

ROGERS BRIAN C
Form 4
November 25, 2005

FORM 4

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

OMB APPROVAL

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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person *
ROGERS BRIAN C

2. Issuer Name and Ticker or Trading Symbol
PRICE T ROWE GROUP INC
[TROW]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)
100 E. PRATT STREET

(Street)

3. Date of Earliest Transaction
(Month/Day/Year)
11/23/2005

Director 10% Owner
 Officer (give title below) Other (specify below)
Vice President

BALTIMORE, MD 21202

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 Form filed by More than One Reporting Person

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Ownership (Instr. 4)
				(A) or (D) Price			
Common Stock	11/23/2005		M	2,500 A \$ 39	902,815	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

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1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Title and Amount of Underlying Securities (Instr. 3 and 4)
Incentive Stock Option (right to buy)	\$ 39	11/23/2005		M	2,500	11/20/2001 11/20/2010	Common Stock	2,500

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
ROGERS BRIAN C 100 E. PRATT STREET BALTIMORE, MD 21202	X		Vice President	

Signatures

BRIAN C
ROGERS

11/25/2005

**Signature of Reporting Person

Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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est rate hedges
\$
(16
)
\$
32

\$
(26
)
\$

59

Foreign exchange hedges

(13

)

25

49

(50

)

Total hedge ineffectiveness recognized in earnings on designated and qualifying fair value hedges

\$

(29

)

\$

57

\$

23

\$

9

Net gain (loss) excluded from assessment of the effectiveness of fair value hedges

Interest rate contracts

\$

(8

)

\$

(3

)

\$

(7

)

\$

(5

)

Foreign exchange contracts⁽²⁾

28

32

80

53

Explanation of Responses:

Commodity hedges

—

—

1

5

Total net gain (loss) excluded from assessment of the effectiveness of fair value hedges

\$
20

\$
29

\$
74

\$
53

(1) Amounts are included in Other revenue on the Consolidated Statement of Income. The accrued interest income on fair value hedges is recorded in Net interest revenue and is excluded from this table.

Amounts relate to the premium associated with forward contracts (differential between spot and contractual forward rates). These amounts are excluded from the assessment of hedge effectiveness and are reflected directly in earnings.

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Cash Flow Hedges

The amount of hedge ineffectiveness on the cash flow hedges recognized in earnings for the three and six months ended June 30, 2017 and 2016 is not significant. The pretax change in AOCI from cash flow hedges is presented below:

In millions of dollars	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Effective portion of cash flow hedges included in AOCI				
Interest rate contracts	\$97	\$220	\$139	\$635
Foreign exchange contracts	—	(21)	—	3
Total effective portion of cash flow hedges included in AOCI	\$97	\$199	\$139	\$638
Effective portion of cash flow hedges reclassified from AOCI to earnings				
Interest rate contracts	\$(90)	\$(41)	\$(46)	\$(57)
Foreign exchange contracts	2	(17)	(1)	(43)
Total effective portion of cash flow hedges reclassified from AOCI to earnings ⁽¹⁾	\$(88)	\$(58)	\$(47)	\$(100)

(1) Included primarily in Other revenue and Net interest revenue on the Consolidated Income Statement.

For cash flow hedges, the changes in the fair value of the hedging derivative remain in AOCI on the Consolidated Balance Sheet and will be included in the earnings of future periods to offset the variability of the hedged cash flows when such cash flows affect earnings. The net gain (loss) associated with cash flow hedges expected to be reclassified from AOCI within 12 months of June 30, 2017 is approximately \$(199) million. The maximum length of time over which forecasted cash flows are hedged is 10 years.

The after-tax impact of cash flow hedges on AOCI is shown in Note 17 to the Consolidated Financial Statements.

Net Investment Hedges

The pretax gain (loss) recorded in the Foreign currency translation adjustment account within AOCI, related to the effective portion of the net investment hedges, is \$(32) million and \$(1,748) million for the three and six months ended June 30, 2017 and \$(47) million and \$(1,420) million for the three and six months ended June 30, 2016, respectively.

The following tables summarize the key characteristics of Citi's credit derivatives portfolio by counterparty and derivative form:

In millions of dollars at June 30, 2017	Fair values		Notionals	
	Receivable ⁽¹⁾	Payable ⁽²⁾	Protection purchased	Protection sold
By industry/counterparty				
Banks	\$ 10,015	\$ 9,077	\$ 336,802	\$ 352,533
Broker-dealers	3,030	3,252	91,096	100,526
Non-financial	68	78	3,798	1,561
Insurance and other financial institutions	10,868	13,039	439,354	390,472
Total by industry/counterparty	\$ 23,981	\$ 25,446	\$ 871,050	\$ 845,092
By instrument				
Credit default swaps and options	\$ 23,582	\$ 23,970	\$ 844,661	\$ 835,627
Total return swaps and other	399	1,476	26,389	9,465
Total by instrument	\$ 23,981	\$ 25,446	\$ 871,050	\$ 845,092
By rating				
Investment grade	\$ 10,740	\$ 10,839	\$ 654,355	\$ 642,096
Non-investment grade	13,241	14,607	216,695	202,996
Total by rating	\$ 23,981	\$ 25,446	\$ 871,050	\$ 845,092
By maturity				
Within 1 year	\$ 3,234	\$ 4,172	\$ 282,692	\$ 281,166
From 1 to 5 years	18,284	18,452	539,944	522,198
After 5 years	2,463	2,822	48,414	41,728
Total by maturity	\$ 23,981	\$ 25,446	\$ 871,050	\$ 845,092

(1) The fair value amount receivable is composed of \$5,882 million under protection purchased and \$18,099 million under protection sold.

(2) The fair value amount payable is composed of \$19,750 million under protection purchased and \$5,696 million under protection sold.

In millions of dollars at December 31, 2016	Fair values		Notionals	
	Receivable ⁽¹⁾	Payable ⁽²⁾	Protection purchased	Protection sold
By industry/counterparty				
Banks	\$ 11,895	\$ 10,930	\$ 407,992	\$ 414,720
Broker-dealers	3,536	3,952	115,013	119,810
Non-financial	82	99	4,014	2,061
Insurance and other financial institutions	9,308	10,844	375,454	322,829
Total by industry/counterparty	\$ 24,821	\$ 25,825	\$ 902,473	\$ 859,420
By instrument				
Credit default swaps and options	\$ 24,502	\$ 24,631	\$ 883,719	\$ 852,900
Total return swaps and other	319	1,194	18,754	6,520
Total by instrument	\$ 24,821	\$ 25,825	\$ 902,473	\$ 859,420
By rating				
Investment grade	\$ 9,605	\$ 9,995	\$ 675,138	\$ 648,247
Non-investment grade	15,216	15,830	227,335	211,173
Total by rating	\$ 24,821	\$ 25,825	\$ 902,473	\$ 859,420
By maturity				
Within 1 year	\$ 4,113	\$ 4,841	\$ 293,059	\$ 287,262

Explanation of Responses:

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From 1 to 5 years	17,735	17,986	551,155	523,371
After 5 years	2,973	2,998	58,259	48,787
Total by maturity	\$24,821	\$25,825	\$902,473	\$859,420

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- (1) The fair value amount receivable is composed of \$9,077 million under protection purchased and \$15,744 million under protection sold.
- (2) The fair value amount payable is composed of \$17,110 million under protection purchased and \$8,715 million under protection sold.

Credit-Risk-Related Contingent Features in Derivatives

Certain derivative instruments contain provisions that require the Company to either post additional collateral or immediately settle any outstanding liability balances upon the occurrence of a specified event related to the credit risk of the Company. These events, which are defined by the existing derivative contracts, are primarily downgrades in the credit ratings of the Company and its affiliates. The fair value (excluding CVA) of all derivative instruments with credit-risk-related contingent features that were in a net liability position at both June 30, 2017 and December 31, 2016 was \$32 billion and \$26 billion, respectively. The Company posted \$28 billion and \$26 billion as collateral for this exposure in the normal course of business as of June 30, 2017 and December 31, 2016, respectively.

A downgrade could trigger additional collateral or cash settlement requirements for the Company and certain affiliates. In the event that Citigroup and Citibank were downgraded a single notch by all three major rating agencies as of June 30, 2017, the Company could be required to post an additional \$0.7 billion as either collateral or settlement of the derivative transactions. Additionally, the Company could be required to segregate with third-party custodians collateral previously received from existing derivative counterparties in the amount of \$0.3 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately \$1.0 billion.

Derivatives Accompanied by Financial Asset Transfers

For transfers of financial assets accounted for as a sale by the Company, where the Company has retained substantially all of the economic exposure to the transferred asset through a total return swap executed in contemplation of the initial sale with the same counterparty and still outstanding as of June 30, 2017, both the asset carrying amounts derecognized and gross cash proceeds received as of the date of derecognition were \$2.1 billion. At June 30, 2017, the fair value of these previously derecognized assets was \$2.3 billion. The fair value of the total return swaps was \$14 million, recorded as gross derivative assets, and \$28 million, recorded as gross derivative liabilities. The balances for the total return swaps are on a gross basis, before the application of counterparty and cash collateral netting, and are included primarily as equity derivatives in the tabular disclosures in this Note.

20. FAIR VALUE MEASUREMENT

For additional information regarding fair value measurement at Citi, see Note 24 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Market Valuation Adjustments

The table below summarizes the credit valuation adjustments (CVA) and funding valuation adjustments (FVA) applied to the fair value of derivative instruments at June 30, 2017 and December 31, 2016:

In millions of dollars	Credit and funding valuation adjustments contra-liability (contra-asset)	
	June 30, 2017	December 31, 2016
Counterparty CVA	\$(1,128)	\$(1,488)
Asset FVA	(457)	(536)
Citigroup (own-credit) CVA	322	459
Liability FVA	68	62
Total CVA—derivative instruments	\$(1,195)	\$(1,503)

(1) FVA is included with CVA for presentation purposes.

The table below summarizes pretax gains (losses) related to changes in CVA on derivative instruments, net of hedges, FVA on derivatives and debt valuation adjustments (DVA) on Citi's own fair value option (FVO) liabilities for the periods indicated:

In millions of dollars	Credit/funding/debt valuation adjustments gain (loss)			
	Three Months Ended June 30, 2017	2016	Six Months Ended June 30, 2017	2016
Counterparty CVA	\$80	\$15	\$170	\$(93)
Asset FVA	(13)	(15)	79	(95)
Own-credit CVA	(53)	(10)	(125)	124
Liability FVA	16	18	6	48
Total CVA—derivative instruments	\$30	\$8	\$130	\$(16)
DVA related to own FVO liabilities ⁽¹⁾	\$(132)	\$20	\$(227)	\$327
Total CVA and DVA ⁽²⁾	\$(102)	\$28	\$(97)	\$311

(1) See Note 1 and Note 17 to the Consolidated Financial Statements.

(2) FVA is included with CVA for presentation purposes.

Items Measured at Fair Value on a Recurring Basis

The following tables present for each of the fair value hierarchy levels the Company's assets and liabilities that are measured at fair value on a recurring basis at June 30, 2017 and December 31, 2016. The Company may hedge positions that have been classified in the Level 3 category with other financial instruments (hedging instruments) that may be

classified as Level 3, but also with financial instruments classified as Level 1 or Level 2 of the fair value hierarchy. The effects of these hedges are presented gross in the following tables:

Fair Value Levels

In millions of dollars at June 30, 2017	Level 1 ⁽¹⁾	Level 2 ⁽¹⁾	Level 3	Gross inventory	Netting ⁽²⁾	Net balance
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	\$—	\$ 177,380	\$ 1,002	\$ 178,382	\$(35,551)	\$ 142,831
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	24,863	204	25,067	—	25,067
Residential	—	408	327	735	—	735
Commercial	—	1,053	318	1,371	—	1,371
Total trading mortgage-backed securities	\$—	\$ 26,324	\$ 849	\$ 27,173	\$—	\$ 27,173
U.S. Treasury and federal agency securities	\$ 20,339	\$ 2,843	\$—	\$ 23,182	\$—	\$ 23,182
State and municipal	—	3,297	284	3,581	—	3,581
Foreign government	45,450	21,855	108	67,413	—	67,413
Corporate	481	14,848	401	15,730	—	15,730
Equity securities	42,333	6,133	240	48,706	—	48,706
Asset-backed securities	—	2,098	1,570	3,668	—	3,668
Other trading assets ⁽³⁾	9	10,305	1,803	12,117	—	12,117
Total trading non-derivative assets	\$ 108,612	\$ 87,703	\$ 5,255	\$ 201,570	\$—	\$ 201,570
Trading derivatives						
Interest rate contracts						
Interest rate contracts	\$ 149	\$ 302,851	\$ 1,700	\$ 304,700		
Foreign exchange contracts						
Foreign exchange contracts	38	145,190	587	145,815		
Equity contracts						
Equity contracts	1,735	21,748	685	24,168		
Commodity contracts						
Commodity contracts	192	9,456	500	10,148		
Credit derivatives						
Credit derivatives	—	22,457	1,443	23,900		
Total trading derivatives	\$ 2,114	\$ 501,702	\$ 4,915	\$ 508,731		
Cash collateral paid ⁽⁴⁾				\$ 12,540		
Netting agreements						
Netting agreements					\$(424,492)	
Netting of cash collateral received						
Netting of cash collateral received					(38,743)	
Total trading derivatives	\$ 2,114	\$ 501,702	\$ 4,915	\$ 521,271	\$(463,235)	\$ 58,036
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$—	\$ 43,148	\$ 50	\$ 43,198	\$—	\$ 43,198
Residential	—	3,164	—	3,164	—	3,164
Commercial	—	357	—	357	—	357
Total investment mortgage-backed securities	\$—	\$ 46,669	\$ 50	\$ 46,719	\$—	\$ 46,719
U.S. Treasury and federal agency securities	\$ 101,118	\$ 11,479	\$ 1	\$ 112,598	\$—	\$ 112,598
State and municipal	—	8,254	1,285	9,539	—	9,539

Explanation of Responses:

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Foreign government	56,320	45,104	358	101,782	—	101,782
Corporate	2,045	13,902	156	16,103	—	16,103
Equity securities	357	67	9	433	—	433
Asset-backed securities	—	4,996	1,028	6,024	—	6,024
Other debt securities	—	421	10	431	—	431
Non-marketable equity securities ⁽⁵⁾	—	29	939	968	—	968
Total investments	\$ 159,840	\$ 130,921	\$ 3,836	\$ 294,597	\$ —	\$ 294,597

Table continues on the next page.

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In millions of dollars at June 30, 2017	Level 1 ⁽¹⁾	Level 2 ⁽¹⁾	Level 3	Gross inventory	Netting ⁽²⁾	Net balance
Loans	\$—	\$3,639	\$577	\$4,216	\$—	\$4,216
Mortgage servicing rights	—	—	560	560	—	560
Non-trading derivatives and other financial assets measured on a recurring basis, gross	\$13,382	\$6,587	\$17	\$19,986		
Cash collateral paid ⁽⁶⁾				—		
Netting of cash collateral received					\$(993)	
Non-trading derivatives and other financial assets measured on a recurring basis	\$13,382	\$6,587	\$17	\$19,986	\$(993)	\$18,993
Total assets	\$283,948	\$907,932	\$16,162	\$1,220,582	\$(499,779)	\$720,803
Total as a percentage of gross assets ⁽⁷⁾	23.5	%75.2	%1.3	%		
Liabilities						
Interest-bearing deposits	\$—	\$1,040	\$300	\$1,340	\$—	\$1,340
Federal funds purchased and securities loaned or sold under agreements to repurchase	—	79,625	807	80,432	(35,551)	44,881
Trading account liabilities						
Securities sold, not yet purchased	72,044	10,339	1,143	83,526	—	83,526
Other trading liabilities	—	2,282	—	2,282	—	2,282
Total trading liabilities	\$72,044	\$12,621	\$1,143	\$85,808	\$—	\$85,808
Trading derivatives						
Interest rate contracts	\$161	\$288,045	\$1,988	\$290,194		
Foreign exchange contracts	15	146,519	403	146,937		
Equity contracts	1,725	24,947	2,332	29,004		
Commodity contracts	120	9,897	2,524	12,541		
Credit derivatives	—	22,314	2,782	25,096		
Total trading derivatives	\$2,021	\$491,722	\$10,029	\$503,772		
Cash collateral received ⁽⁸⁾				\$14,227		
Netting agreements					\$(424,492)	
Netting of cash collateral paid					(42,570)	
Total trading derivatives	\$2,021	\$491,722	\$10,029	\$517,999	\$(467,062)	\$50,937
Short-term borrowings	\$—	\$4,804	\$29	\$4,833	\$—	\$4,833
Long-term debt	—	17,170	11,831	29,001	—	29,001
Non-trading derivatives and other financial liabilities measured on a recurring basis, gross	\$13,382	\$964	\$2	\$14,348		
Cash collateral received ⁽⁹⁾				43		
Netting of cash collateral paid					\$(56)	
Total non-trading derivatives and other financial liabilities measured on a recurring basis	\$13,382	\$964	\$2	\$14,391	\$(56)	\$14,335
Total liabilities	\$87,447	\$607,946	\$24,141	\$733,804	\$(502,669)	\$231,135
Total as a percentage of gross liabilities ⁽⁷⁾	12.2	%84.5	%3.4	%		

(1) For the three and six months ended June 30, 2017, the Company transferred assets of approximately \$1.9 billion and \$2.9 billion from Level 1 to Level 2, primarily related to foreign government securities and equity securities not traded in active markets. During the three and six months ended June 30, 2017, the Company transferred assets of approximately \$0.9 billion and \$2.3 billion from Level 2 to Level 1, primarily related to foreign government bonds traded with sufficient frequency to constitute an active market. There were no material transfers of liabilities from Level 1 to 2 during the three months ended June 30, 2017. During the six months ended June 30, 2017, the Company transferred liabilities of approximately \$0.1 billion from Level 1 to Level 2. There were no material

transfers of liabilities from Level 2 to Level 1 during the three months ended June 30, 2017. During the six months ended June 30, 2017, the Company transferred liabilities of approximately \$0.1 billion from Level 2 to Level 1.

Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts (2) owed under securities sold under agreements to repurchase; and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

Includes positions related to investments in unallocated precious metals, as discussed in Note 21 to the (3) Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(4) Reflects the net amount of \$55,110 million gross cash collateral paid, of which \$42,570 million was used to offset trading derivative liabilities.

Amounts exclude \$0.4 billion investments measured at Net Asset Value (NAV) in accordance with ASU No. (5) 2015-07, Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).

(6) Reflects the net amount of \$56 million of gross cash collateral paid, of which \$56 million was used to offset non-trading derivative liabilities.

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Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, (7) these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

(8) Reflects the net amount \$52,970 million of gross cash collateral received, of which \$38,743 million was used to offset trading derivative assets.

(9) Reflects the net amount of \$1,036 million of gross cash collateral received, of which \$993 million was used to offset non-trading derivative assets.

Fair Value Levels

In millions of dollars at December 31, 2016	Level 1 ⁽¹⁾	Level 2 ⁽¹⁾	Level 3	Gross inventory	Netting ⁽²⁾	Net balance
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	\$—	\$172,394	\$1,496	\$173,890	\$(40,686)	\$133,204
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	22,718	176	22,894	—	22,894
Residential	—	291	399	690	—	690
Commercial	—	1,000	206	1,206	—	1,206
Total trading mortgage-backed securities	\$—	\$24,009	\$781	\$24,790	\$—	\$24,790
U.S. Treasury and federal agency securities	\$16,368	\$4,811	\$1	\$21,180	\$—	\$21,180
State and municipal	—	3,780	296	4,076	—	4,076
Foreign government	32,164	17,492	40	49,696	—	49,696
Corporate	424	14,199	324	14,947	—	14,947
Equity securities	45,056	5,260	127	50,443	—	50,443
Asset-backed securities	—	892	1,868	2,760	—	2,760
Other trading assets ⁽³⁾	—	9,466	2,814	12,280	—	12,280
Total trading non-derivative assets	\$94,012	\$79,909	\$6,251	\$180,172	\$—	\$180,172
Trading derivatives						
Interest rate contracts	\$105	\$366,995	\$2,225	\$369,325		
Foreign exchange contracts	53	184,776	833	185,662		
Equity contracts	2,306	21,209	595	24,110		
Commodity contracts	261	12,999	505	13,765		
Credit derivatives	—	23,021	1,594	24,615		
Total trading derivatives	\$2,725	\$609,000	\$5,752	\$617,477		
Cash collateral paid ⁽⁴⁾				\$11,188		
Netting agreements					\$(519,000)	
Netting of cash collateral received					(45,912)	
Total trading derivatives	\$2,725	\$609,000	\$5,752	\$628,665	\$(564,912)	\$63,753
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$—	\$38,304	\$101	\$38,405	\$—	\$38,405
Residential	—	3,860	50	3,910	—	3,910
Commercial	—	358	—	358	—	358
Total investment mortgage-backed securities	\$—	\$42,522	\$151	\$42,673	\$—	\$42,673
U.S. Treasury and federal agency securities	\$112,916	\$10,753	\$2	\$123,671	\$—	\$123,671
State and municipal	—	8,909	1,211	10,120	—	10,120
Foreign government	54,028	43,934	186	98,148	—	98,148
Corporate	3,215	13,598	311	17,124	—	17,124

Explanation of Responses:

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Equity securities	336	46	9	391	—	391
Asset-backed securities	—	6,134	660	6,794	—	6,794
Other debt securities	—	503	—	503	—	503
Non-marketable equity securities ⁽⁵⁾	—	35	1,331	1,366	—	1,366
Total investments	\$170,495	\$126,434	\$3,861	\$300,790	\$—	\$300,790

Table continues on the next page.

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In millions of dollars at December 31, 2016	Level 1 ⁽¹⁾	Level 2 ⁽¹⁾	Level 3	Gross inventory	Netting ⁽²⁾	Net balance
Loans	\$—	\$2,918	\$568	\$3,486	\$—	\$3,486
Mortgage servicing rights	—	—	1,564	1,564	—	1,564
Non-trading derivatives and other financial assets measured on a recurring basis, gross	\$9,300	\$7,732	\$34	\$17,066		
Cash collateral paid ⁽⁶⁾				8		
Netting of cash collateral received					\$(1,345)	
Non-trading derivatives and other financial assets measured on a recurring basis	\$9,300	\$7,732	\$34	\$17,074	\$(1,345)	\$15,729
Total assets	\$276,532	\$998,387	\$19,526	\$1,305,641	\$(606,943)	\$698,698
Total as a percentage of gross assets ⁽⁷⁾	21.4	%77.1	%1.5	%		
Liabilities						
Interest-bearing deposits	\$—	\$919	\$293	\$1,212	\$—	\$1,212
Federal funds purchased and securities loaned or sold under agreements to repurchase	—	73,500	849	74,349	(40,686)	33,663
Trading account liabilities						
Securities sold, not yet purchased	67,429	12,184	1,177	80,790	—	80,790
Other trading liabilities	—	1,827	1	1,828	—	1,828
Total trading liabilities	\$67,429	\$14,011	\$1,178	\$82,618	\$—	\$82,618
Trading account derivatives						
Interest rate contracts	\$107	\$351,766	\$2,888	\$354,761		
Foreign exchange contracts	13	187,328	420	187,761		
Equity contracts	2,245	22,119	2,152	26,516		
Commodity contracts	196	12,386	2,450	15,032		
Credit derivatives	—	22,842	2,595	25,437		
Total trading derivatives	\$2,561	\$596,441	\$10,505	\$609,507		
Cash collateral received ⁽⁸⁾				\$15,731		
Netting agreements					\$(519,000)	
Netting of cash collateral paid					(49,811)	
Total trading derivatives	\$2,561	\$596,441	\$10,505	\$625,238	\$(568,811)	\$56,427
Short-term borrowings	\$—	\$2,658	\$42	\$2,700	\$—	\$2,700
Long-term debt	—	16,510	9,744	26,254	—	26,254
Non-trading derivatives and other financial liabilities measured on a recurring basis, gross	\$9,300	\$1,540	\$8	\$10,848		
Cash collateral received ⁽⁹⁾				1		
Netting of cash collateral paid					\$(53)	
Non-trading derivatives and other financial liabilities measured on a recurring basis	\$9,300	\$1,540	\$8	\$10,849	\$(53)	\$10,796
Total liabilities	\$79,290	\$705,579	\$22,619	\$823,220	\$(609,550)	\$213,670
Total as a percentage of gross liabilities ⁽⁷⁾	9.8	%87.4	%2.8	%		

In 2016, the Company transferred assets of approximately \$2.6 billion from Level 1 to Level 2, primarily related to foreign government securities and equity securities not traded in active markets. In 2016, the Company transferred assets of approximately \$4.0 billion from Level 2 to Level 1, primarily related to foreign government bonds and equity securities traded with sufficient frequency to constitute a liquid market. In 2016, the Company transferred liabilities of approximately \$0.4 billion from Level 2 to Level 1. In 2016, the Company transferred liabilities of approximately \$0.3 billion from Level 1 to Level 2.

(1)

(2) Explanation of Responses:

Represents netting of (i) the amounts due under securities purchased under agreements to resell and the amounts owed under securities sold under agreements to repurchase; and (ii) derivative exposures covered by a qualifying master netting agreement and cash collateral offsetting.

Includes positions related to investments in unallocated precious metals, as discussed in Note 21 to the

(3) Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(4) Reflects the net amount of \$60,999 million of gross cash collateral paid, of which \$49,811 million was used to offset trading derivative liabilities.

Amounts exclude \$0.4 billion investments measured at Net Asset Value (NAV) in accordance with ASU No.

(5) 2015-07, Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent).

(6) Reflects the net amount of \$61 million of gross cash collateral paid, of which \$53 million was used to offset non-trading derivative liabilities.

Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals,

(7) these percentages are calculated based on total assets and liabilities measured at fair value on a recurring basis, excluding the cash collateral paid/received on derivatives.

(8) Reflects the net amount of \$61,643 million of gross cash collateral received, of which \$45,912 million was used to offset trading derivative assets.

(9) Reflects the net amount of \$1,346 million of gross cash collateral received, of which \$1,345 million was used to offset non-trading derivative assets.

Changes in Level 3 Fair Value Category

The following tables present the changes in the Level 3 fair value category for the three and six months ended June 30, 2017 and 2016. The gains and losses presented below include changes in the fair value related to both observable and unobservable inputs.

The Company often hedges positions with offsetting positions that are classified in a different level. For example, the gains and losses for assets and liabilities in the Level 3

category presented in the tables below do not reflect the effect of offsetting losses and gains on hedging instruments that may be classified in the Level 1 or Level 2 categories. In addition, the Company hedges items classified in the Level 3 category with instruments also classified in Level 3 of the fair value hierarchy. The hedged items and related hedges are presented gross in the following tables:

Level 3 Fair Value Rollforward

In millions of dollars	Mar. 31, 2017	Net realized/unrealized gains (losses) incl. in Principal transactions	Transfers		Purchases	Issuances	Sales	Settlements	Jun. 30, 2017	Unrealized gains (losses) still held ⁽³⁾
			into Level 3	out of Level 3						
Assets										
Federal funds sold and securities borrowed or purchased under agreements to resell	\$1,187	\$ 54	\$ —	\$(239)	\$ —	\$ —	\$ —	\$ —	\$1,002	\$ —
Trading non-derivative assets										
Trading mortgage-backed securities										
U.S. government-sponsored agency guaranteed	271	(1)	— 29	(48)	103	—	(150)	—	204	—
Residential	368	22	— 30	(20)	16	—	(89)	—	327	19
Commercial	266	5	— 27	(16)	244	—	(208)	—	318	(3)
Total trading mortgage-backed securities	\$905	\$ 26	\$ —86	\$(84)	\$363	\$ —	\$(447)	\$ —	\$849	\$ 16
U.S. Treasury and federal agency securities										
State and municipal	270	3	— 22	(1)	7	—	(17)	—	284	(1)
Foreign government	126	3	— 6	(77)	83	—	(33)	—	108	1
Corporate	296	124	— 89	(21)	158	—	(245)	—	401	132
Equity securities	110	14	— 130	(1)	2	—	(15)	—	240	13
Asset-backed securities	1,941	(23)	— 3	(65)	313	—	(599)	—	1,570	(19)
Other trading assets	1,888	(43)	— 222	(243)	366	—	(383)	(4)	1,803	(17)
Total trading non-derivative assets	\$5,537	\$ 104	\$ —558	\$(492)	\$1,292	\$ —	\$(1,740)	\$ (4)	\$5,255	\$ 125
Trading derivatives, net ⁽⁴⁾										
Interest rate contracts	\$(773)	\$(155)	\$ —10	\$632	\$59	\$ —	\$(92)	\$ 31	\$(288)	\$(60)
Foreign exchange contracts	48	93	— (2)	(39)	4	—	(2)	82	184	88
Equity contracts	(1,524)	(101)	— 18	42	64	—	(113)	(33)	(1,647)	(158)
Commodity contracts	(2,074)	(153)	— 12	51	—	—	—	140	(2,024)	(152)

Explanation of Responses:

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Credit derivatives	(1,123)	(293)	—	(44)	(16)	(2)	—	2	137	(1,339)	(325)
Total trading derivatives, net ⁽⁴⁾	\$(5,446)	\$(609)	\$	\$(6)	\$670	\$125	\$	\$(205)	\$357	\$(5,114)	\$(607)

Table continues on the next page.

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In millions of dollars	Mar. 31, 2017	Net realized/unrealized gains (losses) incl. in		Transfers into out of		Purchases	Issuances	Sales	Settlements	Jun. 30, 2017	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾⁽²⁾	Level 1	Level 2							Level 3
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	\$55	\$ —	\$ 1	\$ —	\$ (6)	\$ —	\$ —	\$ —	\$ —	\$50	\$ —
Residential	—	—	—	—	—	—	—	—	—	—	—
Commercial	—	—	—	—	—	—	—	—	—	—	—
Total investment mortgage-backed securities	\$55	\$ —	\$ 1	\$ —	\$ (6)	\$ —	\$ —	\$ —	\$ —	\$50	\$ —
U.S. Treasury and federal agency securities	\$1	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$1	\$ —
State and municipal	1,233	—	27	12	(3)	22	—	(6)	—	1,285	28
Foreign government	235	—	10	—	(1)	191	—	(77)	—	358	7
Corporate	339	—	(137)	5	—	92	—	(143)	—	156	9
Equity securities	9	—	—	—	—	—	—	—	—	9	—
Asset-backed securities	712	—	173	4	(13)	334	—	(182)	—	1,028	171
Other debt securities	—	—	—	—	—	10	—	—	—	10	—
Non-marketable equity securities	1,082	—	31	2	—	1	—	(154)	(23)	939	66
Total investments	\$3,666	\$ —	\$ 105	\$23	\$ (23)	\$ 650	\$ —	\$ (562)	\$ (23)	\$3,836	\$ 281
Loans	\$580	\$ —	\$ (12)	\$15	\$ —	\$ 30	\$ —	\$ (33)	\$ (3)	\$577	\$ 42
Mortgage servicing rights	\$567	\$ —	\$ (11)	\$ —	\$ —	\$ —	\$ 21	\$ —	\$ (17)	\$560	\$ 3
Other financial assets measured on a recurring basis	\$27	\$ —	\$ 29	\$ —	\$ (7)	\$ —	\$ 27	\$ (4)	\$ (55)	\$17	\$ 26
Liabilities											
Interest-bearing deposits	\$302	\$ —	\$ —	\$20	\$ —	\$ —	\$ —	\$ —	\$ (22)	\$300	\$ 5
Federal funds purchased and securities loaned or sold under agreements to repurchase	809	2	—	—	—	—	—	—	—	807	2
Trading account liabilities											
Securities sold, not yet purchased	1,151	(60)	—	2	(29)	—	—	76	(117)	1,143	5
Short-term borrowings	60	40	—	1	—	—	8	—	—	29	11
Long-term debt	10,176	(618)	—	321	(558)	—	1,353	—	(79)	11,831	(73)
Other financial liabilities measured on a recurring basis	4	—	2	—	—	—	1	—	(1)	2	2

Changes in fair value for available-for-sale investments are recorded in AOCI, unless related to (1) other-than-temporary impairment, while gains and losses from sales are recorded in Realized gains (losses) from sales of investments on the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSR's are recorded in Other revenue on the Consolidated Statement of Income.

Represents the amount of total gains or losses for the period, included in earnings (and AOCI for changes in fair value of available-for-sale investments), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at June 30, 2017.

(4)

Total Level 3 trading derivative assets and liabilities have been netted in these tables for presentation purposes only.

In millions of dollars	Dec. 31, 2016	Net realized/unrealized gains (losses) incl. in		Transfers		Purchases	Issuances	Settlements	Jun. 30, 2017	Unrealized gains (losses) still held ⁽³⁾	
		Principal transactions	Other	into Level 3	out of Level 3						
Assets											
Federal funds sold and securities borrowed or purchased under agreements to resell	\$1,496	\$(2)	\$—	\$—	\$(491)	\$—	\$—	\$—	\$(1)	\$1,002	\$—
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S.											
government-sponsored agency guaranteed	176	4	—	79	(65)	264	—	(254)	—	204	1
Residential	399	37	—	47	(49)	66	—	(173)	—	327	29
Commercial	206	(3)	—	44	(29)	434	—	(334)	—	318	(10)
Total trading mortgage-backed securities	\$781	\$38	\$—	\$170	\$(143)	\$764	\$—	\$(761)	\$—	\$849	\$20
U.S. Treasury and federal agency securities											
State and municipal	296	5	—	24	(48)	88	—	(81)	—	284	2
Foreign government	40	7	—	84	(90)	127	—	(60)	—	108	8
Corporate	324	215	—	116	(73)	276	—	(457)	—	401	177
Equity securities	127	29	—	132	(13)	9	—	(44)	—	240	21
Asset-backed securities	1,868	137	—	23	(81)	704	—	(1,081)	—	1,570	52
Other trading assets	2,814	(50)	—	432	(774)	653	1	(1,258)	(15)	1,803	(38)
Total trading non-derivative assets	\$6,251	\$381	\$—	\$981	\$(1,222)	\$2,621	\$1	\$(3,743)	\$(15)	\$5,255	\$242
Trading derivatives, net ⁽⁴⁾											
Interest rate contracts	\$(663)	\$(192)	\$—	\$(28)	\$651	\$65	\$—	\$(205)	\$84	\$(288)	\$(12)
Foreign exchange contracts	413	(297)	—	53	(59)	38	—	(34)	70	184	43
Equity contracts	(1,557)	(103)	—	18	26	149	—	(137)	(43)	(1,647)	(139)
Commodity contracts	(1,945)	(328)	—	58	49	—	—	—	142	(2,024)	(358)
Credit derivatives	(1,001)	(385)	—	(68)	(24)	(2)	—	2	139	(1,339)	(745)
Total trading derivatives, net ⁽⁴⁾	\$(4,753)	\$(1,305)	\$—	\$33	\$643	\$250	\$—	\$(374)	\$392	\$(5,114)	\$(1,211)
Investments											
Mortgage-backed securities											
U.S.											
government-sponsored agency guaranteed	\$101	\$—	\$3	\$1	\$(55)	\$—	\$—	\$—	\$—	\$50	\$2

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Residential	50	—	2	—	(47)—	—	(5)—	—	—
Commercial	—	—	—	—	—	8	—	(8)—	—	—
Total investment mortgage-backed securities	\$ 151	\$—	\$ 5	\$ 1	\$(102)\$ 8	\$ —	\$(13)\$ —	\$ 50	\$ 2
U.S. Treasury and federal agency securities	\$ 2	\$—	\$—	\$—	\$—	\$—	\$ —	\$(1	)\$—	\$ 1	\$—
State and municipal	1,211	—	39	49	(33	)76	—	(57	)—	1,285	35
Foreign government	186	—	11	2	(19	)333	—	(155	)—	358	7
Corporate	311	—	(135	) 64	(4	) 183	—	(263	)—	156	9
Equity securities	9	—	—	—	—	—	—	—	—	9	—
Asset-backed securities	660	—	182	21	(13	)360	—	(182	)—	1,028	171
Other debt securities	—	—	—	—	—	21	—	(11	)—	10	—
Non-marketable equity securities	1,331	—	(63	) 2	—	9	—	(227	)(113	) 939	79
Total investments	\$ 3,861	\$—	\$ 39	\$ 139	\$(171	)\$ 990	\$ —	\$(909	)\$ (113	)\$ 3,836	\$ 303

Table continues on the next page.

In millions of dollars	Net realized/unrealized gains (losses) Transfers										Unrealized gains (losses) still held ⁽³⁾		
	Dec. 31, 2016	Principal transactions	Other ⁽¹⁾⁽²⁾	Level 3	Level 3	into out of	Purchases	Issuances	Sales	Settlements		Jun. 30, 2017	
Loans	\$568	\$ —	(16)	\$80	(16)	\$ 42	\$ —	—	—	—	—	\$ 577	\$ 58
Mortgage servicing rights	1,564	—	56	—	—	—	56	(1,046)	(70)	—	—	560	(40)
Other financial assets measured on a recurring basis	34	—	(160)	3	(8)	—	260	(4)	(108)	—	—	17	(184)
Liabilities													
Interest-bearing deposits	\$293	\$ —	\$ 11	\$40	—	\$ —	\$ —	—	—	—	—	\$ 300	\$ 31
Federal funds purchased and securities loaned or sold under agreements to repurchase	849	8	—	—	—	—	—	—	(34)	—	—	807	8
Trading account liabilities													
Securities sold, not yet purchased	1,177	(6)	—	13	(43)	—	—	177	(187)	—	—	1,143	(3)
Short-term borrowings	42	31	—	1	—	—	19	—	(2)	—	—	29	5
Long-term debt	9,744	(60)	—	521	(967)	—	2,282	—	(350)	—	—	11,831	(747)
Other financial liabilities measured on a recurring basis	8	—	—	—	—	(1)	2	—	(7)	—	—	2	—

Changes in fair value of available-for-sale investments are recorded in AOCI, unless related to

(1) other-than-temporary impairment, while gains and losses from sales are recorded in Realized gains (losses) from sales of investments on the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSR's are recorded in Other revenue on the Consolidated Statement of Income.

Represents the amount of total gains or losses for the period, included in earnings (and AOCI for changes in fair value of available-for-sale investments), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at June 30, 2016.

(4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

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In millions of dollars	Mar. 31, 2016	Net realized/unrealized gains (losses) incl. in				Transfers				Settlements	Jun. 30, 2016	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾	into Level 3 ⁽²⁾	out of Level 3	Purchases	Issuances	Sales				
Assets												
Federal funds sold and securities borrowed or purchased under agreements to resell	\$1,909	\$(62)	\$—	\$—	\$(28)	\$—	\$—	\$—	\$—	\$—	\$1,819	\$(54)
Trading non-derivative assets												
Trading mortgage-backed securities												
U.S.												
government-sponsored agency guaranteed	1,039	—	—	83	(362)	405	—	(443)	8	730	—	
Residential	1,192	(61)	—	25	(44)	46	—	(351)	(6)	801	(72)	
Commercial	581	4	—	123	(75)	107	—	(350)	—	390	(5)	
Total trading mortgage-backed securities	\$2,812	\$(57)	\$—	\$231	\$(481)	\$558	\$—	\$(1,144)	\$2	\$1,921	\$(77)	
U.S. Treasury and federal agency securities												
State and municipal	209	1	—	5	(57)	65	—	(106)	—	117	(2)	
Foreign government	219	(7)	—	—	(13)	34	—	(152)	—	81	(2)	
Corporate	477	272	—	35	(60)	165	—	(479)	(5)	405	77	
Equity securities	3,755	(491)	—	174	(26)	670	—	(112)	—	3,970	(438)	
Asset-backed securities	2,814	6	—	40	(181)	694	—	(703)	—	2,670	5	
Other trading assets	2,574	(89)	—	680	(869)	1,074	(13)	(509)	(9)	2,839	(125)	
Total trading non-derivative assets	\$12,863	\$(365)	\$—	\$1,165	\$(1,687)	\$3,260	\$(13)	\$(3,205)	\$(12)	\$12,006	\$(562)	
Trading derivatives, net⁽⁴⁾												
Interest rate contracts	\$(755)	\$182	\$—	\$144	\$(51)	\$137	\$(18)	\$(100)	\$87	\$(374)	\$136	
Foreign exchange contracts	295	(324)	—	1	(90)	89	—	(52)	52	(29)	(428)	
Equity contracts	(876)	76	—	(11)	(284)	22	38	(12)	(24)	(1,071)	108	
Commodity contracts	(1,949)	(139)	—	3	(36)	356	—	(352)	100	(2,017)	(122)	
Credit derivatives	(321)	(637)	—	(33)	(52)	41	—	—	248	(754)	(603)	
Total trading derivatives, net ⁽⁴⁾	\$(3,606)	\$(842)	\$—	\$104	\$(513)	\$645	\$20	\$(516)	\$463	\$(4,245)	\$(909)	
Investments												
Mortgage-backed securities												
U.S.												
government-sponsored agency guaranteed	\$111	\$—	\$6	\$5	\$(23)	\$1	\$—	\$(6)	\$—	\$94	\$1	
Residential	—	—	—	—	—	25	—	—	—	25	—	

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Commercial	3	—	—	3	(1)—	—	—	—	5	—
Total investment mortgage-backed securities	\$114	\$—	\$6	\$8	\$(24)\$26	\$—	\$(6)\$—	\$124	\$1
U.S. Treasury and federal agency securities	\$3	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$3	\$—
State and municipal	2,098	—	127	130	(374	)89	—	(54	)—	2,016	99
Foreign government	175	—	17	—	—	41	—	(89	)(3	)141	—
Corporate	498	—	31	—	(8	)93	—	(154	)—	460	(5
Equity securities	126	—	—	2	—	—	—	—	—	128	—
Asset-backed securities	701	—	61	—	(22	)72	—	(215	)—	597	51
Other debt securities	—	—	—	—	—	5	—	—	—	5	—
Non-marketable equity securities	1,165	—	26	13	—	6	—	—	(71)1,139	26
Total investments	\$4,880	\$—	\$268	\$153	\$(428)\$332	\$—	\$(518)\$(74)\$4,613	\$172

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In millions of dollars	Mar. 31, 2016	Net realized/unrealized gains (losses) incl. in		Transfers		Purchases	Issuances	Sales	Settlements	Jun. 30, 2016	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾⁽²⁾	into Level 3	out of Level 3						
Loans	\$1,723	\$ —	\$ 19	\$ —	\$ —	\$ 211	\$ 58	\$(297)	\$(480)	\$1,234	\$(34)
Mortgage servicing rights	1,524	—	(137)	—	—	—	35	—	(98)	1,324	(154)
Other financial assets measured on a recurring basis	57	—	16	37	(2)	—	67	(4)	(60)	111	(61)
Liabilities											
Interest-bearing deposits	\$191	\$ —	\$ 39	\$ 318	\$ —	\$ —	\$ 1	\$ —	\$(38)	\$433	\$ 39
Federal funds purchased and securities loaned or sold under agreements to repurchase	1,238	4	—	—	—	—	—	—	(127)	1,107	4
Trading account liabilities											
Securities sold, not yet purchased	118	(11)	—	38	(18)	(61)	(41)	34	(69)	12	(30)
Short-term borrowings	46	(24)	—	12	—	—	7	—	(36)	53	(15)
Long-term debt	8,736	(48)	—	712	(75)	—	990	61	(653)	9,138	(48)
Other financial liabilities measured on a recurring basis	14	—	1	—	(6)	(2)	1	—	(1)	5	(1)

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In millions of dollars	Dec. 31, 2015	Net realized/unrealized gains (losses) incl. in			Transfers		Purchases	Issuances	Sales	Settlements	Jun. 30, 2016	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾	into Level 3 ⁽²⁾	out of Level 3							
Assets												
Federal funds sold and securities borrowed or purchased under agreements to resell	\$1,337	\$8	\$—	\$—	\$(28)	\$503	\$—	\$—	\$(1)	\$1,819	\$(55)	
Trading non-derivative assets												
Trading mortgage-backed securities												
U.S. government-sponsored agency guaranteed	744	12	—	418	(582)	761	—	(634)	11	730	(3)	
Residential	1,326	(12)	—	129	(87)	257	—	(806)	(6)	801	(40)	
Commercial	517	13	—	179	(102)	352	—	(569)	—	390	(13)	
Total trading mortgage-backed securities	\$2,587	\$13	\$—	\$726	\$(771)	\$1,370	\$—	\$(2,009)	\$5	\$1,921	\$(56)	
U.S. Treasury and federal agency securities	\$1	\$—	\$—	\$2	\$—	\$—	\$—	\$—	\$—	\$3	\$(1)	
State and municipal	351	8	—	18	(216)	168	—	(212)	—	117	(1)	
Foreign government	197	(8)	—	2	(17)	75	—	(168)	—	81	1	
Corporate	376	284	—	80	(76)	334	—	(588)	(5)	405	89	
Equity securities	3,684	(535)	—	267	(60)	749	—	(135)	—	3,970	(474)	
Asset-backed securities	2,739	134	—	157	(195)	1,186	—	(1,351)	—	2,670	29	
Other trading assets	2,483	(116)	—	1,458	(1,482)	1,357	(2)	(840)	(19)	2,839	(223)	
Total trading non-derivative assets	\$12,418	\$(220)	\$—	\$2,710	\$(2,817)	\$5,239	\$(2)	\$(5,303)	\$(19)	\$12,006	\$(636)	
Trading derivatives, net ⁽⁴⁾												
Interest rate contracts	\$(495)	\$(326)	\$—	\$309	\$39	\$142	\$(18)	\$(103)	\$78	\$(374)	\$(154)	
Foreign exchange contracts	620	(677)	—	4	(60)	106	—	(91)	69	(29)	(572)	
Equity contracts	(800)	108	—	64	(428)	46	38	(71)	(28)	(1,071)	107	
Commodity contracts	(1,861)	(281)	—	(49)	(26)	356	—	(352)	196	(2,017)	(288)	
Credit derivatives	307	(1,152)	—	(114)	(23)	42	—	—	186	(754)	(1,086)	
Total trading derivatives, net ⁽⁴⁾	\$(2,229)	\$(2,328)	\$—	\$214	\$(498)	\$692	\$20	\$(617)	\$501	\$(4,245)	\$(1,993)	
Investments												
Mortgage-backed securities	\$139	\$—	\$(25)	\$12	\$(62)	\$40	\$—	\$(9)	\$(1)	\$94	\$41	

Explanation of Responses:

U.S. government-sponsored agency guaranteed											
Residential	4	—	1	—	—	25	—	(5	)—	25	—
Commercial	2	—	—	6	(3	)—	—	—	—	5	—
Total investment mortgage-backed securities	\$145	\$—	\$(24	)\$18	\$(65	)\$65	\$—	\$(14	)\$(1	)\$124	\$41
U.S. Treasury and federal agency securities	\$4	\$—	\$—	\$—	\$—	\$—	\$—	\$(1	)\$—	\$3	\$—
State and municipal	2,192	—	162	391	(783	)240	—	(186	)—	2,016	118
Foreign government	260	—	19	33	—	103	—	(271	)3	)141	(106
Corporate	603	—	45	5	(45	)94	—	(242	)—	460	(1
Equity securities	124	—	—	4	—	—	—	—	—	128	—
Asset-backed securities	596	—	35	—	(23	)204	—	(215	)—	597	24
Other debt securities	—	—	—	—	—	5	—	—	—	5	—
Non-marketable equity securities	1,135	—	24	51	—	18	—	—	(89)1,139	20
Total investments	\$5,059	\$—	\$261	\$502	\$(916)\$729	\$—	\$(929)\$(93)\$4,613	\$96

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In millions of dollars	Dec. 31, 2015	Net realized/unrealized gains (losses) incl. in		Transfers into out of		Purchases	Issuances	Sales	Settlements	Jun. 30, 2016	Unrealized gains (losses) still held ⁽³⁾
		Principal transactions	Other ⁽¹⁾⁽²⁾	Level 3	Level 3						
Loans	\$2,166	\$ —	\$(58)	\$89	\$(538)	\$ 570	\$ 219	\$(675)	\$(539)	\$1,234	\$(63)
Mortgage servicing rights	1,781	—	(362)	—	—	—	68	14	(177)	1,324	(154)
Other financial assets measured on a recurring basis	180	—	33	40	(5)	—	130	(124)	(143)	111	(277)
Liabilities											
Interest-bearing deposits	\$434	\$ —	\$ 35	\$322	\$(209)	\$ —	\$ 5	\$ —	\$(84)	\$433	\$ 39
Federal funds purchased and securities loaned or sold under agreements to repurchase	1,247	(21)	—	—	—	—	—	16	(177)	1,107	(25)
Trading account liabilities											
Securities sold, not yet purchased	199	14	—	97	(43)	(61)	(41)	70	(195)	12	(29)
Short-term borrowings	9	(27)	—	17	(4)	—	41	—	(37)	53	(19)
Long-term debt	7,543	(26)	—	1,221	(1,843)	—	2,872	61	(742)	9,138	(86)
Other financial liabilities measured on a recurring basis	14	—	(7)	—	(10)	(6)	2	—	(2)	5	(3)

Changes in fair value of available-for-sale investments are recorded in AOCI, unless related to

(1) other-than-temporary impairment, while gains and losses from sales are recorded in Realized gains (losses) from sales of investments on the Consolidated Statement of Income.

(2) Unrealized gains (losses) on MSRs are recorded in Other revenue on the Consolidated Statement of Income.

Represents the amount of total gains or losses for the period, included in earnings (and AOCI for changes in fair value of available-for-sale investments), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at June 30, 2016.

(4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

Level 3 Fair Value Rollforward

The were no significant Level 3 transfers for the period March 31, 2017 to June 30, 2017:

The following were the significant Level 3 transfers for the period December 31, 2016 to June 30, 2017:

Transfers of Long-term debt of \$0.5 billion from Level 2 to Level 3, and of \$1.0 billion from Level 3 to Level 2, mainly related to structured debt, reflecting changes in the significance of unobservable inputs as well as certain underlying market inputs becoming less or more observable.

There were no significant Level 3 transfers for the period from March 31, 2016 to June 30, 2016.

The following were the significant Level 3 transfers for the period from December 31, 2015 to June 30, 2016:

Transfers of Other trading assets of \$1.5 billion from Level 2 to Level 3, and of \$1.5 billion from Level 3 to Level 2, related to trading loans, reflecting changes in the volume of market quotations.

Transfers of Long-term debt of \$1.2 billion from Level 2 to Level 3, and of \$1.8 billion from Level 3 to Level 2, mainly related to structured debt, reflecting changes in the significance of unobservable inputs as well as certain underlying market inputs becoming less or more observable.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 inventory and the most significant unobservable inputs used in Level 3 fair value measurements. Differences between this table and amounts presented in the Level 3 Fair Value Rollforward table represent individually immaterial items that have been measured using a variety of valuation techniques other than those listed.

As of June 30, 2017	Fair value ⁽¹⁾ (in millions)	Methodology	Input	Low ⁽²⁾⁽³⁾	High ⁽²⁾⁽³⁾	Weighted average ⁽⁴⁾	
Assets							
Federal funds sold and securities borrowed or purchased under agreements to resell	\$ 1,002	Model-based	IR Normal Volatility	24.54	% 80.07	% 66.85	%
Mortgage-backed securities	\$ 496	Yield analysis	Yield	0.88	% 11.81	% 4.13	%
	402	Price based	Price	\$6.02	\$105.10	\$70.52	
Non-mortgage debt securities	\$ 2,417	Price-based	Price	\$15.00	\$118.96	\$94.36	
	1,725	Model-based	Credit Spread	35 bps	600 bps	242 bps	
Equity securities ⁽⁵⁾	\$ 119	Model-based	Price	\$2.50	\$1,355.65	\$656.24	
	115	Price-based	Forward Price	69.86	134.52	92.90	
			Equity Volatility	3.00	% 47.73	% 26.01	%
Asset-backed securities	\$ 2,406	Price-based	Price	\$8.19	\$100.00	\$77.97	
Non-marketable equity	\$ 495	Comparables analysis	EBITDA Multiples	6.30	x 12.10	x 8.73	x
	400	Price-based	Discount to price	—	% 100.00	% 7.52	%
			Price to book ratio	0.23	x 1.03	x 0.78	x
Derivatives—gross							
Interest rate contracts (gross)	\$ 3,579	Model-based	IR Normal Volatility	0.11	% 67.64	% 55.31	%
			Mean Reversion	1.00	% 20.00	% 10.50	%
Foreign exchange contracts (gross)	\$ 894	Model-based	Yield	5.62	% 14.50	% 9.30	%
	96	Cash flow	FX Volatility	2.99	% 24.51	% 12.77	%
			IR-FX Correlation	(4.01	)% 60.00	% 49.09	%
			IR-IR Correlation	(7.79	)% 69.65	% 39.74	%
			Credit Spread	22 bps	481 bps	204 bps	
Equity contracts (gross)	\$ 2,946	Model-based	Equity Volatility	3.00	% 54.46	% 24.65	%
			Forward Price	51.91	% 134.52	% 95.49	%
			Equity-Equity Correlation	(88.92)% 92.42	% 69.78	%

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			Yield Volatility	3.25	% 12.68	% 6.41	%
			Equity-IR				
			Correlation	(35.00)	% 41.00	% 33.25	%
Commodity and other contracts (gross)	\$ 3,024	Model-based	Forward Price	28.61	% 303.76	% 112.86	%
Credit derivatives (gross)	\$ 2,840	Model-based	Recovery Rate	6.50	% 65.00	% 34.50	%
	1,384	Price-based	Credit				
			Correlation	5.00	% 95.00	% 35.11	%
			Upfront Points	5.00	% 98.97	% 57.17	%
			Price	\$0.01	\$239.25	\$81.58	
			Credit Spread	5 bps	10,381 bps	401 bps	

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As of June 30, 2017	Fair value ⁽¹⁾ (in millions)	Methodology	Input	Low ⁽²⁾⁽³⁾	High ⁽²⁾⁽³⁾	Weighted average ⁽⁴⁾
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (Gross)	\$ 18	Model-based	Redemption Rate	1 2.22	9 9.50	7 3.22
			Recovery Rate	4 0.00	4 0.00	4 0.00
Loans and leases	\$ 260	Model-based	Credit Spread	45 bps	500 bps	71 bps
	214	Yield analysis	Yield	3 04	4 54	3 66
Mortgage servicing rights	\$ 470	Price-based	Yield	8 00	1 9.93	1 2.59
			Cash flow	Yield	3.97	7.52	6.11
	90	Model-based	WAL	years	years	years
Liabilities						
Interest-bearing deposits	\$ 300	Model-based	Mean Reversion	1 00	2 0.00	1 0.50
			Yield Volatility	3 64	9 31	7 46
			Equity-IR Correlation	2 7.00	4 1.00	3 1.44
Federal funds purchased and securities loaned or sold under agreements to repurchase	\$ 807	Model-based	Interest Rate	0 93	2 22	2 00
Trading account liabilities						
Securities sold, not yet purchased	\$ 1,105	Model-based	IR Normal Volatility	2 4.54	8 0.07	6 6.85
Short-term borrowings and long-term debt	\$ 11,856	Model-based	Mean Reversion	1 00	2 0.00	1 0.50
			Forward Price	2 8.61	1 96.94	9 9.83
			IR Normal Volatility	1 3.32	8 0.07	6 2.20
			Equity Volatility	3 00	4 7.73	2 3.47

As of December 31, 2016	Fair value ⁽¹⁾ (in millions)	Methodology	Input	Low ⁽²⁾⁽³⁾	High ⁽²⁾⁽³⁾	Weighted average ⁽⁴⁾
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	\$ 1,496	Model-based	IR Log-Normal Volatility	12.86	% 75.50	% 61.73
			Interest Rate	(0.51)	% 5.76	% 2.80
Mortgage-backed securities	\$ 509	Price-based	Price	\$ 5.50	\$ 113.48	\$ 61.74
			Yield analysis	Yield	1.90	% 14.54	% 4.34
State and municipal, foreign government, corporate and other debt securities	\$ 3,308	Price-based	Price	\$ 15.00	\$ 103.60	\$ 89.93
			Cash flow	Credit Spread	35 bps	600 bps
Equity securities ⁽⁵⁾	\$ 69	Model-based	Price	\$ 0.48	\$ 104.00	\$ 22.19

Explanation of Responses:

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	58	Price-based						
Asset-backed securities	\$ 2,454	Price-based	Price	\$4.00	\$ 100.00	\$71.51		
Non-marketable equity	\$ 726	Price-based	Discount to Price	—	% 90.00	% 13.36	%	
	565	Comparables analysis	EBITDA Multiples	6.80	x 10.10	x 8.62	x	
			Price-to-Book Ratio	0.32	x 1.03	x 0.87	x	
Derivatives—gross			Price	\$—	\$113.23	\$54.40		
Interest rate contracts (gross)	\$ 4,897	Model-based	IR Log-Normal Volatility	1.00	% 93.97	% 62.72	%	
			Mean Reversion	1.00	% 20.00	% 10.50	%	
Foreign exchange contracts (gross)	\$ 1,110	Model-based	Foreign Exchange (FX) Volatility	1.39	% 26.85	% 15.18	%	
	134	Cash flow	IR Basis	(0.85))(0.49))(0.84))(%)	
			Credit Spread	4 bps	657 bps	266 bps		

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As of December 31, 2016	Fair value ⁽¹⁾ (in millions)	Methodology	Input	Low ⁽²⁾⁽³⁾	High ⁽²⁾⁽³⁾	Weighted average ⁽⁴⁾	
			IR-IR Correlation	40.00	% 50.00	% 41.27	%
			IR-FX Correlation	16.41	% 60.00	% 49.52	%
Equity contracts (gross) ⁽⁷⁾	\$ 2,701	Model-based	Equity Volatility	3.00	% 97.78	% 29.52	%
			Forward Price	69.05	% 144.61	% 94.28	%
			Equity-FX Correlation	(60.70)	% 28.20	% (26.28)	%
			Equity-IR Correlation	(35.00)	% 41.00	% (15.65)	%
			Yield Volatility	3.55	% 14.77	% 9.29	%
			Equity-Equity Correlation	(87.70)	% 96.50	% 67.45	%
Commodity contracts (gross)	\$ 2,955	Model-based	Forward Price	35.74	% 235.35	% 119.99	%
			Commodity Volatility	2.00	% 32.19	% 17.07	%
			Commodity Correlation	(41.61)	% 90.42	% 52.85	%
Credit derivatives (gross)	\$ 2,786	Model-based	Recovery Rate	20.00	% 75.00	% 39.75	%
	1,403	Price-based	Credit Correlation	5.00	% 90.00	% 34.27	%
			Upfront Points	6.00	% 99.90	% 72.89	%
			Price	\$1.00	\$167.00	\$77.35	
			Credit Spread	3 bps	1,515 bps	256 bps	
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (gross) ⁽⁶⁾	\$ 42	Model-based	Recovery Rate	40.00	% 40.00	% 40.00	%
			Redemption Rate	3.92	% 99.58	% 74.69	%
			Upfront Points	16.00	% 20.50	% 18.78	%
Loans	\$ 258	Price-based	Price	\$31.55	\$105.74	\$56.46	
	221	Yield analysis	Yield	2.75	% 20.00	% 11.09	%
	79	Model-based					
Mortgage servicing rights	\$ 1,473	Cash flow	Yield	4.20	% 20.56	% 9.32	%
			WAL	3.53 years	7.24 years	5.83 years	
Liabilities							
Interest-bearing deposits	\$ 293	Model-based	Mean Reversion	1.00	% 20.00	% 10.50	%
			Forward Price	98.79	% 104.07	% 100.19	%
Federal funds purchased and securities loaned or sold under agreements to repurchase	\$ 849	Model-based	Interest Rate	0.62	% 2.19	% 1.99	%
Trading account liabilities							
Securities sold, not yet purchased	\$ 1,056	Model-based	IR Normal Volatility	12.86	% 75.50	% 61.73	%

Explanation of Responses:

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Short-term borrowings and long-term debt	\$ 9,774	Model-based	Mean Reversion	1.00	% 20.00	% 10.50	%
			Commodity				
			Correlation	(41.61)	% 90.42	% 52.85	%
			Commodity				
			Volatility	2.00	% 32.19	% 17.07	%
			Forward Price	69.05	% 235.35	% 103.28	%

- (1) The fair value amounts presented in these tables represent the primary valuation technique or techniques for each class of assets or liabilities.
- (2) Some inputs are shown as zero due to rounding.
- (3) When the low and high inputs are the same, there is either a constant input applied to all positions, or the methodology involving the input applies to only one large position.
- (4) Weighted averages are calculated based on the fair values of the instruments.
- (5) For equity securities, the price inputs are expressed on an absolute basis, not as a percentage of the notional amount.
- (6) Both trading and nontrading account derivatives—assets and liabilities—are presented on a gross absolute value basis.
- (7) Includes hybrid products.

Items Measured at Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis and therefore are not included in the tables above. These include assets measured at cost that have been written down to fair value during the periods as a result of an impairment. In addition, these assets include loans held-for-sale and other real estate owned that are measured at the lower of cost or market.

The following table presents the carrying amounts of all assets that were still held for which a nonrecurring fair value measurement was recorded:

In millions of dollars	Fair value	Level 2	Level 3
June 30, 2017			
Loans held-for-sale ⁽¹⁾	\$3,398	\$1,814	\$1,584
Other real estate owned	63	12	51
Loans ⁽²⁾	863	308	555
Total assets at fair value on a nonrecurring basis	\$4,324	\$2,134	\$2,190
In millions of dollars	Fair value	Level 2	Level 3
December 31, 2016			
Loans held-for-sale ⁽¹⁾	\$5,802	\$3,389	\$2,413
Other real estate owned	75	15	60
Loans ⁽²⁾	1,376	586	790
Total assets at fair value on a nonrecurring basis	\$7,253	\$3,990	\$3,263

(1) Net of fair value amounts on the unfunded portion of loans held-for-sale, recognized as other liabilities on the Consolidated Balance Sheet.

(2) Represents impaired loans held for investment whose carrying amount is based on the fair value of the underlying collateral, primarily real estate.

Valuation Techniques and Inputs for Level 3 Nonrecurring Fair Value Measurements

The following tables present the valuation techniques covering the majority of Level 3 nonrecurring fair value measurements and the most significant unobservable inputs used in those measurements:

As of June 30, 2017	Fair value ⁽¹⁾ (in millions)	Methodology	Input	Low ⁽²⁾	High	Weighted average ⁽³⁾	
Loans held-for-sale	\$ 1,510	Price-based	Price	\$0.88	\$ 100.00	\$93.68	
Other real estate owned	\$ 50	Price-based	Discount to price ⁽⁴⁾	0.34	%0.34	%0.34	%
			Appraised value	\$20,372	\$4,491,044	\$2,018,801	
			Price	\$54.61	\$85.81	\$58.74	
Loans ⁽⁵⁾	\$ 237	Price-based	Price	\$2.85	\$58.00	\$48.70	
	181	Recovery Analysis	Appraised Value	\$39.47	\$89.20	\$76.84	
As of December 31, 2016	Fair value ⁽¹⁾ (in millions)	Methodology	Input	Low ⁽²⁾	High	Weighted average ⁽³⁾	
Loans held-for-sale	\$ 2,413	Price-based	Price	\$—	\$ 100.00	\$93.08	
Other real estate owned	\$ 59	Price-based	Discount to price ⁽⁴⁾	0.34	%13.00	%3.10	%
			Price	\$64.65	\$74.39	\$66.21	
Loans ⁽⁵⁾	\$ 431	Cash flow	Price	\$3.25	\$105.00	\$59.61	
	197	Recovery analysis	Forward price	\$2.90	\$210.00	\$156.78	
	135	Price-based	Discount to price ⁽⁴⁾	0.25	%13.00	%8.34	%
			Appraised value	\$25.80	\$26,400,000	\$6,462,735	

(1) The fair value amounts presented in this table represent the primary valuation technique or techniques for each class of assets or liabilities.

(2) Some inputs are shown as zero due to rounding.

(3) Weighted averages are calculated based on the fair values of the instruments.

(4) Includes estimated costs to sell.

(5) Represents impaired loans held for investment whose carrying amounts are based on the fair value of the underlying collateral, primarily real estate.

Nonrecurring Fair Value Changes

The following table presents total nonrecurring fair value measurements for the period, included in earnings, attributable to the change in fair value relating to assets that were still held:

	Three Months Ended June 30, 2017	2016
In millions of dollars		
Loans held-for-sale	\$(5)	\$(35)
Other real estate owned	(3)	(4)
Loans ⁽¹⁾	(30)	(48)
Other assets ⁽²⁾	—	(23)
Total nonrecurring fair value gains (losses)	\$(38)	\$(110)

(1) Represents loans held for investment whose carrying amount is based on the fair value of the underlying collateral, primarily real estate.

(2) Represents net impairment losses related to an equity investment.

	Six Months	
	Ended June	
	2017	2016
In millions of dollars		
Loans held-for-sale	\$(5)	\$(32)
Other real estate owned	(3)	(5)
Loans ⁽¹⁾	(48)	(105)
Other assets ⁽²⁾	—	(211)
Total nonrecurring fair value gains (losses)	\$(56)	\$(353)

(1) Represents loans held for investment whose carrying amount is based on the fair value of the underlying collateral, primarily real estate.

(2) Represents net impairment losses related to an equity investment.

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

The following table presents the carrying value and fair value of Citigroup's financial instruments that are not carried at fair value. The table therefore excludes items measured at fair value on a recurring basis presented in the tables above.

In billions of dollars	June 30, 2017		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments	\$56.7	\$ 57.0	\$0.3	\$55.1	\$ 1.6
Federal funds sold and securities borrowed or purchased under agreements to resell	91.2	91.2	—	86.1	5.1
Loans ⁽¹⁾⁽²⁾	626.7	622.0	—	5.8	616.2
Other financial assets ⁽²⁾⁽³⁾	256.0	256.5	6.7	179.6	70.2
Liabilities					
Deposits	\$957.4	\$ 955.1	\$—	\$ 811.6	\$ 143.5
Federal funds purchased and securities loaned or sold under agreements to repurchase	109.9	109.9	—	109.9	—
Long-term debt ⁽⁴⁾	196.2	203.7	—	175.1	28.6
Other financial liabilities ⁽⁵⁾	124.5	124.5	—	15.4	109.1

In billions of dollars	December 31, 2016		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments	\$52.1	\$ 52.0	\$0.8	\$48.6	\$ 2.6
Federal funds sold and securities borrowed or purchased under agreements to resell	103.6	103.6	—	98.5	5.1
Loans ⁽¹⁾⁽²⁾	607.0	607.3	—	7.0	600.3
Other financial assets ⁽²⁾⁽³⁾	215.2	215.9	8.2	153.6	54.1
Liabilities					
Deposits	\$928.2	\$ 927.6	\$—	\$ 789.7	\$ 137.9
Federal funds purchased and securities loaned or sold under agreements to repurchase	108.2	108.2	—	107.8	0.4
Long-term debt ⁽⁴⁾	179.9	185.5	—	156.5	29.0
Other financial liabilities ⁽⁵⁾	115.3	115.3	—	16.2	99.1

The carrying value of loans is net of the Allowance for loan losses of \$12.0 billion for June 30, 2017 and \$12.1 billion for December 31, 2016. In addition, the carrying values exclude \$1.8 billion and \$1.9 billion of lease finance receivables at June 30, 2017 and December 31, 2016, respectively.

(2) Includes items measured at fair value on a nonrecurring basis.

Includes cash and due from banks, deposits with banks, brokerage receivables, reinsurance recoverables and other financial instruments included in Other assets on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

(4) The carrying value includes long-term debt balances under qualifying fair value hedges.

Includes brokerage payables, separate and variable accounts, short-term borrowings (carried at cost) and other

(5) financial instruments included in Other liabilities on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

The estimated fair values of the Company's corporate unfunded lending commitments at June 30, 2017 and December 31, 2016 were liabilities of \$2.4 billion and \$5.2 billion, respectively, substantially all of which are classified as Level 3. The Company does not estimate the fair values of consumer unfunded lending commitments, which are generally cancellable by providing notice to the borrower.

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21. FAIR VALUE ELECTIONS

The Company may elect to report most financial instruments and certain other items at fair value on an instrument-by-instrument basis with changes in fair value reported in earnings, other than DVA (see below). The election is made upon the initial recognition of an eligible financial asset, financial liability or firm commitment or when certain specified reconsideration events occur. The fair value election

may not be revoked once an election is made. The changes in fair value are recorded in current earnings, other than DVA, which from January 1, 2016 is reported in AOCI.

The Company has elected fair value accounting for its mortgage servicing rights. See Note 18 to the Consolidated Financial Statements for further discussions regarding the accounting and reporting of MSRs.

The following table presents the changes in fair value of those items for which the fair value option has been elected:

In millions of dollars	Changes in fair value—gains (losses)			
	Three Months Ended June 30, 2017		Six Months Ended June 30, 2016	
Assets				
Federal funds sold and securities borrowed or purchased under agreements to resell—selected portfolios	\$(58)	\$19	\$(91)	\$47
Trading account assets	232	(320)	662	(62)
Investments	(3)	(22)	(3)	(21)
Loans				
Certain corporate loans ⁽¹⁾	(5)	36	19	60
Certain consumer loans ⁽¹⁾	2	—	2	(1)
Total loans	\$(3)	\$36	\$21	\$59
Other assets				
MSRs	\$(11)	\$(137)	\$56	\$(362)
Certain mortgage loans held-for-sale ⁽²⁾	44	91	81	171
Other assets	—	—	—	370
Total other assets	\$33	\$(46)	\$137	\$179
Total assets	\$201	\$(333)	\$726	\$202
Liabilities				
Interest-bearing deposits	\$(30)	\$(18)	\$(44)	\$(68)
Federal funds purchased and securities loaned or sold under agreements to repurchase—selected portfolios	(527)	(2)	86	(8)
Trading account liabilities	25	3	51	97
Short-term borrowings	(99)	(114)	(80)	(34)
Long-term debt	(139)	(117)	(471)	(540)
Total liabilities	\$(770)	\$(248)	\$(458)	\$(553)

(1) Includes mortgage loans held by consolidated mortgage loan securitization VIEs.

(2) Includes gains (losses) associated with interest rate lock commitments for those loans that have been originated and elected under the fair value option.

Own Debt Valuation Adjustments (DVA)

Own debt valuation adjustments are recognized on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Among other variables, the fair value of liabilities for which the fair value option has been elected (other than non-recourse and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads.

The estimated change in the fair value of these liabilities due to such changes in the Company's own credit spread (or instrument-specific credit risk) was a loss of \$132 million and a gain of \$20 million for the three months ended June 30, 2017 and 2016, and a loss of \$227 million and a gain of \$327 million for the six months ended June 30, 2017 and 2016, respectively. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current credit spreads observable in the bond market into the relevant valuation technique used to value each liability as described above. Effective January 1, 2016, changes in fair value of fair value option liabilities related to changes in Citigroup's own credit spreads (DVA) are reflected as a component of AOCI; previously these amounts were recognized in Citigroup's Revenues and Net income along with all other changes in fair value. See Note 1 to the Consolidated Financial Statements for additional information.

The Fair Value Option for Financial Assets and Financial Liabilities

Selected Portfolios of Securities Purchased Under Agreements to Resell, Securities Borrowed, Securities Sold Under Agreements to Repurchase, Securities Loaned and Certain Non-Collateralized Short-Term Borrowings

The Company elected the fair value option for certain portfolios of fixed-income securities purchased under agreements to resell and fixed-income securities sold under agreements to repurchase, securities borrowed, securities loaned and certain non-collateralized short-term borrowings held primarily by broker-dealer entities in the United States, United Kingdom and Japan. In each case, the election was made because the related interest rate risk is managed on a portfolio basis, primarily with offsetting derivative instruments that are accounted for at fair value through earnings.

Changes in fair value for transactions in these portfolios are recorded in Principal transactions. The related interest revenue and interest expense are measured based on the contractual rates specified in the transactions and are reported as interest revenue and expense in the Consolidated Statement of Income.

Certain Loans and Other Credit Products

Citigroup has also elected the fair value option for certain other originated and purchased loans, including certain unfunded loan products, such as guarantees and letters of credit, executed by Citigroup's lending and trading businesses. None of these credit products are highly leveraged financing commitments. Significant groups of transactions include loans and unfunded loan products that are expected to be either sold or securitized in the near term, or transactions where the economic risks are hedged with derivative instruments, such as purchased credit default swaps or total return swaps where the Company pays the total return on the underlying loans to a third party. Citigroup has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications. Fair value was not elected for most lending transactions across the Company.

The following table provides information about certain credit products carried at fair value:

In millions of dollars	June 30, 2017		December 31, 2016	
	Trading assets	Loans	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	\$9,009	\$4,216	\$9,824	\$3,486
Aggregate unpaid principal balance in excess of fair value	402	3	758	18
Balance of non-accrual loans or loans more than 90 days past due	—	1	—	1
	—	—	—	1

Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due

In addition to the amounts reported above, \$1,203 million and \$1,828 million of unfunded commitments related to certain credit products selected for fair value accounting were

outstanding as of June 30, 2017 and December 31, 2016, respectively.

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Changes in the fair value of funded and unfunded credit products are classified in Principal transactions in the Company's Consolidated Statement of Income. Related interest revenue is measured based on the contractual interest rates and reported as Interest revenue on Trading account assets or loan interest depending on the balance sheet classifications of the credit products. The changes in fair value for the six months ended June 30, 2017 and 2016 due to instrument-specific credit risk totaled to a gain of \$25 million and \$56 million, respectively.

Certain Investments in Unallocated Precious Metals

Citigroup invests in unallocated precious metals accounts (gold, silver, platinum and palladium) as part of its commodity and foreign currency trading activities or to economically hedge certain exposures from issuing structured liabilities. Under ASC 815, the investment is bifurcated into a debt host contract and a commodity forward derivative instrument. Citigroup elects the fair value option for the debt host contract, and reports the debt host contract within Trading account assets on the Company's Consolidated Balance Sheet. The total carrying amount of debt host contracts across unallocated precious metals accounts was approximately \$0.8 billion and \$0.6 billion at June 30, 2017 and December 31, 2016, respectively. The amounts are expected to fluctuate based on trading activity in future periods.

As part of its commodity and foreign currency trading activities, Citi trades unallocated precious metals investments and executes forward purchase and forward sale derivative contracts with trading counterparties. When Citi sells an unallocated precious metals investment, Citi's receivable from its depository bank is repaid and Citi derecognizes its investment in the unallocated precious metal. The forward purchase or sale contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings. As of June 30, 2017, there were approximately \$16.8 billion and \$13.9 billion notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively.

Certain Investments in Private Equity and Real Estate Ventures and Certain Equity Method and Other Investments

Citigroup invests in private equity and real estate ventures for the purpose of earning investment returns and for capital appreciation. The Company has elected the fair value option for certain of these ventures, because such investments are considered similar to many private equity or hedge fund activities in Citi's investment companies, which are reported at fair value. The fair value option brings consistency in the accounting and evaluation of these investments. All investments (debt and equity) in such private equity and real estate entities are accounted for at fair value. These investments are classified as Investments on Citigroup's Consolidated Balance Sheet.

Changes in the fair values of these investments are classified in Other revenue in the Company's Consolidated Statement of Income.

Citigroup also elects the fair value option for certain non-marketable equity securities whose risk is managed with derivative instruments that are accounted for at fair value through earnings. These securities are classified as Trading account assets on Citigroup's Consolidated Balance Sheet. Changes in the fair value of these securities and the related derivative instruments are recorded in Principal transactions.

Certain Mortgage Loans Held-for-Sale (HFS)

Citigroup has elected the fair value option for certain purchased and originated prime fixed-rate and conforming adjustable-rate first mortgage loans HFS. These loans are intended for sale or securitization and are hedged with derivative instruments. The Company has elected the fair value option to mitigate accounting mismatches in cases where hedge accounting is complex and to achieve operational simplifications.

The following table provides information about certain mortgage loans HFS carried at fair value:

In millions of dollars	June 30, December	
	2017	31, 2016
Carrying amount reported on the Consolidated Balance Sheet	\$ 468	\$ 915
Aggregate fair value in excess of unpaid principal balance	17	8

Balance of non-accrual loans or loans more than 90 days past due	—	—
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	—	—

The changes in the fair values of these mortgage loans are reported in Other revenue in the Company's Consolidated Statement of Income. There was no net change in fair value during the six months ended June 30, 2017 and 2016 due to instrument-specific credit risk. Related interest income continues to be measured based on the contractual interest rates and reported as Interest revenue in the Consolidated Statement of Income.

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Certain Structured Liabilities

The Company has elected the fair value option for certain structured liabilities whose performance is linked to structured interest rates, inflation, currency, equity, referenced credit or commodity risks. The Company elected the fair value option because these exposures are considered to be trading-related positions and, therefore, are managed on a fair value basis. These positions will continue to be classified as debt, deposits or derivatives (Trading account liabilities) on the Company's Consolidated Balance Sheet according to their legal form.

The following table provides information about the carrying value of structured notes, disaggregated by type of embedded derivative instrument:

In billions of dollars	June 30, December 31,	
	2017	2016
Interest rate linked	\$ 12.1	\$ 10.6
Foreign exchange linked	0.2	0.2
Equity linked	12.0	12.3
Commodity linked	0.9	0.3
Credit linked	2.0	0.9
Total	\$ 27.2	\$ 24.3

Prior to 2016, the total change in the fair value of these structured liabilities was reported in Principal transactions in the Company's Consolidated Statement of Income. Beginning in the first quarter of 2016, the portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (DVA) is reflected as a component of AOCI while all other changes in fair value will continue to be reported in Principal transactions. Changes in the fair value of these structured liabilities include accrued interest, which is also included in the change in fair value reported in Principal transactions.

Certain Non-Structured Liabilities

The Company has elected the fair value option for certain non-structured liabilities with fixed and floating interest rates. The Company has elected the fair value option where the interest rate risk of such liabilities may be economically hedged with derivative contracts or the proceeds are used to purchase financial assets that will also be accounted for at fair value through earnings. The elections have been made to mitigate accounting mismatches and to achieve operational simplifications. These positions are reported in Short-term borrowings and Long-term debt on the Company's Consolidated Balance Sheet. Prior to 2016, the total change in the fair value of these non-structured liabilities was reported in Principal transactions in the Company's Consolidated Statement of Income. Beginning in the first quarter of 2016, the portion of the changes in fair value attributable to changes in Citigroup's own credit spreads (DVA) is reflected as a component of AOCI while all other changes in fair value will continue to be reported in Principal transactions.

Interest expense on non-structured liabilities is measured based on the contractual interest rates and reported as Interest expense in the Consolidated Statement of Income.

The following table provides information about long-term debt carried at fair value:

In millions of dollars	June 30, December 31,	
	2017	2016
Carrying amount reported on the Consolidated Balance Sheet	\$29,001	\$ 26,254
Aggregate unpaid principal balance in excess of (less than) fair value	866	(128)

The following table provides information about short-term borrowings carried at fair value:

In millions of dollars	June 30, December 31,	
	2017	2016
Carrying amount reported on the Consolidated Balance Sheet	\$4,833	\$ 2,700
Aggregate unpaid principal balance in excess of (less than) fair value	(71)	(61)

22. GUARANTEES AND COMMITMENTS

Citi provides a variety of guarantees and indemnifications to its customers to enhance their credit standing and enable them to complete a wide variety of business transactions. For

certain contracts meeting the definition of a guarantee, the guarantor must recognize, at inception, a liability for the fair value of the obligation undertaken in issuing the guarantee.

In addition, the guarantor must disclose the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, if there were a total

default by the guaranteed parties. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible

recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

For additional information regarding Citi's guarantees and indemnifications included in the tables below, as well as its other guarantees and indemnifications excluded from the tables below, see Note 26 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

The following tables present information about Citi's guarantees at June 30, 2017 and December 31, 2016:

In billions of dollars at June 30, 2017 except carrying value in millions	Maximum potential amount of future payments			Carrying value (in millions of dollars)
	Expire within 1 year	Expire after 1 year	Total amount outstanding	
Financial standby letters of credit	\$36.8	\$56.4	\$ 93.2	\$ 162
Performance guarantees	7.5	3.0	10.5	20
Derivative instruments considered to be guarantees	14.1	83.6	97.7	806
Loans sold with recourse	—	0.2	0.2	10
Securities lending indemnifications ⁽¹⁾	97.0	—	97.0	—
Credit card merchant processing ⁽¹⁾⁽²⁾	83.8	—	83.8	—
Credit card arrangements with partners	0.1	1.3	1.4	206
Custody indemnifications and other	—	52.0	52.0	59
Total	\$239.3	\$196.5	\$ 435.8	\$ 1,263

In billions of dollars at December 31, 2016 except carrying value in millions	Maximum potential amount of future payments			Carrying value (in millions of dollars)
	Expire within 1 year	Expire after 1 year	Total amount outstanding	
Financial standby letters of credit	\$ 26.0	\$ 67.1	\$ 93.1	\$ 141
Performance guarantees	7.5	3.6	11.1	19
Derivative instruments considered to be guarantees	7.2	80.0	87.2	747
Loans sold with recourse	—	0.2	0.2	12
	80.3	—	80.3	—

Explanation of Responses:

Securities lending indemnifications ⁽¹⁾				
Credit card merchant processing ⁽¹⁾⁽²⁾	86.4	—	86.4	—
Credit card arrangements with partners	—	1.5	1.5	206
Custody indemnifications and other	—	45.4	45.4	58
Total	\$ 207.4	\$ 197.8	\$ 405.2	\$ 1,183

(1) The carrying values of securities lending indemnifications and credit card merchant processing were not material for either period presented, as the probability of potential liabilities arising from these guarantees is minimal.

At June 30, 2017 and December 31, 2016, this maximum potential exposure was estimated to be \$84 billion and \$86 billion, respectively. However, Citi believes that the maximum exposure is not representative of the actual (2) potential loss exposure based on its historical experience. This contingent liability is unlikely to arise, as most products and services are delivered when purchased and amounts are refunded when items are returned to merchants.

Loans sold with recourse

Loans sold with recourse represent Citi's obligations to reimburse the buyers for loan losses under certain circumstances. Recourse refers to the clause in a sales agreement under which a seller/lender will fully reimburse the buyer/investor for any losses resulting from the purchased loans. This may be accomplished by the seller taking back any loans that become delinquent.

In addition to the amounts shown in the tables above, Citi has recorded a repurchase reserve for its potential repurchases or make-whole liability regarding residential mortgage representation and warranty claims related to its whole loan sales to the U.S. government-sponsored enterprises (GSEs) and, to a lesser extent, private investors. The repurchase reserve was approximately \$75 million and \$107 million at June 30, 2017 and December 31, 2016, respectively, and these amounts are included in Other liabilities on the Consolidated Balance Sheet.

Credit card arrangements with partners

Citi, in certain of its credit card partner arrangements, provides guarantees to the partner regarding the volume of certain customer originations during the term of the agreement. To the extent such origination targets are not met, the guarantees serve to compensate the partner for certain payments that otherwise would have been generated in connection with such originations.

Other guarantees and indemnifications

Credit Card Protection Programs

Citi, through its credit card businesses, provides various cardholder protection programs on several of its card products, including programs that provide insurance coverage for rental cars, coverage for certain losses associated with purchased products, price protection for certain purchases and protection for lost luggage. These guarantees are not included in the table, since the total outstanding amount of the guarantees and Citi's maximum exposure to loss cannot be quantified. The protection is limited to certain types of purchases and losses, and it is not possible to quantify the purchases that would qualify for these benefits at any given time. Citi assesses the probability and amount of its potential liability related to these programs based on the extent and nature of its historical loss experience. At June 30, 2017 and December 31, 2016, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were

immaterial.

Value-Transfer Networks

Citi is a member of, or shareholder in, hundreds of value transfer networks (VTNs) (payment, clearing and settlement systems as well as exchanges) around the world. As a condition of membership, many of these VTNs require that members stand ready to pay a pro rata share of the losses incurred by the organization due to another member's default

on its obligations. Citi's potential obligations may be limited to its membership interests in the VTNs, contributions to the VTN's funds, or, in limited cases, the obligation may be unlimited. The maximum exposure cannot be estimated as this would require an assessment of future claims that have not yet occurred. Citi believes the risk of loss is remote given historical experience with the VTNs. Accordingly, Citi's participation in VTNs is not reported in the guarantees tables above, and there are no amounts reflected on the Consolidated Balance Sheet as of June 30, 2017 or December 31, 2016 for potential obligations that could arise from Citi's involvement with VTN associations.

Long-Term Care Insurance Indemnification

In connection with the 2005 sale of certain insurance and annuity subsidiaries to MetLife Inc. (MetLife), the Company provided an indemnification for policyholder claims and other liabilities relating to a book of long-term care (LTC) business (for the entire term of the LTC policies) that is fully reinsured by subsidiaries of Genworth Financial Inc. (Genworth). In turn, Genworth has offsetting reinsurance agreements with MetLife and the Union Fidelity Life Insurance Company (UFLIC), a subsidiary of the General Electric Company. Genworth has funded two trusts with securities whose fair value (approximately \$7.3 billion at June 30, 2017, compared to \$7.0 billion at December 31, 2016) is designed to cover Genworth's statutory liabilities for the LTC policies. The trusts serve as collateral for Genworth's reinsurance obligations related to the MetLife LTC policies and MetLife Insurance Company USA is the sole beneficiary of the trusts. The assets in these trusts are evaluated and adjusted periodically to ensure that the fair value of the assets continues to cover the estimated statutory liabilities related to the LTC policies, as those statutory liabilities change over time.

If Genworth fails to perform under the reinsurance agreement for any reason, including insolvency, and the assets in the two trusts are insufficient or unavailable to MetLife, then Citi must reimburse MetLife for any losses actually incurred in connection with the LTC policies. Since both events would have to occur before Citi would become responsible for any payment to MetLife pursuant to its indemnification obligation, and the likelihood of such events occurring is currently not probable, there is no liability reflected in the Consolidated Balance Sheet as of June 30, 2017 and December 31, 2016 related to this indemnification. Citi continues to closely monitor its potential exposure under this indemnification obligation.

In the fourth quarter of 2016, MetLife announced it was pursuing spinning off the entity involved in the long-term care reinsurance obligations as part of a broader separation of its retail and group/corporate insurance operations. Separately, Genworth announced that it had agreed to be purchased by China Oceanwide Holdings Co., Ltd, subject to a series of conditions and regulatory approvals. Citi is monitoring these developments.

Futures and over-the-counter derivatives clearing

Citi provides clearing services on central clearing parties (CCP) for clients that need to clear exchange-traded and over-the-counter (OTC) derivatives contracts with CCPs. Based on all relevant facts and circumstances, Citi has concluded that it acts as an agent for accounting purposes in its role as clearing member for these client transactions. As such, Citi does not reflect the underlying exchange-traded or OTC derivatives contracts in its Consolidated Financial Statements. See Note 19 for a discussion of Citi's derivatives activities that are reflected in its Consolidated Financial Statements.

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers. There are two types of margin: initial margin and variation margin. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP, or depository institutions, is reflected within Brokerage payables (payables to customers) and Brokerage receivables (receivables from brokers, dealers and clearing organizations) or Cash and due from banks, respectively.

However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin; (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets; (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately \$10.2 billion and \$9.4 billion as of June 30, 2017 and December 31, 2016, respectively.

Variation margin due from clients to the respective CCP, or from the CCP to clients, reflects changes in the value of the client's derivative contracts for each trading day. As a clearing member, Citi is exposed to the risk of nonperformance by clients (e.g., failure of a client to post variation margin to the CCP for negative changes in the value of the client's derivative contracts). In the event of

non-performance by a client, Citi would move to close out the client's positions. The CCP would typically utilize initial margin posted by the client and held by the CCP, with any remaining shortfalls required to be paid by Citi as clearing member. Citi generally holds incremental cash or securities margin posted by the client, which would typically be expected to be sufficient to mitigate Citi's credit risk in the event the client fails to perform.

As required by ASC 860-30-25-5, securities collateral posted by clients is not recognized on Citi's Consolidated Balance Sheet.

Carrying Value—Guarantees and Indemnifications

At June 30, 2017 and December 31, 2016, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately \$1.3 billion and \$1.2 billion. The carrying value of financial and performance guarantees is included in Other liabilities. For loans sold with recourse, the carrying value of the liability is included in Other liabilities.

Collateral

Explanation of Responses:

Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to \$57 billion and \$45 billion at June 30, 2017 and December 31, 2016, respectively. Securities and other marketable assets held as collateral amounted to \$43 billion and \$38 billion at June 30, 2017 and December 31, 2016, respectively. The majority of collateral is held to reimburse losses realized under securities lending indemnifications. Additionally, letters of credit in favor of Citi held as collateral amounted to \$5.4 billion at both June 30, 2017 and December 31, 2016. Other property may also be available to Citi to cover losses under certain guarantees and indemnifications; however, the value of such property has not been determined.

Performance risk

Presented in the tables below are the maximum potential amounts of future payments that are classified based upon internal and external credit ratings. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

In billions of dollars at June 30, 2017	Maximum potential amount of future payments			Total
	Investment grade	Non-investment grade	Not rated	
Financial standby letters of credit	\$67.0	\$ 12.3	\$13.9	\$93.2
Performance guarantees	6.8	2.9	0.8	10.5
Derivative instruments deemed to be guarantees	—	—	97.7	97.7
Loans sold with recourse	—	—	0.2	0.2
Securities lending indemnifications	—	—	97.0	97.0
Credit card merchant processing	—	—	83.8	83.8
Credit card arrangements with partners	—	—	1.4	1.4
Custody indemnifications and other	51.5	0.3	0.2	52.0
Total	\$125.3	\$ 15.5	\$295.0	\$435.8

In billions of dollars at December 31, 2016	Maximum potential amount of future payments			Total
	Investment grade	Non-investment grade	Not rated	
Financial standby letters of credit	\$66.8	\$ 13.4	\$12.9	\$93.1
Performance guarantees	6.3	4.0	0.8	11.1
Derivative instruments deemed to be guarantees	—	—	87.2	87.2
Loans sold with recourse	—	—	0.2	0.2
Securities lending indemnifications	—	—	80.3	80.3
Credit card merchant processing	—	—	86.4	86.4
Credit card arrangements with partners	—	—	1.5	1.5
Custody indemnifications and other	45.3	0.1	—	45.4
Total	\$118.4	\$ 17.5	\$269.3	\$405.2

Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

In millions of dollars			June 30, 2017	December 31, 2016
	U.S.	Outside of U.S.		
Commercial and similar letters of credit	\$913	\$4,275	\$5,188	\$ 5,736
One- to four-family residential mortgages	1,589	1,681	3,270	2,838
Revolving open-end loans secured by one- to four-family residential properties	11,487	1,551	13,038	13,405
Commercial real estate, construction and land development	10,816	1,394	12,210	10,781
Credit card lines	577,326	98,938	676,264	664,335
Commercial and other consumer loan commitments	168,318	95,569	263,887	259,934
Other commitments and contingencies	2,163	9,371	11,534	11,267
Total	\$772,612	\$212,779	\$985,391	\$ 968,296

The majority of unused commitments are contingent upon customers maintaining specific credit standards. Commercial commitments generally have floating interest rates and fixed expiration dates and may require payment of fees. Such fees (net of certain direct costs) are deferred and, upon exercise of the commitment, amortized over the life of the loan or, if exercise is deemed remote, amortized over the commitment period.

23. CONTINGENCIES

The following information supplements and amends, as applicable, the disclosures in Note 23 to the Consolidated Financial Statements of Citigroup's First Quarter of 2017 Form 10-Q and Note 27 to the Consolidated Financial Statements of Citigroup's 2016 Annual Report on Form 10-K. For purposes of this Note, Citigroup, its affiliates and subsidiaries and current and former officers, directors and employees, are sometimes collectively referred to as Citigroup and Related Parties.

In accordance with ASC 450, Citigroup establishes accruals for contingencies, including the litigation and regulatory matters disclosed herein, when Citigroup believes it is probable that a loss has been incurred and the amount of the loss can be reasonably estimated. Once established, accruals are adjusted from time to time, as appropriate, in light of additional information. The amount of loss ultimately incurred in relation to those matters may be substantially higher or lower than the amounts accrued for those matters.

If Citigroup has not accrued for a matter because the matter does not meet the criteria for accrual (as set forth above), or Citigroup believes an exposure to loss exists in excess of the amount accrued for a particular matter, in each case assuming a material loss is reasonably possible, Citigroup discloses the matter. In addition, for such matters, Citigroup discloses an estimate of the aggregate reasonably possible loss or range of loss in excess of the amounts accrued for those matters as to which an estimate can be made. At June 30, 2017, Citigroup's estimate of the reasonably possible unaccrued loss for these matters ranges up to approximately \$1.5 billion in the aggregate.

As available information changes, the matters for which Citigroup is able to estimate will change, and the estimates themselves will change. In addition, while many estimates presented in financial statements and other financial disclosures involve significant judgment and may be subject to significant uncertainty, estimates of the range of reasonably possible loss arising from litigation and regulatory proceedings are subject to particular uncertainties. For example, at the time of making an estimate, Citigroup may have only preliminary, incomplete or inaccurate information about the facts underlying the claim; its assumptions about the future rulings of the court or other tribunal on significant issues, or the behavior and incentives of adverse parties or regulators, may prove to be wrong; and the outcomes it is attempting to predict are often not amenable to the use of statistical or other quantitative analytical tools. In addition, from time to time an outcome may occur that Citigroup had not accounted for in its estimates because it had deemed such an outcome to be remote. For all these reasons, the amount of loss in excess of accruals ultimately incurred for the matters as to which an estimate has been made could be substantially higher or lower than the range of loss included in the estimate.

Subject to the foregoing, it is the opinion of Citigroup's management, based on current knowledge and after taking into account its current legal accruals, that the eventual outcome of all matters described in this Note would not be likely to have a material adverse effect on the consolidated financial condition

of Citigroup. Nonetheless, given the substantial or indeterminate amounts sought in certain of these matters and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could, from time to time, have a material adverse effect on Citigroup's consolidated results of operations or cash flows in particular quarterly or annual periods.

For further information on ASC 450 and Citigroup's accounting and disclosure framework for contingencies, including for litigation and regulatory matters disclosed herein, see Note 27 to the Consolidated Financial Statements of Citigroup's 2016 Annual Report on Form 10-K.

Credit Crisis-Related Litigation and Other Matters

Mortgage-Related Litigation and Other Matters

Mortgage Backed Securities Trustee Actions:

On May 23, 2017, the plaintiffs cross-moved for partial summary judgment in *FIXED INCOME SHARES: SERIES M ET AL. v. CITIBANK N.A.* Additional information concerning this action is publicly available in court filings under the docket number 14-cv-9373 (S.D.N.Y.) (Furman, J.).

On June 27, 2017, the court granted in part and denied in part Citibank's motion to dismiss the amended complaint in FIXED INCOME SHARES: SERIES M ET AL. v. CITIBANK N.A., pending in New York State Supreme Court. Additional information concerning this action is publicly available in court filings under the docket number 653891/2015 (N.Y. Sup. Ct.) (Ramos, J.).

On July 11, 2017, in FEDERAL DEPOSIT INSURANCE CORPORATION AS RECEIVER FOR GUARANTY BANK v. CITIBANK N.A., the court denied plaintiff's motion for reconsideration but granted the plaintiff leave to amend the complaint within 90 days to establish its standing to sue. Additional information concerning this action is publicly available in court filings under the docket number 15-cv-6574 (S.D.N.Y.) (Carter, J.).

Credit Default Swaps Matters

Antitrust and Other Litigation: On June 8, 2017, a complaint was filed in the United States District Court for the Southern District of New York against numerous credit default swap (CDS) market participants, including Citigroup, Citibank, CGMI and CGML, under the caption TERA GROUP, INC., ET AL. v. CITIGROUP INC., ET AL. The complaint alleges that defendants colluded to prevent plaintiffs' electronic CDS trading platform, TeraExchange, from entering the market, resulting in lost profits to plaintiffs. The complaint asserts federal and state antitrust claims, and claims for unjust enrichment and tortious interference with business relations. Plaintiffs are seeking a finding of joint and several liability, treble damages, attorneys' fees, pre and post judgment interest and a permanent injunction. Additional information concerning this action is publicly available in court filings under the docket number 17-cv-04302 (S.D.N.Y.) (Sullivan, J.).

Foreign Exchange Matters

Antitrust and Other Litigation: On May 5, 2017, in *NYPL v. JPMORGAN CHASE & CO., ET AL.*, plaintiffs moved for leave to amend their previously dismissed complaint, which defendants opposed on June 14, 2017. Additional information concerning this action is publicly available in court filings under the docket numbers 15 Civ. 2290 (N.D. Cal.) (Chhabria, J.) and 15 Civ. 9300 (S.D.N.Y.) (Schofield, J.).

On April 28, 2017, plaintiffs voluntarily dismissed their amended complaint in *BAKER ET AL. v. BANK OF AMERICA CORPORATION ET AL.* On April 28 and June 10, 2017, plaintiffs (including certain of the Baker plaintiffs) filed two new putative class action suits, captioned *CONTANT ET AL. v. BANK OF AMERICA CORPORATION ET AL.* and *LAVENDER ET AL. v. BANK OF AMERICA CORPORATION ET AL.*; respectively, against various financial institutions, including Citigroup, Citibank, Citicorp, and CGMI. The suits were filed on behalf of purported classes of indirect purchasers of FX instruments sold by the defendants. Plaintiffs in each case allege that defendants engaged in a conspiracy to fix currency prices in violation of the Sherman Act and various state antitrust laws, and seek unspecified money damages (including treble damages), as well as equitable and injunctive relief. On June 30, 2017, the *CONTANT* and *LAVENDER* plaintiffs filed a consolidated class action complaint in *CONTANT*. Additional information concerning these actions is publicly available in court filings under the docket numbers 16 Civ. 7512 (S.D.N.Y.) (Schofield, J.), 17 Civ. 4392 (S.D.N.Y.) (Schofield, J.), and 17 Civ. 3139 (S.D.N.Y.) (Schofield, J.).

On July 11, 2017, in *NEGRETE v. CITIBANK, N.A.*, the court denied plaintiffs' motion for entry of final judgment as to the claims dismissed in the court's February 27, 2017 order. Additional information concerning this action is publicly available in court filings under the docket number 15 Civ. 7250 (S.D.N.Y.) (Sweet, J.).

On July 12, 2017, a putative class action captioned *ALPARI (US), LLC v. CITIGROUP, INC. AND CITIBANK, N.A.* was filed in the United States District Court for the Southern District of New York. Plaintiff asserts claims for breach of contract and unjust enrichment arising out of alleged cancellation of electronic FX transactions and seeks damages, restitution, injunctive relief, and attorneys' fees. Additional information concerning this action is publicly available in court filings under the docket number 17 Civ. 5269 (S.D.N.Y.).

Interbank Offered Rates-Related Litigation and Other Matters

Antitrust and Other Litigation: In May 2017, plaintiffs in *IN RE LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION* (the LIBOR MDL) filed motions to certify proposed classes in the over-the-counter (OTC), exchange-based, and lender class actions. On June 8, 2017, Judge Buchwald entered partial final judgment for the OTC plaintiffs, allowing them to appeal parts of the court's December 20, 2016 decision to the United States Court of Appeals for the Second Circuit. Additional information concerning these actions is publicly available in court filings

under the docket number 11 MD 2262 (S.D.N.Y.) (Buchwald, J.).

The Schwab plaintiffs, whose claims were dismissed in their entirety in December 2016, filed a notice of appeal to the Second Circuit on May 12, 2017. Additional information concerning this action is publicly available in court filings under the docket number 17-1569 (2d Cir.).

On April 27, 2017, in *FRONTPOINT ASIAN EVENT DRIVEN FUND, LTD ET AL. v. CITIBANK, N.A. ET AL.*, the court held oral argument on defendants' motions to dismiss. The court indicated at argument that it intends to dismiss most of the plaintiffs' claims with leave to replead some claims. Additional information is available in court filings under the docket number 16 Civ. 5263 (S.D.N.Y.) (Hellerstein, J.).

Interest Rate Swaps Matters

Antitrust and Other Litigation: On July 28, 2017, in *IN RE INTEREST RATE SWAPS ANTITRUST LITIGATION*, the court ruled on defendants' motions to dismiss, granting them in part and denying them in part. Additional information is publicly available in court filings under the docket number 16 MD 2704 (S.D.N.Y.) (Engelmayer, J.).

Money Laundering Inquiries

Regulatory Actions: As previously announced, on May 22, 2017, the United States Department of Justice, Citigroup, and Citigroup's subsidiary, Banamex, USA (BUSA), announced a settlement of all remaining open inquiries conducted jointly by the Department and the U.S. Attorney's Office for the District of Massachusetts concerning the Bank Secrecy Act and anti-money laundering compliance of Citigroup and related entities, including BUSA. The settlement includes a non-prosecution agreement and forfeiture amount of approximately \$97 million.

Sovereign Securities Matters

Antitrust and Other Litigation: On July 14, 2017, defendants, including Citigroup and Related Parties, moved to dismiss the consolidated amended complaint in IN RE SSA BONDS ANTITRUST LITIGATION. Additional information relating to this action is publicly available in court filings under the docket number 16 Civ. 03711 (S.D.N.Y.) (Ramos, J.).

Settlement Payments

Payments required in settlement agreements described above have been made or are covered by existing litigation accruals.

24. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

Citigroup amended its Registration Statement on Form S-3 on file with the SEC (File No. 33-192302) to add its wholly owned subsidiary, Citigroup Global Markets Holdings Inc. (CGMHI), as a co-registrant. Any securities issued by CGMHI under the Form S-3 will be fully and unconditionally guaranteed by Citigroup.

The following are the Condensed Consolidating Statements of Income and Comprehensive Income for the three and six months ended June 30, 2017 and 2016, Condensed Consolidating Balance Sheet as of June 30, 2017 and December 31, 2016 and Condensed Consolidating Statement of Cash Flows for the six months ended June 30, 2017 and 2016 for Citigroup Inc., the parent holding company (Citigroup parent company), CGMHI, other Citigroup subsidiaries and eliminations and total consolidating adjustments. "Other Citigroup subsidiaries and eliminations" includes all other subsidiaries of Citigroup, intercompany eliminations and income (loss) from discontinued operations. "Consolidating adjustments" includes Citigroup parent company elimination of distributed and undistributed income of subsidiaries and investment in subsidiaries.

These Condensed Consolidating Financial Statements have been prepared and presented in accordance with SEC Regulation S-X Rule 3-10, "Financial Statements of Guarantors and Issuers of Guaranteed Securities Registered or Being Registered."

These Condensed Consolidating Financial Statements schedules are presented for purposes of additional analysis, but should be considered in relation to the Consolidated Financial Statements of Citigroup taken as a whole.

Condensed Consolidating Statements of Income and Comprehensive Income

Three Months Ended June 30, 2017

In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	\$2,515	\$—	\$—	\$ (2,515)	\$—
Interest revenue	(1)	1,404	13,798	—	15,201
Interest revenue—intercompany	1,076	377	(1,453)	—	—
Interest expense	1,136	546	2,354	—	4,036
Interest expense—intercompany	263	653	(916)	—	—
Net interest revenue	\$(324)	\$582	\$ 10,907	\$—	\$ 11,165
Commissions and fees	\$—	\$1,279	\$ 1,658	\$—	\$ 2,937
Commissions and fees—intercompany	(1)	108	(107)	—	—
Principal transactions	1,122	398	1,042	—	2,562
Principal transactions—intercompany	396	290	(686)	—	—
Other income	(1,601)	87	2,751	—	1,237
Other income—intercompany	161	(7)	(154)	—	—
Total non-interest revenues	\$77	\$2,155	\$ 4,504	\$—	\$ 6,736
Total revenues, net of interest expense	\$2,268	\$2,737	\$ 15,411	\$ (2,515)	\$ 17,901
Provisions for credit losses and for benefits and claims	\$—	\$1	\$ 1,716	\$—	\$ 1,717
Operating expenses					
Compensation and benefits	\$(1)	\$1,212	\$ 4,252	\$—	\$ 5,463
Compensation and benefits—intercompany	20	—	(20)	—	—
Other operating	(344)	443	4,944	—	5,043
Other operating—intercompany	10	502	(512)	—	—
Total operating expenses	\$(315)	\$2,157	\$ 8,664	\$—	\$ 10,506
Equity in undistributed income of subsidiaries	\$1,183	\$—	\$—	\$ (1,183)	\$—
Income (loss) from continuing operations before income taxes	\$3,766	\$579	\$ 5,031	\$ (3,698)	\$ 5,678
Provision (benefit) for income taxes	(106)	261	1,640	—	1,795
Income from continuing operations	\$3,872	\$318	\$ 3,391		