—	63.2 —	
Liabilities	80.7	80.7	—	80.7 —	
	C '1 1 1 /	· 1 1 1	, •,•		

Note: Refer to the table located on page 34 for the disaggregation of available for sale debt securities.

⁽¹⁾ This line consists of total return swaps.

⁽²⁾ This line consists of swaps related to the sale of certain Visa Class B common shares.

Notes to Consolidated Financial Statements (unaudited) (continued)

(In Millions)	December Book Value	: 31, 2017 Total Fair	Fair Value		T ava	1.2
	value	Value	Level 1	Level 2	Leve	13
Assets	¢15101	¢ 1 5 1 0 1	¢ / 5 10 1	¢	¢	
Cash and Due from Banks	\$4,518.1	\$4,518.1		\$ — 40.470.1	\$	
Federal Reserve and Other Central Bank Deposits	40,479.1	40,479.1		40,479.1		
Interest-Bearing Deposits with Banks	5,611.9	5,611.9	_	5,611.9		
Federal Funds Sold and Resell Agreements Debt Securities	1,324.3	1,324.3		1,324.3	_	
Available for Sale (Note)	33,742.1	33,742.1	5,700.3	28,037.5	513	
Held to Maturity	13,049.0	13,010.9	35.0	12,975.9		
Trading Account	0.5	0.5		0.5	, —	
Loans (excluding Leases)	0.5	0.5	_	0.5		
Held for Investment	32,211.1	32,375.8			32,37	75 8
Held for Sale	20.9	20.9			20.9	5.0
Client Security Settlement Receivables	1,647.0	20.9 1,647.0	_	1,647.0		
Other Assets	1,047.0	1,047.0		1,047.0		
Federal Reserve and Federal Home Loan Bank Stock	223.1	223.1	_	223.1		
Community Development Investments	415.3	415.3	_	415.3		
Employee Benefit and Deferred Compensation	183.4	181.5	115.5	66.0		
Liabilities	105.4	101.5	115.5	00.0		
Deposits						
Demand, Noninterest-Bearing, Savings, Money Market and Other						
Interest-Bearing	\$45,566.3	\$ \$45,566.3	\$45,566.3	\$ —	\$	
Savings Certificates and Other Time	1,152.3	1,153.6		1,153.6		
Non U.S. Offices Interest-Bearing	65,672.2	65,672.2		65,672.2		
Federal Funds Purchased	2,286.1	2,286.1	_	2,286.1		
Securities Sold under Agreements to Repurchase	834.0	834.0		834.0		
Other Borrowings	6,051.1	6,052.9	_	6,052.9		
Senior Notes	1,497.3	1,528.4	_	1,528.4		
Long Term Debt (excluding Leases)	1,19718	1,02011		1,520.1		
Subordinated Debt	1,435.1	1,449.8	_	1,449.8		
Floating Rate Capital Debt	277.5	260.0	_	260.0		
Other Liabilities						
Standby Letters of Credit	30.3	30.3	_		30.3	
Loan Commitments	33.1	33.1	_		33.1	
Derivative Instruments						
Asset/Liability Management						
Foreign Exchange Contracts						
Assets	\$30.1	\$30.1	\$—	\$ 30.1	\$	
Liabilities	192.6	192.6		192.6		
Interest Rate Contracts						
Assets	31.9	31.9	_	31.9		
Liabilities	19.4	19.4	_	19.4		
Other Financial Derivatives						
Liabilities ⁽¹⁾	30.4	30.4		0.7	29.7	
Client-Related and Trading						
C C						

Foreign Exchange Contracts					
Assets	2,527.0	2,527.0		2,527.0	
Liabilities	2,522.5	2,522.5		2,522.5	
Interest Rate Contracts					
Assets	65.1	65.1		65.1	
Liabilities	64.1	64.1		64.1	
Note: Refer to the table located on page 35 for the disaggregation	on of available	e for sale de	ebt securitie	s.	

⁽¹⁾ This line consists of swaps related to the sale of certain Visa Class B common shares and total return swaps.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Note 4 – Securities

The following tables provide the amortized cost and fair values of debt securities at March 31, 2018 and December 31, 2017.

Table 38: Reconciliation of Amortized Cost to Fair Value of Debt Securities Available for SaleDebt Securities Available for SaleMarch 31, 2018

Debt becumes rivaliable for Sale	march 51,	2010		
(In Millions)	Amortized Cost	Unrea	lized Losses	Fair Value
U.S. Government	\$5,678.2	\$25.6	\$52.1	\$5,651.7
Obligations of States and Political Subdivisions	690.3	0.5	3.1	687.7
Government Sponsored Agency	19,668.2	34.4	147.9	19,554.7
Non-U.S. Government	143.2		2.2	141.0
Corporate Debt	2,732.0	3.6	28.9	2,706.7
Covered Bonds	848.6	0.8	7.2	842.2
Sub-Sovereign, Supranational and Non-U.S. Agency Bonds	1,983.2	5.3	5.5	1,983.0
Other Asset-Backed	2,239.7	1.3	16.8	2,224.2
Auction Rate	3.0		0.1	2.9
Commercial Mortgage-Backed	448.7	0.3	6.1	442.9
Other	21.0			21.0
Total	\$34,456.1	\$71.8	\$269.9	\$34,258.0
Debt Securities Available for Sale	December	31, 20	17	
		~		
(In Millions)	Amortized Cost	Unrea		Fair Value
(In Millions)	Cost	Unrea Gains	Losses	Value
U.S. Government	Cost \$5,714.4	Unrea Gains \$18.0	Losses \$32.1	Value \$5,700.3
U.S. Government Obligations of States and Political Subdivisions	Cost \$5,714.4 749.9	Unrea Gains \$18.0 —	Losses \$32.1 3.5	Value \$5,700.3 746.4
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency	Cost \$5,714.4 749.9 18,745.3	Unrea Gains \$18.0 — 39.9	Losses \$32.1 3.5 108.6	Value \$5,700.3 746.4 18,676.6
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government	Cost \$5,714.4 749.9 18,745.3 179.1	Unrea Gains \$18.0 — 39.9 —	Losses \$32.1 3.5 108.6 1.9	Value \$5,700.3 746.4 18,676.6 177.2
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7	Unrea Gains \$18.0 39.9 2.2	Losses \$32.1 3.5 108.6 1.9 22.9	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0	Unrea Gains \$18.0 39.9 2.2 1.0	Losses \$32.1 3.5 108.6 1.9 22.9 4.4	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0 1,819.8	Unrea Gains \$18.0 39.9 2.2 1.0 4.0	Losses \$32.1 3.5 108.6 1.9 22.9 4.4 3.8	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6 1,820.0
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0 1,819.8 2,297.7	Unrea Gains \$18.0 39.9 2.2 1.0	Losses \$32.1 3.5 108.6 1.9 22.9 4.4 3.8 7.9	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6 1,820.0 2,291.3
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed Auction Rate	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0 1,819.8 2,297.7 4.4	Unrea Gains \$18.0 39.9 2.2 1.0 4.0 1.5	Losses \$32.1 3.5 108.6 1.9 22.9 4.4 3.8 7.9 0.1	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6 1,820.0 2,291.3 4.3
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0 1,819.8 2,297.7	Unrea Gains \$18.0 	Losses \$32.1 3.5 108.6 1.9 22.9 4.4 3.8 7.9	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6 1,820.0 2,291.3
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed Auction Rate Commercial Mortgage-Backed	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0 1,819.8 2,297.7 4.4 439.2 22.3	Unrea Gains \$18.0 39.9 2.2 1.0 4.0 1.5 	Losses \$32.1 3.5 108.6 1.9 22.9 4.4 3.8 7.9 0.1 4.1 —	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6 1,820.0 2,291.3 4.3 435.1
U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed Auction Rate Commercial Mortgage-Backed Other	Cost \$5,714.4 749.9 18,745.3 179.1 3,013.7 879.0 1,819.8 2,297.7 4.4 439.2 22.3	Unrea Gains \$18.0 39.9 2.2 1.0 4.0 1.5 	Losses \$32.1 3.5 108.6 1.9 22.9 4.4 3.8 7.9 0.1 4.1 —	Value \$5,700.3 746.4 18,676.6 177.2 2,993.0 875.6 1,820.0 2,291.3 4.3 435.1 22.3

Notes to Consolidated Financial Statements (unaudited) (continued)

Table 39: Reconciliation of Amortized Cost to Fair Value of Debt Securities Held to MaturityDebt Securities Held to MaturityMarch 31, 2018

(In Millions)	Amortized Cost	Unrea	lized Losses	Fair Value
U.S Government	\$87.9	\$—	\$ <i>—</i>	\$87.9
Obligations of States and Political Subdivisions	32.6	1.2	0.1	33.7
Government Sponsored Agency	5.4	0.3		5.7
Corporate Debt	429.1	1.1	0.7	429.5
Covered Bonds	3,311.9	11.8	10.2	3,313.5
Non-U.S. Government	5,809.9	1.4	16.5	5,794.8
Certificates of Deposit	48.4			48.4
Sub-Sovereign, Supranational and Non-U.S. Agency Bonds	3,273.0	3.6	17.4	3,259.2
Other Asset-Backed	1,152.1	0.5	0.1	1,152.5
Other	184.3		49.1	135.2
Total	\$14,334.6	\$19.9	\$94.1	\$14,260.4
Debt Securities Held to Maturity	December	31, 20	17	
		Gross		
(In Millions)	Amortized Cost	Unrea	lized Losses	Fair Value
(In Millions) U.S Government		Unrea		
	Cost	Unrea Gains	Losses	Value
U.S Government	Cost \$35.0	Unrea Gains \$—	Losses \$—	Value \$35.0
U.S Government Obligations of States and Political Subdivisions	Cost \$35.0 34.6	Unrea Gains \$— 1.4	Losses \$— 0.1	Value \$35.0 35.9
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency	Cost \$35.0 34.6 5.8	Unrea Gains \$— 1.4 0.4	Losses \$ 0.1 	Value \$35.0 35.9 6.2
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency Corporate Debt	Cost \$35.0 34.6 5.8 431.5	Unrea Gains \$	Losses \$ 0.1 0.4	Value \$35.0 35.9 6.2 432.1
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency Corporate Debt Covered Bonds	Cost \$35.0 34.6 5.8 431.5 2,821.5	Unrea Gains \$— 1.4 0.4 1.0 11.9	Losses \$ 0.1 0.4 3.7	Value \$35.0 35.9 6.2 432.1 2,829.7
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency Corporate Debt Covered Bonds Non-U.S. Government	Cost \$35.0 34.6 5.8 431.5 2,821.5 5,536.2 43.8	Unrea Gains \$	Losses \$ 0.1 0.4 3.7 6.0	Value \$35.0 35.9 6.2 432.1 2,829.7 5,531.5
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency Corporate Debt Covered Bonds Non-U.S. Government Certificates of Deposit	Cost \$35.0 34.6 5.8 431.5 2,821.5 5,536.2 43.8	Unrea Gains \$	Losses \$ 0.1 0.4 3.7 6.0 0.1	Value \$35.0 35.9 6.2 432.1 2,829.7 5,531.5 43.7
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency Corporate Debt Covered Bonds Non-U.S. Government Certificates of Deposit Sub-Sovereign, Supranational and Non-U.S. Agency Bonds	Cost \$35.0 34.6 5.8 431.5 2,821.5 5,536.2 43.8 2,788.9	Unrea Gains \$	Losses \$ 0.1 0.4 3.7 6.0 0.1 4.1	Value \$35.0 35.9 6.2 432.1 2,829.7 5,531.5 43.7 2,790.2
U.S Government Obligations of States and Political Subdivisions Government Sponsored Agency Corporate Debt Covered Bonds Non-U.S. Government Certificates of Deposit Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed	Cost \$35.0 34.6 5.8 431.5 2,821.5 5,536.2 43.8 2,788.9 1,175.8	Unrea Gains \$ 1.4 0.4 1.0 11.9 1.3 5.4 0.6 	Losses \$ 0.1 0.4 3.7 6.0 0.1 4.1 0.5 45.2	Value \$35.0 35.9 6.2 432.1 2,829.7 5,531.5 43.7 2,790.2 1,175.9

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Notes to Consolidated Financial Statements (unaudited) (continued)

The following table provides the remaining maturity of debt securities as of March 31, 2018. Table 40: Remaining Maturity of Debt Securities Available for Sale and Held to Maturity

	March 31,	2018
(In Millions)	Amortized	Fair
(III MIIIIOIIS)	Cost	Value
Available for Sale		
Due in One Year or Less	\$7,868.7	\$7,827.1
Due After One Year Through Five Years	20,833.4	20,703.9
Due After Five Years Through Ten Years	4,853.8	4,836.9
Due After Ten Years	900.2	890.1
Total	34,456.1	34,258.0
Held to Maturity		
Due in One Year or Less	6,506.7	6,509.7
Due After One Year Through Five Years	7,283.3	7,246.5
Due After Five Years Through Ten Years	469.7	462.6
Due After Ten Years	74.9	41.6
Total	\$14,334.6	\$14,260.4

Note: Mortgage-backed and asset-backed securities are included in the above table taking into account anticipated future prepayments.

Investment Security Gains / Losses. Net investment security losses of \$0.2 million were recognized in the three months ended March 31, 2018, which related to the other-than-temporary impairment (OTTI) of certain Community Reinvestment ACT (CRA) eligible held to maturity securities. Net investment security losses of \$0.3 million were recognized in the three months ended March 31, 2017, which include \$0.1 million of charges related to OTTI losses. Gross proceeds from the sale of securities during the three months ended March 31, 2018 and 2017 were \$2.0 million and \$541.3 million, respectively.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Debt Securities with Unrealized Losses. The following tables provide information regarding debt securities that had been in a continuous unrealized loss position for less than twelve months and for twelve months or longer as of March 31, 2018 and December 31, 2017.

Table 41: Debt Securities with Unrealized Losses

Debt Securities with Unrealized Losses as of March 31, 2018	Less than	12 Months	12 Month Longer	ns or	Total	
	Fair	Unrealized	•	Unrealize	dFair	Unrealized
(In Millions)	Value	Losses	Value	Losses	Value	Losses
U.S. Government	\$3,632.7	\$ 52.1	\$—	\$ —	\$3,632.7	\$ 52.1
Obligations of States and Political Subdivisions	550.8	3.0	21.2	0.2	572.0	3.2
Government Sponsored Agency	9,427.3	113.9	2,751.5	34.0	12,178.8	147.9
Non-U.S. Government	5,319.3	18.7			5,319.3	18.7
Corporate Debt	1,396.6	15.5	549.3	14.1	1,945.9	29.6
Covered Bonds	1,476.3	17.0	89.6	0.4	1,565.9	17.4
Sub-Sovereign, Supranational and Non-U.S. Agency		22.7	106.0			22.0
Bonds	2,628.3	22.7	186.0	0.2	2,814.3	22.9
Other Asset-Backed	1,947.5	16.7	29.9	0.2	1,977.4	16.9
Certificates of Deposit	_					
Auction Rate	1.1	0.1			1.1	0.1
Commercial Mortgage-Backed	191.3	3.7	209.9	2.4	401.2	6.1
Other	90.2	30.2	47.2	18.9	137.4	49.1
Total	\$26,661.4	\$ 293.6	\$3,884.6	\$ 70.4	\$30,546.0	\$ 364.0
			10.16			
Debt Securities with Unrealized Losses as of	Lasstham	10 Mantha	12 Month	is or	Tatal	
Debt Securities with Unrealized Losses as of December 31, 2017	Less than	12 Months	12 Month Longer	is or	Total	
December 31, 2017	Less than Fair	12 Months Unrealized	Longer	ns or Unrealize		Unrealized
			Longer			Unrealized Losses
December 31, 2017	Fair	Unrealized	Longer dFair	Unrealize	dFair	
December 31, 2017 (In Millions)	Fair Value	Unrealized Losses	Longer dFair Value	Unrealize Losses	dFair Value	Losses
December 31, 2017 (In Millions) U.S. Government	Fair Value \$3,595.0	Unrealized Losses \$ 32.1	Longer dFair Value \$—	Unrealize Losses \$ —	dFair Value \$3,595.0	Losses \$ 32.1
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions	Fair Value \$3,595.0 687.8	Unrealized Losses \$ 32.1 3.3	Longer dFair Value \$— 52.0	Unrealize Losses \$ — 0.3	dFair Value \$3,595.0 739.8	Losses \$ 32.1 3.6
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency	Fair Value \$3,595.0 687.8 6,495.6	Unrealized Losses \$ 32.1 3.3 81.3	Longer dFair Value \$— 52.0	Unrealize Losses \$ — 0.3	dFair Value \$3,595.0 739.8 9,494.5	Losses \$ 32.1 3.6 108.6
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government	Fair Value \$3,595.0 687.8 6,495.6 5,181.8	Unrealized Losses \$ 32.1 3.3 81.3 7.9	Longer dFair Value \$	Unrealize Losses \$ 0.3 27.3 	dFair Value \$3,595.0 739.8 9,494.5 5,181.8	Losses \$ 32.1 3.6 108.6 7.9
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3 7.2	Longer dFair Value \$ 52.0 2,998.9 922.3 89.1	Unrealize Losses \$ 0.3 27.3 14.0 0.9	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6 1,056.6	Losses \$ 32.1 3.6 108.6 7.9 23.3 8.1
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3	Longer dFair Value \$ 52.0 2,998.9 922.3	Unrealize Losses \$ 0.3 27.3 14.0	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6	Losses \$ 32.1 3.6 108.6 7.9 23.3
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3 7.2	Longer dFair Value \$ 52.0 2,998.9 922.3 89.1	Unrealize Losses \$ 0.3 27.3 14.0 0.9	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6 1,056.6	Losses \$ 32.1 3.6 108.6 7.9 23.3 8.1
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5 1,692.4	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3 7.2 7.5	Longer dFair Value \$	Unrealize Losses \$ 0.3 27.3 14.0 0.9 0.4	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6 1,056.6 1,928.2	Losses \$ 32.1 3.6 108.6 7.9 23.3 8.1 7.9
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5 1,692.4 2,453.7	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3 7.2 7.5 8.3	Longer dFair Value \$	Unrealize Losses \$ 0.3 27.3 14.0 0.9 0.4 0.1	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6 1,056.6 1,928.2 2,483.6	Losses \$ 32.1 3.6 108.6 7.9 23.3 8.1 7.9 8.4
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed Certificates of Deposit	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5 1,692.4 2,453.7	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3 7.2 7.5 8.3	Longer dFair Value \$	Unrealize Losses \$ 0.3 27.3 14.0 0.9 0.4 0.1 	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6 1,056.6 1,928.2 2,483.6 43.7	Losses \$ 32.1 3.6 108.6 7.9 23.3 8.1 7.9 8.4 0.1
December 31, 2017 (In Millions) U.S. Government Obligations of States and Political Subdivisions Government Sponsored Agency Non-U.S. Government Corporate Debt Covered Bonds Sub-Sovereign, Supranational and Non-U.S. Agency Bonds Other Asset-Backed Certificates of Deposit Auction Rate	Fair Value \$3,595.0 687.8 6,495.6 5,181.8 1,547.3 967.5 1,692.4 2,453.7 43.7	Unrealized Losses \$ 32.1 3.3 81.3 7.9 9.3 7.2 7.5 8.3 0.1 —	Longer dFair Value \$	Unrealize Losses \$ 0.3 27.3 14.0 0.9 0.4 0.1 0.1	dFair Value \$3,595.0 739.8 9,494.5 5,181.8 2,469.6 1,056.6 1,928.2 2,483.6 43.7 3.1	Losses \$ 32.1 3.6 108.6 7.9 23.3 8.1 7.9 8.4 0.1 0.1

As of March 31, 2018, 1,334 debt securities with a combined fair value of \$30.5 billion were in an unrealized loss position, with their unrealized losses totaling \$364.0 million. Unrealized losses of \$147.9 million and \$52.1 million related to government sponsored agency and U.S. Government securities, respectively, are primarily attributable to changes in market interest rates since their purchase. Unrealized losses of \$29.6 million within corporate debt securities primarily reflect higher market rates since purchase; 38% of the corporate debt portfolio is backed by guarantees provided by U.S. and non-U.S. governmental entities.

The majority of the \$49.1 million of unrealized losses in debt securities classified as "other" at March 31, 2018, related to debt securities primarily purchased at a premium or par by Northern Trust to fulfill its obligations under the CRA.

Unrealized losses on these CRA-related securities were attributable to yields that were below market rates for the purpose of supporting institutions and programs that benefit low- to moderate-income communities within Northern Trust's market area. Unrealized losses of \$0.1

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Notes to Consolidated Financial Statements (unaudited) (continued)

million related to auction rate securities primarily reflected reduced market liquidity as a majority of auctions continued to fail, preventing holders from liquidating their investments at par. The remaining unrealized losses on Northern Trust's securities portfolio as of March 31, 2018, were attributable to changes in overall market interest rates, increased credit spreads or reduced market liquidity. As of March 31, 2018, Northern Trust did not intend to sell any investment in an unrealized loss position and it was more likely than not that Northern Trust would not be required to sell any such investment before the recovery of its amortized cost basis, which may be maturity. Security impairment reviews are conducted quarterly to identify and evaluate securities that have indications of possible OTTI. A determination as to whether a security's decline in market value is other-than-temporary takes into consideration numerous factors and the relative significance of any single factor can vary by security. Factors Northern Trust considers in determining whether impairment is other-than-temporary include, but are not limited to: the length of time the security has been impaired; the severity of the impairment; the cause of the impairment and the financial condition and near-term prospects of the issuer; activity in the market of the issuer, which may indicate adverse credit conditions; Northern Trust's intent regarding the sale of the security as of the balance sheet date; and the likelihood that it will not be required to sell the security for a period of time sufficient to allow for the recovery of the security's amortized cost basis. For each security meeting the requirements of Northern Trust's internal screening process, an extensive review is conducted to determine if OTTI has occurred.

While all securities are considered, the process for identifying credit impairment within CRA-eligible mortgage-backed securities incorporates an expected loss approach using discounted cash flows on the underlying collateral pools. To evaluate whether an unrealized loss on CRA-eligible mortgage-backed securities is other-than-temporary, a calculation of the security's present value is made using current pool data, the current delinquency pipeline, default rates and loan loss severities based on the historical performance of the mortgage pools, and Northern Trust's outlook for the housing market and the overall economy. If the present value of the collateral pools was found to be less than the current amortized cost of the security, a credit-related OTTI loss would be recorded in earnings equal to the difference between the two amounts.

Impairments of CRA-eligible mortgage-backed securities are influenced by a number of factors, including but not limited to, U.S. economic and housing market performance, pool credit enhancement level, year of origination and estimated credit quality of the collateral. The factors used in estimating losses related to CRA-eligible mortgage-backed securities vary by vintage of loan origination and collateral quality.

There were \$0.2 million and \$0.1 million of OTTI losses recognized during the three-month periods ended March 31, 2018 and 2017, respectively, related to CRA-eligible mortgage-backed securities.

Credit Losses on Debt Securities. The table below provides the cumulative credit-related losses recognized in earnings on debt securities other-than-temporarily impaired.

Table 42: Cumulative Credit-Related Losses on Debt Securities

	Thre	e
	Mon	ths
	Ende	ed
	Marc	ch 31,
(In Millions)	2018	3 2017
Cumulative Credit-Related Losses on Debt Securities Held - Beginning of Period	1\$3.6	\$3.4
Plus: Losses on Newly Identified Impairments	0.2	
Additional Losses on Previously Identified Impairments		0.1
Less: Current and Prior Period Losses on Debt Securities Sold During the Period	—	
Cumulative Credit-Related Losses on Debt Securities Held — End of Period	\$3.8	\$3.5
Note 5 – Securities Sold Under Agreements to Repurchase		

Securities sold under agreements to repurchase are accounted for as collateralized financings and recorded at the amounts at which the securities were sold plus accrued interest. To minimize any potential credit risk associated with these transactions, the fair value of the securities sold is monitored, limits are set on exposure with counterparties, and the financial condition of counterparties is regularly assessed. Securities sold under agreements to repurchase are held

by the counterparty until the repurchase.

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Notes to Consolidated Financial Statements (unaudited) (continued)

The following table provides information regarding repurchase agreements that are accounted for as secured borrowings as of March 31, 2018.

Table 43: Repurchase Agreements Accounted for as Secured Borrowings

Tuble 45. Reputchase Agreements Accounted for as Secure	a Donowing.	5	
			March 31, 2018
		Remaining Contractual	
(In Millions)			Maturity of the
			Agreements
Repurchase Agreements			Overnight and
			Continuous
U.S. Treasury and Agency Securities			\$ 810.0
Total Borrowings			\$ 810.0
Gross Amount of Recognized Liabilities for Repurchase Ag	reements in l	Note 22	\$ 810.0
Amounts related to agreements not included in Note 22			\$ —
Note 6 – Loans and Leases			
Amounts outstanding for loans and leases, by segment and c	class, are sho	wn below	ν.
Table 44: Loans and Leases			
(In Millions)	March 31,		ber 31,
	2018	2017	
Commercial	* • • • • 7	* • • • • •	•
Commercial and Institutional	\$8,882.7	\$ 9,042	.2
Commercial Real Estate	3,423.3	3,482.7	
Non-U.S.	1,716.7	1,538.5	
Lease Financing, net	196.2	229.2	
Other	396.3	265.4	
Total Commercial	14,615.2	14,558.	0
Personal			
Private Client	10,371.8	10,753.	
Residential Real Estate	7,083.6	7,247.6	
Other	38.3	33.5	
Total Personal	17,493.7		
Total Loans and Leases	\$32,108.9	-	2.2
Allowance for Credit Losses Assigned to Loans and Leases)
Net Loans and Leases	\$31,983.5	\$ 32,46	1.0

Residential real estate loans consist of traditional first lien mortgages and equity credit lines that generally require a loan-to-collateral value of no more than 65% to 80% at inception. Northern Trust's equity credit line products generally have draw periods of up to 10 years and a balloon payment of any outstanding balance is due at maturity. Payments are interest only with variable interest rates. Northern Trust does not offer equity credit lines that include an option to convert the outstanding balance to an amortizing payment loan. As of March 31, 2018 and December 31, 2017, equity credit lines totaled \$821.5 million and \$908.6 million, respectively, and equity credit lines for which first liens were held by Northern Trust represented 93% of the total equity credit lines as of both March 31, 2018 and December 31, 2017.

Included within the non-U.S., commercial-other and personal-other classes are short-duration advances primarily related to the processing of custodied client investments that totaled \$1.2 billion at March 31, 2018, and \$906.4 million at December 31, 2017. Demand deposit overdrafts reclassified as loan balances totaled \$152.5 million and \$127.6 million at March 31, 2018 and December 31, 2017, respectively. Loans classified as held for sale totaled \$0.8 million and \$20.9 million as of March 31, 2018 and December 31, 2017, respectively. Leases classified as held for sale totaled \$48.3 million as of March 31, 2018 and \$33.1 million as of December 31, 2017, respectively, related to the decision to exit a non-strategic loan and lease portfolio.

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Credit Quality Indicators. Credit quality indicators are statistics, measurements or other metrics that provide information regarding the relative credit risk of loans and leases. Northern Trust utilizes a variety of credit quality indicators to assess the credit risk of loans and leases at the segment, class and individual credit exposure levels. As part of its credit process, Northern Trust utilizes an internal borrower risk rating system to support identification, approval and monitoring of credit risk. Borrower risk ratings are used in credit underwriting, management reporting and the calculation of credit loss allowances and economic capital.

Risk ratings are used for ranking the credit risk of borrowers and the probability of their default. Each borrower is rated using one of a number of ratings models or other subjective assessment methodologies, which consider both quantitative and qualitative factors. The ratings models vary among classes of loans and leases in order to capture the unique risk characteristics inherent within each particular type of credit exposure. Provided below are the more significant performance indicator attributes considered within Northern Trust's borrower rating models, by loan and lease class.

Commercial and Institutional: leverage, profit margin, liquidity, asset size and capital levels;

Commercial Real Estate: debt service coverage, loan-to-value ratio, leasing status and guarantor support;

Lease Financing and Commercial-Other: leverage, profit margin, liquidity, asset size and capital levels;

Non-U.S.: leverage, profit margin, liquidity, return on assets and capital levels;

Residential Real Estate: payment history, credit bureau scores and loan-to-value ratio;

Private Client: cash-flow-to-debt and net worth ratios, leverage and liquidity; and

Personal-Other: cash-flow-to-debt and net worth ratios.

While the criteria vary by model, the objective is for the borrower ratings to be consistent in both the measurement and ranking of risk. Each model is calibrated to a master rating scale to support this consistency. Ratings for borrowers not in default range from "1" for the strongest credits to "7" for the weakest non-defaulted credits. Ratings of "8" or "9" are used for defaulted borrowers. Borrower risk ratings are monitored and are revised when events or circumstances indicate a change is required. Risk ratings are validated at least annually.

Loan and lease segment and class balances as of March 31, 2018 and December 31, 2017 are provided below, segregated by borrower ratings into "1 to 3," "4 to 5" and "6 to 9" (watch list), categories. Table 45: Borrower Ratings

	March 31,			December	31, 2017			
(In Millions)	1 to 3 Category	4 to 5 Category	6 to 9 Category (Watch List	Total t)	1 to 3 Category	4 to 5 Category	6 to 9 Category (Watch List	Total
Commercial								
Commercial and Institutional	\$5,742.2	\$3,094.4	\$ 46.1	\$8,882.7	\$5,832.9	\$3,133.4	\$ 75.9	\$9,042.2
Commercial Real Estate	1,172.6	2,237.6	13.1	3,423.3	1,280.7	2,187.5	14.5	3,482.7
Non-U.S.	760.3	953.4	3.0	1,716.7	606.6	930.5	1.4	1,538.5
Lease Financing, net	158.2	38.0		196.2	191.4	37.8		229.2
Other	178.6	217.7		396.3	155.5	109.9		265.4
Total Commercial	8,011.9	6,541.1	62.2	14,615.2	8,067.1	6,399.1	91.8	14,558.0
Personal								
Private Client	6,137.2	4,224.6	10.0	10,371.8	6,716.0	4,027.8	9.3	10,753.1
Residential Real Estate	2,909.2	3,874.4	300.0	7,083.6	2,960.5	3,978.8	308.3	7,247.6
Other	17.3	21.0		38.3	19.6	13.9		33.5
Total Personal	9,063.7	8,120.0	310.0	17,493.7	9,696.1	8,020.5	317.6	18,034.2
Total Loans and Leases	\$17,075.6	\$14,661.1	\$ 372.2	\$32,108.9	\$17,763.2	\$14,419.6	\$ 409.4	\$32,592.2

Loans and leases in the "1 to 3" category are expected to exhibit minimal to modest probabilities of default and are characterized by borrowers having the strongest financial qualities, including above average financial flexibility, cash flows and capital levels.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Borrowers assigned these ratings are anticipated to experience very little to moderate financial pressure in adverse down cycle scenarios. As a result of these characteristics, borrowers within this category exhibit a minimal to modest likelihood of loss.

Loans and leases in the "4 to 5" category are expected to exhibit moderate to acceptable probabilities of default and are characterized by borrowers with less financial flexibility than those in the "1 to 3" category. Cash flows and capital levels are generally sufficient to allow for borrowers to meet current requirements, but have reduced cushion in adverse down cycle scenarios. As a result of these characteristics, borrowers within this category exhibit a moderate likelihood of loss.

Loans and leases in the watch list category have elevated credit risk profiles that are monitored through internal watch lists, and consist of credits with borrower ratings of "6 to 9." These credits, which include all nonperforming credits, are expected to exhibit minimally acceptable probabilities of default, elevated risk of default, or are currently in default. Borrowers associated with these risk profiles that are not currently in default have limited financial flexibility. Cash flows and capital levels range from acceptable to potentially insufficient to meet current requirements, particularly in adverse down cycle scenarios. As a result of these characteristics, borrowers in this category exhibit an elevated likelihood of loss.

Recognition of Income. Interest income on loans is recorded on an accrual basis unless, in the opinion of management, there is a question as to the ability of the debtor to meet the terms of the loan agreement, or interest or principal is more than 90 days contractually past due and the loan is not well-secured and in the process of collection. Loans meeting such criteria are classified as nonperforming and interest income is recorded on a cash basis. At the time a loan is determined to be nonperforming, interest accrued but not collected is reversed against interest income in the current period. Interest collected on nonperforming loans is applied to principal unless, in the opinion of management, collectability of principal is not in doubt. Management's assessment of the indicators of loan and lease collectability, and its policies relative to the recognition of interest income, including the suspension and subsequent resumption of income recognition, do not meaningfully vary between loan and lease classes. Nonperforming loans are returned to performing status when factors indicating doubtful collectability no longer exist. Factors considered in returning a loan to performing status are consistent across all classes of loans and leases and, in accordance with regulatory guidance, relate primarily to expected payment performance. Loans are eligible to be returned to performing status when: (i) no principal or interest that is due is unpaid and repayment of the remaining contractual principal and interest is expected or (ii) the loan has otherwise become well-secured (possessing realizable value sufficient to discharge the debt, including accrued interest, in full) and is in the process of collection (through action reasonably expected to result in debt repayment or restoration to a current status in the near future). A loan that has not been brought fully current may be restored to performing status provided there has been a sustained period of repayment performance (generally a minimum of six months) by the borrower in accordance with the contractual terms, and Northern Trust is reasonably assured of repayment within a reasonable period of time. Additionally, a loan that has been formally restructured so as to be reasonably assured of repayment and performance according to its modified terms may be returned to accrual status, provided there was a well-documented credit evaluation of the borrower's financial condition and prospects of repayment under the revised terms and there has been a sustained period of repayment performance (generally a minimum of six months) under the revised terms.

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Past due status is based on how long since the contractual due date a principal or interest payment has been past due. For disclosure purposes, loans that are 29 days past due or less are reported as current. The following tables provide balances and delinquency status of performing and nonperforming loans and leases by segment and class, as well as the total OREO and nonperforming asset balances, as of March 31, 2018 and December 31, 2017. Table 46: Delinquency Status

March 31, 2018

Water 51, 2010							
(In Millions)	Current	30-59 Days Past Due	60-89 Days Past Due	90 Days or More Past Due	Total Performing	Nonperforming	Total Loans and Leases
Commercial							
Commercial and Institutiona	1\$8,865.1	\$ 11.8	\$ 1.3	\$ 0.1	\$8,878.3	\$ 4.4	\$ 8,882.7
Commercial Real Estate	3,400.8	8.7	7.4	0.2	3,417.1	6.2	3,423.3
Non-U.S.	1,716.3	0.4		_	1,716.7		1,716.7
Lease Financing, net	196.2			_	196.2		196.2
Other	396.3				396.3		396.3
Total Commercial	14,574.7	20.9	8.7	0.3	14,604.6	10.6	14,615.2
Personal							
Private Client	10,313.4	48.9	4.2	5.3	10,371.8		10,371.8
Residential Real Estate	6,939.1	27.3	2.5	0.6	6,969.5	114.1	7,083.6
Other	38.3			_	38.3	_	38.3
Total Personal	17,290.8	76.2	6.7	5.9	17,379.6	114.1	17,493.7
Total Loans and Leases	\$31,865.5	\$ 97.1	\$ 15.4	\$ 6.2	\$31,984.2	\$ 124.7	\$ 32,108.9
	Other Real	l Estate Own	ed			\$ 4.2	
	Total Non	performing A	Assets			\$ 128.9	
December 31, 2017							
December 31, 2017 (In Millions)	Current	30-59 Days Past Due	60-89 Days Past Due	More Past	Total Performing	Nonperforming	Total Loans and Leases
(In Millions)	Current	•	•	-	Total	Nonperforming	
(In Millions) Commercial		Past Due	Past Due	More Past Due	Performing		and Leases
(In Millions) Commercial Commercial and Institutiona	1\$8,999.4	Past Due \$ 13.3	Past Due \$ 3.1	More Past Due \$ 0.4	Performing \$9,016.2	\$ 26.0	and Leases \$ 9,042.2
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate	1\$8,999.4 3,455.3	Past Due \$ 13.3 14.1	Past Due	More Past Due	Performing \$9,016.2 3,474.4	\$ 26.0 8.3	and Leases \$ 9,042.2 3,482.7
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S.	1\$8,999.4 3,455.3 1,538.3	Past Due \$ 13.3 14.1 0.2	Past Due \$ 3.1	More Past Due \$ 0.4	Performing \$9,016.2 3,474.4 1,538.5	\$ 26.0 8.3	and Leases \$ 9,042.2 3,482.7 1,538.5
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S. Lease Financing, net	1\$8,999.4 3,455.3 1,538.3 229.2	Past Due \$ 13.3 14.1 0.2 —	Past Due \$ 3.1	More Past Due \$ 0.4	\$9,016.2 3,474.4 1,538.5 229.2	\$ 26.0 8.3 —	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S. Lease Financing, net Other	1\$8,999.4 3,455.3 1,538.3 229.2 265.4	Past Due \$ 13.3 14.1 0.2 	Past Due \$ 3.1 4.1 	More Past Due \$ 0.4 0.9 	\$9,016.2 3,474.4 1,538.5 229.2 265.4	\$ 26.0 8.3 	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial	1\$8,999.4 3,455.3 1,538.3 229.2	Past Due \$ 13.3 14.1 0.2 —	Past Due \$ 3.1	More Past Due \$ 0.4	\$9,016.2 3,474.4 1,538.5 229.2	\$ 26.0 8.3 —	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6	Past Due \$ 13.3 14.1 0.2 27.6	Past Due \$ 3.1 4.1 7.2	More Past Due \$ 0.4 0.9 	10tal Performing \$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7	\$ 26.0 8.3 	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0
(In Millions) Commercial Commercial and Institutional Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal Private Client	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6 10,687.5	Past Due \$ 13.3 14.1 0.2 27.6 55.3	Past Due \$ 3.1 4.1 7.2 9.7	More Past Due \$ 0.4 0.9 	\$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7 10,753.1	\$ 26.0 8.3 34.3 	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0 10,753.1
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal Private Client Residential Real Estate	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6 10,687.5 7,059.4	Past Due \$ 13.3 14.1 0.2 27.6 55.3 53.8	Past Due \$ 3.1 4.1 7.2 9.7 11.9	More Past Due \$ 0.4 0.9 1.3 0.6 6.1	Performing \$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7 10,753.1 7,131.2	\$ 26.0 8.3 	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0 10,753.1 7,247.6
(In Millions) Commercial Commercial and Institutional Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal Private Client Residential Real Estate Other	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6 10,687.5 7,059.4 33.5	Past Due \$ 13.3 14.1 0.2 27.6 55.3 53.8 	Past Due \$ 3.1 4.1 7.2 9.7 11.9 	More Past Due \$ 0.4 0.9 	Performing \$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7 10,753.1 7,131.2 33.5	\$ 26.0 8.3 -	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0 10,753.1 7,247.6 33.5
(In Millions) Commercial Commercial and Institutional Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal Private Client Residential Real Estate Other Total Personal	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6 10,687.5 7,059.4 33.5 17,780.4	Past Due \$ 13.3 14.1 0.2 27.6 55.3 53.8 109.1	Past Due \$ 3.1 4.1 7.2 9.7 11.9 21.6	More Past Due \$ 0.4 0.9 1.3 0.6 6.1 6.7	\$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7 10,753.1 7,131.2 33.5 17,917.8	\$ 26.0 8.3 -	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0 10,753.1 7,247.6 33.5 18,034.2
(In Millions) Commercial Commercial and Institutiona Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal Private Client Residential Real Estate Other	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6 10,687.5 7,059.4 33.5 17,780.4 \$32,268.0	Past Due \$ 13.3 14.1 0.2 27.6 55.3 53.8 109.1 \$ 136.7	Past Due \$ 3.1 4.1 7.2 9.7 11.9 21.6 \$ 28.8	More Past Due \$ 0.4 0.9 	Performing \$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7 10,753.1 7,131.2 33.5	\$ 26.0 8.3 	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0 10,753.1 7,247.6 33.5
(In Millions) Commercial Commercial and Institutional Commercial Real Estate Non-U.S. Lease Financing, net Other Total Commercial Personal Private Client Residential Real Estate Other Total Personal	1\$8,999.4 3,455.3 1,538.3 229.2 265.4 14,487.6 10,687.5 7,059.4 33.5 17,780.4 \$32,268.0 Other Rea	Past Due \$ 13.3 14.1 0.2 27.6 55.3 53.8 109.1	Past Due \$ 3.1 4.1 7.2 9.7 11.9 21.6 \$ 28.8 ed	More Past Due \$ 0.4 0.9 1.3 0.6 6.1 6.7	\$9,016.2 3,474.4 1,538.5 229.2 265.4 14,523.7 10,753.1 7,131.2 33.5 17,917.8	\$ 26.0 8.3 -	and Leases \$ 9,042.2 3,482.7 1,538.5 229.2 265.4 14,558.0 10,753.1 7,247.6 33.5 18,034.2

Impaired Loans. A loan is considered to be impaired when, based on current information and events, management determines that it is probable that Northern Trust will be unable to collect all amounts due according to the contractual terms of the loan agreement. Impaired loans are identified through ongoing credit management and risk rating processes, including the formal review of past due and watch list credits. Payment performance and delinquency status are critical factors in identifying impairment for all loans and leases, particularly those within the residential real

estate, private client and personal-other classes. Other key factors considered in identifying impairment of loans and leases within the commercial and institutional, lease financing, net, non-U.S., and commercial-other classes relate to the borrower's ability to perform under the terms of the obligation as measured through the

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Notes to Consolidated Financial Statements (unaudited) (continued)

assessment of future cash flows, including consideration of collateral value, market value, and other factors. A loan is also considered to be impaired if its terms have been modified as a concession by Northern Trust or a bankruptcy court resulting from the debtor's financial difficulties, referred to as a troubled debt restructuring (TDR). All TDRs are reported as impaired loans in the calendar year of their restructuring. In subsequent years, a TDR may cease being reported as impaired if the loan was modified at a market rate and has performed according to the modified terms for at least six payment periods. A loan that has been modified at a below market rate will return to performing status if it satisfies the six payment periods performance requirement; however, it will remain reported as impaired. Impairment is measured based upon the present value of expected future cash flows, discounted at the loan's original effective interest rate, the fair value of the collateral if the loan, based on the certainty of loss, either a specific allowance is established, or a charge-off is recorded, for the difference. Smaller balance (individually less than \$1 million) homogeneous loans are collectively evaluated for impairment and excluded from impaired loan disclosures as allowed under applicable accounting standards. Northern Trust's accounting policies for material impaired loans is consistent across all classes of loans and leases.

Notes to Consolidated Financial Statements (unaudited) (continued)

The following tables provide information related to impaired loans by segment and class. Table 47: Impaired Loans as of the Period End

	As of N	/larch 31, 2	2018	As of December 31, 2017			
(In Millions)	Record Investn	Unpaid ed Principal nent Balance	Specific Allowance	Record Investn	Unpaid ed Principal nent Balance	Specific Allowance	
With No Related Specific Allowance							
Commercial and Institutional	\$3.8	\$ 4.8	\$ —	\$24.9	\$ 30.3	\$ —	
Commercial Real Estate	6.0	7.9		5.7	7.6		
Residential Real Estate	94.0	129.9	_	90.9	124.9		
Private Client	0.6	0.6		0.7	0.7		
With a Related Specific Allowance							
Commercial and Institutional	0.5	5.4	0.5	0.5	5.4	0.5	
Commercial Real Estate	1.5	1.5	0.4	2.8	2.8	0.6	
Residential Real Estate	12.8	13.4	4.1	14.3	14.9	4.3	
Total							
Commercial	11.8	19.6	0.9	33.9	46.1	1.1	
Personal	107.4	143.9	4.1	105.9	140.5	4.3	
Total	\$119.2	\$ 163.5	\$ 5.0	\$139.8	\$ 186.6	\$ 5.4	
	Three M	Months En	ded March	31,			
	2018		2017				
	Averag	eInterest	Average	Interest			
(In Millions)	Record	elhcome	Recorde	thcome			
	Investn	n Ratecogniz	ed Investm	Ratcogni	zed		
With No Related Specific Allowance		C C		C			
Commercial and Institutional	\$19.6	\$ —	\$7.8	\$ —			
Commercial Real Estate	6.7			0.1			
Lease Financing, net							
Private Client	0.5		0.2				
Residential Real Estate	105.4	0.5	122.1	0.5			
With a Related Specific Allowance							
Commercial and Institutional	0.5		5.7				
Commercial Real Estate	1.9		1.9				
Lease Financing, net							
Residential Real Estate	13.8		16.6				
Total							
Commercial	28.7	_	29.3	0.1			
Personal	119.7	0.5		0.5			
Total		\$ 0.5	\$168.2	\$ 0.6			
Note: Average recorded investment i					erage of th	no month and	

Note: Average recorded investment in impaired loans is calculated as the average of the month-end impaired loan balances for the period.

Interest income that would have been recorded for nonperforming loans in accordance with their original terms was \$2.2 million and \$2.3 million, respectively, for the three months ended March 31, 2018 and 2017.

There were \$1.7 million and \$9.4 million of aggregate undrawn loan commitments and standby letters of credit at March 31, 2018 and December 31, 2017, respectively, issued to borrowers whose loans were classified as nonperforming or impaired.

Troubled Debt Restructurings (TDRs). Included within impaired loans were \$68.3 million and \$72.5 million of nonperforming TDRs, and \$31.4 million and \$25.9 million of performing TDRs as of March 31, 2018 and

December 31, 2017, respectively. All TDRs are reported as impaired loans in the calendar year of their restructuring. In subsequent years, a TDR may cease being

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Notes to Consolidated Financial Statements (unaudited) (continued)

reported as impaired if the loan was modified at a market rate and has performed according to the modified terms for at least six months. A loan that has been modified at a below market rate will return to performing status if it satisfies the six-month performance requirement; however, it will remain reported as impaired.

The following tables provide, by segment and class, the number of loans and leases modified in TDRs during the three-month periods ended March 31, 2018 and 2017, and the recorded investments and unpaid principal balances as of March 31, 2018 and 2017.

Table 48: Modified Troubled Debt Restructurings

(\$ In Millions)	Three Months Ended							
(+)		rch 31, 2018						
	Nui	nber Recorded	Unpaid					
	01		Principal					
	Loa	Investment ins and Lease	eBalance					
Commercial								
Commercial and Institutional	1	\$ 0.3	\$ 0.5					
Commercial Real Estate			—					
Total Commercial	1	0.3	0.5					
Personal								
Private Client	1		0.1					
Residential Real Estate	14	7.5	8.7					
Total Personal	15	7.5	8.8					
Total Loans and Leases	16	\$ 7.8	\$ 9.3					
Note: Period-end balances ret	flect	all paydown	s and charge-offs during the period.					
(\$ In Millions)	Thr	Three Months Ended						
(\$ III WIIIIOIIS)	Ma	March 31, 2017						
	Nur	nber Recorded	Unpaid					
	ot		Principal					
	Loa	Investment ins and Lease	eBalance					
Commercial								
Commercial and Institutional	—	\$ —	\$ —					
Commercial Real Estate	1	1.4	1.4					
Total Commercial	1	1.4	1.4					
Personal								
Private Client	1		0.1					
Residential Real Estate	19	3.9	3.9					
Total Personal	20	3.9	4.0					
Total Loans and Leases	21	\$ 5.3	\$ 5.4					

Note: Period-end balances reflect all paydowns and charge-offs during the period.

TDR modifications involve extensions of term, deferrals of principal, interest rate concessions, and other modifications. Other modifications typically reflect other nonstandard terms which Northern Trust would not offer in non-troubled situations.

During the three months ended March 31, 2018, the majority of TDR modifications of loans within residential real estate were extension of term and other modifications. During the three months ended March 31, 2018, there were no TDR modifications within commercial real estate. During the three months ended March 31, 2017, the TDR modifications of loans within residential real estate were extension of term, other modifications, interest rate concessions and deferrals of principal. During the three months ended March 31, 2017, the TDR modification within commercial real estate was categorized as an other modification.

There were two residential real estate loans modified in TDRs during the twelve months ended December 31, 2017, which subsequently became nonperforming during the three months ended March 31, 2018. The total recorded

investment for these loans was approximately \$0.3 million and the unpaid principal balance for these loans was approximately \$0.4 million.

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Notes to Consolidated Financial Statements (unaudited) (continued)

There were no loans modified in TDRs during the twelve months ended December 31, 2016, which subsequently became nonperforming during the three months ended March 31, 2017.

All loans and leases modified in TDRs are evaluated for impairment. The nature and extent of impairment of TDRs, including those that have experienced a subsequent default, is considered in the determination of an appropriate level of allowance for credit losses.

Northern Trust may obtain physical possession of residential real estate collateralizing a consumer mortgage loan via foreclosure on an in-substance repossession. As of March 31, 2018, Northern Trust held foreclosed residential real estate properties with a carrying value of \$3.9 million as a result of obtaining physical possession. In addition, as of March 31, 2018, Northern Trust had consumer loans with a carrying value of \$13.5 million collateralized by residential real estate property for which formal foreclosure proceedings were in process.

Note 7 – Allowance for Credit Losses

The allowance for credit losses, which represents management's estimate of probable losses related to specific borrower relationships and inherent in the various loan and lease portfolios, undrawn commitments, and standby letters of credit, is determined by management through a disciplined credit review process. Northern Trust's accounting policies related to the estimation of the allowance for credit losses and the charging off of loans, leases and other extensions of credit deemed uncollectible are consistent across both loan and lease segments.

Loans, leases and other extensions of credit deemed uncollectible are charged to the allowance for credit losses. Subsequent recoveries, if any, are credited to the allowance. Determinations as to whether an uncollectible loan is charged-off or a specific allowance is established are based on management's assessment as to the level of certainty regarding the amount of loss.

The following table provides information regarding changes in the total allowance for credit losses by segment during the three months ended March 31, 2018 and 2017.

 Table 49: Changes in the Allowance for Credit Losses

C C	Three Months Ended March 31,								
	2018		2017						
(In Millions)	Comme Reindonal	Total	Commerd?arsonal	Total					
Balance at Beginning of Period	\$80.8 \$73.0	\$153.8	\$104.9 \$87.1	\$192.0					
Charge-Offs	(0.8) (3.5)	(4.3)	(1.1)(3.6)	(4.7)					
Recoveries	0.6 0.7	1.3	1.6 1.1	2.7					
Net (Charge-Offs) Recoveries	(0.2) (2.8)	(3.0)	0.5 (2.5)	(2.0)					
Provision for Credit Losses	(3.5) 0.5	(3.0)	6.4 (7.4)	(1.0)					
Balance at End of Period	\$77.1 \$70.7	\$147.8	\$111.8 \$77.2	\$189.0					

Notes to Consolidated Financial Statements (unaudited) (continued)

The following table provides information regarding the recorded investments in loans and leases and the allowance for credit losses by segment as of March 31, 2018 and December 31, 2017.

 Table 50: Recorded Investments in Loans and Leases

	March	n 31, 2018		Decen	nber 31, 2	017
(In Millions)	Comn	n Precisio nal	Total	Comm	n Precisional	Total
Loans and Leases						
Specifically Evaluated for Impairment	\$11.8	\$ 107.4	\$119.2	\$33.9	\$ 105.9	\$ 139.8
Evaluated for Inherent Impairment	14,60	3.147,386.3	31,989.7	14,524	4.117,928.3	32,452.4
Total Loans and Leases	14,61	5.127,493.7	32,108.9	14,558	8.108,034.2	32,592.2
Allowance for Credit Losses on Credit Exposures						
Specifically Evaluated for Impairment	0.9	4.1	5.0	1.1	4.3	5.4
Evaluated for Inherent Impairment	58.7	61.7	120.4	62.4	63.4	125.8
Allowance Assigned to Loans and Leases	59.6	65.8	125.4	63.5	67.7	131.2
Allowance for Undrawn Exposures						
Commitments and Standby Letters of Credit	17.5	4.9	22.4	17.3	5.3	22.6
Total Allowance for Credit Losses	\$77.1	\$ 70.7	\$ 147.8	\$80.8	\$73.0	\$ 153.8
Note 8 – Pledged Assets						

Certain of Northern Trust's subsidiaries, as required or permitted by law, pledge assets to secure public and trust deposits, repurchase agreements and Federal Home Loan Bank borrowings, as well as for other purposes, including support for securities settlement, primarily related to client activities, for potential Federal Reserve Bank discount window borrowings, and for derivative contracts. As of March 31, 2018, securities and loans totaling \$40.8 billion (\$31.9 billion of government-sponsored agency and other securities, \$708.4 million of obligations of states and political subdivisions and \$8.2 billion of loans) were pledged. This compares to \$40.1 billion (\$30.8 billion of government-sponsored agency and other securities, \$684.3 million of obligations of states and political subdivisions and \$8.6 billion of loans) at December 31, 2017. Collateral required for these purposes totaled \$11.3 billion and \$8.9 billion at March 31, 2018 and December 31, 2017, respectively. Available for sale debt securities with a total fair value of \$785.0 million and \$833.4 million, as of March 31, 2018 and December 31, 2017, respectively. Available for sale debt securities sold transactions and derivative contracts. The secured parties to these transactions have the right to repledge or sell these securities. Northern Trust is not permitted, by contract or custom, to repledge or sell securities accepted as collateral under certain repurchase agreements. The total fair value of securities accepted as collateral was \$1.4 billion as of March 31, 2018 and \$1.2 billion as of March 31, 2017.

Northern Trust has the right to repledge or sell securities accepted as collateral under certain repurchase agreements. The fair value of these securities accepted as collateral was \$152.1 million as of March 31, 2018 and \$78.3 million as of December 31, 2017. There was no repledged or sold collateral at March 31, 2018 or December 31, 2017. Northern Trust has the right to repledge or sell securities accepted as collateral under derivative contracts. The total fair value of securities accepted as collateral was \$22.8 million as of March 31, 2018 and \$4.6 million as of December 31, 2017. There was no repledged or sold collateral at March 31, 2018 and \$4.6 million as of December 31, 2017. There was no repledged or sold collateral at March 31, 2018 and \$4.6 million as of December 31, 2017. There was no repledged or sold collateral at March 31, 2018 and \$4.0 million as of December 31, 2017. There was no repledged or sold collateral at March 31, 2018 and \$4.0 million as of December 31, 2017. There was no repledged or sold collateral at March 31, 2018 or December 31, 2017. Deposits maintained to meet Federal Reserve Bank reserve requirements averaged \$1.8 billion and \$2.0 billion for the three months ended March 31, 2018 and 2017, respectively.

Note 9 - Goodwill and Other Intangibles

The carrying amounts of goodwill and other intangibles assets, reflecting the effect of foreign exchange rates on non-U.S.-dollar-denominated balances, by reporting segment at March 31, 2018, and December 31, 2017, were as follows:

Notes to Consolidated Financial Statements (unaudited) (continued)

Table 51: Goodwill by Reporting S	Segment	
(In Millions)	March 31,	December 31,
	2018	2017
Corporate & Institutional Services	\$ 540.4	\$ 534.5
Wealth Management	71.2	71.1
Total Goodwill	\$ 611.6	\$ 605.6
The gross carrying amount and acc	cumulated a	mortization of a

The gross carrying amount and accumulated amortization of other intangible assets subject to amortization as of March 31, 2018 and December 31, 2017, were as follows:

Table 52: Other Intangible Assets

(In Millions)	March 31,	December 31,				
(In Millions)	2018	2017				
Gross Carrying Amount	\$ 222.2	\$ 222.7				
Less: Accumulated Amortization	61.9	61.3				
Net Book Value	\$ 160.3	\$ 161.4				

Other intangible assets consist primarily of the value of acquired client relationships and are included within other assets in the consolidated balance sheets. Amortization expense related to other intangible assets totaled \$4.5 million and \$2.4 million for the three months ended March 31, 2018 and 2017, respectively. Amortization for the remainder of 2018 and for the years 2019, 2020, 2021, and 2022 is estimated to be \$13.4 million, \$17.7 million, \$17.6 million, \$15.0 million, and \$10.4 million, respectively.

Note 10 - Reporting Segments

The following table shows the earnings contributions of Northern Trust's reporting segments for the three-month periods ended March 31, 2018 and 2017.

Table 53: Results of Reporting Segments

Three

Months Ended March	Corporate &		Wealth Managemer	nt	Treasury an Other	ıd	Total Consolidated		
31, (\$ In Millions) Noninterest	2018	2017	2018	2017	2018	2017	2018	2017	
Income Trust, Investment and Other Servicing Fees	\$544.3	\$462.9	\$393.4	\$345.3	\$—	\$—	\$937.7	\$808.2	
Foreign Exchange Trading Income	62.4	49.1	1.2	0.9	14.9	(1.9)	78.5	48.1	
Other Noninterest Income	46.6	44.2	25.7	25.5	3.5	4.9	75.8	74.6	
Net Interest Income*	229.4	166.5	198.8	177.0	(35.5)	18.9	392.7	362.4	
Revenue*	882.7	722.7	619.1	548.7	(17.1)	21.9	1,484.7	1,293.3	
Provision for Credit Losse	(39)	0.3	0.9	(1.3)	_	—	(3.0)	(1.0	

)

Noninterest Expense	585.6	510.8	365.7	346.3	44.0		37.4		995.3		894.5	
Income before Income Taxes*	301.0	211.6	252.5	203.7	(61.1)	(15.5)	492.4		399.8	
Provision for	r											
Income	66.8	66.9	62.4	76.8	(18.4)	(20.0)	110.8		123.7	
Taxes*												
Net Income	\$234.2	\$144.7	\$190.1	\$126.9	\$(42.7)	\$4.5		\$381.6		\$276.1	
Percentage o	of											
Consolidated	161 %	52 %	50 %	6 46 %) (11)%	2	%	100	%	100	%
Net Income												
Average Assets	\$83,637.0	\$77,803.5	\$26,108.0	\$26,661.8	\$14,748.3		\$12,011.1	-	\$124,493.3	i	\$116,476.4	1
* Non-GAAP financial measures stated on a fully taxable equivalent basis (FTE). Total consolidated includes FTE adjustments of \$8.7 million for 2018 and \$8.9 million for 2017.												

Further discussion of reporting segment results is provided within the "Reporting Segments" section of Management's Discussion and Analysis of Financial Condition and Results of Operations.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Note 11 - Stockholders' Equity

Preferred Stock. The Corporation is authorized to issue 10 million shares of preferred stock without par value. The Board of Directors is authorized to fix the particular designations, preferences and relative, participating, optional and other special rights and qualifications, limitations or restrictions for each series of preferred stock issued. As of March 31, 2018, the Corporation had issued and outstanding 500,000 depositary shares, each representing a 1/100th ownership interest in a share of Series D Non-Cumulative Perpetual Preferred Stock (the "Series D Preferred Stock") issued in August 2016. Equity related to Series D Preferred Stock as of March 31, 2018 and December 31, 2017 was \$493.5 million. Shares of the Series D Preferred Stock have no par value and a liquidation preference of \$100,000 (equivalent to \$1,000 per depositary share).

Dividends on the Series D Preferred Stock, which are not mandatory, accrue and are payable on the liquidation preference amount, on a non-cumulative basis, at a rate per annum equal to (i) 4.60% from the original issue date of the Series D Preferred Stock to but excluding October 1, 2026; and (ii) a floating rate equal to Three-Month LIBOR plus 3.202% from and including October 1, 2026. Fixed rate dividends are payable in arrears on the 1st day of April and October of each year, through and including October 1, 2026, and floating rate dividends will be payable in arrears on the 1st day of January, April, July and October of each year, commencing on January 1, 2027. On January 23, 2018, the Corporation declared a cash dividend of \$2,300 per share of Series D Preferred Stock payable on April 1, 2018, to stockholders of record as of March 15, 2018.

As of March 31, 2018, the Corporation also had issued and outstanding 16 million depositary shares, each representing 1/1000th ownership interest in a share of Series C Non-Cumulative Perpetual Preferred Stock ("Series C Preferred Stock"), issued in August 2014. Equity related to Series C Preferred Stock as of March 31, 2018 and December 31, 2017 was \$388.5 million. Series C Preferred Stock has no par value and has a liquidation preference of \$25,000 (equivalent to \$25 per depositary share).

Dividends on the Series C Preferred Stock, which are not mandatory, accrue and are payable on the liquidation preference amount, on a non-cumulative basis, quarterly in arrears on the first day of January, April, July and October of each year, at a rate per annum equal to 5.85%. On January 23, 2018, the Corporation declared a cash dividend of \$365.625 per share of Series C Preferred Stock payable on April 1, 2018, to stockholders of record as of March 15, 2018.

Common Stock. During the three months ended March 31, 2018, the Corporation repurchased 2,518,409 shares of common stock, including 379,123 shares withheld related to share-based compensation, at a total cost of \$263.2 million (\$104.51 average price per share). The Corporation's current common stock repurchase authorization to repurchase up to 9.5 million shares was approved by the Board of Directors in July 2017. Shares repurchased by the Corporation are used for general purposes, including management of the Corporation's capital level and the issuance of shares under stock option and other incentive plans of the Corporation. The repurchase authorization approved by the Board of Directors has no expiration date.

Under the Corporation's 2017 Capital Plan, which was reviewed without objection by the Federal Reserve, the Corporation may repurchase up to \$191.4 million of common stock after March 31, 2018 through June 2018.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Note 12 – Accumulated Other Comprehensive Income (Loss)

The following tables summarize the components of accumulated other comprehensive income (loss) (AOCI) at

March 31, 2018 and 2017, and changes during the three-month periods then ended.

Table 54: Summary of Changes in Accumulated Other Comprehensive Income (Loss)

Table 34. Summary of Changes in Accumulated Other Complementive medine (Loss)							
(In Millions)	Balance March 3 2018				s from	ⁿ Balance a Decembe 2017	
Net Unrealized Gains (Losses) on Debt Securities Available for Sale*	\$(147.6) \$ (55	.0)	\$ (17	.8)	\$ (74.8)
Net Unrealized Gains (Losses) on Cash Flow Hedges	1.7	(3.7)	0.9		4.5	
Net Foreign Currency Adjustments	32.6	(13.1)	47.5		(1.8)
Net Pension and Other Postretirement Benefit Adjustments	(392.4) 5.7		(55.9)	(342.2)
Total	\$ (505.7) \$ (66	.1)	\$ (25	.3)	\$ (414.3)
	Ba	lance at			Balance	at	
(In Millions)	Ma	arch 31,	Net C	Change	Decemb	er 31,	
	20			U	2016	,	
Net Unrealized Gains (Losses) on Debt Securities Available for	Sale \$(13.1)	\$ 19	.3	\$ (32.4)	
Net Unrealized Gains (Losses) on Cash Flow Hedges	0.8	3	(5.3)	6.1	,	
Net Foreign Currency Adjustments	(10	5.5)	2.0	-	(18.5)	
Net Pension and Other Postretirement Benefit Adjustments	(32	23.2)	2.0		(325.2)	
Total	\$ (352.0)	\$ 18	.0	\$ (370.	0)	
* Includes net unrealized gains on debt securities transferred fro	m availab	le for sa	le to h	eld to r	naturity	during the	year
ended December 31, 2017.					2	U	-

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Notes to Consolidated Financial Statements (unaudited) (continued)

 Table 55: Details of Changes in Accumulated Other Comprehensive Income (Loss)
 Income (Loss)

	Three Months Ended March 31,									
	2018					2017				
(In Millions)	Before '	Fax ax Eff	ect	t After T	ax	Before	Tax Eff	ect	After T	ax
Unrealized Gains (Losses) on Debt Securities Available for	r									
Sale										
Unrealized Gains (Losses) on Debt Securities Available fo	$r_{(75.4)}$	\$ 20.4		\$ (55.0)	\$30.9	\$ (11.7)	\$ 19 2	
Sale		ψ 20.4		Φ(55.0)	ψ50.7	ψ(11.7)	ψ 17.2	
Reclassification Adjustment for (Gains) Losses Included in	1					0.2	(0.1)	0.1	
Net Income										
Net Change	\$(75.4)	\$ 20.4		\$ (55.0)	\$31.1	\$ (11.8)	\$ 19.3	
Unrealized Gains (Losses) on Cash Flow Hedges										
Unrealized Gains (Losses) on Cash Flow Hedges	\$11.6	\$ (2.8)	\$8.8		\$8.7	\$ (10.8)	\$ (2.1)
Reclassification Adjustment for (Gains) Losses Included in	¹ (16.6)	41		(12.5)	(5.1)	19		(3.2)
Net Income					,					,
Net Change	\$(5.0)	\$ 1.3		\$ (3.7)	\$3.6	\$ (8.9)	\$ (5.3)
Foreign Currency Adjustments										
Foreign Currency Translation Adjustments	\$44.6	\$ (2.8)	\$41.8		\$22.4	\$ (1.5)	\$ 20.9	
Long-Term Intra-Entity Foreign Currency Transaction	1.2	(0.3)	0.9						
Gains (Losses)										
Net Investment Hedge Gains (Losses)	(74.3)			(55.8		(30.5)			(18.9)
Net Change	\$(28.5)	\$ 15.4		\$ (13.1)	\$(8.1)	\$ 10.1		\$ 2.0	
Pension and Other Postretirement Benefit Adjustments	* 1 0 1		,	• - ·		¢ (2, 2, 1)	.		¢ (2.2	
Net Actuarial Gain (Loss)	\$10.1	\$ (2.5)	\$ 7.6		\$(2.3)	\$—		\$ (2.3)
Reclassification Adjustment for (Gains) Losses Included in	¹ 9.1	(11.0)	(1.9)	6.4	(2.1)	4.3	
Net Income			ŕ							
Net Change	\$19.2	\$ (13.5)	\$ 5.7		\$4.1	\$ (2.1)	\$ 2.0	

The following table provides the location and before-tax amounts of reclassifications out of AOCI during the three months ended March 31, 2018.

Table 56: Reclassification Adjustment out of Accumulated Other Comprehensive Income

(In Millions)	ns) Location of Reclassification Adjustments Recognized in Income		Amount of Reclassification Adjustments Recognized in Income Three Months Ended March 31, 2018		
Debt Securities Available for Sale					
Realized (Gains) Losses on Debt Securities Available for Sale	Investment Security Gains (Losses), net	\$ —			
Realized Gains on Cash Flow Hedges					
Foreign Exchange Contracts	Other Operating Income/Expense	(16.6)		
Pension and Other Postretirement Benefit Adjustments					
Amortization of Net Actuarial Loss	Employee Benefits	9.2			
Amortization of Prior Service Cost	Employee Benefits	(0.1)		
Gross Reclassification Adjustment		\$ 9.1			

Notes to Consolidated Financial Statements (unaudited) (continued)

Note 13 – Net Income Per Common Share Computations

The computations of net income per common share are presented in the following table. Table 57: Net Income per Common Share

	Three Months	
	Ended 1	March 31,
(\$ In Millions Except Per Common Share Information)	2018	2017
Basic Net Income Per Common Share		
Average Number of Common Shares Outstanding	225,68	1212697,059,540
Net Income	\$381.6	\$ 276.1
Less: Dividends on Preferred Stock	17.3	20.7
Net Income Applicable to Common Stock	\$364.3	\$ 255.4
Less: Earnings Allocated to Participating Securities	5.2	4.5
Earnings Allocated to Common Shares Outstanding	\$359.1	\$ 250.9
Basic Net Income Per Common Share	\$1.59	\$ 1.10
Diluted Net Income Per Common Share		
Average Number of Common Shares Outstanding	225,68	12237,059,540
Plus: Dilutive Effect of Share-based Compensation	1,366,3	52,571,336
Average Common and Potential Common Shares	227,047	7 23109 630,876
Earnings Allocated to Common and Potential Common Shares	\$359.2	\$ 250.9
Diluted Net Income Per Common Share	\$1.58	\$ 1.09

Note: For the three months ended March 31, 2018, there were no common stock equivalents excluded in the computation of diluted net income per share. Common stock equivalents of 468,381 for the three months ended March 31, 2017 were not included in the computation of diluted net income per common share because their inclusion would have been antidilutive.

Note 14 - Revenue from Contracts with Clients

Trust, Investment, and Other Servicing Fees. Custody and fund administration income is comprised of revenues received from our core asset servicing business for providing custody, fund administration, and middle-office-related services, primarily to C&IS clients. Investment management and advisory income contains revenue received from providing asset management and related services to Wealth Management and C&IS clients and to Northern Trust sponsored funds. Securities lending income represents revenues generated from securities lending arrangements that Northern Trust enters into as agent, mainly with C&IS clients. Other income largely consists of revenues received from providing employee benefit, investment risk and analytic and other services to C&IS and Wealth Management clients.

Other Noninterest Income. Treasury management income represents revenues received from providing cash and liquidity management services to C&IS and Wealth Management clients. The portion of securities commissions and trading income that relates to revenue from contracts with clients is primarily comprised of commissions earned from providing securities brokerage services to Wealth Management and C&IS clients. The portion of other operating income that relates to revenue from contracts with clients is mainly comprised of service fees for banking-related services provided to Wealth Management and C&IS clients.

Performance Obligations. Clients are typically charged monthly or quarterly in arrears based on the fee arrangement agreed to with each client; payment terms will vary depending on the client and services offered.

Substantially all revenues generated from contracts with clients for asset servicing, asset management, securities lending, treasury management and banking-related services are recognized on an accrual basis, over the period in which services are provided. The nature of Northern Trust's performance obligations is to provide a series of distinct services in which the customer simultaneously receives and consumes the benefits of the promised services as they are performed. Fee arrangements are mainly comprised of variable amounts based on market value of client assets managed and serviced, transaction volumes, number of accounts, and securities lending volume and spreads. Revenue is recognized using the output method in an amount that reflects the consideration to which Northern Trust expects to

be entitled in exchange for providing each month or quarter of service. For contracts with multiple performance obligations, revenue is allocated to each performance obligation based on the price agreed to with the client, representing its relative standalone selling price.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Security brokerage revenue is primarily represented by securities commissions received in exchange of providing trade execution related services. Control is transferred at a point in time, on the trade date of the transaction, and fees are typically variable based on transaction volumes and security types.

Northern Trust's contracts with its clients are typically open ended arrangements. Northern Trust has elected to apply the practical expedient for disclosure requirements allowed in ASU 2014-09 for performance obligations that are included in contracts with an original duration of less than one year.

The following table presents revenues disaggregated by major revenue source.

Table 58: Revenue Disaggregation

	Three
	Months
(In Millions)	Ended
	March
	31, 2018
Noninterest Income	
Trust, Investment and Other Servicing Fees	
Custody and Fund Administration	\$395.9
Investment Management and Advisory	465.6
Securities Lending	26.2
Other	50.0
Total Trust, Investment and Other Servicing Fees	\$937.7
Other Noninterest Income	
Foreign Exchange Income	78.5
Treasury Management	14.0
Securities Commissions and Trading Income	27.2
Other Operating Income	34.8
Investment Security Losses, net	(0.2)
Total Other Noninterest Income	\$154.3
Total Noninterest Income	\$1,092.0

Trust, investment and other servicing fees and treasury management fees represent revenue from contracts with clients. Revenue from contracts with clients also includes \$24.0 million of the \$27.2 million total securities commissions and trading income and \$11.3 million of the \$34.8 million total other operating income for the three months ended March 31, 2018.

Receivables Balances. The table below represents receivables balances from contracts with clients, which are included in other assets in the consolidated balance sheets, at March 31, 2018 and December 31, 2017. Table 59: Client Receivables

(In Millions)	March 31,	December 31				
(In Millions)	2018	2017				
Trust Fees Receivable, net ⁽¹⁾	\$ 700.1	\$ 629.7				
Other	71.3	79.0				
Total Client Receivables	\$ 771.4	\$ 708.7				
	1 1	D 1 01				

⁽¹⁾ The net trust fees receivable balance at December 31, 2017 does not reflect the reduction for the estate settlement revenue transition adjustment of \$2.7 million, which was recorded with an effective date of January 1, 2018.

Notes to Consolidated Financial Statements (unaudited) (continued)

Note 15 - Net Interest Income

The components of net interest income were as follows:

Table 60: Net Interest Income

	Three M Ended 1 31,	
(In Millions)	2018	2017
Interest Income		
Loans and Leases	\$252.0	\$213.4
Securities — Taxable	177.8	143.2
— Non-Taxable	2.0	2.6
Interest-Bearing Due from and Deposits with Banks ⁽¹⁾	19.9	14.9
Federal Reserve and Other Central Bank Deposits	54.2	36.2
Total Interest Income	\$505.9	\$410.3
Interest Expense		
Deposits	\$63.1	\$27.6
Federal Funds Purchased	5.3	0.5
Securities Sold Under Agreements to Repurchase	2.7	0.9
Other Borrowings	26.5	7.6
Senior Notes	11.8	11.7
Long-Term Debt	11.0	7.4
Floating Rate Capital Debt	1.5	1.1
Total Interest Expense	\$121.9	\$56.8
Net Interest Income	\$384.0	\$353.5

(1) Interest-Bearing Due from and Deposits with Banks includes the interest-bearing component of Cash and Due from Banks and Interest-Bearing Deposits with Banks as presented on the consolidated balance sheets.

Note 16 – Income Taxes

Income tax expense for the three months ended March 31, 2018 was \$102.1 million, representing an effective tax rate of 21.1%. The provision for income taxes includes a \$22.6 million benefit resulting from a change in accounting method regarding the timing of tax deductions for software development-related expenses, partially offset by a \$15.8 million net provision recorded in the current period representing adjustments to the initial estimated impact of the TCJA.

The prior-year three-month provision for income taxes was \$114.8 million, representing an effective tax rate of 29.4%.

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Notes to Consolidated Financial Statements (unaudited) (continued)

Note 17 – Pension and Postretirement Health Care

The following tables set forth the net periodic pension and postretirement benefit expense for Northern Trust's U.S. and non-U.S. pension plans, supplemental pension plan, and postretirement health care plan for the three months ended March 31, 2018 and 2017.

Table 61: Net Periodic Pension Expense (Benefit)

Three		
Months		
Ended March		
31,		
2018 2017		
\$10.4 \$9.6		
11.1 11.5		
(22.0) (23.5)		
7.1 4.8		
(0.1)(0.1)		
\$6.5 \$		