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

**FORM 8-K**  
**CURRENT REPORT**

**Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

Date of Report (Date of earliest event reported) **June 17, 2016**

**Citigroup Inc.**

(Exact name of Registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**1-9924**  
(Commission File Number)

**52-1568099**  
(I.R.S. Employer Identification No.)

**388 Greenwich Street, New York, NY**  
(Address of principal executive offices)

**10013**  
(Zip code)

**(212) 559-1000**  
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
  - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
  - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
  - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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**CITIGROUP INC.**  
**Current Report on Form 8-K**

**Item 8.01 Other Events.**

As previously disclosed, effective in the first quarter of 2016, certain reclassifications, including a realignment of certain businesses, were made to the prior periods' financial statements of Citigroup Inc. (Citi) to conform to the first quarter of 2016 presentation. For additional information on these reclassifications, see Note 3 to the Consolidated Financial Statements in Citi's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2016 (First Quarter 2016 Form 10-Q) filed with the U.S. Securities and Exchange Commission (SEC) on May 2, 2016 and Citi's Current Report on Form 8-K furnished to the SEC on April 12, 2016. These reclassifications were reflected in Citi's First Quarter 2016 Form 10-Q.

In accordance with ASC 280, Segment Reporting, attached as Exhibit 99.02 to this Form 8-K are the historical audited consolidated financial statements for Citi's Annual Report on Form 10-K for the fiscal year ended December 31, 2015 (2015 Form 10-K), conformed to reflect these reclassifications. Citi's consolidated results remain unchanged for all periods presented as a result of these reclassifications. These reclassifications have also been reflected in Exhibits 99.01 and 101 to this Form 8-K. The information included in this Form 8-K should be read in conjunction with Citi's 2015 Form 10-K and First Quarter 2016 Form 10-Q. This Form 8-K does not reflect events occurring after Citi filed its 2015 Form 10-K and does not modify or update the disclosures therein in any way, other than to illustrate the realignment of its organizational structure as described above. For developments subsequent to the filing of the 2015 Form 10-K, refer to Citi's First Quarter 2016 Form 10-Q.

Exhibit 99.02 will serve as Citi's historical audited consolidated financial statements as of December 31, 2015 and 2014 and for the three years ended December 31, 2015 for existing and future filings made pursuant to the Securities Act of 1933, as amended, until Citi files its Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

**Item 9.01 Financial Statements and Exhibits.**

(d) Exhibits.

Exhibit Number

- |       |   |
|-------|---|
| 99.01 | Segment and Business Income (loss) and Revenues of Citigroup Inc. for the three years ended December 31, 2015.  |
| 99.02 | Historical Audited Consolidated Financial Statements of Citigroup Inc. as of December 31, 2015 and 2014 and for the three years ended December 31, 2015, reflecting the above-referenced reclassifications. Also included is the Report of Independent Registered Public Accounting Firm dated February 26, 2016, except as to Notes 3, 15, 16, 17 and 22 which are as of June 17, 2016.  |
| 99.03 | Consent of KPMG LLP, Independent Registered Public Accounting Firm.   |
| 101   | Historical Audited Consolidated Financial Statements of Citigroup Inc. as of December 31, 2015 and 2014 and for the three years ended December 31, 2015, formatted in XBRL: (i) the Consolidated Statement of Income, (ii) the Consolidated Statement of Comprehensive Income (iii) the Consolidated Balance Sheet, (iv) the Consolidated Statement of Changes in Stockholders' Equity, (v) the Consolidated Statement of Cash Flows and (vi) the Notes to Consolidated Financial Statements. |

**SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: June 17, 2016

CITIGROUP INC.

/s/ JEFFREY R. WALSH

Jeffrey R. Walsh

By: Controller and Chief Accounting Officer

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### Exhibit Number

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## SEGMENT AND BUSINESS—INCOME (LOSS) AND REVENUES

The following tables show the income (loss) and revenues for Citigroup on a segment and business view:

## CITIGROUP INCOME

<i>In millions of dollars</i>	2015	2014	2013	% Change 2015 vs. 2014	% Change 2014 vs. 2013
<b>Income (loss) from continuing operations</b>					
<b>CITICORP</b>					
<b>Global Consumer Banking</b>					
<i>North America</i>	\$ 4,311	\$ 4,488	\$ 3,976	(4)%	13 %
<i>Latin America</i>	868	993	1,115	(13)%	(11)%
<i>Asia<sup>(1)</sup></i>	1,197	1,221	1,402	(2)%	(13)%
<b>Total</b>	\$ 6,376	\$ 6,702	\$ 6,493	(5)%	3 %
<b>Institutional Clients Group</b>					
<i>North America</i>	\$ 3,517	\$ 4,155	\$ 3,079	(15)%	35 %
<i>EMEA</i>	2,340	2,060	2,558	14 %	(19)%
<i>Latin America</i>	1,393	1,401	1,652	(1)%	(15)%
<i>Asia</i>	2,279	2,029	2,184	12 %	(7)%
<b>Total</b>	\$ 9,529	\$ 9,645	\$ 9,473	(1)%	2 %
<i>Corporate/Other</i>	\$ 496	\$ (5,373)	\$ (514)	NM	NM
<b>Total Citicorp</b>	\$ 16,401	\$ 10,974	\$ 15,452	49 %	(29)%
<b>Citi Holdings</b>	\$ 985	\$ (3,470)	\$ (1,836)	NM	(89)%
<b>Income from continuing operations</b>	\$ 17,386	\$ 7,504	\$ 13,616	NM	(45)%
<b>Discontinued operations</b>	\$ (54)	\$ (2)	\$ 270	NM	(101)%
<b>Net income attributable to noncontrolling interests</b>	90	192	227	(53)%	(15)%
<b>Citigroup's net income</b>	\$ 17,242	\$ 7,310	\$ 13,659	NM	(46)%

(1) For reporting purposes, *Asia GCB* includes the results of operations of *EMEA GCB* for all periods presented.  
 NM Not meaningful

## CITIGROUP REVENUES

<i>In millions of dollars</i>	2015	2014	2013	% Change 2015 vs. 2014	% Change 2014 vs. 2013
<b>CITICORP</b>					
<b>Global Consumer Banking</b>					
<i>North America</i>	\$ 19,718	\$ 19,948	\$ 20,075	(1)%	(1)%
<i>Latin America</i>	5,770	6,557	6,481	(12)%	1 %
<i>Asia<sup>(1)</sup></i>	7,007	7,791	7,839	(10)%	(1)%
<b>Total</b>	\$ 32,495	\$ 34,296	\$ 34,395	(5)%	— %
<b>Institutional Clients Group</b>					
<i>North America</i>	\$ 12,980	\$ 13,002	\$ 11,432	— %	14 %
<i>EMEA</i>	9,958	9,511	10,153	5 %	(6)%
<i>Latin America</i>	4,051	4,218	4,843	(4)%	(13)%
<i>Asia</i>	7,002	6,581	7,152	6 %	(8)%
<b>Total</b>	\$ 33,991	\$ 33,312	\$ 33,580	2 %	(1)%
<b>Corporate/Other</b>	\$ 908	\$ 303	\$ 322	NM	(6)%
<b>Total Citicorp</b>	\$ 67,394	\$ 67,911	\$ 68,297	(1)%	(1)%
<b>Citi Holdings</b>	\$ 8,960	\$ 9,308	\$ 8,427	(4)%	10 %
<b>Total Citigroup net revenues</b>	\$ 76,354	\$ 77,219	\$ 76,724	(1)%	1 %

(1) For reporting purposes, *Asia GCB* includes the results of operations of *EMEA GCB* for all periods presented.

NM Not meaningful

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM—  
CONSOLIDATED FINANCIAL STATEMENTS**

The Board of Directors and Stockholders  
Citigroup Inc.:

We have audited the accompanying consolidated balance sheet of Citigroup Inc. and subsidiaries (the “Company” or “Citigroup”) as of December 31, 2015 and 2014, and the related consolidated statements of income, comprehensive income, changes in stockholders’ equity and cash flows for each of the years in the three-year period ended December 31, 2015. These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Citigroup as of December 31, 2015 and 2014, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Citigroup’s internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 26, 2016 expressed an unqualified opinion on the effectiveness of the Company’s internal control over financial reporting.

/s/ KPMG LLP

New York, New York

February 26, 2016, except as to Notes 3, 15, 16, 17 and 22  
which are as of June 17, 2016.

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CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF INCOME

Citigroup Inc. and Subsidiaries

<i>In millions of dollars, except per share amounts</i>	Years ended December 31,		
	2015	2014	2013
<b>Revenues<sup>(1)</sup></b>			
Interest revenue	\$ 58,551	\$ 61,683	\$ 62,970
Interest expense	11,921	13,690	16,177
<b>Net interest revenue</b>	<b>\$ 46,630</b>	<b>\$ 47,993</b>	<b>\$ 46,793</b>
Commissions and fees	\$ 11,848	\$ 13,032	\$ 12,941
Principal transactions	6,008	6,698	7,302
Administration and other fiduciary fees	3,648	4,013	4,089
Realized gains on sales of investments, net	682	570	748
Other-than-temporary impairment losses on investments			
Gross impairment losses	(265)	(432)	(633)
Less: Impairments recognized in AOCI	—	8	98
Net impairment (losses) recognized in earnings	\$ (265)	\$ (424)	\$ (535)
Insurance premiums	\$ 1,845	\$ 2,110	\$ 2,280
Other revenue	5,958	3,227	3,106
<b>Total non-interest revenues</b>	<b>\$ 29,724</b>	<b>\$ 29,226</b>	<b>\$ 29,931</b>
<b>Total revenues, net of interest expense</b>	<b>\$ 76,354</b>	<b>\$ 77,219</b>	<b>\$ 76,724</b>
<b>Provisions for credit losses and for benefits and claims</b>			
Provision for loan losses	\$ 7,108	\$ 6,828	\$ 7,604
Policyholder benefits and claims	731	801	830
Provision (release) for unfunded lending commitments	74	(162)	80
<b>Total provisions for credit losses and for benefits and claims</b>	<b>\$ 7,913</b>	<b>\$ 7,467</b>	<b>\$ 8,514</b>
<b>Operating expenses<sup>(1)</sup></b>			
Compensation and benefits	\$ 21,769	\$ 23,959	\$ 23,967
Premises and equipment	2,878	3,178	3,165
Technology/communication	6,581	6,436	6,136
Advertising and marketing	1,547	1,844	1,888
Other operating	10,840	19,634	13,252
<b>Total operating expenses</b>	<b>\$ 43,615</b>	<b>\$ 55,051</b>	<b>\$ 48,408</b>
<b>Income from continuing operations before income taxes</b>	<b>\$ 24,826</b>	<b>\$ 14,701</b>	<b>\$ 19,802</b>
Provision for income taxes	7,440	7,197	6,186
<b>Income from continuing operations</b>	<b>\$ 17,386</b>	<b>\$ 7,504</b>	<b>\$ 13,616</b>
<b>Discontinued operations</b>			
Income (loss) from discontinued operations	\$ (83)	\$ 10	\$ (242)
Gain on sale	—	—	268
Provision (benefit) for income taxes	(29)	12	(244)
<b>Income (loss) from discontinued operations, net of taxes</b>	<b>\$ (54)</b>	<b>\$ (2)</b>	<b>\$ 270</b>
<b>Net income before attribution of noncontrolling interests</b>	<b>\$ 17,332</b>	<b>\$ 7,502</b>	<b>\$ 13,886</b>
Noncontrolling interests	90	192	227
<b>Citigroup's net income</b>	<b>\$ 17,242</b>	<b>\$ 7,310</b>	<b>\$ 13,659</b>
<b>Basic earnings per share<sup>(2)</sup></b>			
Income from continuing operations	\$ 5.43	\$ 2.21	\$ 4.26
Income (loss) from discontinued operations, net of taxes	(0.02)	—	0.09
<b>Net income</b>	<b>\$ 5.41</b>	<b>\$ 2.21</b>	<b>\$ 4.35</b>
<b>Weighted average common shares outstanding</b>	<b>3,004.0</b>	<b>3,031.6</b>	<b>3,035.8</b>

<b>Diluted earnings per share<sup>(2)</sup></b>						
Income from continuing operations	\$	5.42	\$	2.20	\$	4.25
Income (loss) from discontinued operations, net of taxes		(0.02)		—		0.09
<b>Net income</b>	<b>\$</b>	<b>5.40</b>	<b>\$</b>	<b>2.20</b>	<b>\$</b>	<b>4.34</b>
<b>Adjusted weighted average common shares outstanding</b>		<b>3,007.7</b>		<b>3,037.0</b>		<b>3,041.6</b>

(1) Certain prior-period revenue and expense lines and totals were reclassified to conform to the current period's presentation. See Note 3 to the Consolidated Financial Statements.

(2) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

**CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME**
*Citigroup Inc. and Subsidiaries*

<i>In millions of dollars</i>	<b>Years ended December 31,</b>		
	<b>2015</b>	2014	2013
<b>Net income before attribution of noncontrolling interests</b>	<b>\$ 17,332</b>	\$ 7,502	\$ 13,886
<b>Add: Citigroup's other comprehensive income (loss)</b>			
Net change in unrealized gains and losses on investment securities, net of taxes	<b>\$ (964)</b>	\$ 1,697	\$ (2,237)
Net change in cash flow hedges, net of taxes	<b>292</b>	336	1,048
Benefit plans liability adjustment, net of taxes <sup>(1)</sup>	<b>43</b>	(1,170)	1,281
Net change in foreign currency translation adjustment, net of taxes and hedges	<b>(5,499)</b>	(4,946)	(2,329)
<b>Citigroup's total other comprehensive income (loss)</b>	<b>\$ (6,128)</b>	\$ (4,083)	\$ (2,237)
<b>Total comprehensive income before attribution of noncontrolling interests</b>	<b>\$ 11,204</b>	\$ 3,419	\$ 11,649
Less: Net income attributable to noncontrolling interests	<b>90</b>	192	227
<b>Citigroup's comprehensive income</b>	<b>\$ 11,114</b>	\$ 3,227	\$ 11,422

- (1) Reflects adjustments based on the actuarial valuations of the Company's pension and postretirement plans, including changes in the mortality assumptions at December 31, 2014, and amortization of amounts previously recognized in *Accumulated other comprehensive income (loss)*. See Note 8 to the Consolidated Financial Statements.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

**CONSOLIDATED BALANCE SHEET**
*Citigroup Inc. and Subsidiaries*

<i>In millions of dollars</i>	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
<b>Assets</b>		
Cash and due from banks (including segregated cash and other deposits)	\$ 20,900	\$ 32,108
Deposits with banks	112,197	128,089
Federal funds sold and securities borrowed or purchased under agreements to resell (including \$137,964 and \$144,191 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	219,675	242,570
Brokerage receivables	27,683	28,419
Trading account assets (including \$92,123 and \$106,217 pledged to creditors at December 31, 2015 and December 31, 2014, respectively)	249,956	296,786
<b>Investments:</b>		
Available for sale (including \$10,698 and \$13,808 pledged to creditors as of December 31, 2015 and December 31, 2014, respectively)	299,136	300,143
Held to maturity (including \$3,630 and \$2,974 pledged to creditors as of December 31, 2015 and December 31, 2014, respectively)	36,215	23,921
Non-marketable equity securities (including \$2,088 and \$2,758 at fair value as of December 31, 2015 and December 31, 2014, respectively)	7,604	9,379
<b>Total investments</b>	<b>\$ 342,955</b>	<b>\$ 333,443</b>
<b>Loans:</b>		
Consumer (including \$34 and \$43 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	325,785	365,943
Corporate (including \$4,971 and \$5,858 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	291,832	278,692
<b>Loans, net of unearned income</b>	<b>\$ 617,617</b>	<b>\$ 644,635</b>
Allowance for loan losses	(12,626)	(15,994)
<b>Total loans, net</b>	<b>\$ 604,991</b>	<b>\$ 628,641</b>
Goodwill	22,349	23,592
Intangible assets (other than MSRs)	3,721	4,566
Mortgage servicing rights (MSRs)	1,781	1,845
Other assets (including \$6,121 and \$7,762 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	125,002	122,122
<b>Total assets</b>	<b>\$ 1,731,210</b>	<b>\$ 1,842,181</b>

The following table presents certain assets of consolidated variable interest entities (VIEs), which are included in the Consolidated Balance Sheet above. The assets in the table below include those assets that can only be used to settle obligations of consolidated VIEs, presented on the following page, and are in excess of those obligations. Additionally, the assets in the table below include third-party assets of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation.

<i>In millions of dollars</i>	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
<b>Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs</b>		
Cash and due from banks	\$ 153	\$ 300
Trading account assets	583	671
Investments	5,263	8,014
<b>Loans, net of unearned income</b>		
Consumer	58,772	66,383
Corporate	22,008	29,596
<b>Loans, net of unearned income</b>	<b>\$ 80,780</b>	<b>\$ 95,979</b>
Allowance for loan losses	(2,135)	(2,793)
<b>Total loans, net</b>	<b>\$ 78,645</b>	<b>\$ 93,186</b>
Other assets	150	619
<b>Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs</b>	<b>\$ 84,794</b>	<b>\$ 102,790</b>

Statement continues on the next page.

**CONSOLIDATED BALANCE SHEET**  
(Continued)

Citigroup Inc. and Subsidiaries

<i>In millions of dollars, except shares and per share amounts</i>	December 31,	
	2015	2014
<b>Liabilities</b>		
Non-interest-bearing deposits in U.S. offices	\$ 139,249	\$ 128,958
Interest-bearing deposits in U.S. offices (including \$923 and \$994 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	280,234	284,978
Non-interest-bearing deposits in offices outside the U.S.	71,577	70,925
Interest-bearing deposits in offices outside the U.S. (including \$667 and \$690 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	416,827	414,471
Total deposits	\$ 907,887	\$ 899,332
Federal funds purchased and securities loaned or sold under agreements to repurchase (including \$36,843 and \$36,725 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	146,496	173,438
Brokerage payables	53,722	52,180
Trading account liabilities	117,512	139,036
Short-term borrowings (including \$1,207 and \$1,496 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	21,079	58,335
Long-term debt (including \$25,293 and \$26,180 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	201,275	223,080
Other liabilities (including \$1,624 and \$1,776 as of December 31, 2015 and December 31, 2014, respectively, at fair value)	60,147	85,084
<b>Total liabilities</b>	<b>\$ 1,508,118</b>	<b>\$ 1,630,485</b>
<b>Stockholders' equity</b>		
Preferred stock (\$1.00 par value; authorized shares: 30 million), issued shares: <b>668,720 as of December 31, 2015</b> and 418,720 as of December 31, 2014, at aggregate liquidation value	\$ 16,718	\$ 10,468
Common stock (\$0.01 par value; authorized shares: 6 billion), issued shares: <b>3,099,482,042 as of December 31, 2015</b> and 3,082,037,568 as of December 31, 2014	31	31
Additional paid-in capital	108,288	107,979
Retained earnings	133,841	117,852
Treasury stock, at cost: <b>December 31, 2015—146,203,311</b> shares and December 31, 2014—58,119,993 shares	(7,677)	(2,929)
Accumulated other comprehensive income (loss)	(29,344)	(23,216)
<b>Total Citigroup stockholders' equity</b>	<b>\$ 221,857</b>	<b>\$ 210,185</b>
Noncontrolling interest	1,235	1,511
<b>Total equity</b>	<b>\$ 223,092</b>	<b>\$ 211,696</b>
<b>Total liabilities and equity</b>	<b>\$ 1,731,210</b>	<b>\$ 1,842,181</b>

The following table presents certain liabilities of consolidated VIEs, which are included in the Consolidated Balance Sheet above. The liabilities in the table below include third-party liabilities of consolidated VIEs only and exclude intercompany balances that eliminate in consolidation. The liabilities also exclude amounts where creditors or beneficial interest holders have recourse to the general credit of Citigroup.

<i>In millions of dollars</i>	December 31,	
	2015	2014
<b>Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup</b>		
Short-term borrowings	\$ 11,965	\$ 20,254
Long-term debt	31,273	40,078
Other liabilities	2,099	901
<b>Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup</b>	<b>\$ 45,337</b>	<b>\$ 61,233</b>

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

**CONSOLIDATED STATEMENT OF CHANGES IN STOCKHOLDERS' EQUITY**
*Citigroup Inc. and Subsidiaries*

	Years ended December 31,					
	Amounts			Shares		
	2015	2014	2013	2015	2014	2013
<i>In millions of dollars, except shares in thousands</i>						
<b>Preferred stock at aggregate liquidation value</b>						
Balance, beginning of year	\$ 10,468	\$ 6,738	\$ 2,562	419	270	102
Issuance of new preferred stock	6,250	3,730	4,270	250	149	171
Redemption of preferred stock	—	—	(94)	—	—	(3)
Balance, end of period	\$ 16,718	\$ 10,468	\$ 6,738	669	419	270
<b>Common stock and additional paid-in capital</b>						
Balance, beginning of year	\$ 108,010	\$ 107,224	\$ 106,421	3,082,038	3,062,099	3,043,153
Employee benefit plans	357	798	878	17,438	19,928	18,930
Preferred stock issuance expense	(23)	(31)	(78)	—	—	—
Other	(25)	19	3	6	11	16
Balance, end of period	\$ 108,319	\$ 108,010	\$ 107,224	3,099,482	3,082,038	3,062,099
<b>Retained earnings</b>						
Balance, beginning of year	\$ 117,852	\$ 110,821	\$ 97,809			
Adjustment to opening balance, net of taxes <sup>(1)</sup>	—	—	(332)			
Adjusted balance, beginning of period	\$ 117,852	\$ 110,821	\$ 97,477			
Citigroup's net income	17,242	7,310	13,659			
Common dividends <sup>(2)</sup>	(484)	(122)	(120)			
Preferred dividends	(769)	(511)	(194)			
Tax benefit	—	353	—			
Other	—	1	(1)			
Balance, end of period	\$ 133,841	\$ 117,852	\$ 110,821			
<b>Treasury stock, at cost</b>						
Balance, beginning of year	\$ (2,929)	\$ (1,658)	\$ (847)	(58,119)	(32,856)	(14,269)
Employee benefit plans <sup>(3)</sup>	704	(39)	26	13,318	(483)	(1,629)
Treasury stock acquired <sup>(4)</sup>	(5,452)	(1,232)	(837)	(101,402)	(24,780)	(16,958)
Balance, end of period	\$ (7,677)	\$ (2,929)	\$ (1,658)	(146,203)	(58,119)	(32,856)
<b>Citigroup's accumulated other comprehensive income (loss)</b>						
Balance, beginning of year	\$ (23,216)	\$ (19,133)	\$ (16,896)			
Citigroup's total other comprehensive income (loss)	(6,128)	(4,083)	(2,237)			
Balance, end of period	\$ (29,344)	\$ (23,216)	\$ (19,133)			
<b>Total Citigroup common stockholders' equity</b>	<b>\$ 205,139</b>	<b>\$ 199,717</b>	<b>\$ 197,254</b>	<b>2,953,279</b>	<b>3,023,919</b>	<b>3,029,243</b>
<b>Total Citigroup stockholders' equity</b>	<b>\$ 221,857</b>	<b>\$ 210,185</b>	<b>\$ 203,992</b>			
<b>Noncontrolling interests</b>						
Balance, beginning of year	\$ 1,511	\$ 1,794	\$ 1,948			
Initial origination of a noncontrolling interest	—	—	6			
Transactions between noncontrolling-interest shareholders and the related consolidated subsidiary	—	—	(2)			
Transactions between Citigroup and the noncontrolling-interest shareholders	(164)	(96)	(118)			
Net income attributable to noncontrolling-interest shareholders	90	192	227			
Dividends paid to noncontrolling-interest shareholders	(78)	(91)	(63)			
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	(83)	(106)	(17)			
Other	(41)	(182)	(187)			
<b>Net change in noncontrolling interests</b>	<b>\$ (276)</b>	<b>\$ (283)</b>	<b>\$ (154)</b>			
<b>Balance, end of period</b>	<b>\$ 1,235</b>	<b>\$ 1,511</b>	<b>\$ 1,794</b>			
<b>Total equity</b>	<b>\$ 223,092</b>	<b>\$ 211,696</b>	<b>\$ 205,786</b>			

- (1) Citi adopted ASU 2014-01 *Investments-Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Affordable Housing*, in the first quarter of 2015 on a retrospective basis. This adjustment to opening *Retained earnings* represents the impact to periods prior to January 1, 2013 and is shown as an adjustment to the opening balance since 2013 is the earliest period presented in this statement. See Note 1 to the Consolidated Financial Statements for additional information.
- (2) Common dividends declared were \$0.01 per share in the first quarter and \$0.05 both in the second, third and fourth quarters of 2015 and \$0.01 per share in each quarter of 2014.
- (3) Includes treasury stock related to (i) certain activity on employee stock option program exercises where the employee delivers existing shares to cover the option exercise, or (ii) under Citi's employee restricted or deferred stock programs where shares are withheld to satisfy tax requirements.
- (4) For the twelve months ended December 31, 2015, 2014 and 2013, primarily consists of open market purchases under Citi's Board of Directors-approved common stock repurchase program.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

**CONSOLIDATED STATEMENT OF CASH FLOWS**
*Citigroup Inc. and Subsidiaries*

<i>In millions of dollars</i>	<b>Years ended December 31,</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Cash flows from operating activities of continuing operations</b>			
Net income before attribution of noncontrolling interests	\$ 17,332	\$ 7,502	\$ 13,886
Net income attributable to noncontrolling interests	90	192	227
<b>Citigroup's net income</b>	<b>\$ 17,242</b>	<b>\$ 7,310</b>	<b>\$ 13,659</b>
Loss from discontinued operations, net of taxes	(54)	(2)	(90)
Gain on sale, net of taxes	—	—	360
<b>Income from continuing operations—excluding noncontrolling interests</b>	<b>\$ 17,296</b>	<b>\$ 7,312</b>	<b>\$ 13,389</b>
<b>Adjustments to reconcile net income to net cash provided by operating activities of continuing operations</b>			
Gains on significant disposals <sup>(1)</sup>	(3,210)	(452)	—
Amortization of deferred policy acquisition costs and present value of future profits	191	210	194
Additions to deferred policy acquisition costs	(62)	(64)	(54)
Depreciation and amortization	3,506	3,589	3,303
Deferred tax provision	2,794	3,347	2,699
Provision for loan losses	7,108	6,828	7,604
Realized gains from sales of investments	(682)	(570)	(748)
Net impairment losses on investments, goodwill and intangible assets	318	426	535
Change in trading account assets	46,830	(10,858)	35,001
Change in trading account liabilities	(21,524)	30,274	(6,787)
Change in brokerage receivables net of brokerage payables	2,278	(4,272)	(6,490)
Change in loans held-for-sale (HFS)	(7,207)	(1,144)	4,321
Change in other assets	(32)	(1,690)	13,028
Change in other liabilities	(1,135)	7,973	(7,880)
Other, net	(6,732)	5,434	5,129
<b>Total adjustments</b>	<b>\$ 22,441</b>	<b>\$ 39,031</b>	<b>\$ 49,855</b>
<b>Net cash provided by operating activities of continuing operations</b>	<b>\$ 39,737</b>	<b>\$ 46,343</b>	<b>\$ 63,244</b>
<b>Cash flows from investing activities of continuing operations</b>			
Change in deposits with banks	\$ 15,488	\$ 40,916	\$ (66,871)
Change in federal funds sold and securities borrowed or purchased under agreements to resell	22,895	14,467	4,274
Change in loans	1,353	1,170	(30,198)
Proceeds from sales and securitizations of loans	9,610	4,752	9,123
Purchases of investments	(242,362)	(258,992)	(220,823)
Proceeds from sales of investments	141,470	135,824	131,100
Proceeds from maturities of investments	82,047	94,117	84,831
Proceeds from significant disposals <sup>(1)</sup>	5,932	346	—
Payments due to transfers of net liabilities associated with significant disposals <sup>(1)(2)</sup>	(18,929)	(1,255)	—
Capital expenditures on premises and equipment and capitalized software	(3,198)	(3,386)	(3,490)
Proceeds from sales of premises and equipment, subsidiaries and affiliates, and repossessed assets	577	623	716
<b>Net cash provided by (used in) investing activities of continuing operations</b>	<b>\$ 14,883</b>	<b>\$ 28,582</b>	<b>\$ (91,338)</b>
<b>Cash flows from financing activities of continuing operations</b>			
Dividends paid	\$ (1,253)	\$ (633)	\$ (314)
Issuance of preferred stock	6,227	3,699	4,192
Redemption of preferred stock	—	—	(94)
Treasury stock acquired	(5,452)	(1,232)	(837)
Stock tendered for payment of withholding taxes	(428)	(508)	(452)
Change in federal funds purchased and securities loaned or sold under agreements to repurchase	(26,942)	(30,074)	(7,724)



Issuance of long-term debt	44,619	66,836	54,405
Payments and redemptions of long-term debt	(52,843)	(58,923)	(63,994)
Change in deposits	8,555	(48,336)	37,713
Change in short-term borrowings	(37,256)	(1,099)	199
<b>Net cash provided by (used in) financing activities of continuing operations</b>	<b>\$ (64,773)</b>	<b>\$ (70,270)</b>	<b>\$ 23,094</b>
Effect of exchange rate changes on cash and cash equivalents	\$ (1,055)	\$ (2,432)	\$ (1,558)
<b>Discontinued operations</b>			
<b>Net cash used in discontinued operations</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ (10)</b>
<b>Change in cash and due from banks</b>	<b>\$ (11,208)</b>	<b>\$ 2,223</b>	<b>\$ (6,568)</b>
<b>Cash and due from banks at beginning of period</b>	<b>32,108</b>	<b>29,885</b>	<b>36,453</b>
<b>Cash and due from banks at end of period</b>	<b>\$ 20,900</b>	<b>\$ 32,108</b>	<b>\$ 29,885</b>
<b>Supplemental disclosure of cash flow information for continuing operations</b>			
Cash paid during the year for income taxes	\$ 4,978	\$ 4,632	\$ 4,495
Cash paid during the year for interest	12,031	14,001	15,655
<b>Non-cash investing activities</b>			
Change in loans due to consolidation/deconsolidation of VIEs	\$ —	\$ (374)	\$ 6,718
Decrease in net loans associated with significant disposals reclassified to HFS	(9,063)	—	—
Decrease in investments associated with significant disposals reclassified to HFS	(1,402)	—	—
Decrease in goodwill and intangible assets associated with significant disposals reclassified to HFS	(223)	—	—
Decrease in deposits with banks with significant disposals reclassified to HFS	(404)	—	—
Transfers to loans HFS from loans	28,600	15,100	17,300
Transfers to OREO and other repossessed assets	276	321	325
<b>Non-cash financing activities</b>			
Decrease in long-term debt associated with significant disposals reclassified to HFS	\$ (4,673)	\$ —	\$ —
Decrease in deposits associated with reclassification to HFS	—	(20,605)	—
Increase in short-term borrowings due to consolidation of VIEs	—	500	6,718
Decrease in long-term debt due to deconsolidation of VIEs	—	(864)	—

(1) See Note 1 to the Consolidated Financial Statements for the adoption of ASU No. 2014-08 in the second quarter of 2014 and Note 2 for further information on significant disposals.

(2) The payments associated with significant disposals result primarily from the sale of deposit liabilities.

The Notes to the Consolidated Financial Statements are an integral part of these Consolidated Financial Statements.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Throughout these Notes, “Citigroup,” “Citi” and the “Company” refer to Citigroup Inc. and its consolidated subsidiaries.

Certain reclassifications have been made to the prior periods’ financial statements and notes to conform to the current period’s presentation.

#### Principles of Consolidation

The Consolidated Financial Statements include the accounts of Citigroup and its subsidiaries prepared in accordance with U.S. Generally Accepted Accounting Principles (GAAP). The Company consolidates subsidiaries in which it holds, directly or indirectly, more than 50% of the voting rights or where it exercises control. Entities where the Company holds 20% to 50% of the voting rights and/or has the ability to exercise significant influence, other than investments of designated venture capital subsidiaries or investments accounted for at fair value under the fair value option, are accounted for under the equity method, and the pro rata share of their income (loss) is included in *Other revenue*. Income from investments in less than 20% owned companies is recognized when dividends are received. As discussed in more detail in Note 22 to the Consolidated Financial Statements, Citigroup also consolidates entities deemed to be variable interest entities when Citigroup is determined to be the primary beneficiary. Gains and losses on the disposition of branches, subsidiaries, affiliates, buildings, and other investments are included in *Other revenue*.

#### Citibank

Citibank, N.A. (Citibank) is a commercial bank and wholly owned subsidiary of Citigroup. Citibank’s principal offerings include: consumer finance, mortgage lending and retail banking (including commercial banking) products and services; investment banking, cash management and trade finance; and private banking products and services.

#### Variable Interest Entities

An entity is referred to as a variable interest entity (VIE) if it meets the criteria outlined in Accounting Standards Codification (ASC) Topic 810, *Consolidation*, which are: (i) the entity has equity that is insufficient to permit the entity to finance its activities without additional subordinated financial support from other parties; or (ii) the entity has equity investors that cannot make significant decisions about the entity’s operations or that do not absorb their proportionate share of the entity’s expected losses or expected returns.

The Company consolidates a VIE when it has both the power to direct the activities that most significantly impact the VIE’s economic performance and a right to receive benefits or the obligation to absorb losses of the entity that could be potentially significant to the VIE (that is, Citi is the primary beneficiary).

In addition to variable interests held in consolidated VIEs, the Company has variable interests in other VIEs that are not consolidated because the Company is not the primary beneficiary. These include collateralized loan obligations (CLOs), many structured finance transactions and various investment funds. However, these VIEs and all other unconsolidated VIEs are monitored by the Company to assess whether any events have occurred to cause its primary beneficiary status to change. These events include:

- purchases or sales of variable interests by Citigroup or an unrelated third party, which cause Citigroup’s overall variable interest ownership to change;
- changes in contractual arrangements that reallocate expected losses and residual returns among the variable interest holders;
- changes in the party that has power to direct the activities of a VIE that most significantly impact the entity’s economic performance; and
- providing financial support to an entity that results in an implicit variable interest.

All other entities not deemed to be VIEs with which the Company has involvement are evaluated for consolidation under other subtopics of ASC 810.

#### Foreign Currency Translation

Assets and liabilities of Citi’s foreign operations are translated from their respective functional currencies into U.S. dollars using period-end spot foreign-exchange rates. The effects of those translation adjustments are reported in *Accumulated other comprehensive income (loss)*, a component of stockholders’ equity, along with any related hedge and tax effects, until realized upon sale or substantial liquidation of the foreign operation. Revenues and expenses of Citi’s foreign operations are translated monthly from their respective functional currencies into U.S. dollars at amounts that approximate weighted average exchange rates.

For transactions whose terms are denominated in a currency other than the functional currency, including transactions denominated in the local currencies of foreign operations with the U.S. dollar as their functional currency, the effects of changes in exchange rates are primarily included in *Principal transactions*, along with the related effects of any economic hedges. Instruments used to hedge foreign currency exposures include foreign currency forward, option and swap contracts and in certain instances, designated issues of non-U.S. dollar debt. Foreign operations in countries with highly inflationary economies designate the U.S. dollar as their functional currency, with the effects of changes in exchange rates primarily included in *Other revenue*.

## Investment Securities

Investments include fixed income and equity securities. Fixed income instruments include bonds, notes and redeemable preferred stocks, as well as certain loan-backed and structured securities that are subject to prepayment risk. Equity securities include common and nonredeemable preferred stock.

Investment securities are classified and accounted for as follows:

- Fixed income securities classified as “held-to-maturity” are securities that the Company has both the ability and the intent to hold until maturity and are carried at amortized cost. Interest income on such securities is included in *Interest revenue*.
- Fixed income securities and marketable equity securities classified as “available-for-sale” are carried at fair value with changes in fair value reported in *Accumulated other comprehensive income (loss)*, a component of Stockholders’ equity, net of applicable income taxes and hedges. Realized gains and losses on sales are included in income primarily on a specific identification cost basis. Interest and dividend income on such securities is included in *Interest revenue*.
- Certain investments in non-marketable equity securities and certain investments that would otherwise have been accounted for using the equity method are carried at fair value, since the Company has elected to apply fair value accounting. Changes in fair value of such investments are recorded in earnings.
- Certain non-marketable equity securities are carried at cost and are periodically assessed for other-than-temporary impairment, as described in Note 14 to the Consolidated Financial Statements.

For investments in fixed income securities classified as held-to-maturity or available-for-sale, the accrual of interest income is suspended for investments that are in default or for which it is likely that future interest payments will not be made as scheduled.

Investment securities are subject to evaluation for other-than-temporary impairment as described in Note 14 to the Consolidated Financial Statements.

The Company uses a number of valuation techniques for investments carried at fair value, which are described in Note 25 to the Consolidated Financial Statements. Realized gains and losses on sales of investments are included in earnings.

## Trading Account Assets and Liabilities

*Trading account assets* include debt and marketable equity securities, derivatives in a receivable position, residual interests in securitizations and physical commodities inventory. In addition, as described in Note 26 to the Consolidated Financial Statements, certain assets that Citigroup has elected to carry at fair value under the fair value option, such as loans and purchased guarantees, are also included in *Trading account assets*.

*Trading account liabilities* include securities sold, not yet purchased (short positions) and derivatives in a net payable position, as well as certain liabilities that Citigroup has elected to carry at fair value (as described in Note 26 to the Consolidated Financial Statements).

Other than physical commodities inventory, all trading account assets and liabilities are carried at fair value. Revenues generated from trading assets and trading liabilities are generally reported in *Principal transactions* and include realized gains and losses as well as unrealized gains and losses resulting from changes in the fair value of such instruments. Interest income on trading assets is recorded in *Interest revenue* reduced by interest expense on trading liabilities.

Physical commodities inventory is carried at the lower of cost or market with related losses reported in *Principal transactions*. Realized gains and losses on sales of commodities inventory are included in *Principal transactions*. Investments in unallocated precious metals accounts (gold, silver, platinum and palladium) are accounted for as hybrid instruments containing a debt host contract and an embedded non-financial derivative instrument indexed to the price of the relevant precious metal. The embedded derivative instrument is separated from the debt host contract and accounted for at fair value. The debt host contract is accounted for at fair value under the fair value option, as described in Note 26 to the Consolidated Financial Statements.

Derivatives used for trading purposes include interest rate, currency, equity, credit, and commodity swap agreements, options, caps and floors, warrants, and financial and commodity futures and forward contracts. Derivative asset and liability positions are presented net by counterparty on the Consolidated Balance Sheet when a valid master netting agreement exists and the other conditions set out in ASC 210-20, *Balance Sheet—Offsetting*, are met. See Note 23 to the Consolidated Financial Statements.

The Company uses a number of techniques to determine the fair value of trading assets and liabilities, which are described in Note 25 to the Consolidated Financial Statements.

### **Securities Borrowed and Securities Loaned**

Securities borrowing and lending transactions do not constitute a sale of the underlying securities for accounting purposes and are treated as collateralized financing transactions. Such transactions are recorded at the amount of proceeds advanced or received plus accrued interest. As described in Note 26 to the Consolidated Financial Statements, the Company has elected to apply fair value accounting to a number of securities borrowing and lending transactions. Fees paid or received for all securities lending and borrowing transactions are recorded in *Interest expense* or *Interest revenue* at the contractually specified rate.

The Company monitors the fair value of securities borrowed or loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 25 to the Consolidated Financial Statements, the Company uses a discounted cash flow technique to determine the fair value of securities lending and borrowing transactions.

### **Repurchase and Resale Agreements**

Securities sold under agreements to repurchase (repos) and securities purchased under agreements to resell (reverse repos) do not constitute a sale (or purchase) of the underlying securities for accounting purposes and are treated as collateralized financing transactions. As described in Note 26 to the Consolidated Financial Statements, the Company has elected to apply fair value accounting to the majority of such transactions, with changes in fair value reported in earnings. Any transactions for which fair value accounting has not been elected are recorded at the amount of cash advanced or received plus accrued interest. Irrespective of whether the Company has elected fair value accounting, interest paid or received on all repo and reverse repo transactions is recorded in *Interest expense* or *Interest revenue* at the contractually specified rate.

Where the conditions of ASC 210-20-45-11, *Balance Sheet-Offsetting: Repurchase and Reverse Repurchase Agreements*, are met, repos and reverse repos are presented net on the Consolidated Balance Sheet.

The Company's policy is to take possession of securities purchased under reverse repurchase agreements. The Company monitors the fair value of securities subject to repurchase or resale on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

As described in Note 25 to the Consolidated Financial Statements, the Company uses a discounted cash flow technique to determine the fair value of repo and reverse repo transactions.

### **Loans**

Loans are reported at their outstanding principal balances net of any unearned income and unamortized deferred fees and costs except that credit card receivable balances also include accrued interest and fees. Loan origination fees and certain direct origination costs are generally deferred and

recognized as adjustments to income over the lives of the related loans.

As described in Note 26 to the Consolidated Financial Statements, Citi has elected fair value accounting for certain loans. Such loans are carried at fair value with changes in fair value reported in earnings. Interest income on such loans is recorded in *Interest revenue* at the contractually specified rate.

Loans for which the fair value option has not been elected are classified upon origination or acquisition as either held-for-investment or held-for-sale. This classification is based on management's initial intent and ability with regard to those loans.

Loans that are held-for-investment are classified as *Loans, net of unearned income* on the Consolidated Balance Sheet, and the related cash flows are included within the cash flows from investing activities category in the Consolidated Statement of Cash Flows on the line *Change in loans*. However, when the initial intent for holding a loan has changed from held-for-investment to held-for-sale, the loan is reclassified to held-for-sale, but the related cash flows continue to be reported in cash flows from investing activities in the Consolidated Statement of Cash Flows on the line *Proceeds from sales and securitizations of loans*.

### *Consumer Loans*

Consumer loans represent loans and leases managed primarily by the *Global Consumer Banking (GCB)* businesses and Citi Holdings.

### *Consumer Non-accrual and Re-aging Policies*

As a general rule, interest accrual ceases for installment and real estate (both open- and closed-end) loans when payments are 90 days contractually past due. For credit cards and other unsecured revolving loans, however, Citi generally accrues interest until payments are 180 days past due. As a result of OCC guidance, home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Also as a result of OCC guidance, mortgage loans in regulated bank entities discharged through Chapter 7 bankruptcy, other than FHA-insured loans, are classified as non-accrual. Commercial market loans are placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due.

Loans that have been modified to grant a concession to a borrower in financial difficulty may not be accruing interest at the time of the modification. The policy for returning such modified loans to accrual status varies by product and/or region. In most cases, a minimum number of payments (ranging from one to six) is required, while in other cases the loan is never returned to accrual status. For regulated bank entities, such modified loans are returned to accrual status if a credit evaluation at the time of, or subsequent to, the modification indicates the borrower is able to meet the restructured terms, and the borrower is current and has demonstrated a reasonable period of

sustained payment performance (minimum six months of consecutive payments).

For U.S. consumer loans, generally one of the conditions to qualify for modification is that a minimum number of payments (typically ranging from one to three) must be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for the loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years). Furthermore, Federal Housing Administration (FHA) and Department of Veterans Affairs (VA) loans may only be modified under those respective agencies' guidelines and payments are not always required in order to re-age a modified loan to current.

#### *Consumer Charge-Off Policies*

Citi's charge-off policies follow the general guidelines below:

- Unsecured installment loans are charged off at 120 days contractually past due.
- Unsecured revolving loans and credit card loans are charged off at 180 days contractually past due.
- Loans secured with non-real estate collateral are written down to the estimated value of the collateral, less costs to sell, at 120 days contractually past due.
- Real estate-secured loans are written down to the estimated value of the property, less costs to sell, at 180 days contractually past due.
- Real estate-secured loans are charged off no later than 180 days contractually past due if a decision has been made not to foreclose on the loans.
- Non-bank real estate-secured loans are charged off at the earlier of 180 days contractually past due, if there have been no payments within the last six months, or 360 days contractually past due, if a decision has been made not to foreclose on the loans.
- Non-bank loans secured by real estate are written down to the estimated value of the property, less costs to sell, at the earlier of the receipt of title, the initiation of foreclosure (a process that must commence when payments are 120 days contractually past due), when the loan is 180 days contractually past due if there have been no payments within the past six months or 360 days contractually past due.
- Non-bank unsecured personal loans are charged off at the earlier of 180 days contractually past due if there have been no payments within the last six months, or 360 days contractually past due.
- Unsecured loans in bankruptcy are charged off within 60 days of notification of filing by the bankruptcy court

or in accordance with Citi's charge-off policy, whichever occurs earlier.

- Consistent with OCC guidance, real estate-secured loans that were discharged through Chapter 7 bankruptcy, other than FHA-insured loans, are written down to the estimated value of the property, less costs to sell. Other real estate-secured loans in bankruptcy are written down to the estimated value of the property, less costs to sell, at the later of 60 days after notification or 60 days contractually past due.
- Non-bank loans secured by real estate that are discharged through Chapter 7 bankruptcy are written down to the estimated value of the property, less costs to sell, at 60 days contractually past due.
- Non-bank unsecured personal loans in bankruptcy are charged off when they are 30 days contractually past due.
- Commercial market loans are written down to the extent that principal is judged to be uncollectable.

#### *Corporate Loans*

Corporate loans represent loans and leases managed by *Institutional Clients Group (ICG)*. Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectability of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan.

Impaired corporate loans and leases are written down to the extent that principal is deemed to be uncollectable. Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral and there are no other available and reliable sources of repayment, are written down to the lower of cost or collateral value. Cash-basis loans are returned to accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance in accordance with the contractual terms.

#### *Loans Held-for-Sale*

Corporate and consumer loans that have been identified for sale are classified as loans held-for-sale and included in *Other assets*. The practice of Citi's U.S. prime mortgage business has been to sell substantially all of its conforming loans. As such, U.S. prime mortgage conforming loans are classified as held-for-sale and the fair value option is elected at origination, with changes in fair value recorded in *Other revenue*. With the exception of those loans for which the fair value option has been elected, held-for-sale loans are accounted for at the lower of cost or market value, with any

write-downs or subsequent recoveries charged to *Other revenue*. The related cash flows are classified in the Consolidated Statement of Cash Flows in the cash flows from operating activities category on the line *Change in loans held-for-sale*.

### **Allowance for Loan Losses**

Allowance for loan losses represents management's best estimate of probable losses inherent in the portfolio, including probable losses related to large individually evaluated impaired loans and troubled debt restructurings. Attribution of the allowance is made for analytical purposes only, and the entire allowance is available to absorb probable loan losses inherent in the overall portfolio. Additions to the allowance are made through the *Provision for loan losses*. Loan losses are deducted from the allowance and subsequent recoveries are added. Assets received in exchange for loan claims in a restructuring are initially recorded at fair value, with any gain or loss reflected as a recovery or charge-off to the provision.

### *Consumer Loans*

For consumer loans, each portfolio of non-modified smaller-balance, homogeneous loans is independently evaluated for impairment by product type (e.g., residential mortgage, credit card, etc.) in accordance with ASC 450, *Contingencies*. The allowance for loan losses attributed to these loans is established via a process that estimates the probable losses inherent in the specific portfolio. This process includes migration analysis, in which historical delinquency and credit loss experience is applied to the current aging of the portfolio, together with analyses that reflect current and anticipated economic conditions, including changes in housing prices and unemployment trends. Citi's allowance for loan losses under ASC 450 only considers contractual principal amounts due, except for credit card loans where estimated loss amounts related to accrued interest receivable are also included.

Management also considers overall portfolio indicators, including historical credit losses, delinquent, non-performing and classified loans, trends in volumes and terms of loans, an evaluation of overall credit quality, the credit process, including lending policies and procedures, and economic, geographical, product and other environmental factors.

Separate valuation allowances are determined for impaired smaller-balance homogeneous loans whose terms have been modified in a troubled debt restructuring (TDR). Long-term modification programs, and short-term (less than 12 months) modifications that provide concessions (such as interest rate reductions) to borrowers in financial difficulty, are reported as TDRs. In addition, loan modifications that involve a trial period are reported as TDRs at the start of the trial period. The allowance for loan losses for TDRs is determined in accordance with ASC 310-10-35, *Receivables—Subsequent Measurement* (formerly SFAS 114) considering all available evidence, including, as appropriate, the present value of the expected future cash flows discounted at the loan's original contractual effective rate, the secondary market value of the loan and the fair value of

collateral less disposal costs. These expected cash flows incorporate modification program default rate assumptions. The original contractual effective rate for credit card loans is the pre-modification rate, which may include interest rate increases under the original contractual agreement with the borrower.

Valuation allowances for commercial market loans, which are classifiably managed Consumer loans, are determined in the same manner as for Corporate loans and are described in more detail in the following section. Generally, an asset-specific component is calculated under ASC 310-10-35 on an individual basis for larger-balance, non-homogeneous loans that are considered impaired and the allowance for the remainder of the classifiably managed Consumer loan portfolio is calculated under ASC 450 using a statistical methodology that may be supplemented by management adjustment.

### *Corporate Loans*

In the corporate portfolios, the *Allowance for loan losses* includes an asset-specific component and a statistically based component. The asset-specific component is calculated under ASC 310-10-35, on an individual basis for larger-balance, non-homogeneous loans, which are considered impaired. An asset-specific allowance is established when the discounted cash flows, collateral value (less disposal costs) or observable market price of the impaired loan are lower than its carrying value. This allowance considers the borrower's overall financial condition, resources, and payment record, the prospects for support from any financially responsible guarantors (discussed further below) and, if appropriate, the realizable value of any collateral. The asset-specific component of the allowance for smaller balance impaired loans is calculated on a pool basis considering historical loss experience.

The allowance for the remainder of the loan portfolio is determined under ASC 450 using a statistical methodology, supplemented by management judgment. The statistical analysis considers the portfolio's size, remaining tenor and credit quality as measured by internal risk ratings assigned to individual credit facilities, which reflect probability of default and loss given default. The statistical analysis considers historical default rates and historical loss severity in the event of default, including historical average levels and historical variability. The result is an estimated range for inherent losses. The best estimate within the range is then determined by management's quantitative and qualitative assessment of current conditions, including general economic conditions, specific industry and geographic trends, and internal factors including portfolio concentrations, trends in internal credit quality indicators, and current and past underwriting standards.

For both the asset-specific and the statistically based components of the *Allowance for loan losses*, management may incorporate guarantor support. The financial wherewithal of the guarantor is evaluated, as applicable, based on net worth, cash flow statements and personal or company financial statements which are updated and reviewed at least annually. Citi seeks performance on

guarantee arrangements in the normal course of business. Seeking performance entails obtaining satisfactory cooperation from the guarantor or borrower in the specific situation. This regular cooperation is indicative of pursuit and successful enforcement of the guarantee; the exposure is reduced without the expense and burden of pursuing a legal remedy. A guarantor's reputation and willingness to work with Citigroup is evaluated based on the historical experience with the guarantor and the knowledge of the marketplace. In the rare event that the guarantor is unwilling or unable to perform or facilitate borrower cooperation, Citi pursues a legal remedy; however, enforcing a guarantee via legal action against the guarantor is not the primary means of resolving a troubled loan situation and rarely occurs. If Citi does not pursue a legal remedy, it is because Citi does not believe that the guarantor has the financial wherewithal to perform regardless of legal action or because there are legal limitations on simultaneously pursuing guarantors and foreclosure. A guarantor's reputation does not impact Citi's decision or ability to seek performance under the guarantee.

In cases where a guarantee is a factor in the assessment of loan losses, it is included via adjustment to the loan's internal risk rating, which in turn is the basis for the adjustment to the statistically based component of the *Allowance for loan losses*. To date, it is only in rare circumstances that an impaired commercial loan or commercial real estate loan is carried at a value in excess of the appraised value due to a guarantee.

When Citi's monitoring of the loan indicates that the guarantor's wherewithal to pay is uncertain or has deteriorated, there is either no change in the risk rating, because the guarantor's credit support was never initially factored in, or the risk rating is adjusted to reflect that uncertainty or deterioration. Accordingly, a guarantor's ultimate failure to perform or a lack of legal enforcement of the guarantee does not materially impact the allowance for loan losses, as there is typically no further significant adjustment of the loan's risk rating at that time. Where Citi is not seeking performance under the guarantee contract, it provides for loan losses as if the loans were non-performing and not guaranteed.

#### *Reserve Estimates and Policies*

Management provides reserves for an estimate of probable losses inherent in the funded loan portfolio on the Consolidated Balance Sheet in the form of an allowance for loan losses. These reserves are established in accordance with Citigroup's credit reserve policies, as approved by the Audit Committee of the Citigroup Board of Directors. Citi's Chief Risk Officer and Chief Financial Officer review the adequacy of the credit loss reserves each quarter with representatives from the risk management and finance staffs for each applicable business area. Applicable business areas include those having classifiably managed portfolios, where internal credit-risk ratings are assigned (primarily *ICG* and *GCB*) or modified Consumer loans, where concessions were granted due to the borrowers' financial difficulties.

The above-mentioned representatives for these business areas present recommended reserve balances for their funded

and unfunded lending portfolios along with supporting quantitative and qualitative data discussed below:

*Estimated probable losses for non-performing, non-homogeneous exposures within a business line's classifiably managed portfolio and impaired smaller-balance homogeneous loans whose terms have been modified due to the borrowers' financial difficulties, where it was determined that a concession was granted to the borrower.*

Consideration may be given to the following, as appropriate, when determining this estimate: (i) the present value of expected future cash flows discounted at the loan's original effective rate; (ii) the borrower's overall financial condition, resources and payment record; and (iii) the prospects for support from financially responsible guarantors or the realizable value of any collateral. In the determination of the allowance for loan losses for TDRs, management considers a combination of historical re-default rates, the current economic environment and the nature of the modification program when forecasting expected cash flows. When impairment is measured based on the present value of expected future cash flows, the entire change in present value is recorded in the *Provision for loan losses*.

*Statistically calculated losses inherent in the classifiably managed portfolio for performing and de minimis non-performing exposures.* The calculation is based on: (i) Citi's internal system of credit-risk ratings, which are analogous to the risk ratings of the major rating agencies; and (ii) historical default and loss data, including rating agency information regarding default rates from 1983 to 2014 and internal data dating to the early 1970s on severity of losses in the event of default. Adjustments may be made to this data. Such adjustments include: (i) statistically calculated estimates to cover the historical fluctuation of the default rates over the credit cycle, the historical variability of loss severity among defaulted loans, and the degree to which there are large obligor concentrations in the global portfolio; and (ii) adjustments made for specific known items, such as current environmental factors and credit trends.

In addition, representatives from each of the risk management and finance staffs that cover business areas with delinquency-managed portfolios containing smaller-balance homogeneous loans present their recommended reserve balances based on leading credit indicators, including loan delinquencies and changes in portfolio size as well as economic trends, including current and future housing prices, unemployment, length of time in foreclosure, costs to sell and GDP. This methodology is applied separately for each individual product within each geographic region in which these portfolios exist.

This evaluation process is subject to numerous estimates and judgments. The frequency of default, risk ratings, loss recovery rates, the size and diversity of individual large credits, and the ability of borrowers with foreign currency obligations to obtain the foreign currency necessary for orderly debt servicing, among other things, are all taken into account during this review. Changes in these estimates could

have a direct impact on the credit costs in any period and could result in a change in the allowance.

#### *Allowance for Unfunded Lending Commitments*

A similar approach to the allowance for loan losses is used for calculating a reserve for the expected losses related to unfunded lending commitments and standby letters of credit. This reserve is classified on the balance sheet in *Other liabilities*. Changes to the allowance for unfunded lending commitments are recorded in the *Provision for unfunded lending commitments*.

#### **Mortgage Servicing Rights**

Mortgage servicing rights (MSRs) are recognized as intangible assets when purchased or when the Company sells or securitizes loans acquired through purchase or origination and retains the right to service the loans. Mortgage servicing rights are accounted for at fair value, with changes in value recorded in *Other revenue* in the Company's Consolidated Statement of Income.

Additional information on the Company's MSRs can be found in Note 22 to the Consolidated Financial Statements.

#### **Goodwill**

*Goodwill* represents the excess of acquisition cost over the fair value of net tangible and intangible assets acquired. Goodwill is subject to annual impairment testing and between annual tests if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount.

Under ASC 350, *Intangibles—Goodwill and Other*, the Company has an option to assess qualitative factors to determine if it is necessary to perform the goodwill impairment test. If, after assessing the totality of events or circumstances, the Company determines that it is not more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, no further testing is necessary. If, however, the Company determines that it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, then the Company must perform the first step of the two-step goodwill impairment test.

The Company has an unconditional option to bypass the qualitative assessment for any reporting unit in any reporting period and proceed directly to the first step of the goodwill impairment test. Furthermore, on any business dispositions, goodwill is allocated to the disposed business based on the ratio of the fair value of the disposed business to the fair value of the reporting unit.

The first step requires a comparison of the fair value of the individual reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is in excess of the carrying value, the related goodwill is considered not to be impaired and no further analysis is necessary. If the carrying value of the reporting unit exceeds the fair value, this is an indication of potential impairment and a second step of testing is performed to measure the amount of impairment, if any, for that reporting unit.

If required, the second step involves calculating the implied fair value of goodwill for each of the affected

reporting units. The implied fair value of goodwill is determined in the same manner as the amount of goodwill recognized in a business combination, which is the excess of the fair value of the reporting unit determined in step one over the fair value of the net assets and identifiable intangibles as if the reporting unit were being acquired. If the amount of the goodwill allocated to the reporting unit exceeds the implied fair value of the goodwill in the pro forma purchase price allocation, an impairment charge is recorded for the excess. A recognized impairment charge cannot exceed the amount of goodwill allocated to a reporting unit and cannot subsequently be reversed even if the fair value of the reporting unit recovers.

Additional information on Citi's goodwill impairment testing can be found in Note 17 to the Consolidated Financial Statements.

#### **Intangible Assets**

*Intangible assets*, including core deposit intangibles, present value of future profits, purchased credit card relationships, other customer relationships, and other intangible assets, but excluding MSRs, are amortized over their estimated useful lives. Intangible assets deemed to have indefinite useful lives, primarily certain asset management contracts and trade names, are not amortized and are subject to annual impairment tests. An impairment exists if the carrying value of the indefinite-lived intangible asset exceeds its fair value. For other intangible assets subject to amortization, an impairment is recognized if the carrying amount is not recoverable and exceeds the fair value of the intangible asset.

Similar to the goodwill impairment analysis, in performing the annual impairment analysis for indefinite-lived intangible assets, Citi may and has elected to bypass the optional qualitative assessment, choosing instead to perform a quantitative analysis.

#### **Other Assets and Other Liabilities**

*Other assets* include, among other items, loans held-for-sale, deferred tax assets, equity method investments, interest and fees receivable, premises and equipment (including purchased and developed software), repossessed assets, and other receivables. *Other liabilities* include, among other items, accrued expenses and other payables, deferred tax liabilities, and reserves for legal claims, taxes, unfunded lending commitments, repositioning reserves, and other matters.

#### **Other Real Estate Owned and Repossessed Assets**

Real estate or other assets received through foreclosure or repossession are generally reported in *Other assets*, net of a valuation allowance for selling costs and subsequent declines in fair value.



## Securitizedizations

The Company primarily securitizes credit card receivables and mortgages. Other types of securitized assets include corporate debt instruments (in cash and synthetic form).

There are two key accounting determinations that must be made relating to securitizations. Citi first makes a determination as to whether the securitization entity must be consolidated. Second, it determines whether the transfer of financial assets to the entity is considered a sale under GAAP. If the securitization entity is a VIE, the Company consolidates the VIE if it is the primary beneficiary (as discussed in "Variable Interest Entities" above). For all other securitization entities determined not to be VIEs in which Citigroup participates, consolidation is based on which party has voting control of the entity, giving consideration to removal and liquidation rights in certain partnership structures. Only securitization entities controlled by Citigroup are consolidated.

Interests in the securitized and sold assets may be retained in the form of subordinated or senior interest-only strips, subordinated tranches, spread accounts and servicing rights. In credit card securitizations, the Company retains a seller's interest in the credit card receivables transferred to the trusts, which is not in securitized form. In the case of consolidated securitization entities, including the credit card trusts, these retained interests are not reported on Citi's Consolidated Balance Sheet. The securitized loans remain on the balance sheet. Substantially all of the Consumer loans sold or securitized through non-consolidated trusts by Citigroup are U.S. prime residential mortgage loans. Retained interests in non-consolidated mortgage securitization trusts are classified as *Trading account assets*, except for MSRs, which are included in *Mortgage servicing rights* on Citigroup's Consolidated Balance Sheet.

## Debt

*Short-term borrowings* and *Long-term debt* are accounted for at amortized cost, except where the Company has elected to report the debt instruments, including certain structured notes at fair value, or the debt is in a fair value hedging relationship.

## Transfers of Financial Assets

For a transfer of financial assets to be considered a sale: (i) the assets must have been legally isolated from the Company, even in bankruptcy or other receivership; (ii) the purchaser must have the right to pledge or sell the assets transferred or, if the purchaser is an entity whose sole purpose is to engage in securitization and asset-backed financing activities through the issuance of beneficial interests and that entity is constrained from pledging the assets it receives, each beneficial interest holder must have the right to sell or pledge their beneficial interests; and (iii) the Company may not have an option or obligation to reacquire the assets.

If these sale requirements are met, the assets are removed from the Company's Consolidated Balance Sheet. If the conditions for sale are not met, the transfer is considered to be a secured borrowing, the assets remain on

the Consolidated Balance Sheet and the sale proceeds are recognized as the Company's liability. A legal opinion on a sale generally is obtained for complex transactions or where the Company has continuing involvement with assets transferred or with the securitization entity. For a transfer to be eligible for sale accounting, those opinions must state that the asset transfer would be considered a sale and that the assets transferred would not be consolidated with the Company's other assets in the event of the Company's insolvency.

For a transfer of a portion of a financial asset to be considered a sale, the portion transferred must meet the definition of a participating interest. A participating interest must represent a pro rata ownership in an entire financial asset; all cash flows must be divided proportionately, with the same priority of payment; no participating interest in the transferred asset may be subordinated to the interest of another participating interest holder; and no party may have the right to pledge or exchange the entire financial asset unless all participating interest holders agree. Otherwise, the transfer is accounted for as a secured borrowing.

See Note 22 to the Consolidated Financial Statements for further discussion.

## Risk Management Activities—Derivatives Used for Hedging Purposes

The Company manages its exposures to market rate movements outside its trading activities by modifying the asset and liability mix, either directly or through the use of derivative financial products, including interest-rate swaps, futures, forwards, and purchased options, as well as foreign-exchange contracts. These end-user derivatives are carried at fair value in *Other assets*, *Other liabilities*, *Trading account assets* and *Trading account liabilities*.

To qualify as an accounting hedge under the hedge accounting rules (versus an economic hedge where hedge accounting is not sought), a derivative must be highly effective in offsetting the risk designated as being hedged. The hedge relationship must be formally documented at inception, detailing the particular risk management objective and strategy for the hedge. This includes the item and risk being hedged, the derivative being used and how effectiveness will be assessed and ineffectiveness measured. The effectiveness of these hedging relationships is evaluated both on a retrospective and prospective basis, typically using quantitative measures of correlation with hedge ineffectiveness measured and recorded in current earnings.

If a hedge relationship is not highly effective, it no longer qualifies as an accounting hedge and hedge accounting may not be applied. Any gains or losses attributable to the derivatives, as well as subsequent changes in fair value, are recognized in *Other revenue* or *Principal transactions* with no offset to the hedged item, similar to trading derivatives.

The foregoing criteria are applied on a decentralized basis, consistent with the level at which market risk is managed, but are subject to various limits and controls. The underlying asset, liability or forecasted transaction may be an individual item or a portfolio of similar items.

For fair value hedges, in which derivatives hedge the fair value of assets or liabilities, changes in the fair value of derivatives are reflected in *Other revenue*, together with changes in the fair value of the hedged item related to the hedged risk. These amounts are expected to, and generally do, offset each other. Any net amount, representing hedge ineffectiveness, is reflected in current earnings. Citigroup's fair value hedges are primarily hedges of fixed-rate long-term debt and available-for-sale securities.

For cash flow hedges, in which derivatives hedge the variability of cash flows related to floating- and fixed-rate assets, liabilities or forecasted transactions, the accounting treatment depends on the effectiveness of the hedge. To the extent these derivatives are effective in offsetting the variability of the hedged cash flows, the effective portion of the changes in the derivatives' fair values will not be included in current earnings, but is reported in *Accumulated other comprehensive income (loss)*. These changes in fair value will be included in earnings of future periods when the hedged cash flows impact earnings. To the extent these derivatives are not effective, changes in their fair values are immediately included in *Other revenue*. Citigroup's cash flow hedges primarily include hedges of floating-rate debt and floating-rate assets, including loans and securities purchased under agreements to resell, as well as rollovers of short-term fixed-rate liabilities and floating-rate liabilities and forecasted debt issuances.

For net investment hedges in which derivatives hedge the foreign currency exposure of a net investment in a foreign operation, the accounting treatment will similarly depend on the effectiveness of the hedge. The effective portion of the change in fair value of the derivative, including any forward premium or discount, is reflected in *Accumulated other comprehensive income (loss)* as part of the foreign currency translation adjustment.

For those accounting hedge relationships that are terminated or when hedge designations are removed, the hedge accounting treatment described in the paragraphs above is no longer applied. Instead, the end-user derivative is terminated or transferred to the trading account. For fair value hedges, any changes in the fair value of the hedged item remain as part of the basis of the asset or liability and are ultimately reflected as an element of the yield. For cash flow hedges, any changes in fair value of the end-user derivative remain in *Accumulated other comprehensive income (loss)* and are included in earnings of future periods when the hedged cash flows impact earnings. However, if it becomes probable that some or all of the hedged forecasted transactions will not occur, any amounts that remain in *Accumulated other comprehensive income (loss)* related to these transactions are immediately reflected in *Other revenue*.

End-user derivatives that are economic hedges, rather than qualifying for hedge accounting, are also carried at fair value, with changes in value included in *Principal transactions* or *Other revenue*. Citigroup often uses economic hedges when qualifying for hedge accounting would be too complex or operationally burdensome. Examples are hedges of the credit risk component of

commercial loans and loan commitments. Citigroup periodically evaluates its hedging strategies in other areas and may designate either a qualifying hedge or an economic hedge, after considering the relative costs and benefits. Economic hedges are also employed when the hedged item itself is marked to market through current earnings, such as hedges of commitments to originate one-to-four-family mortgage loans to be held for sale and MSRs. See Note 23 to the Consolidated Financial Statements for a further discussion of the Company's hedging and derivative activities.

### **Employee Benefits Expense**

Employee benefits expense includes current service costs of pension and other postretirement benefit plans (which are accrued on a current basis), contributions and unrestricted awards under other employee plans, the amortization of restricted stock awards and costs of other employee benefits. For its most significant pension and postretirement benefit plans (Significant Plans), Citigroup measures and discloses plan obligations, plan assets and periodic plan expense quarterly, instead of annually. The effect of remeasuring the Significant Plan obligations and assets by updating plan actuarial assumptions on a quarterly basis is reflected in *Accumulated other comprehensive income (loss)* and periodic plan expense. All other plans (All Other Plans) are remeasured annually. See Note 8 to the Consolidated Financial Statements.

### **Stock-Based Compensation**

The Company recognizes compensation expense related to stock and option awards over the requisite service period, generally based on the instruments' grant-date fair value, reduced by expected forfeitures. Compensation cost related to awards granted to employees who meet certain age plus years-of-service requirements (retirement-eligible employees) is accrued in the year prior to the grant date, in the same manner as the accrual for cash incentive compensation. Certain stock awards with performance conditions or certain clawback provisions are subject to variable accounting, pursuant to which the associated compensation expense fluctuates with changes in Citigroup's stock price. See Note 7 to the Consolidated Financial Statements.

### **Income Taxes**

The Company is subject to the income tax laws of the U.S. and its states and municipalities, and the foreign jurisdictions in which it operates. These tax laws are complex and subject to different interpretations by the taxpayer and the relevant governmental taxing authorities. In establishing a provision for income tax expense, the Company must make judgments and interpretations about the application of these inherently complex tax laws. The Company must also make estimates about when in the future certain items will affect taxable income in the various tax jurisdictions, both domestic and foreign.

Disputes over interpretations of the tax laws may be subject to review and adjudication by the court systems of

the various tax jurisdictions or may be settled with the taxing authority upon examination or audit. The Company treats interest and penalties on income taxes as a component of *Income tax expense*.

Deferred taxes are recorded for the future consequences of events that have been recognized for financial statements or tax returns, based upon enacted tax laws and rates. Deferred tax assets are recognized subject to management's judgment that realization is more-likely-than-not. FASB Interpretation No. 48, "Accounting for Uncertainty in Income Taxes" (FIN 48) (now incorporated into ASC 740, *Income Taxes*), sets out a consistent framework to determine the appropriate level of tax reserves to maintain for uncertain tax positions. This interpretation uses a two-step approach wherein a tax benefit is recognized if a position is more-likely-than-not to be sustained. The amount of the benefit is then measured to be the highest tax benefit that is greater than 50% likely to be realized. ASC 740 also sets out disclosure requirements to enhance transparency of an entity's tax reserves.

See Note 9 to the Consolidated Financial Statements for a further description of the Company's tax provision and related income tax assets and liabilities.

#### **Commissions, Underwriting and Principal Transactions**

Commissions revenues are recognized in income when earned. Underwriting revenues are recognized in income typically at the closing of the transaction. Principal transactions revenues are recognized in income on a trade-date basis. See Note 5 to the Consolidated Financial Statements for a description of the Company's revenue recognition policies for commissions and fees, and Note 6 to the Consolidated Financial Statements for details of principal transactions revenue.

#### **Earnings per Share**

Earnings per share (EPS) is computed after deducting preferred stock dividends. The Company has granted restricted and deferred share awards with dividend rights that are considered to be participating securities, which are akin to a second class of common stock. Accordingly, a portion of Citigroup's earnings is allocated to those participating securities in the EPS calculation.

Basic earnings per share is computed by dividing income available to common stockholders after the allocation of dividends and undistributed earnings to the participating securities by the weighted average number of common shares outstanding for the period. Diluted earnings per share reflects the potential dilution that could occur if securities or other contracts to issue common stock were exercised. It is computed after giving consideration to the weighted average dilutive effect of the Company's stock options and warrants and convertible securities and after the allocation of earnings to the participating securities.

#### **Use of Estimates**

Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related Notes to the Consolidated Financial Statements. Such

estimates are used in connection with certain fair value measurements. See Note 25 to the Consolidated Financial Statements for further discussions on estimates used in the determination of fair value. Moreover, estimates are significant in determining the amounts of other-than-temporary impairments, impairments of goodwill and other intangible assets, provisions for probable losses that may arise from credit-related exposures and probable and estimable losses related to litigation and regulatory proceedings, and tax reserves. While management makes its best judgment, actual amounts or results could differ from those estimates. Current market conditions increase the risk and complexity of the judgments in these estimates.

#### **Cash Flows**

Cash equivalents are defined as those amounts included in *Cash and due from banks*. Cash flows from risk management activities are classified in the same category as the related assets and liabilities.

#### **Related Party Transactions**

The Company has related party transactions with certain of its subsidiaries and affiliates. These transactions, which are primarily short-term in nature, include cash accounts, collateralized financing transactions, margin accounts, derivative transactions, charges for operational support and the borrowing and lending of funds, and are entered into in the ordinary course of business.

### **ACCOUNTING CHANGES**

#### **Debt Issuance Costs**

In April 2015, the FASB issued Accounting Standards Update (ASU) 2015-03, *Interest—Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs*, to conform the presentation of debt issuance costs to that of debt discounts and premiums. Thus, the ASU requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability. The guidance is effective beginning on January 1, 2016; however, Citi elected to early adopt the ASU on July 1, 2015 which resulted in an approximately \$150 million reclassification from *Other assets* to *Long-term debt*. The retrospective application was deemed immaterial and, as such, prior periods were not restated.

#### **Accounting for Investments in Tax Credit Partnerships**

In January 2014, the FASB issued ASU No. 2014-01, *Investments—Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Qualified Affordable Housing Projects*. Any transition adjustment is reflected as an adjustment to retained earnings in the earliest period presented (retrospective application).

The ASU is applicable to Citi's portfolio of low income housing tax credit (LIHTC) partnership interests. The new standard widens the scope of investments eligible to elect to apply a new alternative method, the proportional amortization method, under which the cost of the investment

is amortized to tax expense in proportion to the amount of tax credits and other tax benefits received. Citi qualifies to elect the proportional amortization method under the ASU for its entire LIHTC portfolio. These investments were previously accounted for under the equity method, which resulted in losses (due to amortization of the investment) being recognized in *Other revenue* and tax credits and benefits being recognized in the *Income tax expense* line. In contrast, the proportional amortization method combines the amortization of the investment and receipt of the tax credits/benefits into one line, *Income tax expense*.

Citi adopted ASU 2014-01 in the first quarter of 2015. The adoption of this ASU was applied retrospectively and cumulatively reduced *Retained earnings* by approximately \$349 million, *Other assets* by approximately \$178 million, and deferred tax assets by approximately \$171 million.

#### **Accounting for Repurchase-to-Maturity Transactions**

In June 2014, the FASB issued ASU No. 2014-11, *Transfers and Servicing (Topic 860): Repurchase-to-Maturity Transactions, Repurchase Financings, and Disclosures*. The ASU changes the accounting for repurchase-to-maturity transactions and linked repurchase financings to secured borrowing accounting, which is consistent with the accounting for other repurchase agreements. The ASU also requires disclosures about transfers accounted for as sales in transactions that are economically similar to repurchase agreements (see Note 23 to the Consolidated Financial Statements) and about the types of collateral pledged in repurchase agreements and similar transactions accounted for as secured borrowings (see Note 11 to the Consolidated Financial Statements). The ASU's provisions became effective for Citi in the first quarter of 2015, with the exception of the collateral disclosures which became effective in the second quarter of 2015. The effect of adopting the ASU is required to be reflected as a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption. Adoption of the ASU did not have a material effect on the Company's financial statements.

#### **Disclosures for Investments in Certain Entities That Calculate Net Asset Value (NAV) per Share**

In May 2015, the FASB issued ASU No. 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*, which is intended to reduce diversity in practice related to the categorization of investments measured at NAV within the fair value hierarchy. The ASU removes the current requirement to categorize investments for which fair value is measured using the NAV per share practical expedient within the fair value hierarchy. Citi elected to early adopt the ASU in the second quarter of 2015. The adoption of the ASU was applied retrospectively and reduced Level 3 assets by \$1.0 billion and \$1.1 billion as of December 31, 2015 and December 31, 2014, respectively.

#### **Discontinued Operations and Significant Disposals**

The FASB issued ASU No. 2014-08, *Presentation of Financial Statements (Topic 810) and Property, Plant, and Equipment (Topic 360), Reporting Discontinued Operations and Disclosures of Disposals of Components of an Entity* (ASU 2014-08) in April 2014. ASU 2014-08 changes the criteria for reporting discontinued operations while enhancing disclosures. Under the ASU, only disposals representing a strategic shift having a major effect on an entity's operations and financial results, such as a disposal of a major geographic area, a major line of business or a major equity method investment, may be presented as discontinued operations. Additionally, the ASU requires expanded disclosures about discontinued operations that will provide more information about the assets, liabilities, income and expenses of discontinued operations.

The Company early-adopted the ASU in the second quarter of 2014 on a prospective basis for all disposals (or classifications as held-for-sale) of components of an entity that occurred on or after April 1, 2014. As a result of the adoption of the ASU, fewer disposals will now qualify for reporting as discontinued operations; however, disclosure of the pretax income attributable to a disposal of a significant part of an organization that does not qualify for discontinued operations reporting is required. The impact of adopting the ASU was not material.

#### **Classification of Certain Government-Guaranteed Mortgage Loans upon Foreclosure**

In August 2014, the FASB issued ASU No. 2014-14, *Receivables-Troubled Debt Restructuring by Creditors (Subtopic 310-40): Classification of Certain Government-Guaranteed Mortgage Loans upon Foreclosure*, which requires that a mortgage loan be derecognized and a separate other receivable be recognized upon foreclosure if the following conditions are met: (i) the loan has a government guarantee that is not separable from the loan before foreclosure; (ii) at the time of foreclosure, the creditor has the intent to convey the real estate property to the guarantor and make a claim on the guarantee, and the creditor has the ability to recover under that claim; and (iii) at the time of foreclosure, any amount of the claim that is determined on the basis of the fair value of the real estate is fixed. Upon foreclosure, the separate other receivable is measured based on the amount of the loan balance (principal and interest) expected to be recovered from the guarantor.

Citi early adopted the ASU on a modified retrospective basis in the fourth quarter of 2014, which resulted in reclassifying approximately \$130 million of foreclosed assets from Other Real Estate Owned to a separate other receivable that is included in *Other assets*. Given the modified retrospective approach to adoption, prior periods have not been restated.

## **FUTURE APPLICATION OF ACCOUNTING STANDARDS**

### **Recognition and Measurement of Financial Assets and Financial Liabilities**

In January 2016, the FASB issued ASU No. 2016-01, *Financial Instruments—Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities*, which addresses certain aspects of recognition, measurement, presentation, and disclosure of financial instruments.

This ASU will require entities to present separately in OCI the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk (DVA) when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. It will also require equity investments (except those accounted for under the equity method of accounting or those that result in consolidation of the investee) to be measured at fair value with changes in fair value recognized in net income, thus eliminating eligibility for the current available-for-sale category. However, Federal Reserve Bank and Federal Home Loan Bank stock as well as exchange seats will continue to be presented at cost. As a practical expedient, an entity may choose to measure equity investments that do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer.

The guidance is effective beginning on January 1, 2018; however, early adoption is permitted only for the amendment in the ASU related to presentation of DVA for financial liabilities measured under the fair value option. Citi expects to early adopt this amendment as of January 1, 2016. The impact of adopting this amendment is not expected to be material to Citi's balance sheet at January 1, 2016; however, in subsequent periods the changes in DVA are dependent on changes in Citi's credit spreads and could be material in any given period.

### **Consolidation**

In February 2015, the FASB issued ASU No. 2015-02, *Consolidation (Topic 810): Amendments to the Consolidation Analysis*, which intended to improve certain areas of consolidation guidance for legal entities such as limited partnerships, limited liability companies, and securitization structures. The ASU reduced the number of consolidation models and became effective on January 1, 2016. Adoption of ASU 2015-02 did not have a material impact on the Company's Consolidated Financial Statements.

### **Revenue Recognition**

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. The ASU will replace most existing revenue

recognition guidance in GAAP when it becomes effective on January 1, 2018. Early application is permitted for annual periods beginning after December 15, 2016; however, the Company does not expect to early adopt. The ASU is not applicable to financial instruments and, therefore, is not expected to impact a majority of the Company's revenue, including net interest income. The Company is evaluating the effect that ASU 2014-09 will have on its consolidated financial statements and related disclosures.

### **Accounting for Financial Instruments—Credit Losses**

In December 2012, the FASB issued a proposed ASU, *Financial Instruments—Credit Losses*. This proposed ASU, or exposure draft, was issued for public comment in order to allow stakeholders the opportunity to review the proposal and provide comments to the FASB and does not constitute accounting guidance until a final ASU is issued.

The exposure draft contains proposed guidance developed by the FASB with the goal of improving financial reporting about expected credit losses on loans, securities and other financial assets held by financial institutions and other organizations. The exposure draft proposes a new accounting model intended to require earlier recognition of credit losses, while also providing additional transparency about credit risk.

The FASB's proposed model would utilize an "expected credit loss" measurement objective for the recognition of credit losses for loans, held-to-maturity securities and other receivables at the time the financial asset is originated or acquired and adjusted each period for changes in expected credit losses. For available-for-sale securities where fair value is less than cost, credit-related impairment would be recognized in an allowance for credit losses and adjusted each period for changes in credit risk. This would replace the multiple existing impairment models in GAAP, which generally require that a loss be incurred before it is recognized.

The FASB's proposed model represents a significant departure from existing GAAP, and may result in material changes to the Company's accounting for financial instruments. The impact of the FASB's final ASU on the Company's financial statements will be assessed when it is issued. The Company expects that the final ASU will be effective for Citi as of January 1, 2019.

### **Lease Accounting**

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*, which is intended to increase transparency and comparability of accounting for lease transactions. The ASU will require all leases to be recognized on the balance sheet as lease assets and lease liabilities and will require both quantitative and qualitative disclosures regarding key information about leasing arrangements. Lessor accounting is largely unchanged. The guidance is effective beginning January 1, 2019 with an option to early adopt. The Company is evaluating whether to early adopt and the effect that ASU 2016-02 will have on its consolidated financial statements, regulatory capital and related disclosures.

## 2. DISCONTINUED OPERATIONS AND SIGNIFICANT DISPOSALS

### Discontinued Operations

The following *Discontinued operations* are recorded within the *Corporate/Other* segment.

#### Sale of Brazil Credicard Business

Citi sold its non-Citibank-branded cards and consumer finance business in Brazil (Credicard) in 2013 and reported it as *Discontinued operations*. Residual costs and resolution of certain contingencies from the disposal resulted in income from *Discontinued operations*, net of taxes, of \$6 million and \$52 million for 2015 and 2014, respectively.

#### Sale of Certain Citi Capital Advisors Business

Citi sold its liquid strategies business within Citi Capital Advisors (CCA) pursuant to two separate transactions in 2013 and reported them as *Discontinued operations*. Residual costs from the disposals resulted in income and losses from *Discontinued operations*, net of taxes, of \$1 million and \$4 million for 2015 and 2014, respectively.

#### Sale of Egg Banking plc Credit Card Business

Citi completed the sale of the Egg Banking plc (Egg) credit card business in 2011 and reported it as *Discontinued operations*. Residual costs from the disposal resulted in losses from *Discontinued operations*, net of taxes, of \$61 million and \$30 million for 2015 and 2014, respectively.

#### Audit of Citi German Consumer Tax Group

Citi completed the sale of its German retail banking operations in 2008 and reported them as *Discontinued operations*. During 2014, residual costs from the disposal resulted in a tax expense of \$20 million.

### Combined Results for Discontinued Operations

The following is summarized financial information for Credicard, CCA, Egg and previous *Discontinued operations* for which Citi continues to have minimal residual costs associated with the sales:

<i>In millions of dollars</i>	2015	2014	2013
<b>Total revenues, net of interest expense<sup>(1)</sup></b>	<b>\$ —</b>	<b>\$ 74</b>	<b>\$ 1,086</b>
Income (loss) from discontinued operations	\$ (83)	\$ 10	\$ (242)
Gain on sale	—	—	268
Provision (benefit) for income taxes	(29)	12	(244)
<b>Income (loss) from discontinued operations, net of taxes</b>	<b>\$ (54)</b>	<b>\$ (2)</b>	<b>\$ 270</b>

(1) Total revenues include gain or loss on sale, if applicable.

Cash flows for the *Discontinued operations* were not material for all periods presented.

### Significant Disposals

The following sales completed during 2015 and 2014 were identified as significant disposals. The major classes of assets and liabilities derecognized from the Consolidated Balance Sheet at closing and the income (loss) before taxes related to each business until the disposal date are presented below.

#### Sale of OneMain Financial Business

On November 15, 2015, Citi sold its OneMain Financial business, which was part of Citi Holdings, including 1,100 retail branches, 5,500 employees, and approximately 1.3 million customer accounts. One Main Financial had approximately \$10.2 billion of assets, including \$7.8 billion of loans (net of allowance), and \$1.4 billion of available-for-sale securities. The total amount of liabilities sold was \$8.4 billion, including \$6.2 billion of long-term debt, and \$1.1 billion of short-term borrowings. The transaction generated a pre-tax gain on sale of \$2.6 billion, recorded in *Other revenue* (\$1.6 billion after-tax). However, when combined with the loss on redemption of certain long-term debt supporting remaining Citi Holdings' assets, the resulting net after-tax gain was \$0.8 billion.

Income before taxes, excluding the pretax gain on sale and loss on redemption of debt, is as follows:

<i>In millions of dollars</i>	2015	2014	2013
<b>Income before taxes</b>	<b>\$ 663</b>	<b>\$ 890</b>	<b>\$ 923</b>

### Sale of Japan Cards Business

On December 14, 2015, Citi sold its Japan cards business, which was part of Citi Holdings, including \$1,350 million of consumer loans (net of allowance), approximately 720,000 customer accounts and 840 employees. The transaction generated a pretax gain on sale of \$180 million, recorded in *Other revenue* (\$155 million after-tax). Income (loss) before taxes, excluding the pretax gain on sale, is as follows:

<i>In millions of dollars</i>	2015	2014	2013
<b>Income (loss) before taxes</b>	<b>\$ (5)</b>	<b>\$ —</b>	<b>\$ 46</b>

### Sale of Japan Retail Banking Business

On November 1, 2015, Citi sold its Japan retail banking business, which was part of Citi Holdings, including \$563 million of consumer loans (net of allowance), \$20 billion of deposits, approximately 725,000 customer accounts, 1,600 employees and 32 branches. The transaction generated a pretax gain on sale of \$446 million, recorded in *Other revenue* (\$276 million after-tax). Income (loss) before taxes (benefits), excluding the pretax gain on sale, is as follows:

<i>In millions of dollars</i>	2015	2014	2013
<b>Income (loss) before taxes</b>	<b>\$ (57)</b>	<b>\$ (5)</b>	<b>\$ 31</b>

### Sale of Spain Consumer Operations

On September 22, 2014, Citi sold its consumer operations in Spain, which were part of Citi Holdings, including \$1.7 billion of consumer loans (net of allowance), \$3.4 billion of assets under management, \$2.2 billion of customer deposits, 45 branches, 48 ATMs and 938 employees, with the buyer assuming the related current pension commitments at closing. The transaction generated a pretax gain on sale of \$243 million, recorded in *Other revenue* (\$131 million after-tax). Income before taxes, excluding the pretax gain on sale, is as follows:

<i>In millions of dollars</i>	2015	2014	2013
<b>Income before taxes</b>	<b>\$ —</b>	<b>\$ 130</b>	<b>\$ 59</b>

### Sale of Greece Consumer Operations

On September 30, 2014, Citi sold its consumer operations in Greece, which were part of Citi Holdings, including \$353 million of consumer loans (net of allowance), \$1.1 billion of assets under management, \$1.2 billion of customer deposits, 20 branches, 85 ATMs and 719 employees, with the buyer assuming certain limited pension obligations related to Diners' Club's employees at closing. The transaction generated a pretax gain on sale of \$209 million, recorded in *Other revenue* (\$91 million after-tax). Income (loss) before taxes, excluding the pretax gain on sale, is as follows:

<i>In millions of dollars</i>	2015	2014	2013
<b>Income (loss) before taxes</b>	<b>\$ —</b>	<b>\$ (76)</b>	<b>\$ (113)</b>



### 3. BUSINESS SEGMENTS

Citigroup's activities are conducted through the *GCB*, *ICG*, *Corporate/Other* and Citi Holdings business segments.

*GCB* includes a global, full-service consumer franchise delivering a wide array of banking, including commercial banking, credit card lending and investment services through a network of local branches, offices and electronic delivery systems and is composed of four *GCB* businesses: *North America*, *EMEA*, *Latin America* and *Asia*.

*ICG* is composed of *Banking* and *Markets and securities services* and provides corporate, institutional, public sector and high-net-worth clients in approximately 100 countries with a broad range of banking and financial products and services.

*Corporate/Other* includes certain unallocated costs of global functions, other corporate expenses and net treasury results, unallocated corporate expenses, offsets to certain line-item reclassifications and eliminations, the results of discontinued operations and unallocated taxes.

Citi Holdings is composed of businesses and portfolios of assets that Citigroup has determined are not central to its core Citicorp businesses.

The accounting policies of these reportable segments are the same as those disclosed in Note 1 to the Consolidated Financial Statements.

The prior-period balances reflect reclassifications to conform the presentation to the presentation as of the first

quarter of 2016. Effective January 1, 2016, the historical financial data was reclassified from Citicorp to Citi Holdings for the consumer businesses in Argentina, Brazil and Colombia that Citi intends to exit. These businesses, which previously were reported as part of *Latin America GCB*, are now reported as part of Citi Holdings. While Citi does not intend to exit its consumer businesses in Venezuela, these businesses are not significant, lending predominantly to support *ICG* activities, and are now reported as part of *ICG*. Similarly, Citi's remaining indirect investment in Banco de Chile is now reported as part of *ICG*. The following also reflects certain other regional reclassifications within *ICG* and certain other immaterial reclassifications. Citi's consolidated results remain unchanged for all periods presented as a result of these reclassifications.

In addition, as discussed in Note 1 to the Consolidated Financial Statements, Citi adopted ASU 2014-01 in the first quarter of 2015. The ASU is applicable to Citi's portfolio of low income housing tax credit partnership interests. Citi's disclosures reflect the retrospective application of the ASU and impacts Citi's consolidated assets, revenues, provision for income taxes and net income for all periods presented.

The following table presents certain information regarding the Company's continuing operations by segment:

	Revenues, net of interest expense <sup>(1)</sup>			Provision (benefits) for income taxes			Income (loss) from continuing operations <sup>(2)</sup>			Identifiable assets	
	2015	2014	2013	2015	2014	2013	2015	2014	2013	2015	2014
<i>In millions of dollars, except identifiable assets in billions</i>											
<i>Global Consumer Banking</i>	\$ 32,495	\$ 34,296	\$ 34,395	\$ 3,430	\$ 3,404	\$ 3,391	\$ 6,376	\$ 6,702	\$ 6,493	\$ 381	\$ 393
<i>Institutional Clients Group</i>	33,991	33,312	33,580	4,426	4,129	4,197	9,529	9,645	9,473	1,217	1,261
<i>Corporate/Other</i>	908	303	322	(1,338)	(344)	(215)	496	(5,373)	(514)	52	50
Total Citicorp	\$ 67,394	\$ 67,911	\$ 68,297	\$ 6,518	\$ 7,189	\$ 7,373	\$ 16,401	\$ 10,974	\$ 15,452	\$ 1,650	\$ 1,704
Citi Holdings	8,960	9,308	8,427	922	8	(1,187)	985	(3,470)	(1,836)	81	138
<b>Total</b>	<b>\$ 76,354</b>	<b>\$ 77,219</b>	<b>\$ 76,724</b>	<b>\$ 7,440</b>	<b>\$ 7,197</b>	<b>\$ 6,186</b>	<b>\$ 17,386</b>	<b>\$ 7,504</b>	<b>\$ 13,616</b>	<b>\$ 1,731</b>	<b>\$ 1,842</b>

(1) Includes Citicorp (excluding *Corporate/Other*) total revenues, net of interest expense, in *North America* of \$32.7 billion, \$32.9 billion and \$31.5 billion; in *EMEA* of \$10.0 billion, \$9.5 billion and \$10.2 billion; in *Latin America* of \$9.8 billion, and \$10.8 billion and \$11.3 billion; and in *Asia* of \$14.0 billion, \$14.4 billion and \$15.0 billion in 2015, 2014 and 2013, respectively.

(2) Includes pretax provisions for credit losses and for benefits and claims in the *GCB* results of \$5.5 billion, \$5.5 billion and \$6.1 billion; in the *ICG* results of \$962 million, \$47 million and \$86 million; and in Citi Holdings results of \$1.5 billion, \$1.9 billion and \$2.3 billion in 2015, 2014 and 2013, respectively.



#### 4. INTEREST REVENUE AND EXPENSE

*Interest revenue and Interest expense* consisted of the following:

<i>In millions of dollars</i>	2015	2014	2013
<b>Interest revenue</b>			
Loan interest, including fees	\$ 40,510	\$ 44,776	\$ 45,580
Deposits with banks	727	959	1,026
Federal funds sold and securities borrowed or purchased under agreements to resell	2,516	2,366	2,566
Investments, including dividends	7,017	7,195	6,919
Trading account assets <sup>(1)</sup>	5,942	5,880	6,277
Other interest <sup>(2)</sup>	1,839	507	602
<b>Total interest revenue</b>	<b>\$ 58,551</b>	<b>\$ 61,683</b>	<b>\$ 62,970</b>
<b>Interest expense</b>			
Deposits <sup>(3)</sup>	\$ 5,052	\$ 5,692	\$ 6,236
Federal funds purchased and securities loaned or sold under agreements to repurchase	1,614	1,895	2,339
Trading account liabilities <sup>(1)</sup>	216	168	169
Short-term borrowings	522	580	597
Long-term debt	4,517	5,355	6,836
<b>Total interest expense</b>	<b>\$ 11,921</b>	<b>\$ 13,690</b>	<b>\$ 16,177</b>
<b>Net interest revenue</b>	<b>\$ 46,630</b>	<b>\$ 47,993</b>	<b>\$ 46,793</b>
Provision for loan losses	7,108	6,828	7,604
<b>Net interest revenue after provision for loan losses</b>	<b>\$ 39,522</b>	<b>\$ 41,165</b>	<b>\$ 39,189</b>

(1) Interest expense on *Trading account liabilities* of ICG is reported as a reduction of interest revenue from *Trading account assets*.

(2) During 2015, interest earned related to assets of significant disposals (primarily OneMain Financial) were reclassified into *Other interest*.

(3) Includes deposit insurance fees and charges of \$1,118 million and \$1,038 million and \$1,132 million for 2015, 2014 and 2013, respectively.

## 5. COMMISSIONS AND FEES

The primary components of *Commissions and fees* revenue are investment banking fees, trading-related fees, credit card and bank card fees and fees related to trade and securities services in *ICG*.

Investment banking fees are substantially composed of underwriting and advisory revenues and are recognized when Citigroup's performance under the terms of a contractual arrangement is completed, which is typically at the closing of the transaction. Underwriting revenue is recorded in *Commissions and fees*, net of both reimbursable and non-reimbursable expenses, consistent with the AICPA Audit and Accounting Guide for Brokers and Dealers in Securities (codified in ASC 940-605-05-1). Expenses associated with advisory transactions are recorded in *Other operating expenses*, net of client reimbursements. Out-of-pocket expenses are deferred and recognized at the time the related revenue is recognized. In general, expenses incurred related to investment banking transactions that fail to close (are not consummated) are recorded gross in *Other operating expenses*.

Trading-related fees primarily include commissions and fees from the following: executing transactions for clients on exchanges and over-the-counter markets; sale of mutual funds, insurance and other annuity products; and assisting clients in clearing transactions, providing brokerage services and other such activities. Trading-related fees are recognized when earned in *Commissions and fees*. Gains or losses, if any, on these transactions are included in *Principal transactions* (see Note 6 to the Consolidated Financial Statements).

Credit card and bank card fees are primarily composed of interchange revenue and certain card fees, including annual fees, reduced by reward program costs and certain partner payments. Interchange revenue and fees are recognized when earned. Annual card fees are deferred and amortized on a straight-line basis over a 12-month period. Reward costs are recognized when points are earned by the customers. The following table presents *Commissions and fees* revenue:

<i>In millions of dollars</i>	2015	2014	2013
Investment banking	\$ 3,423	\$ 3,687	\$ 3,315
Trading-related	2,345	2,503	2,563
Credit cards and bank cards	1,786	2,227	2,472
Trade and securities services	1,735	1,871	1,847
Other consumer <sup>(1)</sup>	685	885	911
Corporate finance <sup>(2)</sup>	493	531	516
Checking-related	497	531	551
Loan servicing	404	380	500
Other	480	417	266
<b>Total commissions and fees</b>	<b>\$ 11,848</b>	<b>\$ 13,032</b>	<b>\$ 12,941</b>

(1) Primarily consists of fees for investment fund administration and management, third-party collections, commercial demand deposit accounts and certain credit card services.

(2) Consists primarily of fees earned from structuring and underwriting loan syndications.

## 6. PRINCIPAL TRANSACTIONS

*Principal transactions* revenue consists of realized and unrealized gains and losses from trading activities. Trading activities include revenues from fixed income, equities, credit and commodities products and foreign exchange transactions which are managed on a portfolio basis characterized by primary risk. Not included in the table below is the impact of net interest revenue related to trading activities, which is an integral part of trading activities' profitability. See Note 4 to the Consolidated Financial Statements for information about

net interest revenue related to trading activities. Principal transactions include CVA (credit valuation adjustments on derivatives), FVA (funding valuation adjustments) on over-the-counter derivatives and DVA (debt valuation adjustments on issued liabilities for which the fair value option has been elected). These adjustments are discussed further in Note 25 to the Consolidated Financial Statements.

The following table presents principal transactions revenue:

<i>In millions of dollars</i>	2015	2014	2013
<i>Global Consumer Banking</i>	\$ 636	\$ 699	\$ 762
<i>Institutional Clients Group</i>	5,823	5,905	6,489
<i>Corporate/Other</i>	(444)	(380)	(75)
Subtotal Citicorp	\$ 6,015	\$ 6,224	\$ 7,176
Citi Holdings	(7)	474	126
<b>Total Citigroup</b>	<b>\$ 6,008</b>	<b>\$ 6,698</b>	<b>\$ 7,302</b>
Interest rate risks <sup>(1)</sup>	\$ 3,798	\$ 3,657	\$ 4,055
Foreign exchange risks <sup>(2)</sup>	1,532	2,008	2,307
Equity risks <sup>(3)</sup>	(303)	(260)	319
Commodity and other risks <sup>(4)</sup>	750	590	277
Credit products and risks <sup>(5)</sup>	231	703	344
<b>Total</b>	<b>\$ 6,008</b>	<b>\$ 6,698</b>	<b>\$ 7,302</b>

- (1) Includes revenues from government securities and corporate debt, municipal securities, mortgage securities and other debt instruments. Also includes spot and forward trading of currencies and exchange-traded and over-the-counter (OTC) currency options, options on fixed income securities, interest rate swaps, currency swaps, swap options, caps and floors, financial futures, OTC options and forward contracts on fixed income securities.
- (2) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as FX translation gains and losses.
- (3) Includes revenues from common, preferred and convertible preferred stock, convertible corporate debt, equity-linked notes and exchange-traded and OTC equity options and warrants.
- (4) Primarily includes revenues from crude oil, refined oil products, natural gas and other commodities trades.
- (5) Includes revenues from structured credit products.

## 7. INCENTIVE PLANS

### **Discretionary Annual Incentive Awards**

Citigroup grants immediate cash bonus payments, deferred cash awards, stock payments and restricted and deferred stock awards as part of its discretionary annual incentive award program involving a large segment of Citigroup's employees worldwide. Most of the shares of common stock issued by Citigroup as part of its equity compensation programs are to settle the vesting of the stock components of these awards.

Discretionary annual incentive awards are generally awarded in the first quarter of the year based upon the previous year's performance. Awards valued at less than U.S. \$100,000 (or the local currency equivalent) are generally paid entirely in the form of an immediate cash bonus. Pursuant to Citigroup policy and/or regulatory requirements, certain employees and officers are subject to mandatory deferrals of incentive pay and generally receive 25% to 60% of their awards in a combination of restricted or deferred stock and deferred cash. Discretionary annual incentive awards to many employees in the EU are subject to deferral requirements regardless of the total award value, with 50% of the immediate incentive delivered in the form of a stock payment or stock unit award subject to a restriction on sale or transfer or hold back (generally, for six months).

Deferred annual incentive awards may be delivered as two awards—a restricted or deferred stock award under Citi's Capital Accumulation Program (CAP) and a deferred cash award. The applicable mix of CAP and deferred cash awards may vary based on the employee's minimum deferral requirement and the country of employment. In some cases, the entire deferral will be in the form of either a CAP or deferred cash award.

Subject to certain exceptions (principally, for retirement-eligible employees), continuous employment within Citigroup is required to vest in CAP and deferred cash awards. Post-employment vesting by retirement-eligible employees and participants who meet other conditions is generally conditioned upon their refraining from competition with Citigroup during the remaining vesting period, unless the employment relationship has been terminated by Citigroup under certain conditions.

Generally, the CAP and deferred cash awards vest in equal annual installments over three- or four-year periods. Vested CAP awards are delivered in shares of common stock. Deferred cash awards are payable in cash and earn a fixed notional rate of interest that is paid only if and when the underlying principal award amount vests. Generally, in the EU, vested CAP shares are subject to a restriction on sale or transfer after vesting, and vested deferred cash awards are subject to hold back (generally, for six months in each case).

Unvested CAP and deferred cash awards made in January 2011 or later are subject to one or more clawback provisions that apply in certain circumstances, including in the case of employee risk-limit violations or other misconduct, or where the awards were based on earnings that were misstated. CAP awards made to certain employees in February 2013 and later, and deferred cash awards made to certain employees in January 2012, are subject to a formulaic performance-based

vesting condition pursuant to which amounts otherwise scheduled to vest will be reduced based on the amount of any pretax loss in the participant's business in the calendar year preceding the scheduled vesting date. For CAP awards made in February 2013 and later, a minimum reduction of 20% applies for the first dollar of loss.

In addition, deferred cash awards made to certain employees in February 2013 and later are subject to a discretionary performance-based vesting condition under which an amount otherwise scheduled to vest may be reduced in the event of a "material adverse outcome" for which a participant has "significant responsibility." Deferred cash awards made to these employees in February 2014 and later are subject to an additional clawback provision pursuant to which unvested awards may be canceled if the employee engaged in misconduct or exercised materially imprudent judgment, or failed to supervise or escalate the behavior of other employees who did.

Certain CAP and other stock-based awards, including those to participants in the EU that are subject to certain discretionary clawback provisions, are subject to variable accounting, pursuant to which the associated value of the award fluctuates with changes in Citigroup's common stock price until the date that the award is settled, either in cash or shares. For these awards, the total amount that will be recognized as expense cannot be determined in full until the settlement date.

### **Sign-on and Long-Term Retention Awards**

Stock awards and deferred cash awards may be made at various times during the year as sign-on awards to induce new hires to join Citi or to high-potential employees as long-term retention awards.

Vesting periods and other terms and conditions pertaining to these awards tend to vary by grant. Generally, recipients must remain employed through the vesting dates to vest in the awards, except in cases of death, disability or involuntary termination other than for "gross misconduct." These awards do not usually provide for post-employment vesting by retirement-eligible participants.

## Outstanding (Unvested) Stock Awards

A summary of the status of unvested stock awards granted as discretionary annual incentive or sign-on and long-term retention awards is presented below:

Unvested stock awards	Shares	Weighted-average grant date fair value per share
Unvested at January 1, 2015	50,004,393	\$ 42.52
Granted <sup>(1)</sup>	17,815,456	50.33
Canceled	(2,005,875)	44.71
Vested <sup>(2)</sup>	(23,953,683)	42.53
Unvested at December 31, 2015	41,860,291	\$ 45.73

- (1) The weighted-average fair value of the shares granted during 2014 and 2013 was \$49.65 and \$43.96, respectively.  
(2) The weighted-average fair value of the shares vesting during 2015 was approximately \$48.09 per share.

Total unrecognized compensation cost related to unvested stock awards, excluding the impact of forfeiture estimates, was \$634 million at December 31, 2015. The cost is expected to be recognized over a weighted-average period of 1.5 years. However, the value of the portion of these awards that is subject to variable accounting will fluctuate with changes in Citigroup's common stock price.

## Performance Share Units

Certain executive officers were awarded a target number of performance share units (PSUs) on February 19, 2013, for performance in 2012, and to a broader group of executives on February 18, 2014 and February 18, 2015, for performance in 2013 and 2014, respectively. PSUs will be earned only to the extent that Citigroup attains specified performance goals relating to Citigroup's return on assets and relative total shareholder return against peers over the three-year period beginning with the year of award. The actual dollar amounts ultimately earned could vary from zero, if performance goals are not met, to as much as 150% of target, if performance goals are meaningfully exceeded. The value of each PSU is equal to the value of one share of Citi common stock.

PSUs were granted on February 16, 2016, for performance in 2015. The 2016 PSUs are earned over a three-year performance period based on Citigroup's relative total shareholder return as compared to peers. The actual dollar amounts ultimately earned could vary from zero, if performance goals are not met, to as much as 150% of target, if performance goals are meaningfully exceeded. The value of each PSU is equal to the value of one share of Citi common stock.

PSUs are subject to variable accounting, pursuant to which the associated value of the award will fluctuate with changes in Citigroup's stock price and the attainment of the specified performance goals for each award, until the award is settled solely in cash after the end of the performance period. The value of the award, subject to the performance goals, is estimated using a simulation model that incorporates multiple valuation assumptions, including the probability of achieving the specified performance goals of each award. The risk-free rate used in the model is based on the applicable U.S. Treasury yield curve. Other significant assumptions for the awards are as follows:

Valuation Assumptions	2015	2014	2013
Expected volatility	27.13%	39.12%	42.65%
Expected dividend yield	0.08%	0.08%	0.12%

A summary of the performance share unit activity for 2015 is presented below:

Performance Share Units	Units	Weighted-average grant date fair value per unit
Outstanding, beginning of period	843,793	\$ 46.28
Granted <sup>(1)</sup>	513,464	44.07
Canceled	—	—
Payments	—	—
Outstanding, end of period	1,357,257	\$ 45.45

- (1) The weighted-average grant date fair value per unit awarded in 2014 and 2013 was \$48.34 and \$42.26, respectively.

## Stock Option Programs

Stock options have not been granted to Citi's employees as part of the annual incentive award programs since 2009.

All outstanding stock options are fully vested with the related expense recognized as a charge to income in prior periods. Generally, the stock options outstanding have a six-year term, with some stock options subject to various transfer restrictions. Cash received from employee stock option exercises under this program for the year ended December 31, 2015 was approximately \$634 million.

Information with respect to stock option activity under Citigroup's stock option programs follows:

	2015			2014			2013		
	Options	Weighted-average exercise price	Intrinsic value per share	Options	Weighted-average exercise price	Intrinsic value per share	Options	Weighted-average exercise price	Intrinsic value per share
<b>Outstanding, beginning of period</b>	26,514,119	\$ 48.00	\$ 6.11	31,508,106	\$ 50.72	\$ 1.39	35,020,397	\$ 51.20	\$ —
Canceled	(7,901)	40.80	—	(28,257)	40.80	—	(50,914)	212.35	—
Expired	(1,646,581)	40.85	—	(602,093)	242.43	—	(86,964)	528.40	—
Exercised	(18,203,048)	41.39	13.03	(4,363,637)	40.82	11.37	(3,374,413)	40.81	9.54
<b>Outstanding, end of period</b>	<b>6,656,588</b>	<b>\$ 67.92</b>	<b>\$ —</b>	<b>26,514,119</b>	<b>\$ 48.00</b>	<b>\$ 6.11</b>	<b>31,508,106</b>	<b>\$ 50.72</b>	<b>\$ 1.39</b>
<b>Exercisable, end of period</b>	<b>6,656,588</b>			<b>26,514,119</b>			<b>30,662,588</b>		

The following table summarizes information about stock options outstanding under Citigroup's stock option programs at December 31, 2015:

Range of exercise prices	Options outstanding			Options exercisable		
	Number outstanding	Weighted-average contractual life remaining	Weighted-average exercise price	Number exercisable	Weighted-average exercise price	
\$39.00—\$49.99	5,763,424	1.0 year	\$ 48.16	5,763,424	\$ 48.16	
\$50.00—\$99.99	66,660	5.4 years	56.25	66,660	56.25	
\$100.00—\$199.99	502,416	3.0 years	147.13	502,416	147.13	
\$200.00—\$299.99	124,088	2.1 years	240.28	124,088	240.28	
\$300.00—\$399.99	200,000	2.1 years	335.50	200,000	335.50	
Total at December 31, 2015	6,656,588	1.3 years	\$ 67.92	6,656,588	\$ 67.92	

### Other Variable Incentive Compensation

Citigroup has various incentive plans globally that are used to motivate and reward performance primarily in the areas of sales, operational excellence and customer satisfaction. Participation in these plans is generally limited to employees who are not eligible for discretionary annual incentive awards.

### Summary

Except for awards subject to variable accounting, the total expense recognized for stock awards represents the grant date fair value of such awards, which is generally recognized as a charge to income ratably over the vesting period, other than for awards to retirement-eligible employees and immediately vested awards. Whenever awards are made or are expected to be made to retirement-eligible employees, the charge to income is accelerated based on when the applicable conditions to retirement eligibility were or will be met. If the employee is retirement eligible on the grant date, or the award is vested at grant date, the entire expense is recognized in the year prior to grant.

Recipients of Citigroup stock awards generally do not have any stockholder rights until shares are delivered upon vesting or exercise, or after the expiration of applicable required holding periods. Recipients of restricted or deferred stock awards and stock unit awards, however, may be entitled to receive dividends or dividend-equivalent payments during the vesting period. Recipients of restricted stock awards generally are entitled to vote the shares in their award during

the vesting period. Once a stock award vests, the shares are freely transferable, unless they are subject to a restriction on sale or transfer for a specified period.

All equity awards granted since April 19, 2005, have been made pursuant to stockholder-approved stock incentive plans that are administered by the Personnel and Compensation Committee of the Citigroup Board of Directors, which is composed entirely of independent non-employee directors.

At December 31, 2015, approximately 54.4 million shares of Citigroup common stock were authorized and available for grant under Citigroup's 2014 Stock Incentive Plan, the only plan from which equity awards are currently granted.

The 2014 Stock Incentive Plan and predecessor plans permit the use of treasury stock or newly issued shares in connection with awards granted under the plans. Newly issued shares were distributed to settle the vesting of the majority of annual deferred stock awards in 2012 to 2015. Treasury shares were used to settle vestings in the first quarter of 2016. The use of treasury stock or newly issued shares to settle stock awards does not affect the compensation expense recorded in the Consolidated Statement of Income for equity awards.

### Incentive Compensation Cost

The following table shows components of compensation expense, relating to certain of the above incentive compensation programs, recorded during 2015, 2014 and 2013:

<i>In millions of dollars</i>	2015	2014	2013
Charges for estimated awards to retirement-eligible employees	\$ 541	\$ 525	\$ 468
Amortization of deferred cash awards, deferred cash stock units and performance stock units	325	311	323
Immediately vested stock award expense <sup>(1)</sup>	61	51	54
Amortization of restricted and deferred stock awards <sup>(2)</sup>	461	668	862
Option expense	—	1	10
Other variable incentive compensation	773	803	1,076
Profit sharing plan	—	1	78
<b>Total</b>	<b>\$ 2,161</b>	<b>\$ 2,360</b>	<b>\$ 2,871</b>

- (1) Represents expense for immediately vested stock awards that generally were stock payments in lieu of cash compensation. The expense is generally accrued as cash incentive compensation in the year prior to grant.
- (2) All periods include amortization expense for all unvested awards to non-retirement-eligible employees. Amortization is recognized net of estimated forfeitures of awards.

### Future Expenses Associated with Outstanding (Unvested) Awards

Citi expects to record compensation expense in future periods as a result of awards granted for performance in 2015 and prior years. Because the awards contain service or other conditions that will be satisfied in the future, the expense of these already-granted awards is recognized over those future period(s). Citi's expected future expenses, excluding the impact of forfeitures, cancellations, clawbacks and repositioning-related accelerations that have not yet occurred, are summarized in the table below. The portion of these awards that is subject to variable accounting will cause the expense amount to fluctuate with changes in Citigroup's common stock price.

<i>In millions of dollars</i>	2016	2017	2018	2019 and beyond <sup>(1)</sup>	Total <sup>(2)</sup>
<b>Awards granted in 2015 and prior:</b>					
Deferred stock awards	\$ 339	\$ 201	\$ 88	\$ 12	\$ 640
Deferred cash awards	215	121	45	4	385
<b>Future expense related to awards already granted</b>					
	\$ 554	\$ 322	\$ 133	\$ 16	\$ 1,025
<b>Future expense related to awards granted in 2016<sup>(3)</sup></b>					
	297	211	166	113	787
<b>Total</b>	<b>\$ 851</b>	<b>\$ 533</b>	<b>\$ 299</b>	<b>\$ 129</b>	<b>\$ 1,812</b>

- (1) Principally 2019.
- (2) \$1.6 billion of which is attributable to ICG.
- (3) Refers to awards granted on or about February 16, 2016, as part of Citi's discretionary annual incentive awards for services performed in 2015.



## 8. RETIREMENT BENEFITS

### Pension and Postretirement Plans

The Company has several non-contributory defined benefit pension plans covering certain U.S. employees and has various defined benefit pension and termination indemnity plans covering employees outside the U.S.

The U.S. qualified defined benefit plan was frozen effective January 1, 2008 for most employees. Accordingly, no additional compensation-based contributions have been credited to the cash balance portion of the plan for existing plan participants after 2007. However, certain employees covered under the prior final pay plan formula continue to accrue benefits. The Company also offers postretirement health care and life insurance benefits to certain eligible U.S. retired employees, as well as to certain eligible employees outside the U.S.

The Company also sponsors a number of non-contributory, nonqualified pension plans. These plans, which are unfunded, provide supplemental defined pension benefits

to certain U.S. employees. With the exception of certain employees covered under the prior final pay plan formula, the benefits under these plans were frozen in prior years.

The plan obligations, plan assets and periodic plan expense for the Company's most significant pension and postretirement benefit plans (Significant Plans) are measured and disclosed quarterly, instead of annually. The Significant Plans captured approximately 90% of the Company's global pension and postretirement plan obligations as of December 31, 2015. All other plans (All Other Plans) are measured annually with a December 31 measurement date.

### Net (Benefit) Expense

The following table summarizes the components of net (benefit) expense recognized in the Consolidated Statement of Income for the Company's pension and postretirement plans, for Significant Plans and All Other Plans, for the periods indicated.

In millions of dollars	Pension plans						Postretirement benefit plans					
	U.S. plans			Non-U.S. plans			U.S. plans			Non-U.S. plans		
	2015	2014	2013	2015	2014	2013	2015	2014	2013	2015	2014	2013
<b>Qualified plans</b>												
Benefits earned during the year	\$ 4	\$ 6	\$ 8	\$ 168	\$ 178	\$ 210	\$ —	\$ —	\$ —	\$ 12	\$ 15	\$ 43
Interest cost on benefit obligation	553	541	538	317	376	384	33	33	33	108	120	146
Expected return on plan assets	(893)	(878)	(863)	(323)	(384)	(396)	(3)	(1)	(2)	(105)	(121)	(133)
Amortization of unrecognized												
Prior service (benefit) cost	(3)	(3)	(4)	2	1	4	—	—	(1)	(11)	(12)	—
Net actuarial loss	139	105	104	73	77	95	—	—	—	43	39	45
Curtailment loss (gain) <sup>(1)</sup>	14	—	21	—	14	4	—	—	—	(1)	—	—
Settlement loss (gain) <sup>(1)</sup>	—	—	—	44	53	13	—	—	—	—	—	(1)
Special termination benefits <sup>(1)</sup>	—	—	—	—	9	8	—	—	—	—	—	—
<b>Net qualified plans (benefit) expense</b>	<b>\$ (186)</b>	<b>\$ (229)</b>	<b>\$ (196)</b>	<b>\$ 281</b>	<b>\$ 324</b>	<b>\$ 322</b>	<b>\$ 30</b>	<b>\$ 32</b>	<b>\$ 30</b>	<b>\$ 46</b>	<b>\$ 41</b>	<b>\$ 100</b>
<b>Nonqualified plans expense</b>	<b>43</b>	<b>45</b>	<b>46</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
Cumulative effect of change in accounting policy <sup>(2)</sup>	—	—	(23)	—	—	—	—	—	—	—	—	3
<b>Total net (benefit) expense</b>	<b>\$ (143)</b>	<b>\$ (184)</b>	<b>\$ (173)</b>	<b>\$ 281</b>	<b>\$ 324</b>	<b>\$ 322</b>	<b>\$ 30</b>	<b>\$ 32</b>	<b>\$ 30</b>	<b>\$ 46</b>	<b>\$ 41</b>	<b>\$ 103</b>

(1) Losses (gains) due to curtailment, settlement and special termination benefits relate to repositioning and divestiture actions.

(2) Cumulative effect of adopting quarterly measurement for Significant Plans.

The estimated net actuarial loss and prior service cost that will be amortized from *Accumulated other comprehensive income (loss)* into net expense in 2016 are approximately \$226 million and \$1 million, respectively, for defined benefit

pension plans. For postretirement plans, the estimated 2016 net actuarial loss and prior service cost (benefit) amortizations are approximately \$35 million and \$(11) million, respectively.



## Contributions

The Company's funding practice for U.S. and non-U.S. pension and postretirement plans is generally to fund to minimum funding requirements in accordance with applicable local laws and regulations. The Company may increase its contributions above the minimum required contribution, if appropriate. In addition, management has the ability to change its funding practices. For the U.S. pension plans, there were no required minimum cash contributions for 2015 or 2014.

The following table summarizes the actual Company contributions for the years ended December 31, 2015 and 2014, as well as estimated expected Company contributions for 2016. Expected contributions are subject to change since contribution decisions are affected by various factors, such as market performance and regulatory requirements.

## Summary of Company Contributions

<i>In millions of dollars</i>	Pension plans <sup>(1)</sup>						Postretirement benefit plans <sup>(1)</sup>					
	U.S. plans <sup>(2)</sup>			Non-U.S. plans			U.S. plans			Non-U.S. plans		
	2016	2015	2014	2016	2015	2014	2016	2015	2014	2016	2015	2014
<b>Contributions made by the Company</b>	\$ —	\$ —	\$ 100	\$ 78	\$ 92	\$ 130	\$ —	\$ 174	\$ —	\$ 3	\$ 4	\$ 6
<b>Benefits paid directly by the Company</b>	55	52	58	59	42	100	—	61	56	6	5	6

(1) Amounts reported for 2016 are expected amounts.

(2) The U.S. pension plans include benefits paid directly by the Company for the nonqualified pension plans.

## Funded Status and Accumulated Other Comprehensive Income

The following tables summarize the funded status and amounts recognized in the Consolidated Balance Sheet for the Company's pension and postretirement plans.

## Net Amount Recognized

<i>In millions of dollars</i>	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Change in projected benefit obligation</b>								
<b>Qualified plans</b>								
Projected benefit obligation at beginning of year	\$ 14,060	\$ 12,137	\$ 7,252	\$ 7,194	\$ 917	\$ 780	\$ 1,527	\$ 1,411
Benefits earned during the year	4	6	168	178	—	—	12	15
Interest cost on benefit obligation	553	541	317	376	33	33	108	120
Plan amendments	—	—	6	2	—	—	—	(14)
Actuarial loss (gain) <sup>(1)</sup>	(649)	2,077	(28)	790	(55)	184	(88)	262
Benefits paid, net of participants' contributions	(751)	(701)	(294)	(352)	(90)	(91)	(57)	(93)
Expected government subsidy	—	—	—	—	12	11	—	—
Divestitures	—	—	(147)	(18)	—	—	—	(1)
Settlement (gain) loss <sup>(2)</sup>	—	—	(61)	(184)	—	—	—	—
Curtailed (gain) loss <sup>(2)</sup>	14	—	(8)	(58)	—	—	—	(3)
Special termination benefits <sup>(2)</sup>	—	—	—	9	—	—	—	—
Foreign exchange impact and other	—	—	(671)	(685)	—	—	(211)	(170)
<b>Qualified plans</b>	\$ 13,231	\$ 14,060	\$ 6,534	\$ 7,252	\$ 817	\$ 917	\$ 1,291	\$ 1,527
<b>Nonqualified plans</b>	712	779	—	—	—	—	—	—
<b>Projected benefit obligation at year end</b>	\$ 13,943	\$ 14,839	\$ 6,534	\$ 7,252	\$ 817	\$ 917	\$ 1,291	\$ 1,527

(1) 2014 amounts for the U.S. plans include impact of the adoption of updated mortality tables (see "Mortality Tables" below).

(2) Curtailment, settlement (gains)/losses and special termination benefits relate to repositioning and divestiture activities.

<i>In millions of dollars</i>	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
	2015	2014	2015	2014	2015	2014	2015	2014
<b>Change in plan assets</b>								
<b>Qualified plans</b>								
Plan assets at fair value at beginning of year	\$ 13,071	\$ 12,731	\$ 7,057	\$ 6,918	\$ 10	\$ 32	\$ 1,384	\$ 1,472
Actual return on plan assets	(183)	941	56	1,108	(1)	2	(5)	166
Company contributions	—	100	134	230	235	56	9	12
Plan participants' contributions	—	—	5	5	49	51	—	—
Divestitures	—	—	(131)	(11)	—	—	—	—
Settlements	—	—	(61)	(184)	—	—	—	—
Benefits paid, net of government subsidy	(751)	(701)	(299)	(357)	(127)	(131)	(57)	(93)
Foreign exchange impact and other	—	—	(657)	(652)	—	—	(198)	(173)
<b>Qualified plans</b>	<b>\$ 12,137</b>	<b>\$ 13,071</b>	<b>\$ 6,104</b>	<b>\$ 7,057</b>	<b>\$ 166</b>	<b>\$ 10</b>	<b>\$ 1,133</b>	<b>\$ 1,384</b>
<b>Nonqualified plans</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Plan assets at fair value at year end</b>	<b>\$ 12,137</b>	<b>\$ 13,071</b>	<b>\$ 6,104</b>	<b>\$ 7,057</b>	<b>\$ 166</b>	<b>\$ 10</b>	<b>\$ 1,133</b>	<b>\$ 1,384</b>
<b>Funded status of the plans</b>								
<b>Qualified plans<sup>(2)</sup></b>	<b>\$ (1,094)</b>	<b>\$ (989)</b>	<b>\$ (430)</b>	<b>\$ (195)</b>	<b>\$ (651)</b>	<b>\$ (907)</b>	<b>\$ (158)</b>	<b>\$ (143)</b>
<b>Nonqualified plans<sup>(1)</sup></b>	<b>(712)</b>	<b>(779)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Funded status of the plans at year end</b>	<b>\$ (1,806)</b>	<b>\$ (1,768)</b>	<b>\$ (430)</b>	<b>\$ (195)</b>	<b>\$ (651)</b>	<b>\$ (907)</b>	<b>\$ (158)</b>	<b>\$ (143)</b>
<b>Net amount recognized</b>								
<b>Qualified plans</b>								
Benefit asset	\$ —	\$ —	\$ 726	\$ 921	\$ —	\$ —	\$ 115	\$ 196
Benefit liability	(1,094)	(989)	(1,156)	(1,116)	(651)	(907)	(273)	(339)
<b>Qualified plans</b>	<b>\$ (1,094)</b>	<b>\$ (989)</b>	<b>\$ (430)</b>	<b>\$ (195)</b>	<b>\$ (651)</b>	<b>\$ (907)</b>	<b>\$ (158)</b>	<b>\$ (143)</b>
<b>Nonqualified plans</b>	<b>(712)</b>	<b>(779)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Net amount recognized on the balance sheet</b>	<b>\$ (1,806)</b>	<b>\$ (1,768)</b>	<b>\$ (430)</b>	<b>\$ (195)</b>	<b>\$ (651)</b>	<b>\$ (907)</b>	<b>\$ (158)</b>	<b>\$ (143)</b>
<b>Amounts recognized in Accumulated other comprehensive income (loss)</b>								
<b>Qualified plans</b>								
Net transition obligation	\$ —	\$ —	\$ (1)	\$ (1)	\$ —	\$ —	\$ —	\$ —
Prior service benefit	—	3	5	13	—	—	125	157
Net actuarial gain (loss)	(6,107)	(5,819)	(1,613)	(1,690)	3	(56)	(547)	(658)
<b>Qualified plans</b>	<b>\$ (6,107)</b>	<b>\$ (5,816)</b>	<b>\$ (1,609)</b>	<b>\$ (1,678)</b>	<b>\$ 3</b>	<b>\$ (56)</b>	<b>\$ (422)</b>	<b>\$ (501)</b>
<b>Nonqualified plans</b>	<b>(266)</b>	<b>(325)</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Net amount recognized in equity (pretax)</b>	<b>\$ (6,373)</b>	<b>\$ (6,141)</b>	<b>\$ (1,609)</b>	<b>\$ (1,678)</b>	<b>\$ 3</b>	<b>\$ (56)</b>	<b>\$ (422)</b>	<b>\$ (501)</b>
<b>Accumulated benefit obligation</b>								
<b>Qualified plans</b>	<b>\$ 13,226</b>	<b>\$ 14,050</b>	<b>\$ 6,049</b>	<b>\$ 6,699</b>	<b>\$ 817</b>	<b>\$ 917</b>	<b>\$ 1,291</b>	<b>\$ 1,527</b>
<b>Nonqualified plans</b>	<b>706</b>	<b>771</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>—</b>
<b>Accumulated benefit obligation at year end</b>	<b>\$ 13,932</b>	<b>\$ 14,821</b>	<b>\$ 6,049</b>	<b>\$ 6,699</b>	<b>\$ 817</b>	<b>\$ 917</b>	<b>\$ 1,291</b>	<b>\$ 1,527</b>

(1) The nonqualified plans of the Company are unfunded.

(2) The U.S. qualified pension plan is fully funded under specified Employee Retirement Income Security Act (ERISA) funding rules as of January 1, 2016 and no minimum required funding is expected for 2016.

The following table shows the change in *Accumulated other comprehensive income (loss)* related to Company's pension and postretirement benefit plans (for Significant Plans and All Other Plans) for the years indicated.

<i>In millions of dollars</i>	2015	2014	2013
<b>Beginning of year balance, net of tax<sup>(1)(2)</sup></b>	<b>\$ (5,159)</b>	<b>\$ (3,989)</b>	<b>\$ (5,270)</b>
Cumulative effect of change in accounting policy <sup>(3)</sup>	—	—	(22)
Actuarial assumptions changes and plan experience <sup>(4)</sup>	<b>898</b>	(3,404)	2,380
Net asset gain (loss) due to difference between actual and expected returns	<b>(1,457)</b>	833	(1,084)
Net amortizations	<b>236</b>	202	271
Prior service (cost) credit	<b>(6)</b>	13	360
Curtailement/settlement gain <sup>(5)</sup>	<b>57</b>	67	—
Foreign exchange impact and other	<b>291</b>	459	74
Change in deferred taxes, net	<b>24</b>	660	(698)
<b>Change, net of tax</b>	<b>\$ 43</b>	<b>\$ (1,170)</b>	<b>\$ 1,281</b>
<b>End of year balance, net of tax<sup>(1)(2)</sup></b>	<b>\$ (5,116)</b>	<b>\$ (5,159)</b>	<b>\$ (3,989)</b>

(1) See Note 20 to the Consolidated Financial Statements for further discussion of net *Accumulated other comprehensive income (loss)* balance.

(2) Includes net-of-tax amounts for certain profit sharing plans outside the U.S.

(3) Represents the cumulative effect of the change in accounting policy due to adoption of quarterly measurement for Significant Plans.

(4) Includes \$46 million, \$(111) million and \$58 million of actuarial gains (losses) related to the U.S. nonqualified pension plans for 2015, 2014 and 2013, respectively.

(5) Curtailement and settlement gains relate to repositioning and divestiture activities.

At December 31, 2015 and 2014, the aggregate projected benefit obligation (PBO), the aggregate accumulated benefit obligation (ABO), and the aggregate fair value of plan assets are presented for all defined benefit pension plans with a PBO in excess of plan assets and for all defined benefit pension plans with an ABO in excess of plan assets as follows:

<i>In millions of dollars</i>	<b>PBO exceeds fair value of plan assets</b>				<b>ABO exceeds fair value of plan assets</b>			
	<b>U.S. plans<sup>(1)</sup></b>		<b>Non-U.S. plans</b>		<b>U.S. plans<sup>(1)</sup></b>		<b>Non-U.S. plans</b>	
	<b>2015</b>	2014	<b>2015</b>	2014	<b>2015</b>	2014	<b>2015</b>	2014
Projected benefit obligation	<b>\$ 13,943</b>	\$ 14,839	<b>\$ 3,918</b>	\$ 2,756	<b>\$ 13,943</b>	\$ 14,839	<b>\$ 2,369</b>	\$ 2,570
Accumulated benefit obligation	<b>13,932</b>	14,821	<b>3,488</b>	2,353	<b>13,932</b>	14,821	<b>2,047</b>	2,233
Fair value of plan assets	<b>12,137</b>	13,071	<b>2,762</b>	1,640	<b>12,137</b>	13,071	<b>1,243</b>	1,495

(1) At December 31, 2015 and 2014, for both the U.S. qualified plan and nonqualified plans, the aggregate PBO and the aggregate ABO exceeded plan assets.

At December 31, 2015 and 2014, combined ABO for the U.S. and non-U.S. qualified pension plans, were more than plan assets by \$1 billion and \$0.6 billion, respectively.

## Plan Assumptions

The Company utilizes a number of assumptions to determine plan obligations and expenses. Changes in one or a combination of these assumptions will have an impact on the Company's pension and postretirement PBO, funded status and (benefit) expense. Changes in the plans' funded status resulting from changes in the PBO and fair value of plan assets will have a corresponding impact on *Accumulated other comprehensive income (loss)*.

The actuarial assumptions at the respective years ended December 31 in the table below are used to measure the year-end PBO and the net periodic (benefit) expense for the subsequent year (period). Since Citi's Significant Plans are measured on a quarterly basis, the year-end rates for those plans are used to calculate the net periodic (benefit) expense for the subsequent year's first quarter. As a result of the quarterly measurement process, the net periodic (benefit) expense for the Significant Plans is calculated at each respective quarter end based on the preceding quarter-end rates (as shown below for the U.S. pension and postretirement plans). The actuarial assumptions for the non-U.S. pension and postretirement plans relate to the Significant Plans that are measured quarterly and All Other Plans that are measured annually.

Certain assumptions used in determining pension and postretirement benefit obligations and net benefit expense for the Company's plans are shown in the following table:

<i>At year end</i>	2015	2014
<b>Discount rate</b>		
U.S. plans		
Qualified pension	4.40%	4.00%
Nonqualified pension	4.35	3.90
Postretirement	4.20	3.80
Non-U.S. pension plans		
Range	0.25 to 42.00	1.00 to 32.50
Weighted average	4.76	4.74
Non-U.S. postretirement plans		
Range	2.00 to 13.20	2.25 to 12.00
Weighted average	7.90	7.50
<b>Future compensation increase rate</b>		
U.S. plans	N/A	N/A
Non-U.S. pension plans		
Range	1.00 to 40.00	1.00 to 30.00
Weighted average	3.24	3.27
<b>Expected return on assets</b>		
U.S. plans	7.00	7.00
Non-U.S. pension plans		
Range	1.60 to 11.50	1.30 to 11.50
Weighted average	4.95	5.08
Non-U.S. postretirement plans		
Range	8.00 to 10.70	8.50 to 10.40
Weighted average	8.01	8.51

<i>During the year</i>	2015	2014	2013
<b>Discount rate</b>			
U.S. plans			
Qualified pension	4.00%/3.85%/4.45%/4.35%	4.75%/4.55%/4.25%/4.25%	3.90%/4.20%/4.75%/4.80%
Nonqualified pension	3.90/3.70/4.30/4.25	4.75	3.90
Postretirement	3.80/3.65/4.20/4.10	4.35/4.15/3.95/4.00	3.60/3.60/4.40/4.30
Non-U.S. pension plans			
Range	1.00 to 32.50	1.60 to 29.25	1.50 to 28.00
Weighted average	4.74	5.60	5.24
Non-U.S. postretirement plans			
Range	2.25 to 12.00	3.50 to 11.90	3.50 to 10.00
Weighted average	7.50	8.65	7.46
<b>Future compensation increase rate</b>			
U.S. plans	N/A	N/A	N/A
Non-U.S. pension plans			
Range	0.75 to 30.00	1.00 to 26.00	1.20 to 26.00
Weighted average	3.27	3.40	3.93
<b>Expected return on assets</b>			
U.S. plans	7.00	7.00	7.00
Non-U.S. pension plans			
Range	1.30 to 11.50	1.20 to 11.50	0.90 to 11.50
Weighted average	5.08	5.68	5.76
Non-U.S. postretirement plans			
Range	8.50 to 10.40	8.50 to 8.90	8.50 to 9.60
Weighted average	8.51	8.50	8.50

### Discount Rate

The discount rates for the U.S. pension and postretirement plans were selected by reference to a Citigroup-specific analysis using each plan's specific cash flows and compared with high-quality corporate bond indices for reasonableness. The discount rates for the non-U.S. pension and postretirement plans are selected by reference to high-quality corporate bond rates in countries that have developed corporate bond markets. However, where developed corporate bond markets do not exist, the discount rates are selected by reference to local government bond rates with a premium added to reflect the additional risk for corporate bonds in certain countries. Effective in 2015, Citi rounds the discount rate for all the Significant Plans to the nearest 5 basis points. Discount rates for All Other Plans are rounded to the nearest 10 basis points for plans in the six largest non-U.S. countries and to the nearest 25 basis points for the remaining non-US countries.

### Expected Rate of Return

The Company determines its assumptions for the expected rate of return on plan assets for its U.S. pension and postretirement plans using a "building block" approach, which focuses on ranges of anticipated rates of return for each asset class. A weighted average range of nominal rates is then determined based on target allocations to each asset class. Market performance over a number of earlier years is evaluated covering a wide range of economic conditions to determine whether there are sound reasons for projecting any past trends.

The Company considers the expected rate of return to be a long-term assessment of return expectations and does not anticipate changing this assumption unless there are significant changes in investment strategy or economic conditions. This contrasts with the selection of the discount rate and certain other assumptions, which are reconsidered annually (or quarterly for the Significant Plans) in accordance with GAAP.

The expected rate of return for the U.S. pension and postretirement plans was 7.00% at December 31, 2015, 2014 and 2013. The expected return on assets reflects the expected annual appreciation of the plan assets and reduces the Company's annual pension expense. The expected return on assets is deducted from the sum of service cost, interest cost and other components of pension expense to arrive at the net pension (benefit) expense. Net pension (benefit) expense for the U.S. pension plans for 2015, 2014 and 2013 reflects deductions of \$893 million, \$878 million and \$863 million of expected returns, respectively.

The following table shows the expected rates of return used in determining the Company's pension expense compared to the actual rate of return on plan assets during 2015, 2014 and 2013 for the U.S. pension and postretirement plans:

	2015	2014	2013
Expected rate of return	7.00%	7.00%	7.00%
Actual rate of return <sup>(1)</sup>	(1.70)	7.80	6.00

(1) Actual rates of return are presented net of fees.

For the non-U.S. pension plans, pension expense for 2015 was reduced by the expected return of \$323 million, compared with the actual return of \$56 million. Pension expense for 2014 and 2013 was reduced by expected returns of \$384 million and \$396 million, respectively.

### Mortality Tables

At December 31, 2015, the Company maintained the Retirement Plan 2014 (RP-2014) mortality table and adopted Mortality Projection 2015 (MP-2015) projection table for the U.S. plans.

U.S. Plans	2015 <sup>(2)</sup>	2014 <sup>(3)</sup>
<b>Mortality<sup>(1)</sup></b>		
Pension	RP-2014/MP-2015	RP-2014/MP-2014
Postretirement	RP-2014/MP-2015	RP-2014/MP-2014

- (1) The RP-2014 table is the white-collar RP-2014 table, with a 4% increase in rates to reflect the lower Citigroup-specific mortality experience.
- (2) The MP-2015 projection scale is projected from 2011, with convergence to 0.5% ultimate rate of annual improvement by 2029.
- (3) The MP-2014 projection scale includes a phase-out of the assumed rates of improvements from 2015 to 2027.

Adjustments were made to the RP-2014 tables and to the long-term rate of mortality improvement to reflect the Citigroup specific experience. As a result, the U.S. qualified and nonqualified pension and postretirement plans' PBO at December 31, 2014 increased by \$1,209 million and its funded status and AOCI decreased by \$1,209 million (\$737 million, net of tax). In addition, the 2015 qualified and nonqualified pension and postretirement benefit expense increased by approximately \$73 million.

### Sensitivities of Certain Key Assumptions

The following tables summarize the effect on pension expense of a one-percentage-point change in the discount rate:

<i>In millions of dollars</i>	One-percentage-point increase		
	2015	2014	2013
U.S. plans	\$ 26	\$ 28	\$ 16
Non-U.S. plans	(32)	(39)	(52)

<i>In millions of dollars</i>	One-percentage-point decrease		
	2015	2014	2013
U.S. plans	\$ (44)	\$ (45)	\$ (57)
Non-U.S. plans	44	56	79

Since the U.S. qualified pension plan was frozen, the majority of the prospective service cost has been eliminated and the gain/loss amortization period was changed to the life expectancy for inactive participants. As a result, pension expense for the U.S. qualified pension plan is driven more by interest costs than service costs, and an increase in the discount rate would increase pension expense, while a decrease in the discount rate would decrease pension expense.

The following tables summarize the effect on pension expense of a one-percentage-point change in the expected rates of return:

<i>In millions of dollars</i>	One-percentage-point increase		
	2015	2014	2013
U.S. plans	\$ (128)	\$ (129)	\$ (123)
Non-U.S. plans	(63)	(67)	(68)

<i>In millions of dollars</i>	One-percentage-point decrease		
	2015	2014	2013
U.S. plans	\$ 128	\$ 129	\$ 123
Non-U.S. plans	63	67	68

### Health Care Cost Trend Rate

Assumed health care cost-trend rates were as follows:

	2015	2014
<b>Health care cost increase rate for U.S. plans</b>		
Following year	7.00%	7.50%
Ultimate rate to which cost increase is assumed to decline	5.00	5.00
Year in which the ultimate rate is reached <sup>(1)</sup>	2020	2020

(1) Weighted average for plans with different following year and ultimate rates.

	2015	2014
<b>Health care cost increase rate for Non-U.S. plans (weighted average)</b>		
Following year	6.87%	6.94%
Ultimate rate to which cost increase is assumed to decline	6.86	6.93
Range of years in which the ultimate rate is reached	2016–2029	2015–2027

A one-percentage-point change in assumed health care cost trend rates would have the following effects:

<i>In millions of dollars</i>	One-percentage-point increase		One-percentage-point decrease	
	2015	2014	2015	2014
Effect on benefits earned and interest cost for U.S. postretirement plans	\$ 2	\$ 2	\$ (2)	\$ (1)
Effect on accumulated postretirement benefit obligation for U.S. postretirement plans	45	40	(38)	(34)

<i>In millions of dollars</i>	One-percentage-point increase		One-percentage-point decrease	
	2015	2014	2015	2014
Effect on benefits earned and interest cost for non-U.S. postretirement plans	\$ 15	\$ 17	\$ (12)	\$ (14)
Effect on accumulated postretirement benefit obligation for non-U.S. postretirement plans	156	197	(128)	(161)

## Plan Assets

Citigroup's pension and postretirement plans' asset allocations for the U.S. plans and the target allocations by asset category based on asset fair values, are as follows:

Asset category <sup>(1)</sup>	Target asset allocation	U.S. pension assets at December 31,		U.S. postretirement assets at December 31,	
	2016	2015	2014	2015	2014
Equity securities <sup>(2)</sup>	0–30%	19%	20%	19%	20%
Debt securities	25–73	46	44	46	44
Real estate	0–7	4	4	4	4
Private equity	0–10	6	8	6	8
Other investments	0–22	25	24	25	24
<b>Total</b>		<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

- (1) Asset allocations for the U.S. plans are set by investment strategy, not by investment product. For example, private equities with an underlying investment in real estate are classified in the real estate asset category, not private equity.
- (2) Equity securities in the U.S. pension and postretirement plans do not include any Citigroup common stock at the end of 2015 and 2014.

Third-party investment managers and advisers provide their services to Citigroup's U.S. pension and postretirement plans. Assets are rebalanced as the Company's Pension Plan Investment Committee deems appropriate. Citigroup's investment strategy, with respect to its assets, is to maintain a globally diversified investment portfolio across several asset classes that, when combined with Citigroup's

contributions to the plans, will maintain the plans' ability to meet all required benefit obligations.

Citigroup's pension and postretirement plans' weighted-average asset allocations for the non-U.S. plans and the actual ranges and the weighted-average target allocations by asset category based on asset fair values are as follows:

Asset category <sup>(1)</sup>	Non-U.S. pension plans				
	Target asset allocation	Actual range at December 31,		Weighted-average at December 31,	
	2016	2015	2014	2015	2014
Equity securities	0–63 %	0–68%	0–67%	16%	17%
Debt securities	0–100	0–100	0–100	77	77
Real estate	0–19	0–18	0–21	1	—
Other investments	0–100	0–100	0–100	6	6
<b>Total</b>				<b>100 %</b>	<b>100%</b>

- (1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.

Asset category <sup>(1)</sup>	Non-U.S. postretirement plans				
	Target asset allocation	Actual range at December 31,		Weighted-average at December 31,	
	2016	2015	2014	2015	2014
Equity securities	0–41%	0–41%	0–42%	41%	42%
Debt securities	56–100	56–100	54–100	56	54
Other investments	0–3	0–3	0–4	3	4
<b>Total</b>				<b>100 %</b>	<b>100%</b>

- (1) Similar to the U.S. plans, asset allocations for certain non-U.S. plans are set by investment strategy, not by investment product.



## Fair Value Disclosure

For information on fair value measurements, including descriptions of Levels 1, 2 and 3 of the fair value hierarchy and the valuation methodology utilized by the Company, see Note 1 and Note 25 to the Consolidated Financial Statements. ASU 2015-07 removes the current requirement to categorize investments for which fair value is measured using the NAV per share practical expedient within the fair value hierarchy.

Certain investments may transfer between the fair value hierarchy classifications during the year due to changes in valuation methodology and pricing sources. There were no significant transfers of investments between Level 1 and Level 2 during 2015 and 2014.

Plan assets by detailed asset categories and the fair value hierarchy are as follows:

<i>In millions of dollars</i>	U.S. pension and postretirement benefit plans <sup>(1)</sup>			
	Fair value measurement at December 31, 2015			
Asset categories	Level 1	Level 2	Level 3	Total
Equity securities				
U.S. equity	\$ 694	\$ —	\$ —	\$ 694
Non-U.S. equity	816	—	—	816
Mutual funds	223	—	—	223
Debt securities				
U.S. Treasuries	1,172	—	—	1,172
U.S. agency	—	105	—	105
U.S. corporate bonds	—	1,681	—	1,681
Non-U.S. government debt	—	309	—	309
Non-U.S. corporate bonds	—	440	—	440
State and municipal debt	—	124	—	124
Asset-backed securities	—	42	—	42
Mortgage-backed securities	—	60	—	60
Annuity contracts	—	—	27	27
Derivatives	6	521	—	527
Other investments	—	—	147	147
<b>Total investments</b>	<b>\$ 2,911</b>	<b>\$ 3,282</b>	<b>\$ 174</b>	<b>\$ 6,367</b>
Cash and short-term investments	\$ 138	\$ 1,064	\$ —	\$ 1,202
Other investment liabilities	(10)	(515)	—	(525)
<b>Net investments at fair value</b>	<b>\$ 3,039</b>	<b>\$ 3,831</b>	<b>\$ 174</b>	<b>\$ 7,044</b>
Other investment receivables valued at NAV				\$ 18
Securities valued at NAV				5,241
<b>Total net assets</b>				<b>\$ 12,303</b>

(1) The investments of the U.S. pension and postretirement plans are commingled in one trust. At December 31, 2015, the allocable interests of the U.S. pension and postretirement plans were 98.6% and 1.4%, respectively.



U.S. pension and postretirement benefit plans<sup>(1)</sup>*In millions of dollars*

Fair value measurement at December 31, 2014

Asset categories	Level 1	Level 2	Level 3	Total
<b>Equity securities</b>				
U.S. equity	\$ 773	\$ —	\$ —	\$ 773
Non-U.S. equity	588	—	—	588
Mutual funds	216	—	—	216
<b>Debt securities</b>				
U.S. Treasuries	1,178	—	—	1,178
U.S. agency	—	113	—	113
U.S. corporate bonds	—	1,534	—	1,534
Non-U.S. government debt	—	357	—	357
Non-U.S. corporate bonds	—	417	—	417
State and municipal debt	—	132	—	132
Asset-backed securities	—	41	—	41
Mortgage-backed securities	—	76	—	76
Annuity contracts	—	—	59	59
Derivatives	12	637	—	649
Other investments	—	—	161	161
<b>Total investments</b>	<b>\$ 2,767</b>	<b>\$ 3,307</b>	<b>\$ 220</b>	<b>\$ 6,294</b>
Cash and short-term investments	\$ 111	\$ 1,287	\$ —	\$ 1,398
Other investment liabilities	(17)	(618)	—	(635)
<b>Net investments at fair value</b>	<b>\$ 2,861</b>	<b>\$ 3,976</b>	<b>\$ 220</b>	<b>\$ 7,057</b>
Other investment receivables valued at NAV				\$ 63
Securities valued at NAV				5,961
<b>Total net assets</b>				<b>\$ 13,081</b>

- (1) The investments of the U.S. pension and postretirement plans are commingled in one trust. At December 31, 2014, the allocable interests of the U.S. pension and postretirement plans were 99.9% and .01%, respectively.

**Non-U.S. pension and postretirement benefit plans**

**Fair value measurement at December 31, 2015**

*In millions of dollars*

<b>Asset categories</b>	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Total</b>
<b>Equity securities</b>				
U.S. equity	\$ 5	\$ 11	\$ —	\$ 16
Non-U.S. equity	74	222	47	343
Commingled funds	5	—	—	5
<b>Debt securities</b>				
U.S. Treasuries	—	1	—	1
U.S. corporate bonds	—	360	—	360
Non-U.S. government debt	2,886	171	—	3,057
Non-U.S. corporate bonds	87	683	5	775
Real estate	—	3	1	4
Mortgage-backed securities	22	—	—	22
Annuity contracts	—	1	41	42
Other investments	1	—	163	164
<b>Total investments</b>	<b>\$ 3,080</b>	<b>\$ 1,452</b>	<b>\$ 257</b>	<b>\$ 4,789</b>
Cash and short-term investments	\$ 73	\$ 2	\$ —	\$ 75
Other investment liabilities	—	(690)	—	(690)
<b>Net investments at fair value</b>	<b>\$ 3,153</b>	<b>\$ 764</b>	<b>\$ 257</b>	<b>\$ 4,174</b>
Other investment receivables valued at NAV				\$ 97
Securities valued at NAV				2,966
<b>Total net assets</b>				<b>\$ 7,237</b>

Non-U.S. pension and postretirement benefit plans

Fair value measurement at December 31, 2014

*In millions of dollars*

Asset categories	Level 1	Level 2	Level 3	Total
<b>Equity securities</b>				
U.S. equity	\$ 5	\$ 13	\$ —	\$ 18
Non-U.S. equity	83	257	48	388
Mutual funds	—	24	—	24
Commingled funds	10	—	—	10
<b>Debt securities</b>				
U.S. corporate bonds	—	350	—	350
Non-U.S. government debt	3,213	220	1	3,434
Non-U.S. corporate bonds	99	765	5	869
Real estate	—	3	—	3
Mortgage-backed securities	—	1	—	1
Annuity contracts	—	1	32	33
Derivatives	11	—	—	11
Other investments	1	1	165	167
<b>Total investments</b>	<b>\$ 3,422</b>	<b>\$ 1,635</b>	<b>\$ 251</b>	<b>\$ 5,308</b>
Cash and short-term investments	\$ 112	\$ 2	\$ —	\$ 114
Other investment liabilities	(3)	(723)	—	(726)
<b>Net investments at fair value</b>	<b>\$ 3,531</b>	<b>\$ 914</b>	<b>\$ 251</b>	<b>\$ 4,696</b>
Other investment receivables valued at NAV				\$ 114
Securities valued at NAV				3,631
<b>Total net assets</b>				<b>\$ 8,441</b>

### Level 3 Rollforward

The reconciliations of the beginning and ending balances during the year for Level 3 assets are as follows:

*In millions of dollars*

#### U.S. pension and postretirement benefit plans

Asset categories	Beginning Level 3 fair value at Dec. 31, 2014 <sup>(1)</sup>	Realized gains (losses)	Unrealized gains (losses)	Purchases, sales, and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2015
Annuity contracts	\$ 59	\$ —	\$ (4)	\$ (28)	\$ —	\$ 27
Other investments	161	(1)	(9)	(4)	—	147
<b>Total investments</b>	<b>\$ 220</b>	<b>\$ (1)</b>	<b>\$ (13)</b>	<b>\$ (32)</b>	<b>\$ —</b>	<b>\$ 174</b>

(1) Beginning balance was adjusted to exclude \$2,496 million of investments valued at NAV.

*In millions of dollars*

#### U.S. pension and postretirement benefit plans

Asset categories	Beginning Level 3 fair value at Dec. 31, 2013 <sup>(1)</sup>	Realized gains (losses)	Unrealized gains (losses)	Purchases, sales, and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2014
Annuity contracts	\$ 91	\$ —	\$ (1)	\$ (31)	\$ —	\$ 59
Other investments	150	(1)	(4)	16	—	161
<b>Total investments</b>	<b>\$ 241</b>	<b>\$ (1)</b>	<b>\$ (5)</b>	<b>\$ (15)</b>	<b>\$ —</b>	<b>\$ 220</b>

(1) Beginning balance was adjusted to exclude \$3,284 million of investments valued at NAV.

*In millions of dollars*

#### Non-U.S. pension and postretirement benefit plans

Asset categories	Beginning Level 3 fair value at Dec. 31, 2014 <sup>(1)</sup>	Unrealized gains (losses)	Purchases, sales, and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2015
<b>Equity securities</b>					
Non-U.S. equity	\$ 48	\$ (1)	\$ —	\$ —	\$ 47
<b>Debt securities</b>					
Non-U.S. government debt	1	—	(1)	—	—
Non-U.S. corporate bonds	5	(1)	1	—	5
Real estate	—	—	—	1	1
Annuity contracts	32	2	4	3	41
Other investments	165	(2)	2	(2)	163
<b>Total investments</b>	<b>\$ 251</b>	<b>\$ (2)</b>	<b>\$ 6</b>	<b>\$ 2</b>	<b>\$ 257</b>

(1) Beginning balance was adjusted to exclude \$5 million of investments valued at NAV.

<i>In millions of dollars</i>	Non-U.S. pension and postretirement benefit plans				
Asset categories	Beginning Level 3 fair value at Dec. 31, 2013 <sup>(1)</sup>	Unrealized gains (losses)	Purchases, sales, and issuances	Transfers in and/or out of Level 3	Ending Level 3 fair value at Dec. 31, 2014
<b>Equity securities</b>					
Non-U.S. equity	\$ 49	\$ (3)	\$ —	\$ 2	\$ 48
<b>Debt securities</b>					
Non-U.S. government bonds	—	—	—	1	1
Non-U.S. corporate bonds	5	—	1	(1)	5
Annuity contracts	32	—	—	—	32
Other investments	202	—	(37)	—	165
<b>Total investments</b>	<b>\$ 288</b>	<b>\$ (3)</b>	<b>\$ (36)</b>	<b>\$ 2</b>	<b>\$ 251</b>

(1) Beginning balance was adjusted to exclude \$11 million of investments valued at NAV.

### Investment Strategy

The Company's global pension and postretirement funds' investment strategy is to invest in a prudent manner for the exclusive purpose of providing benefits to participants. The investment strategies are targeted to produce a total return that, when combined with the Company's contributions to the funds, will maintain the funds' ability to meet all required benefit obligations. Risk is controlled through diversification of asset types and investments in domestic and international equities, fixed-income securities and cash and short-term investments. The target asset allocation in most locations outside the U.S. is primarily in equity and debt securities. These allocations may vary by geographic region and country depending on the nature of applicable obligations and various other regional considerations. The wide variation in the actual range of plan asset allocations for the funded non-U.S. plans is a result of differing local statutory requirements and economic conditions. For example, in certain countries local law requires that all pension plan assets must be invested in fixed-income investments, government funds, or local-country securities.

### Significant Concentrations of Risk in Plan Assets

The assets of the Company's pension plans are diversified to limit the impact of any individual investment. The U.S. qualified pension plan is diversified across multiple asset classes, with publicly traded fixed income, hedge funds, publicly traded equity, and private equity representing the most significant asset allocations. Investments in these four asset classes are further diversified across funds, managers, strategies, vintages, sectors and geographies, depending on the specific characteristics of each asset class. The pension assets for the Company's non-U.S. Significant Plans are primarily invested in publicly traded fixed income and publicly traded equity securities.

### Oversight and Risk Management Practices

The framework for the Company's pension oversight process includes monitoring of retirement plans by plan fiduciaries and/or management at the global, regional or country level, as appropriate. Independent risk management contributes to the risk oversight and monitoring for the Company's U.S. qualified pension plan and non-U.S. Significant Pension Plans. Although the specific components of the oversight process are tailored to the requirements of each region, country and plan, the following elements are common to the Company's monitoring and risk management process:

- periodic asset/liability management studies and strategic asset allocation reviews;
- periodic monitoring of funding levels and funding ratios;
- periodic monitoring of compliance with asset allocation guidelines;
- periodic monitoring of asset class and/or investment manager performance against benchmarks; and
- periodic risk capital analysis and stress testing.

## Estimated Future Benefit Payments

The Company expects to pay the following estimated benefit payments in future years:

<i>In millions of dollars</i>	Pension plans		Postretirement benefit plans	
	U.S. plans	Non-U.S. plans	U.S. plans	Non-U.S. plans
2016	\$ 903	\$ 377	\$ 71	\$ 63
2017	818	337	70	67
2018	828	359	68	72
2019	848	382	67	77
2020	876	415	65	83
2021–2025	4,523	2,467	303	523

## Prescription Drugs

In December 2003, the Medicare Prescription Drug Improvement and Modernization Act of 2003 (Act of 2003) was enacted. The Act of 2003 established a prescription drug benefit under Medicare known as “Medicare Part D,” and a federal subsidy to sponsors of U.S. retiree health care benefit plans that provide a benefit that is at least actuarially equivalent to Medicare Part D. The benefits provided to certain participants are at least actuarially equivalent to Medicare Part D and, accordingly, the Company is entitled to a subsidy.

The subsidy reduced the accumulated postretirement benefit obligation (APBO) by approximately \$5 million as of December 31, 2015 and 2014 and the postretirement expense by approximately \$0.2 million for 2015 and 2014.

The following table shows the estimated future benefit payments for the Medicare Part D of the U.S. postretirement plan.

<i>In millions of dollars</i>	Expected U.S. postretirement benefit payments		
	Before Medicare Part D subsidy	Medicare Part D subsidy	After Medicare Part D subsidy
2016	\$ 71	\$ —	\$ 71
2017	70	—	70
2018	68	—	68
2019	67	—	67
2020	65	—	65
2021–2025	303	2	301

Certain provisions of the Patient Protection and Affordable Care Act of 2010 improved the Medicare Part D option known as the Employer Group Waiver Plan (EGWP) with respect to the Medicare Part D subsidy. The EGWP provides prescription drug benefits that are more cost effective for Medicare-eligible participants and large employers. Effective April 1, 2013, the Company began sponsoring and implementing an EGWP for eligible retirees. The Company subsidy received under the EGWP for 2015 and 2014 was \$11.6 million and \$11.0 million, respectively.

The other provisions of the Act of 2010 are not expected to have a significant impact on Citigroup’s pension and postretirement plans.

## Postemployment Plans

The Company sponsors U.S. postemployment plans that provide income continuation and health and welfare benefits to certain eligible U.S. employees on long-term disability.

As of December 31, 2015 and 2014, the plans’ funded status recognized in the Company’s Consolidated Balance Sheet was \$(183) million and \$(256) million, respectively. The amounts recognized in *Accumulated other comprehensive income (loss)* as of December 31, 2015 and 2014 were \$45 million and \$24 million, respectively. Effective January 1, 2014, the Company made changes to its postemployment plans that limit the period for which future disabled employees are eligible for continued Company subsidized medical benefits.

The following table summarizes the components of net expense recognized in the Consolidated Statement of Income for the Company’s U.S. postemployment plans.

<i>In millions of dollars</i>	Net expense		
	2015	2014	2013
<b>Service related expense</b>			
Service cost	\$ —	\$ —	\$ 20
Interest cost	4	5	10
Prior service (benefit)	(31)	(31)	(3)
Net actuarial loss	12	14	17
<b>Total service related expense</b>	\$ (15)	\$ (12)	\$ 44
<b>Non-service related expense (benefit)</b>	\$ 3	\$ 37	\$ (14)
<b>Total net (benefit) expense</b>	\$ (12)	\$ 25	\$ 30

The following table summarizes certain assumptions used in determining the postemployment benefit obligations and net benefit expenses for the Company's U.S. postemployment plans.

	2015	2014
<b>Discount rate</b>	<b>3.70%</b>	3.45%
<b>Health care cost increase rate</b>		
Following year	<b>7.00%</b>	7.50%
Ultimate rate to which cost increase is assumed to decline	<b>5.00</b>	5.00
Year in which the ultimate rate is reached	<b>2020</b>	2020

### Defined Contribution Plans

The Company sponsors defined contribution plans in the U.S. and in certain non-U.S. locations, all of which are administered in accordance with local laws. The most significant defined contribution plan sponsored by the Company is the Citi Retirement Savings Plan in the U.S. (formerly known as the Citigroup 401(k) Plan).

Under the Citi Retirement Savings Plan, eligible U.S. employees received matching contributions of up to 6% of their eligible compensation for 2015 and 2014, subject to statutory limits. Additionally, for eligible employees whose eligible compensation is \$100,000 or less, a fixed contribution of up to 2% of eligible compensation is provided. All Company contributions are invested according to participants' individual elections. The following table summarizes the Company contributions to the U.S. and non-U.S. plans.

	U.S. plans		
<i>In millions of dollars</i>	2015	2014	2013
Company contributions	\$ 380	\$ 383	\$ 394

  

	Non U.S. plans		
<i>In millions of dollars</i>	2015	2014	2013
Company contributions	\$ 375	\$ 385	\$ 402

## 9. INCOME TAXES

Details of the Company's income tax provision are presented below:

### Income Tax Provision

<i>In millions of dollars</i>	2015	2014	2013
<b>Current</b>			
Federal	\$ 861	\$ 181	\$ (260)
Foreign	3,397	3,281	3,788
State	388	388	(41)
<b>Total current income taxes</b>	<b>\$ 4,646</b>	<b>\$ 3,850</b>	<b>\$ 3,487</b>
<b>Deferred</b>			
Federal	\$ 3,019	\$ 2,510	\$ 2,867
Foreign	(4)	361	(716)
State	(221)	476	548
<b>Total deferred income taxes</b>	<b>\$ 2,794</b>	<b>\$ 3,347</b>	<b>\$ 2,699</b>
<b>Provision for income tax on continuing operations before non-controlling interests<sup>(1)</sup></b>	<b>\$ 7,440</b>	<b>\$ 7,197</b>	<b>\$ 6,186</b>
Provision (benefit) for income taxes on discontinued operations	(29)	12	(244)
Income tax expense (benefit) reported in stockholders' equity related to:			
FX translation	(906)	65	(48)
Investment securities	(498)	1,007	(1,300)
Employee stock plans	(35)	(87)	28
Cash flow hedges	176	207	625
Benefit plans	(24)	(660)	698
Retained earnings <sup>(2)</sup>	—	(353)	—
<b>Income taxes before non-controlling interests</b>	<b>\$ 6,124</b>	<b>\$ 7,388</b>	<b>\$ 5,945</b>

- (1) Includes the effect of securities transactions and other-than-temporary-impairment losses resulting in a provision (benefit) of \$239 million and \$(93) million in 2015, \$200 million and \$(148) million in 2014 and \$262 million and \$(187) million in 2013, respectively.
- (2) See "Consolidated Statement of Changes in Stockholders' Equity" above.

### Tax Rate

The reconciliation of the federal statutory income tax rate to the Company's effective income tax rate applicable to income from continuing operations (before non-controlling interests and the cumulative effect of accounting changes) for each of the periods indicated is as follows:

	2015	2014	2013
<b>Federal statutory rate</b>	<b>35.0%</b>	35.0%	35.0%
State income taxes, net of federal benefit	1.7	3.4	1.7
Foreign income tax rate differential	(4.6)	(0.3)	(2.3)
Audit settlements <sup>(1)</sup>	(1.7)	(2.4)	(0.7)
Effect of tax law changes <sup>(2)</sup>	0.4	1.2	(0.3)
Nondeductible legal and related expenses	0.3	18.3	0.8
Basis difference in affiliates	—	(2.5)	—
Tax advantaged investments	(1.8)	(3.6)	(3.0)
Other, net	0.7	(0.1)	—
<b>Effective income tax rate</b>	<b>30.0%</b>	49.0%	31.2%

- (1) For 2015, primarily relates to the conclusion of a New York City tax audit for 2009-2011. For 2014, relates to the conclusion of the audit of various issues in the Company's 2009-2011 U.S. federal tax audit and the conclusion of a New York State tax audit for 2006-2008. For 2013, relates to the settlement of U.S. federal issues for 2003-2005 and IRS appeals.
- (2) For 2015, includes the results of tax reforms enacted in New York City and several states, which resulted in a DTA charge of approximately \$101 million. For 2014, includes the results of tax reforms enacted in New York State and South Dakota, which resulted in a DTA charge of approximately \$210 million.

As set forth in the table above, Citi's effective tax rate for 2015 was 30.0%. The decline in the effective tax rate from 2014 was primarily due to a lower level of non-deductible legal and related expenses in 2015.



### Deferred Income Taxes

Deferred income taxes at December 31 related to the following:

<i>In millions of dollars</i>	2015	2014
<b>Deferred tax assets</b>		
Credit loss deduction	\$ 6,058	\$ 7,010
Deferred compensation and employee benefits	4,110	4,676
Repositioning and settlement reserves	1,429	1,599
Unremitted foreign earnings	8,403	6,368
Investment and loan basis differences	3,248	4,808
Cash flow hedges	359	529
Tax credit and net operating loss carry-forwards	23,053	23,395
Fixed assets and leases	1,356	2,093
Other deferred tax assets	3,176	2,334
Gross deferred tax assets	\$51,192	\$52,812
Valuation allowance	—	—
<b>Deferred tax assets after valuation allowance</b>	<b>\$51,192</b>	<b>\$52,812</b>
<b>Deferred tax liabilities</b>		
Deferred policy acquisition costs and value of insurance in force	\$ (327)	\$ (415)
Intangibles	(1,146)	(1,636)
Debt issuances	(850)	(866)
Other deferred tax liabilities	(1,020)	(559)
Gross deferred tax liabilities	\$ (3,343)	\$ (3,476)
<b>Net deferred tax assets</b>	<b>\$47,849</b>	<b>\$49,336</b>

### Unrecognized Tax Benefits

The following is a rollforward of the Company's unrecognized tax benefits.

<i>In millions of dollars</i>	2015	2014	2013
<b>Total unrecognized tax benefits at January 1</b>	<b>\$ 1,060</b>	<b>\$ 1,574</b>	<b>\$ 3,109</b>
Net amount of increases for current year's tax positions	32	135	58
Gross amount of increases for prior years' tax positions	311	175	251
Gross amount of decreases for prior years' tax positions	(61)	(772)	(716)
Amounts of decreases relating to settlements	(45)	(28)	(1,115)
Reductions due to lapse of statutes of limitation	(22)	(30)	(15)
Foreign exchange, acquisitions and dispositions	(40)	6	2
<b>Total unrecognized tax benefits at December 31</b>	<b>\$ 1,235</b>	<b>\$ 1,060</b>	<b>\$ 1,574</b>

The total amounts of unrecognized tax benefits at December 31, 2015, 2014 and 2013 that, if recognized, would affect Citi's effective tax rate, are \$0.9 billion, \$0.8 billion and \$0.8 billion, respectively. The remaining uncertain tax positions have offsetting amounts in other jurisdictions or are temporary differences, except for \$0.4 billion at December 31, 2013, which was recognized in *Retained earnings* in 2014.

Interest and penalties (not included in "unrecognized tax benefits" above) are a component of the *Provision for income taxes*.

<i>In millions of dollars</i>	2015		2014		2013	
	Pretax	Net of tax	Pretax	Net of tax	Pretax	Net of tax
Total interest and penalties in the Consolidated Balance Sheet at January 1	\$ 269	\$ 169	\$ 277	\$ 173	\$ 492	\$ 315
Total interest and penalties in the Consolidated Statement of Income	(29)	(18)	(1)	(1)	(108)	(72)
Total interest and penalties in the Consolidated Balance Sheet at December 31 <sup>(1)</sup>	233	146	269	169	277	173

(1) Includes \$3 million, \$2 million, and \$2 million for foreign penalties in 2015, 2014 and 2013, respectively. Also includes \$3 million for state penalties in 2015 and 2014, and \$4 million in 2013.

As of December 31, 2015, Citi is under audit by the Internal Revenue Service and other major taxing jurisdictions around the world. It is thus reasonably possible that significant changes in the gross balance of unrecognized tax benefits may occur within the next 12 months, although Citi does not expect such audits to result in amounts that would cause a significant change to its effective tax rate, other than as discussed below.

Citi expects to conclude its IRS audit for the 2012-2013 cycle within the next 12 months. The gross uncertain tax positions at December 31, 2015 for the items that may be resolved are as much as \$97 million. Because of the number and nature of the issues remaining to be resolved, the potential tax benefit to continuing operations could be anywhere in a range between \$0 and \$94 million. In addition, Citi may conclude certain state and local tax audits within the next 12 months. The gross uncertain tax positions at December 31, 2015 are as much as \$222 million. In addition there is gross interest of as much as \$16 million. The potential tax benefit to

continuing operations could be anywhere between \$0 and \$155 million, including interest. Furthermore, Citi may conclude certain foreign audits within the next 12 months. The gross uncertain positions at December 31, 2015 are as much as \$119 million. In addition there is gross interest of as much as \$18 million. The potential tax benefit to continuing operations could be anywhere between \$0 and \$22 million, including interest. The potential tax benefit to discontinued operations could be anywhere between \$0 and \$76 million, including interest.

The following are the major tax jurisdictions in which the Company and its affiliates operate and the earliest tax year subject to examination:

Jurisdiction	Tax year
United States	2012
Mexico	2009
New York State and City	2006
United Kingdom	2014
India	2011
Brazil	2011
Singapore	2010
Hong Kong	2009
Ireland	2011

### Foreign Earnings

Foreign pretax earnings approximated \$11.3 billion in 2015, \$10.1 billion in 2014 and \$13.1 billion in 2013. As a U.S. corporation, Citigroup and its U.S. subsidiaries are currently subject to U.S. taxation on all foreign pretax earnings earned by a foreign branch. Pretax earnings of a foreign subsidiary or affiliate are subject to U.S. taxation when effectively repatriated. The Company provides income taxes on the undistributed earnings of non-U.S. subsidiaries except to the extent that such earnings are indefinitely reinvested outside the United States.

At December 31, 2015, \$45.2 billion of accumulated undistributed earnings of non-U.S. subsidiaries was indefinitely invested. At the existing U.S. federal income tax rate, additional taxes (net of U.S. foreign tax credits) of \$12.7 billion would have to be provided if such earnings were remitted currently. The current year's effect on the income tax expense from continuing operations is included in the "Foreign income tax rate differential" line in the reconciliation of the federal statutory rate to the Company's effective income tax rate in the table above.

Income taxes are not provided for the Company's "savings bank base year bad debt reserves" that arose before 1988, because under current U.S. tax rules, such taxes will become payable only to the extent such amounts are distributed in excess of limits prescribed by federal law. At December 31, 2015, the amount of the base year reserves totaled approximately \$358 million (subject to a tax of \$125 million).

### Deferred Tax Assets

As of December 31, 2015 and 2014, Citi had no valuation allowance on its DTAs. The following table summarizes Citi's DTAs.

*In billions of dollars*

Jurisdiction/component	DTAs balance December 31, 2015	DTAs balance December 31, 2014
<b>U.S. federal<sup>(1)</sup></b>		
Net operating losses (NOLs) <sup>(2)</sup>	\$ 3.4	\$ 2.3
Foreign tax credits (FTCs) <sup>(3)</sup>	15.9	17.6
General business credits (GBCs)	1.3	1.6
Future tax deductions and credits	20.7	21.1
<b>Total U.S. federal</b>	<b>\$ 41.3</b>	<b>\$ 42.6</b>
<b>State and local</b>		
New York NOLs	\$ 2.4	\$ 1.5
Other state NOLs	0.3	0.4
Future tax deductions	1.2	2.0
<b>Total state and local</b>	<b>\$ 3.9</b>	<b>\$ 3.9</b>
<b>Foreign</b>		
APB 23 subsidiary NOLs	\$ 0.2	\$ 0.2
Non-APB 23 subsidiary NOLs	0.4	0.5
Future tax deductions	2.0	2.1
<b>Total foreign</b>	<b>\$ 2.6</b>	<b>\$ 2.8</b>
<b>Total</b>	<b>\$ 47.8</b>	<b>\$ 49.3</b>

- (1) Included in the net U.S. federal DTAs of \$41.3 billion as of December 31, 2015 were deferred tax liabilities of \$2 billion that will reverse in the relevant carry-forward period and may be used to support the DTAs.
- (2) Includes \$0.5 billion and \$0.6 billion for 2015 and 2014, respectively, of NOL carry-forwards related to non-consolidated tax return companies that are expected to be utilized separately from Citigroup's consolidated tax return, and \$2.9 billion and \$1.7 billion of non-consolidated tax return NOL carry-forwards for 2015 and 2014, respectively, that are eventually expected to be utilized in Citigroup's consolidated tax return.
- (3) Includes \$1.7 billion and \$1.0 billion for 2015 and 2014, respectively, of non-consolidated tax return FTC carry-forwards that are eventually expected to be utilized in Citigroup's consolidated tax return.

The following table summarizes the amounts of tax carry-forwards and their expiration dates:

*In billions of dollars*

Year of expiration	December 31, 2015	December 31, 2014
<b>U.S. tax return foreign tax credit carry-forwards</b>		
2017	\$ —	\$ 1.9
2018	4.8	5.2
2019	1.2	1.2
2020	3.1	3.1
2021	1.7	1.8
2022	3.4	3.4
2023 <sup>(1)</sup>	0.4	1.0
2025 <sup>(1)</sup>	1.3	—
<b>Total U.S. tax return foreign tax credit carry-forwards</b>	<b>\$ 15.9</b>	<b>\$ 17.6</b>
<b>U.S. tax return general business credit carry-forwards</b>		
2030	\$ —	\$ 0.4
2031	0.2	0.3
2032	0.4	0.4
2033	0.3	0.3
2034	0.2	0.2
2035	0.2	—
<b>Total U.S. tax return general business credit carry-forwards</b>	<b>\$ 1.3</b>	<b>\$ 1.6</b>
<b>U.S. subsidiary separate federal NOL carry-forwards</b>		
2027	\$ 0.2	\$ 0.2
2028	0.1	0.1
2030	0.3	0.3
2031	1.5	1.7
2033	1.7	1.9
2034	2.3	2.3
2035	3.6	—
<b>Total U.S. subsidiary separate federal NOL carry-forwards<sup>(2)</sup></b>	<b>\$ 9.7</b>	<b>\$ 6.5</b>
<b>New York State NOL carry-forwards</b>		
2034	\$ 14.6	\$ 12.3
<b>Total New York State NOL carry-forwards<sup>(2)</sup></b>	<b>\$ 14.6</b>	<b>\$ 12.3</b>
<b>New York City NOL carry-forwards</b>		
2028	\$ —	\$ 3.8
2031	—	0.1
2032	—	0.5
2034	13.3	—
<b>Total New York City NOL carry-forwards<sup>(2)</sup></b>	<b>\$ 13.3</b>	<b>\$ 4.4</b>
<b>APB 23 subsidiary NOL carry-forwards</b>		
Various	\$ 0.2	\$ 0.2
<b>Total APB 23 subsidiary NOL carry-forwards</b>	<b>\$ 0.2</b>	<b>\$ 0.2</b>

(1) The \$1.7 billion in FTC carry-forwards that expire in 2023 and 2025 are in a non-consolidated tax return entity but are eventually expected to be utilized in Citigroup's consolidated tax return.

(2) Pretax.

While Citi's net total DTAs decreased year-over-year, the time remaining for utilization has shortened, given the passage of time, particularly with respect to the foreign tax credit (FTC) component of the DTAs. Although realization is not assured, Citi believes that the realization of the recognized net DTAs of \$47.8 billion at December 31, 2015 is more-likely-than-not based upon expectations as to future taxable income in the jurisdictions in which the DTAs arise and available tax planning strategies (as defined in ASC 740, *Income Taxes*) that would be implemented, if necessary, to prevent a carry-forward from expiring.

Citi has concluded that it has the necessary positive evidence to support the full realization of its DTAs. Specifically, Citi forecasts sufficient U.S. taxable income in the carry-forward periods, exclusive of ASC 740 tax planning strategies. Citi's forecasted taxable income, which will continue to be subject to overall market and global economic conditions, incorporates geographic business forecasts and taxable income adjustments to those forecasts (e.g., U.S. tax-exempt income, loan loss reserves deductible for U.S. tax reporting in subsequent years), and actions intended to optimize its U.S. taxable earnings. In general, Citi would need to generate approximately \$59 billion of U.S. taxable income during the FTC carry-forward periods to prevent this most time-sensitive component of Citi's FTCs from expiring.

In addition to its forecasted U.S. taxable income, Citi has tax planning strategies available to it under ASC 740 that would be implemented, if necessary, to prevent a carry-forward from expiring. These strategies include: (i) repatriating low-taxed foreign source earnings for which an assertion that the earnings have been indefinitely reinvested has not been made; (ii) accelerating U.S. taxable income into, or deferring U.S. tax deductions out of, the latter years of the carry-forward period (e.g., selling appreciated assets, electing straight-line depreciation); (iii) accelerating deductible temporary differences outside the U.S.; and (iv) selling certain assets that produce tax-exempt income, while purchasing assets that produce fully taxable income. In addition, the sale or restructuring of certain businesses can produce significant U.S. taxable income within the relevant carry-forward periods.

Based upon the foregoing discussion, Citi believes the U.S. federal and New York state and city NOL carry-forward period of 20 years provides enough time to fully utilize the DTAs pertaining to the existing NOL carry-forwards and any NOL that would be created by the reversal of the future net deductions that have not yet been taken on a tax return.

With respect to the FTCs component of the DTAs, the carry-forward period is 10 years. Utilization of FTCs in any year is restricted to 35% of foreign source taxable income in that year. However, overall domestic losses that Citi has incurred of approximately \$54 billion as of December 31, 2015 are allowed to be reclassified as foreign source income to the extent of 50% of domestic source income produced in subsequent years. Such resulting foreign source income would cover the FTCs being carried forward. As noted in the table above, Citi's FTC carry-forwards were \$15.9 billion as of December 31, 2015, compared to \$17.6 billion as of December 31, 2014. This decrease represented \$1.7 billion of the \$1.5 billion decrease in Citi's overall DTAs during 2015,

partially offset by an increase in AOCI related DTAs. Citi believes that it will generate sufficient U.S. taxable income within the 10-year carry-forward period to be able to fully utilize the FTCs, in addition to any FTCs produced in the tax return for such period, which must be used prior to any carry-forward utilization.

## 10. EARNINGS PER SHARE

The following is a reconciliation of the income and share data used in the basic and diluted earnings per share (EPS) computations:

<i>In millions, except per-share amounts</i>	2015	2014	2013
<b>Income from continuing operations before attribution of noncontrolling interests</b>	\$ 17,386	\$ 7,504	\$ 13,616
Less: Noncontrolling interests from continuing operations	90	192	227
<b>Net income from continuing operations (for EPS purposes)</b>	\$ 17,296	\$ 7,312	\$ 13,389
Income (loss) from discontinued operations, net of taxes	(54)	(2)	270
<b>Citigroup's net income</b>	\$ 17,242	\$ 7,310	\$ 13,659
Less: Preferred dividends <sup>(1)</sup>	769	511	194
<b>Net income available to common shareholders</b>	\$ 16,473	\$ 6,799	\$ 13,465
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with nonforfeitable rights to dividends, applicable to basic EPS	224	111	263
<b>Net income allocated to common shareholders for basic EPS</b>	\$ 16,249	\$ 6,688	\$ 13,202
Add: Interest expense, net of tax, and dividends on convertible securities and adjustment of undistributed earnings allocated to employee restricted and deferred shares with nonforfeitable rights to dividends, applicable to diluted EPS	—	1	1
<b>Net income allocated to common shareholders for diluted EPS</b>	\$ 16,249	\$ 6,689	\$ 13,203
<b>Weighted-average common shares outstanding applicable to basic EPS</b>	<b>3,004.0</b>	3,031.6	3,035.8
Effect of dilutive securities <sup>(3)</sup>			
Options <sup>(2)</sup>	3.6	5.1	5.3
Other employee plans	0.1	0.3	0.5
<b>Adjusted weighted-average common shares outstanding applicable to diluted EPS</b>	<b>3,007.7</b>	3,037.0	3,041.6
<b>Basic earnings per share<sup>(4)</sup></b>			
Income from continuing operations	\$ 5.43	\$ 2.21	\$ 4.26
Discontinued operations	(0.02)	—	0.09
<b>Net income</b>	\$ 5.41	\$ 2.21	\$ 4.35
<b>Diluted earnings per share<sup>(4)</sup></b>			
Income from continuing operations	\$ 5.42	\$ 2.20	\$ 4.25
Discontinued operations	(0.02)	—	0.09
<b>Net income</b>	\$ 5.40	\$ 2.20	\$ 4.34

(1) See Note 21 to the Consolidated Financial Statements for the potential future impact of preferred stock dividends.

(2) During 2015, 2014 and 2013, weighted-average options to purchase 0.9 million, 2.8 million and 4.8 million shares of common stock, respectively, were outstanding but not included in the computation of earnings per share because the weighted-average exercise prices of \$199.16, \$153.91 and \$101.11 per share, respectively, were anti-dilutive.

(3) Warrants issued to the U.S. Treasury as part of the Troubled Asset Relief Program (TARP) and the loss-sharing agreement (all of which were subsequently sold to the public in January 2011), with exercise prices of \$178.50 and \$106.10 per share for approximately 21.0 million and 25.5 million shares of Citigroup common stock, respectively. Both warrants were not included in the computation of earnings per share in 2015, 2014 and 2013 because they were anti-dilutive.

(4) Due to rounding, earnings per share on continuing operations and discontinued operations may not sum to earnings per share on net income.

## 11. FEDERAL FUNDS, SECURITIES BORROWED, LOANED AND SUBJECT TO REPURCHASE AGREEMENTS

*Federal funds sold and securities borrowed or purchased under agreements to resell*, at their respective carrying values, consisted of the following:

<i>In millions of dollars</i>	2015	2014
Federal funds sold	\$ 25	\$ —
Securities purchased under agreements to resell	119,777	123,979
Deposits paid for securities borrowed	99,873	118,591
<b>Total</b>	<b>\$ 219,675</b>	<b>\$ 242,570</b>

*Federal funds purchased and securities loaned or sold under agreements to repurchase*, at their respective carrying values, consisted of the following:

<i>In millions of dollars</i>	2015	2014
Federal funds purchased	\$ 189	\$ 334
Securities sold under agreements to repurchase	131,650	147,204
Deposits received for securities loaned	14,657	25,900
<b>Total</b>	<b>\$ 146,496</b>	<b>\$ 173,438</b>

The resale and repurchase agreements represent collateralized financing transactions. The Company executes these transactions primarily through its broker-dealer subsidiaries to facilitate customer matched-book activity and to efficiently fund a portion of the Company's trading inventory. Transactions executed by the Company's bank subsidiaries primarily facilitate customer financing activity.

To maintain reliable funding under a wide range of market conditions, including under periods of stress, Citi manages these activities by taking into consideration the quality of the underlying collateral, and stipulating financing tenor. Citi manages the risks in its collateralized financing transactions by conducting daily stress tests to account for changes in capacity, tenors, haircut, collateral profile and client actions. Additionally, Citi maintains counterparty diversification by establishing concentration triggers and assessing counterparty reliability and stability under stress.

It is the Company's policy to take possession of the underlying collateral, monitor its market value relative to the amounts due under the agreements and, when necessary, require prompt transfer of additional collateral in order to maintain contractual margin protection. For resale and repurchase agreements, when necessary, the Company posts additional collateral in order to maintain contractual margin protection.

Collateral typically consists of government and government-agency securities, corporate and municipal bonds, equities, and mortgage-backed and other asset-backed securities.

The resale and repurchase agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other type of default under the relevant master agreement. Events of default generally include (i) failure to deliver cash or securities as required under the transaction, (ii) failure to provide or return cash or securities as used for margining purposes, (iii) breach of representation, (iv) cross-default to another transaction entered into among the parties, or, in some cases, their affiliates, and (v) a repudiation of obligations under the agreement. The counterparty that receives the securities in these transactions is generally unrestricted in its use of the securities, with the exception of transactions executed on a tri-party basis, where the collateral is maintained by a custodian and operational limitations may restrict its use of the securities.

A substantial portion of the resale and repurchase agreements is recorded at fair value, as described in Notes 25 and 26 to the Consolidated Financial Statements. The remaining portion is carried at the amount of cash initially advanced or received, plus accrued interest, as specified in the respective agreements.

The securities borrowing and lending agreements also represent collateralized financing transactions similar to the resale and repurchase agreements. Collateral typically consists of government and government-agency securities and corporate debt and equity securities.

Similar to the resale and repurchase agreements, securities borrowing and lending agreements are generally documented under industry standard agreements that allow the prompt close-out of all transactions (including the liquidation of securities held) and the offsetting of obligations to return cash or securities by the non-defaulting party, following a payment default or other default by the other party under the relevant master agreement. Events of default and rights to use securities under the securities borrowing and lending agreements are similar to the resale and repurchase agreements referenced above.

A substantial portion of securities borrowing and lending agreements is recorded at the amount of cash advanced or received. The remaining portion is recorded at fair value as the Company elected the fair value option for certain securities borrowed and loaned portfolios, as described in Note 26 to the Consolidated Financial Statements. With respect to securities loaned, the Company receives cash collateral in an amount generally in excess of the market value of the securities loaned. The Company monitors the market value of securities borrowed and securities loaned on a daily basis and obtains or posts additional collateral in order to maintain contractual margin protection.

The enforceability of offsetting rights incorporated in the master netting agreements for resale and repurchase agreements and securities borrowing and lending agreements is evidenced to the extent that a supportive legal opinion has been obtained from counsel of recognized standing that provides the requisite level of certainty regarding the enforceability of these agreements, and that the exercise of



rights by the non-defaulting party to terminate and close-out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default including bankruptcy, insolvency or similar proceeding.

A legal opinion may not have been sought or obtained for certain jurisdictions where local law is silent or sufficiently ambiguous to determine the enforceability of offsetting rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law for a particular counterparty type may be nonexistent or unclear as overlapping regimes may exist. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

The following tables present the gross and net resale and repurchase agreements and securities borrowing and lending agreements and the related offsetting amount permitted under ASC 210-20-45. The tables also include amounts related to financial instruments that are not permitted to be offset under ASC 210-20-45 but would be eligible for offsetting to the extent that an event of default occurred and a legal opinion supporting enforceability of the offsetting rights has been obtained. Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

As of December 31, 2015

<i>In millions of dollars</i>	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet <sup>(1)</sup>	Net amounts of assets included on the Consolidated Balance Sheet <sup>(2)</sup>	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default <sup>(3)</sup>	Net amounts <sup>(4)</sup>
Securities purchased under agreements to resell	\$ 176,167	\$ 56,390	\$ 119,777	\$ 92,039	\$ 27,738
Deposits paid for securities borrowed	99,873	—	99,873	16,619	83,254
<b>Total</b>	<b>\$ 276,040</b>	<b>\$ 56,390</b>	<b>\$ 219,650</b>	<b>\$ 108,658</b>	<b>\$ 110,992</b>

<i>In millions of dollars</i>	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet <sup>(1)</sup>	Net amounts of liabilities included on the Consolidated Balance Sheet <sup>(2)</sup>	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default <sup>(3)</sup>	Net amounts <sup>(4)</sup>
Securities sold under agreements to repurchase	\$ 188,040	\$ 56,390	\$ 131,650	\$ 60,641	\$ 71,009
Deposits received for securities loaned	14,657	—	14,657	3,226	11,431
<b>Total</b>	<b>\$ 202,697</b>	<b>\$ 56,390</b>	<b>\$ 146,307</b>	<b>\$ 63,867</b>	<b>\$ 82,440</b>

As of December 31, 2014

<i>In millions of dollars</i>	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet <sup>(1)</sup>	Net amounts of assets included on the Consolidated Balance Sheet <sup>(2)</sup>	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default <sup>(3)</sup>	Net amounts <sup>(4)</sup>
Securities purchased under agreements to resell	\$ 180,318	\$ 56,339	\$ 123,979	\$ 94,353	\$ 29,626
Deposits paid for securities borrowed	118,591	—	118,591	15,139	103,452
<b>Total</b>	<b>\$ 298,909</b>	<b>\$ 56,339</b>	<b>\$ 242,570</b>	<b>\$ 109,492</b>	<b>\$ 133,078</b>

<i>In millions of dollars</i>	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet <sup>(1)</sup>	Net amounts of liabilities included on the Consolidated Balance Sheet <sup>(2)</sup>	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default <sup>(3)</sup>	Net amounts <sup>(4)</sup>
Securities sold under agreements to repurchase	\$ 203,543	\$ 56,339	\$ 147,204	\$ 72,928	\$ 74,276
Deposits received for securities loaned	25,900	—	25,900	5,190	20,710
<b>Total</b>	<b>\$ 229,443</b>	<b>\$ 56,339</b>	<b>\$ 173,104</b>	<b>\$ 78,118</b>	<b>\$ 94,986</b>

- (1) Includes financial instruments subject to enforceable master netting agreements that are permitted to be offset under ASC 210-20-45.
- (2) The total of this column for each period excludes Federal funds sold/purchased. See tables above.
- (3) Includes financial instruments subject to enforceable master netting agreements that are not permitted to be offset under ASC 210-20-45 but would be eligible for offsetting to the extent that an event of default has occurred and a legal opinion supporting enforceability of the offsetting right has been obtained.
- (4) Remaining exposures continue to be secured by financial collateral, but the Company may not have sought or been able to obtain a legal opinion evidencing enforceability of the offsetting right.

The following table presents the gross amount of liabilities associated with repurchase agreements and securities lending agreements, by remaining contractual maturity as of December 31, 2015:

<i>In millions of dollars</i>	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
Securities sold under agreements to repurchase	\$ 89,732	\$ 54,336	\$ 21,541	\$ 22,431	\$ 188,040
Deposits received for securities loaned	9,096	1,823	2,324	1,414	14,657
<b>Total</b>	<b>\$ 98,828</b>	<b>\$ 56,159</b>	<b>\$ 23,865</b>	<b>\$ 23,845</b>	<b>\$ 202,697</b>

The following table presents the gross amount of liabilities associated with repurchase agreements and securities lending agreements, by class of underlying collateral as of December 31, 2015:

<i>In millions of dollars</i>	Repurchase agreements	Securities lending agreements	Total
U.S Treasury and federal agency	\$ 67,005	\$ —	\$ 67,005
State and municipal	403	—	403
Foreign government	66,633	789	67,422
Corporate bonds	15,355	1,085	16,440
Equity securities	10,297	12,484	22,781
Mortgage-backed securities	19,913	—	19,913
Asset-backed securities	4,572	—	4,572
Other	3,862	299	4,161
<b>Total</b>	<b>\$ 188,040</b>	<b>\$ 14,657</b>	<b>\$ 202,697</b>



## 12. BROKERAGE RECEIVABLES AND BROKERAGE PAYABLES

The Company has receivables and payables for financial instruments sold to and purchased from brokers, dealers and customers, which arise in the ordinary course of business. The Company is exposed to risk of loss from the inability of brokers, dealers or customers to pay for purchases or to deliver the financial instruments sold, in which case the Company would have to sell or purchase the financial instruments at prevailing market prices. Credit risk is reduced to the extent that an exchange or clearing organization acts as a counterparty to the transaction and replaces the broker, dealer or customer in question.

The Company seeks to protect itself from the risks associated with customer activities by requiring customers to maintain margin collateral in compliance with regulatory and internal guidelines. Margin levels are monitored daily, and customers deposit additional collateral as required. Where customers cannot meet collateral requirements, the Company may liquidate sufficient underlying financial instruments to bring the customer into compliance with the required margin level.

Exposure to credit risk is impacted by market volatility, which may impair the ability of clients to satisfy their obligations to the Company. Credit limits are established and closely monitored for customers and for brokers and dealers engaged in forwards, futures and other transactions deemed to be credit sensitive.

*Brokerage receivables and Brokerage payables* consisted of the following:

<i>In millions of dollars</i>	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
Receivables from customers	\$ 10,435	\$ 10,380
Receivables from brokers, dealers, and clearing organizations	17,248	18,039
<b>Total brokerage receivables<sup>(1)</sup></b>	<b>\$ 27,683</b>	<b>\$ 28,419</b>
Payables to customers	\$ 35,653	\$ 33,984
Payables to brokers, dealers, and clearing organizations	18,069	18,196
<b>Total brokerage payables<sup>(1)</sup></b>	<b>\$ 53,722</b>	<b>\$ 52,180</b>

- (1) Brokerage receivables and payables are accounted for in accordance with the AICPA Audit and Accounting Guide for Brokers and Dealers in Securities as codified in ASC 940-320.

## 13. TRADING ACCOUNT ASSETS AND LIABILITIES

*Trading account assets and Trading account liabilities* are carried at fair value, other than physical commodities accounted for at the lower of cost or fair value, and consist of the following:

<i>In millions of dollars</i>	<b>December 31,</b>	
	<b>2015</b>	<b>2014</b>
<b>Trading account assets</b>		
<b>Mortgage-backed securities<sup>(1)</sup></b>		
U.S. government-sponsored agency guaranteed	\$ 24,767	\$ 27,053
Prime	803	1,271
Alt-A	543	709
Subprime	516	1,382
Non-U.S. residential	523	1,476
Commercial	2,855	4,343
<b>Total mortgage-backed securities</b>	<b>\$ 30,007</b>	<b>\$ 36,234</b>
<b>U.S. Treasury and federal agency securities</b>		
U.S. Treasury	\$ 15,791	\$ 18,906
Agency obligations	2,005	1,568
<b>Total U.S. Treasury and federal agency securities</b>	<b>\$ 17,796</b>	<b>\$ 20,474</b>
State and municipal securities	\$ 2,696	\$ 3,402
Foreign government securities	56,609	64,937
Corporate	14,437	27,797
Derivatives <sup>(2)</sup>	56,184	67,957
Equity securities	56,495	57,846
Asset-backed securities <sup>(1)</sup>	3,956	4,546
Other trading assets <sup>(3)</sup>	11,776	13,593
<b>Total trading account assets</b>	<b>\$ 249,956</b>	<b>\$ 296,786</b>
<b>Trading account liabilities</b>		
Securities sold, not yet purchased	\$ 57,827	\$ 70,944
Derivatives <sup>(2)</sup>	57,592	68,092
Other trading liabilities <sup>(3)</sup>	2,093	—
<b>Total trading account liabilities</b>	<b>\$ 117,512</b>	<b>\$ 139,036</b>

- (1) The Company invests in mortgage-backed and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage-backed and asset-backed securitizations in which the Company has other involvement, see Note 22 to the Consolidated Financial Statements.
- (2) Presented net, pursuant to enforceable master netting agreements. See Note 23 to the Consolidated Financial Statements for a discussion regarding the accounting and reporting for derivatives.
- (3) Includes positions related to investments in unallocated precious metals, as discussed in Note 26 to the Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value.

## 14. INVESTMENTS

### Overview

The following table presents the Company's investments by category:

<i>In millions of dollars</i>	December 31,	
	2015	2014
Securities available-for-sale (AFS)	\$ 299,136	\$ 300,143
Debt securities held-to-maturity (HTM) <sup>(1)</sup>	36,215	23,921
Non-marketable equity securities carried at fair value <sup>(2)</sup>	2,088	2,758
Non-marketable equity securities carried at cost <sup>(3)</sup>	5,516	6,621
<b>Total investments</b>	<b>\$ 342,955</b>	<b>\$ 333,443</b>

(1) Carried at adjusted amortized cost basis, net of any credit-related impairment.

(2) Unrealized gains and losses for non-marketable equity securities carried at fair value are recognized in earnings.

(3) Primarily consists of shares issued by the Federal Reserve Bank, Federal Home Loan Banks, foreign central banks and various clearing houses of which Citigroup is a member.

The following table presents interest and dividend income on investments:

<i>In millions of dollars</i>	2015	2014	2013
Taxable interest	\$ 6,414	\$ 6,311	\$ 5,750
Interest exempt from U.S. federal income tax	215	439	732
Dividend income	388	445	437
<b>Total interest and dividend income</b>	<b>\$ 7,017</b>	<b>\$ 7,195</b>	<b>\$ 6,919</b>

The following table presents realized gains and losses on the sale of investments. The gross realized investment losses exclude losses from other-than-temporary impairment (OTTI):

<i>In millions of dollars</i>	2015	2014	2013
Gross realized investment gains	\$ 1,124	\$ 1,020	\$ 1,606
Gross realized investment losses	(442)	(450)	(858)
<b>Net realized gains on sale of investments</b>	<b>\$ 682</b>	<b>\$ 570</b>	<b>\$ 748</b>

The Company has sold certain debt securities that were classified as HTM. These sales were in response to significant deterioration in the creditworthiness of the issuers or securities or because the Company has collected a substantial portion (at least 85%) of the principal outstanding at acquisition of the security. In addition, certain other securities were reclassified to AFS investments in response to

significant credit deterioration. Because the Company generally intends to sell these reclassified securities, Citi recorded OTTI on the securities. The following table sets forth, for the periods indicated, the carrying value of HTM securities sold and reclassified to AFS, as well as the related gain (loss) or the OTTI losses recorded on these securities.

<i>In millions of dollars</i>	2015	2014	2013
Carrying value of HTM securities sold	\$ 392	\$ 8	\$ 935
Net realized gain (loss) on sale of HTM securities	10	—	(128)
Carrying value of securities reclassified to AFS	243	889	989
OTTI losses on securities reclassified to AFS	(15)	(25)	(156)

## Securities Available-for-Sale

The amortized cost and fair value of AFS securities at December 31 were as follows:

	2015				2014			
	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
<i>In millions of dollars</i>								
<b>Debt securities AFS</b>								
Mortgage-backed securities <sup>(1)</sup>								
U.S. government-sponsored agency guaranteed	\$ 39,584	\$ 367	\$ 237	\$ 39,714	\$ 35,647	\$ 603	\$ 159	\$ 36,091
Prime	2	—	—	2	12	—	—	12
Alt-A	50	5	—	55	43	1	—	44
Non-U.S. residential	5,909	31	11	5,929	8,247	67	7	8,307
Commercial	573	2	4	571	551	6	3	554
Total mortgage-backed securities	\$ 46,118	\$ 405	\$ 252	\$ 46,271	\$ 44,500	\$ 677	\$ 169	\$ 45,008
U.S. Treasury and federal agency securities								
U.S. Treasury	\$ 113,096	\$ 254	\$ 515	\$ 112,835	\$ 110,492	\$ 353	\$ 127	\$ 110,718
Agency obligations	10,095	22	37	10,080	12,925	60	13	12,972
Total U.S. Treasury and federal agency securities	\$ 123,191	\$ 276	\$ 552	\$ 122,915	\$ 123,417	\$ 413	\$ 140	\$ 123,690
State and municipal <sup>(2)</sup>	\$ 12,099	\$ 132	\$ 772	\$ 11,459	\$ 13,526	\$ 150	\$ 977	\$ 12,699
Foreign government	92,384	410	593	92,201	90,249	734	286	90,697
Corporate	15,859	121	177	15,803	12,033	215	91	12,157
Asset-backed securities <sup>(1)</sup>	9,261	5	92	9,174	12,534	30	58	12,506
Other debt securities	688	—	—	688	661	—	—	661
Total debt securities AFS	\$ 299,600	\$ 1,349	\$ 2,438	\$ 298,511	\$ 296,920	\$ 2,219	\$ 1,721	\$ 297,418
Marketable equity securities AFS	\$ 602	\$ 26	\$ 3	\$ 625	\$ 2,461	\$ 308	\$ 44	\$ 2,725
<b>Total securities AFS</b>	<b>\$ 300,202</b>	<b>\$ 1,375</b>	<b>\$ 2,441</b>	<b>\$ 299,136</b>	<b>\$ 299,381</b>	<b>\$ 2,527</b>	<b>\$ 1,765</b>	<b>\$ 300,143</b>

- (1) The Company invests in mortgage-backed and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage-backed and asset-backed securitizations in which the Company has other involvement, see Note 22 to the Consolidated Financial Statements.
- (2) The gross unrealized losses on state and municipal debt securities are primarily attributable to the effects of fair value hedge accounting. Specifically, Citi hedges the LIBOR-benchmark interest rate component of certain fixed-rate tax-exempt state and municipal debt securities utilizing LIBOR-based interest rate swaps. During the hedge period, losses incurred on the LIBOR-hedging swaps recorded in earnings were substantially offset by gains on the state and municipal debt securities attributable to changes in the LIBOR swap rate being hedged. However, because the LIBOR swap rate decreased significantly during the hedge period while the overall fair value of the municipal debt securities was relatively unchanged, the effect of reclassifying fair value gains on these securities from *Accumulated other comprehensive income (loss)* (AOCI) to earnings, attributable solely to changes in the LIBOR swap rate, resulted in net unrealized losses remaining in AOCI that relate to the unhedged components of these securities.

At December 31, 2015, the amortized cost of approximately 5,212 investments in equity and fixed income securities exceeded their fair value by \$2,441 million. Of the \$2,441 million, the gross unrealized losses on equity securities were \$3 million. Of the remainder, \$1,331 million represented unrealized losses on fixed income investments that have been in a gross-unrealized-loss position for less than a year and, of these, 94% were rated investment grade; and \$1,107 million represented unrealized losses on fixed income investments that have been in a gross-unrealized-loss position for a year or more and, of these, 90% were rated investment grade. Of the \$1,107 million mentioned above, \$746 million represent state and municipal securities.

At December 31, 2015, the AFS mortgage-backed securities portfolio fair value balance of \$46,271 million

consisted of \$39,714 million of government-sponsored agency securities, and \$6,557 million of privately sponsored securities, substantially all of which were backed by non-U.S. residential mortgages.

As discussed in more detail below, the Company conducts periodic reviews of all securities with unrealized losses to evaluate whether the impairment is other-than-temporary. Any credit-related impairment related to debt securities is recorded in earnings as OTTI. Non-credit-related impairment is recognized in AOCI if the Company does not plan to sell and is not likely to be required to sell the security. For other debt securities with OTTI, the entire impairment is recognized in the Consolidated Statement of Income.

The table below shows the fair value of AFS securities that have been in an unrealized loss position for less than 12 months or for 12 months or longer:

<i>In millions of dollars</i>	Less than 12 months		12 months or longer		Total	
	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
<b>December 31, 2015</b>						
<b>Securities AFS</b>						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$ 17,816	\$ 141	\$ 2,618	\$ 96	\$ 20,434	\$ 237
Prime	—	—	1	—	1	—
Non-U.S. residential	2,217	7	825	4	3,042	11
Commercial	291	3	55	1	346	4
Total mortgage-backed securities	\$ 20,324	\$ 151	\$ 3,499	\$ 101	\$ 23,823	\$ 252
U.S. Treasury and federal agency securities						
U.S. Treasury	\$ 59,384	\$ 505	\$ 1,204	\$ 10	\$ 60,588	\$ 515
Agency obligations	6,716	30	196	7	6,912	37
Total U.S. Treasury and federal agency securities	\$ 66,100	\$ 535	\$ 1,400	\$ 17	\$ 67,500	\$ 552
State and municipal	\$ 635	\$ 26	\$ 4,450	\$ 746	\$ 5,085	\$ 772
Foreign government	35,491	429	4,642	164	40,133	593
Corporate	5,586	132	1,298	45	6,884	177
Asset-backed securities	5,311	58	2,247	34	7,558	92
Other debt securities	27	—	—	—	27	—
Marketable equity securities AFS	132	3	1	—	133	3
<b>Total securities AFS</b>	<b>\$ 133,606</b>	<b>\$ 1,334</b>	<b>\$ 17,537</b>	<b>\$ 1,107</b>	<b>\$ 151,143</b>	<b>\$ 2,441</b>
December 31, 2014						
<b>Securities AFS</b>						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	\$ 4,198	\$ 30	\$ 5,547	\$ 129	\$ 9,745	\$ 159
Prime	5	—	2	—	7	—
Non-U.S. residential	1,276	3	199	4	1,475	7
Commercial	124	1	136	2	260	3
Total mortgage-backed securities	\$ 5,603	\$ 34	\$ 5,884	\$ 135	\$ 11,487	\$ 169
U.S. Treasury and federal agency securities						
U.S. Treasury	\$ 36,581	\$ 119	\$ 1,013	\$ 8	\$ 37,594	\$ 127
Agency obligations	5,698	9	754	4	6,452	13
Total U.S. Treasury and federal agency securities	\$ 42,279	\$ 128	\$ 1,767	\$ 12	\$ 44,046	\$ 140
State and municipal	\$ 386	\$ 15	\$ 5,802	\$ 962	\$ 6,188	\$ 977
Foreign government	18,495	147	5,984	139	24,479	286
Corporate	3,511	63	1,350	28	4,861	91
Asset-backed securities	3,701	13	3,816	45	7,517	58
Marketable equity securities AFS	51	4	218	40	269	44
<b>Total securities AFS</b>	<b>\$ 74,026</b>	<b>\$ 404</b>	<b>\$ 24,821</b>	<b>\$ 1,361</b>	<b>\$ 98,847</b>	<b>\$ 1,765</b>

The following table presents the amortized cost and fair value of AFS debt securities by contractual maturity dates:

<i>In millions of dollars</i>	December 31,			
	2015		2014	
	Amortized cost	Fair value	Amortized cost	Fair value
<b>Mortgage-backed securities<sup>(1)</sup></b>				
Due within 1 year	\$ 114	\$ 114	\$ 44	\$ 44
After 1 but within 5 years	1,408	1,411	931	935
After 5 but within 10 years	1,750	1,751	1,362	1,387
After 10 years <sup>(2)</sup>	42,846	42,995	42,163	42,642
<b>Total</b>	<b>\$ 46,118</b>	<b>\$ 46,271</b>	<b>\$ 44,500</b>	<b>\$ 45,008</b>
<b>U.S. Treasury and federal agency securities</b>				
Due within 1 year	\$ 3,016	\$ 3,014	\$ 13,070	\$ 13,084
After 1 but within 5 years	107,034	106,878	104,982	105,131
After 5 but within 10 years	12,786	12,684	2,286	2,325
After 10 years <sup>(2)</sup>	355	339	3,079	3,150
<b>Total</b>	<b>\$ 123,191</b>	<b>\$ 122,915</b>	<b>\$ 123,417</b>	<b>\$ 123,690</b>
<b>State and municipal</b>				
Due within 1 year	\$ 3,289	\$ 3,287	\$ 652	\$ 651
After 1 but within 5 years	1,781	1,781	4,387	4,381
After 5 but within 10 years	502	516	524	537
After 10 years <sup>(2)</sup>	6,527	5,875	7,963	7,130
<b>Total</b>	<b>\$ 12,099</b>	<b>\$ 11,459</b>	<b>\$ 13,526</b>	<b>\$ 12,699</b>
<b>Foreign government</b>				
Due within 1 year	\$ 26,322	\$ 26,329	\$ 31,355	\$ 31,382
After 1 but within 5 years	44,801	44,756	41,913	42,467
After 5 but within 10 years	18,935	18,779	16,008	15,779
After 10 years <sup>(2)</sup>	2,326	2,337	973	1,069
<b>Total</b>	<b>\$ 92,384</b>	<b>\$ 92,201</b>	<b>\$ 90,249</b>	<b>\$ 90,697</b>
<b>All other<sup>(3)</sup></b>				
Due within 1 year	\$ 1,930	\$ 1,931	\$ 1,248	\$ 1,251
After 1 but within 5 years	12,748	12,762	10,442	10,535
After 5 but within 10 years	7,867	7,782	7,282	7,318
After 10 years <sup>(2)</sup>	3,263	3,190	6,256	6,220
<b>Total</b>	<b>\$ 25,808</b>	<b>\$ 25,665</b>	<b>\$ 25,228</b>	<b>\$ 25,324</b>
<b>Total debt securities AFS</b>	<b>\$ 299,600</b>	<b>\$ 298,511</b>	<b>\$ 296,920</b>	<b>\$ 297,418</b>

(1) Includes mortgage-backed securities of U.S. government-sponsored agencies.

(2) Investments with no stated maturities are included as contractual maturities of greater than 10 years. Actual maturities may differ due to call or prepayment rights.

(3) Includes corporate, asset-backed and other debt securities.

## Debt Securities Held-to-Maturity

The carrying value and fair value of debt securities HTM were as follows:

<i>In millions of dollars</i>	Amortized cost basis <sup>(1)</sup>	Net unrealized gains (losses) recognized in AOCI	Carrying value <sup>(2)</sup>	Gross unrealized gains	Gross unrealized (losses)	Fair value
<b>December 31, 2015</b>						
<b>Debt securities held-to-maturity</b>						
<b>Mortgage-backed securities<sup>(3)</sup></b>						
U.S. government agency guaranteed	\$ 17,648	\$ 138	\$ 17,786	\$ 71	\$ (100)	\$ 17,757
Prime	121	(78)	43	3	(1)	45
Alt-A	433	(1)	432	259	(162)	529
Subprime	2	—	2	13	—	15
Non-U.S. residential	1,330	(60)	1,270	37	—	1,307
Commercial	—	—	—	—	—	—
<b>Total mortgage-backed securities</b>	<b>\$ 19,534</b>	<b>\$ (1)</b>	<b>\$ 19,533</b>	<b>\$ 383</b>	<b>\$ (263)</b>	<b>\$ 19,653</b>
<b>State and municipal<sup>(4)</sup></b>	<b>\$ 8,581</b>	<b>\$ (438)</b>	<b>\$ 8,143</b>	<b>\$ 245</b>	<b>\$ (87)</b>	<b>\$ 8,301</b>
Foreign government	4,068	—	4,068	28	(3)	4,093
Asset-backed securities <sup>(3)</sup>	4,485	(14)	4,471	34	(41)	4,464
<b>Total debt securities held-to-maturity</b>	<b>\$ 36,668</b>	<b>\$ (453)</b>	<b>\$ 36,215</b>	<b>\$ 690</b>	<b>\$ (394)</b>	<b>\$ 36,511</b>
<b>December 31, 2014</b>						
<b>Debt securities held-to-maturity</b>						
<b>Mortgage-backed securities<sup>(3)</sup></b>						
U.S. government agency guaranteed	\$ 8,795	\$ 95	\$ 8,890	\$ 106	\$ (6)	\$ 8,990
Prime	60	(12)	48	6	(1)	53
Alt-A	1,125	(213)	912	537	(287)	1,162
Subprime	6	(1)	5	15	—	20
Non-U.S. residential	983	(137)	846	92	—	938
Commercial	8	—	8	1	—	9
<b>Total mortgage-backed securities</b>	<b>\$ 10,977</b>	<b>\$ (268)</b>	<b>\$ 10,709</b>	<b>\$ 757</b>	<b>\$ (294)</b>	<b>\$ 11,172</b>
<b>State and municipal</b>	<b>\$ 8,443</b>	<b>\$ (494)</b>	<b>\$ 7,949</b>	<b>\$ 227</b>	<b>\$ (57)</b>	<b>\$ 8,119</b>
Foreign government	4,725	—	4,725	77	—	4,802
Asset-backed securities <sup>(3)</sup>	556	(18)	538	50	(10)	578
<b>Total debt securities held-to-maturity<sup>(5)</sup></b>	<b>\$ 24,701</b>	<b>\$ (780)</b>	<b>\$ 23,921</b>	<b>\$ 1,111</b>	<b>\$ (361)</b>	<b>\$ 24,671</b>

- For securities transferred to HTM from *Trading account assets*, amortized cost basis is defined as the fair value of the securities at the date of transfer plus any accretion income and less any impairments recognized in earnings subsequent to transfer. For securities transferred to HTM from AFS, amortized cost is defined as the original purchase cost, adjusted for the cumulative accretion or amortization of any purchase discount or premium, plus or minus any cumulative fair value hedge adjustments, net of accretion or amortization, and less any other-than-temporary impairment recognized in earnings.
- HTM securities are carried on the Consolidated Balance Sheet at amortized cost basis, plus or minus any unamortized unrealized gains and losses and fair value hedge adjustments recognized in AOCI prior to reclassifying the securities from AFS to HTM. Changes in the values of these securities are not reported in the financial statements, except for the amortization of any difference between the carrying value at the transfer date and par value of the securities, and the recognition of any non-credit fair value adjustments in AOCI in connection with the recognition of any credit impairment in earnings related to securities the Company continues to intend to hold until maturity.
- The Company invests in mortgage-backed and asset-backed securities. These securitizations are generally considered VIEs. The Company's maximum exposure to loss from these VIEs is equal to the carrying amount of the securities, which is reflected in the table above. For mortgage-backed and asset-backed securitizations in which the Company has other involvement, see Note 22 to the Consolidated Financial Statements.
- The net unrealized losses recognized in AOCI on state and municipal debt securities are primarily attributable to the effects of fair value hedge accounting applied when these debt securities were classified as AFS. Specifically, Citi hedged the LIBOR-benchmark interest rate component of certain fixed-rate tax-exempt state and municipal debt securities utilizing LIBOR-based interest rate swaps. During the hedge period, losses incurred on the LIBOR-hedging swaps recorded in earnings were substantially offset by gains on the state and municipal debt securities attributable to changes in the LIBOR swap rate being hedged. However, because the LIBOR swap rate decreased significantly during the hedge period while the overall fair value of the municipal debt securities was relatively unchanged, the effect of reclassifying fair value gains on these securities from AOCI to earnings attributable solely to changes in the LIBOR swap rate resulted in net unrealized losses remaining in AOCI that relate to the unhedged components of these securities. Upon transfer of these debt securities to HTM, all hedges have been de-designated and hedge accounting has ceased.

- (5) During the second quarter of 2015, securities with a total fair value of approximately \$7.1 billion were transferred from AFS to HTM, consisting of \$7.0 billion of U.S. government agency mortgage-backed securities and \$0.1 billion of obligations of U.S. states and municipalities. During the second quarter of 2014, securities with a total fair value of approximately \$11.8 billion were transferred from AFS to HTM, consisting of \$5.4 billion of U.S. government agency mortgage-backed securities and \$6.4 billion of obligations of U.S. states and municipalities. The transfer reflects the Company's intent to hold these securities to maturity or to issuer call in order to reduce the impact of price volatility on AOCI and certain capital measures under Basel III. While these securities were transferred to HTM at fair value as of the transfer date, no subsequent changes in value may be recorded, other than in connection with the recognition of any subsequent other-than-temporary impairment and the amortization of differences between the carrying values at the transfer date and the par values of each security as an adjustment of yield over the remaining contractual life of each security. Any net unrealized holding losses within AOCI related to the respective securities at the date of transfer, inclusive of any cumulative fair value hedge adjustments, will be amortized over the remaining contractual life of each security as an adjustment of yield in a manner consistent with the amortization of any premium or discount.

The Company has the positive intent and ability to hold these securities to maturity or, where applicable, the exercise of any issuer call options, absent any unforeseen significant changes in circumstances, including deterioration in credit or changes in regulatory capital requirements.

The net unrealized losses classified in AOCI primarily relate to debt securities previously classified as AFS that have been transferred to HTM, and include any cumulative fair

value hedge adjustments. The net unrealized loss amount also includes any non-credit-related changes in fair value of HTM securities that have suffered credit impairment recorded in earnings. The AOCI balance related to HTM securities is amortized over the remaining contractual life of the related securities as an adjustment of yield in a manner consistent with the accretion of any difference between the carrying value at the transfer date and par value of the same debt securities.

The table below shows the fair value of debt securities HTM that have been in an unrecognized loss position for less than 12 months and for 12 months or longer:

	Less than 12 months		12 months or longer		Total	
	Fair value	Gross unrecognized losses	Fair value	Gross unrecognized losses	Fair value	Gross unrecognized losses
<i>In millions of dollars</i>						
<b>December 31, 2015</b>						
<b>Debt securities held-to-maturity</b>						
Mortgage-backed securities	\$ 935	\$ 1	\$ 10,301	\$ 262	\$ 11,236	\$ 263
State and municipal	881	20	1,826	67	2,707	87
Foreign government	180	3	—	—	180	3
Asset-backed securities	132	13	3,232	28	3,364	41
<b>Total debt securities held-to-maturity</b>	<b>\$ 2,128</b>	<b>\$ 37</b>	<b>\$ 15,359</b>	<b>\$ 357</b>	<b>\$ 17,487</b>	<b>\$ 394</b>
<b>December 31, 2014</b>						
<b>Debt securities held-to-maturity</b>						
Mortgage-backed securities	\$ 4	\$ —	\$ 1,134	\$ 294	\$ 1,138	\$ 294
State and municipal	2,528	34	314	23	2,842	57
Foreign government	—	—	—	—	—	—
Asset-backed securities	9	1	174	9	183	10
<b>Total debt securities held-to-maturity</b>	<b>\$ 2,541</b>	<b>\$ 35</b>	<b>\$ 1,622</b>	<b>\$ 326</b>	<b>\$ 4,163</b>	<b>\$ 361</b>

Excluded from the gross unrecognized losses presented in the above table are \$(453) million and \$(780) million of net unrealized losses recorded in AOCI as of December 31, 2015 and December 31, 2014, respectively, primarily related to the difference between the amortized cost and carrying value of HTM securities that were reclassified from AFS. Substantially all of these net unrecognized losses relate to securities that have been in a loss position for 12 months or longer at December 31, 2015 and December 31, 2014.



The following table presents the carrying value and fair value of HTM debt securities by contractual maturity dates:

<i>In millions of dollars</i>	December 31,			
	2015		2014	
	Carrying value	Fair value	Carrying value	Fair value
<b>Mortgage-backed securities</b>				
Due within 1 year	\$ —	\$ —	\$ —	\$ —
After 1 but within 5 years	172	172	—	—
After 5 but within 10 years	660	663	863	869
After 10 years <sup>(1)</sup>	18,701	18,818	9,846	10,303
<b>Total</b>	<b>\$ 19,533</b>	<b>\$ 19,653</b>	<b>\$ 10,709</b>	<b>\$ 11,172</b>
<b>State and municipal</b>				
Due within 1 year	\$ 309	\$ 305	\$ 205	\$ 205
After 1 but within 5 years	336	335	243	243
After 5 but within 10 years	262	270	140	144
After 10 years <sup>(1)</sup>	7,236	7,391	7,361	7,527
<b>Total</b>	<b>\$ 8,143</b>	<b>\$ 8,301</b>	<b>\$ 7,949</b>	<b>\$ 8,119</b>
<b>Foreign government</b>				
Due within 1 year	\$ —	\$ —	\$ —	\$ —
After 1 but within 5 years	4,068	4,093	4,725	4,802
After 5 but within 10 years	—	—	—	—
After 10 years <sup>(1)</sup>	—	—	—	—
<b>Total</b>	<b>\$ 4,068</b>	<b>\$ 4,093</b>	<b>\$ 4,725</b>	<b>\$ 4,802</b>
<b>All other<sup>(2)</sup></b>				
Due within 1 year	\$ —	\$ —	\$ —	\$ —
After 1 but within 5 years	—	—	—	—
After 5 but within 10 years	—	—	—	—
After 10 years <sup>(1)</sup>	4,471	4,464	538	578
<b>Total</b>	<b>\$ 4,471</b>	<b>\$ 4,464</b>	<b>\$ 538</b>	<b>\$ 578</b>
<b>Total debt securities held-to-maturity</b>	<b>\$ 36,215</b>	<b>\$ 36,511</b>	<b>\$ 23,921</b>	<b>\$ 24,671</b>

(1) Investments with no stated maturities are included as contractual maturities of greater than 10 years. Actual maturities may differ due to call or prepayment rights.

(2) Includes corporate and asset-backed securities.



## Evaluating Investments for Other-Than-Temporary Impairment

### Overview

The Company conducts periodic reviews of all securities with unrealized losses to evaluate whether the impairment is other-than-temporary.

An unrealized loss exists when the current fair value of an individual security is less than its amortized cost basis. Unrealized losses that are determined to be temporary in nature are recorded, net of tax, in AOCI for AFS securities. Losses related to HTM securities generally are not recorded, as these investments are carried at adjusted amortized cost basis. However, for HTM securities with credit-related losses, the credit loss is recognized in earnings as OTTI and any difference between the cost basis adjusted for the OTTI and fair value is recognized in AOCI and amortized as an adjustment of yield over the remaining contractual life of the security. For securities transferred to HTM from *Trading account assets*, amortized cost is defined as the fair value of the securities at the date of transfer, plus any accretion income and less any impairment recognized in earnings subsequent to transfer. For securities transferred to HTM from AFS, amortized cost is defined as the original purchase cost, adjusted for the cumulative accretion or amortization of any purchase discount or premium, plus or minus any cumulative fair value hedge adjustments, net of accretion or amortization, and less any impairment recognized in earnings.

Regardless of the classification of the securities as AFS or HTM, the Company assesses each position with an unrealized loss for OTTI. Factors considered in determining whether a loss is temporary include:

- the length of time and the extent to which fair value has been below cost;
- the severity of the impairment;
- the cause of the impairment and the financial condition and near-term prospects of the issuer;
- activity in the market of the issuer that may indicate adverse credit conditions; and
- the Company's ability and intent to hold the investment for a period of time sufficient to allow for any anticipated recovery.

The Company's review for impairment generally entails:

- identification and evaluation of impaired investments;
- analysis of individual investments that have fair values less than amortized cost, including consideration of the length of time the investment has been in an unrealized loss position and the expected recovery period;
- consideration of evidential matter, including an evaluation of factors or triggers that could cause individual investments to qualify as having other-than-temporary impairment and those that would not support other-than-temporary impairment; and
- documentation of the results of these analyses, as required under business policies.

### Debt

The entire difference between amortized cost basis and fair value is recognized in earnings as OTTI for impaired debt securities that the Company has an intent to sell or for which the Company believes it will more-likely-than-not be required to sell prior to recovery of the amortized cost basis. However, for those securities that the Company does not intend to sell and is not likely to be required to sell, only the credit-related impairment is recognized in earnings and any non-credit-related impairment is recorded in AOCI.

For debt securities, credit impairment exists where management does not expect to receive contractual principal and interest cash flows sufficient to recover the entire amortized cost basis of a security.

### Equity

For equity securities, management considers the various factors described above, including its intent and ability to hold the equity security for a period of time sufficient for recovery to cost or whether it is more-likely-than-not that the Company will be required to sell the security prior to recovery of its cost basis. Where management lacks that intent or ability, the security's decline in fair value is deemed to be other-than-temporary and is recorded in earnings. AFS equity securities deemed to be other-than-temporarily impaired are written down to fair value, with the full difference between fair value and cost recognized in earnings.

Management assesses equity method investments that have fair values that are less than their respective carrying values for OTTI. Fair value is measured as price multiplied by quantity if the investee has publicly listed securities. If the investee is not publicly listed, other methods are used (see Note 25 to the Consolidated Financial Statements).

For impaired equity method investments that Citi plans to sell prior to recovery of value or would likely be required to sell, with no expectation that the fair value will recover prior to the expected sale date, the full impairment is recognized in earnings as OTTI regardless of severity and duration. The measurement of the OTTI does not include partial projected recoveries subsequent to the balance sheet date.

For impaired equity method investments that management does not plan to sell and is not likely to be required to sell prior to recovery of value, the evaluation of whether an impairment is other-than-temporary is based on (i) whether and when an equity method investment will recover in value and (ii) whether the investor has the intent and ability to hold that investment for a period of time sufficient to recover the value. The determination of whether the impairment is considered other-than-temporary considers the following indicators, regardless of the time and extent of impairment:

- the cause of the impairment and the financial condition and near-term prospects of the issuer, including any specific events that may influence the operations of the issuer;
- the intent and ability to hold the investment for a period of time sufficient to allow for any anticipated recovery in market value; and

- the length of time and extent to which fair value has been less than the carrying value.

The sections below describe the Company's process for identifying credit-related impairments for security types that have the most significant unrealized losses as of December 31, 2015.

#### *Mortgage-Backed Securities*

For U.S. mortgage-backed securities (and in particular for Alt-A and other mortgage-backed securities that have significant unrealized losses as a percentage of amortized cost), credit impairment is assessed using a cash flow model that estimates the principal and interest cash flows on the underlying mortgages using the security-specific collateral and transaction structure. The model distributes the estimated cash flows to the various tranches of securities, considering the transaction structure and any subordination and credit enhancements that exist in that structure. The cash flow model incorporates actual cash flows on the mortgage-backed securities through the current period and then estimates the remaining cash flows using a number of assumptions, including default rates, prepayment rates, recovery rates (on foreclosed properties) and loss severity rates (on non-agency mortgage-backed securities).

Management develops specific assumptions using market data, internal estimates and estimates published by rating agencies and other third-party sources. Default rates are projected by considering current underlying mortgage loan performance, generally assuming the default of (i) 10% of current loans, (ii) 25% of 30–59 day delinquent loans, (iii) 70% of 60–90 day delinquent loans and (iv) 100% of 91+ day delinquent loans. These estimates are extrapolated along a default timing curve to estimate the total lifetime pool default

rate. Other assumptions contemplate the actual collateral attributes, including geographic concentrations, rating actions and current market prices.

Cash flow projections are developed using different stress test scenarios. Management evaluates the results of those stress tests (including the severity of any cash shortfall indicated and the likelihood of the stress scenarios actually occurring based on the underlying pool's characteristics and performance) to assess whether management expects to recover the amortized cost basis of the security. If cash flow projections indicate that the Company does not expect to recover its amortized cost basis, the Company recognizes the estimated credit loss in earnings.

#### *State and Municipal Securities*

The process for identifying credit impairments in Citigroup's AFS and HTM state and municipal bonds is primarily based on a credit analysis that incorporates third-party credit ratings. Citigroup monitors the bond issuers and any insurers providing default protection in the form of financial guarantee insurance. The average external credit rating, ignoring any insurance, is Aa3/AA-. In the event of an external rating downgrade or other indicator of credit impairment (i.e., based on instrument-specific estimates of cash flows or probability of issuer default), the subject bond is specifically reviewed for adverse changes in the amount or timing of expected contractual principal and interest payments.

For state and municipal bonds with unrealized losses that Citigroup plans to sell (for AFS only), would be more-likely-than-not required to sell (for AFS only) or will be subject to an issuer call deemed probable of exercise prior to the expected recovery of its amortized cost basis (for AFS and HTM), the full impairment is recognized in earnings.

### **Recognition and Measurement of OTTI**

The total OTTI recognized in earnings are as follows:

<b>OTTI on Investments and Other Assets</b>	<b>Year ended December 31, 2015</b>			
	<b>AFS<sup>(1)</sup></b>	<b>HTM</b>	<b>Other assets</b>	<b>Total</b>
<i>In millions of dollars</i>				
Impairment losses related to securities that the Company does not intend to sell nor will likely be required to sell:				
Total OTTI losses recognized during the period	\$ 33	\$ 1	\$ —	\$ 34
Less: portion of impairment loss recognized in AOCI (before taxes)	—	—	—	—
Net impairment losses recognized in earnings for securities that the Company does not intend to sell nor will likely be required to sell	\$ 33	\$ 1	\$ —	\$ 34
Impairment losses recognized in earnings for securities that the Company intends to sell, would be more likely than not required to sell or will be subject to an issuer call deemed probable of exercise	182	43	6	231
<b>Total impairment losses recognized in earnings</b>	<b>\$ 215</b>	<b>\$ 44</b>	<b>\$ 6</b>	<b>\$ 265</b>

(1) Includes OTTI on non-marketable equity securities.

**OTTI on Investments and Other Assets**

 Year ended  
December 31, 2014

<i>In millions of dollars</i>	AFS <sup>(1)</sup>	HTM	Other assets	Total
Impairment losses related to securities that the Company does not intend to sell nor will likely be required to sell:				
Total OTTI losses recognized during the period	\$ 21	\$ 5	\$ —	\$ 26
Less: portion of impairment loss recognized in AOCI (before taxes)	8	—	—	8
Net impairment losses recognized in earnings for securities that the Company does not intend to sell nor will likely be required to sell	\$ 13	\$ 5	\$ —	\$ 18
Impairment losses recognized in earnings for securities that the Company intends to sell, would be more likely than not required to sell or will be subject to an issuer call deemed probable of exercise	380	26	—	406
<b>Total impairment losses recognized in earnings</b>	<b>\$ 393</b>	<b>\$ 31</b>	<b>\$ —</b>	<b>\$ 424</b>

(1) Includes OTTI on non-marketable equity securities.

**OTTI on Investments and Other Assets**

 Year ended  
December 31, 2013

<i>In millions of dollars</i>	AFS <sup>(1)</sup>	HTM	Other assets <sup>(2)</sup>	Total
Impairment losses related to securities that the Company does not intend to sell nor will likely be required to sell:				
Total OTTI losses recognized during the period	\$ 9	\$ 154	\$ —	\$ 163
Less: portion of impairment loss recognized in AOCI (before taxes)	—	98	—	98
Net impairment losses recognized in earnings for securities that the Company does not intend to sell nor will likely be required to sell	\$ 9	\$ 56	\$ —	\$ 65
Impairment losses recognized in earnings for securities that the Company intends to sell or more-likely-than-not will be required to sell before recovery <sup>(2)</sup>	269	—	201	470
<b>Total impairment losses recognized in earnings</b>	<b>\$ 278</b>	<b>\$ 56</b>	<b>\$ 201</b>	<b>\$ 535</b>

(1) Includes OTTI on non-marketable equity securities.

(2) The impairment charge relates to the carrying value of Citi's then-remaining 35% interest in the MSSB joint venture, offset by the equity pickup from MSSB during the respective periods that was recorded in *Other revenue*.

The following are 12-month rollforwards of the credit-related impairments recognized in earnings for AFS and HTM debt securities held that the Company does not intend to sell nor likely will be required to sell:

Cumulative OTTI credit losses recognized in earnings on securities still held					
<i>In millions of dollars</i>	Dec. 31, 2014 balance	Credit impairments recognized in earnings on securities not previously impaired	Credit impairments recognized in earnings on securities that have been previously impaired	Reductions due to credit-impaired securities sold, transferred or matured	Dec. 31, 2015 balance
<b>AFS debt securities</b>					
Mortgage-backed securities	\$ 295	\$ —	\$ (1)	\$ —	\$ 294
State and municipal	—	8	—	—	8
Foreign government securities	171	—	—	(1)	170
Corporate	118	2	(2)	(6)	112
All other debt securities	149	22	(1)	—	170
<b>Total OTTI credit losses recognized for AFS debt securities</b>	<b>\$ 733</b>	<b>\$ 32</b>	<b>\$ (4)</b>	<b>\$ (7)</b>	<b>\$ 754</b>
<b>HTM debt securities</b>					
Mortgage-backed securities <sup>(1)</sup>	\$ 670	\$ 1	\$ (1)	\$ (2)	\$ 668
Corporate	—	—	—	—	—
All other debt securities	133	—	—	(1)	132
<b>Total OTTI credit losses recognized for HTM debt securities</b>	<b>\$ 803</b>	<b>\$ 1</b>	<b>\$ (1)</b>	<b>\$ (3)</b>	<b>\$ 800</b>

(1) Primarily consists of Alt-A securities.

Cumulative OTTI credit losses recognized in earnings on securities still held					
<i>In millions of dollars</i>	Dec. 31, 2013 balance	Credit impairments recognized in earnings on securities not previously impaired	Credit impairments recognized in earnings on securities that have been previously impaired	Reductions due to credit-impaired securities sold, transferred or matured	Dec. 31, 2014 balance
<b>AFS debt securities</b>					
Mortgage-backed securities	\$ 295	\$ —	\$ —	\$ —	\$ 295
State and municipal	—	—	—	—	—
Foreign government securities	171	—	—	—	171
Corporate	113	8	—	(3)	118
All other debt securities	144	5	—	—	149
<b>Total OTTI credit losses recognized for AFS debt securities</b>	<b>\$ 723</b>	<b>\$ 13</b>	<b>\$ —</b>	<b>\$ (3)</b>	<b>\$ 733</b>
<b>HTM debt securities</b>					
Mortgage-backed securities <sup>(1)</sup>	\$ 678	\$ 5	\$ —	\$ (13)	\$ 670
Corporate	56	—	—	(56)	—
All other debt securities	133	—	—	—	133
<b>Total OTTI credit losses recognized for HTM debt securities</b>	<b>\$ 867</b>	<b>\$ 5</b>	<b>\$ —</b>	<b>\$ (69)</b>	<b>\$ 803</b>

(1) Primarily consists of Alt-A securities.

### Investments in Alternative Investment Funds That Calculate Net Asset Value per Share

The Company holds investments in certain alternative investment funds that calculate net asset value (NAV) per share, including hedge funds, private equity funds, funds of funds and real estate funds. The Company's investments include co-investments in funds that are managed by the Company and investments in funds that are managed by third parties. Investments in funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV per share of the Company's ownership interest in the funds, where it is not probable that the Company will sell an investment at a price other than the NAV.

<i>In millions of dollars</i>	Fair value		Unfunded commitments		Redemption frequency (if currently eligible) monthly, quarterly, annually	Redemption notice period
	December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014		
Hedge funds	\$ 3	\$ 8	\$ —	\$ —	Generally quarterly	10–95 days
Private equity funds <sup>(1)(2)</sup>	762	891	173	205	—	—
Real estate funds <sup>(2)(3)</sup>	130	166	21	24	—	—
<b>Total<sup>(4)</sup></b>	<b>\$ 895</b>	<b>\$ 1,065</b>	<b>\$ 194</b>	<b>\$ 229</b>	—	—

- (1) Private equity funds include funds that invest in infrastructure, leveraged buyout transactions, emerging markets and venture capital.
- (2) With respect to the Company's investments in private equity funds and real estate funds, distributions from each fund will be received as the underlying assets held by these funds are liquidated. It is estimated that the underlying assets of these funds will be liquidated over a period of several years as market conditions allow. Private equity and real estate funds do not allow redemption of investments by their investors. Investors are permitted to sell or transfer their investments, subject to the approval of the general partner or investment manager of these funds, which generally may not be unreasonably withheld.
- (3) Includes several real estate funds that invest primarily in commercial real estate in the U.S., Europe and Asia.
- (4) Included in the total fair value of investments above are \$0.9 billion and \$0.8 billion of fund assets that are valued using NAVs provided by third-party asset managers as of December 31, 2015 and December 31, 2014, respectively.

## 15. LOANS

Citigroup loans are reported in two categories—consumer and corporate. These categories are classified primarily according to the segment and subsegment that manage the loans.

### Consumer Loans

Consumer loans represent loans and leases managed primarily by the *GCB* businesses in Citicorp and in Citi Holdings. The following table provides information by loan type for the periods indicated:

<i>In millions of dollars</i>	December 31,	
	2015	2014
<b>In U.S. offices</b>		
Mortgage and real estate <sup>(1)</sup>	\$ 80,281	\$ 96,533
Installment, revolving credit, and other	3,480	14,450
Cards	112,800	112,982
Commercial and industrial	6,407	5,895
	\$ 202,968	\$ 229,860
<b>In offices outside the U.S.</b>		
Mortgage and real estate <sup>(1)</sup>	\$ 47,062	\$ 54,462
Installment, revolving credit, and other	29,480	31,128
Cards	27,342	32,032
Commercial and industrial	17,741	18,594
Lease financing	362	546
	\$ 121,987	\$ 136,762
<b>Total consumer loans</b>	<b>\$ 324,955</b>	<b>\$ 366,622</b>
Net unearned income	\$ 830	(679)
<b>Consumer loans, net of unearned income</b>	<b>\$ 325,785</b>	<b>\$ 365,943</b>

(1) Loans secured primarily by real estate.

Citigroup has established a risk management process to monitor, evaluate and manage the principal risks associated with its consumer loan portfolio. Credit quality indicators that are actively monitored include delinquency status, consumer credit scores (FICO), and loan to value (LTV) ratios, each as discussed in more detail below.

Included in the loan table above are lending products whose terms may give rise to greater credit issues. Credit cards with below-market introductory interest rates and interest-only loans are examples of such products. These products are closely managed using credit techniques that are intended to mitigate their higher inherent risk.

During the years ended December 31, 2015 and 2014, the Company sold and/or reclassified to held-for-sale \$25.8 billion and \$10.3 billion, respectively, of consumer loans. The Company did not have significant purchases of consumer loans during the years ended December 31, 2015 and 2014.

### Delinquency Status

Delinquency status is monitored and considered a key indicator of credit quality of consumer loans. Principally, the U.S. residential first mortgage loans use the Mortgage Bankers Association (MBA) method of reporting delinquencies, which considers a loan delinquent if a monthly payment has not been received by the end of the day immediately preceding the loan's next due date. All other loans use a method of reporting delinquencies that considers a loan delinquent if a monthly payment has not been received by the close of business on the loan's next due date.

As a general policy, residential first mortgages, home equity loans and installment loans are classified as non-accrual when loan payments are 90 days contractually past due. Credit cards and unsecured revolving loans generally accrue interest until payments are 180 days past due. Home equity loans in regulated bank entities are classified as non-accrual if the related residential first mortgage is 90 days or more past due. Mortgage loans in regulated bank entities discharged through Chapter 7 bankruptcy, other than Federal Housing Administration (FHA)-insured loans, are classified as non-accrual. Commercial market loans are placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due.

The policy for re-aging modified U.S. consumer loans to current status varies by product. Generally, one of the conditions to qualify for these modifications is that a minimum number of payments (typically ranging from one to three) be made. Upon modification, the loan is re-aged to current status. However, re-aging practices for certain open-ended consumer loans, such as credit cards, are governed by Federal Financial Institutions Examination Council (FFIEC) guidelines. For open-ended consumer loans subject to FFIEC guidelines, one of the conditions for a loan to be re-aged to current status is that at least three consecutive minimum monthly payments, or the equivalent amount, must be received. In addition, under FFIEC guidelines, the number of times that such a loan can be re-aged is subject to limitations (generally once in 12 months and twice in five years). Furthermore, FHA and Department of Veterans Affairs (VA) loans are modified under those respective agencies' guidelines and payments are not always required in order to re-age a modified loan to current.

The following tables provide details on Citigroup's consumer loan delinquency and non-accrual loans:

**Consumer Loan Delinquency and Non-Accrual Details at December 31, 2015**

<i>In millions of dollars</i>	<b>Total current<sup>(1)(2)</sup></b>	<b>30–89 days past due<sup>(3)</sup></b>	<b>≥ 90 days past due<sup>(3)</sup></b>	<b>Past due government guaranteed<sup>(4)</sup></b>	<b>Total loans<sup>(2)</sup></b>	<b>Total non-accrual</b>	<b>90 days past due and accruing</b>
<b>In North America offices</b>							
Residential first mortgages	\$ 53,146	\$ 846	\$ 564	\$ 2,318	\$ 56,874	\$ 1,216	\$ 1,997
Home equity loans <sup>(5)</sup>	22,335	136	277	—	22,748	1,017	—
Credit cards	110,814	1,296	1,243	—	113,353	—	1,243
Installment and other	4,576	80	33	—	4,689	56	2
Commercial market loans	8,241	16	61	—	8,318	222	17
<b>Total</b>	<b>\$ 199,112</b>	<b>\$ 2,374</b>	<b>\$ 2,178</b>	<b>\$ 2,318</b>	<b>\$ 205,982</b>	<b>\$ 2,511</b>	<b>\$ 3,259</b>
<b>In offices outside North America</b>							
Residential first mortgages	\$ 39,551	\$ 240	\$ 175	\$ —	\$ 39,966	\$ 388	\$ —
Credit cards	25,698	477	442	—	26,617	261	278
Installment and other	27,664	317	220	—	28,201	226	—
Commercial market loans	24,764	46	31	—	24,841	247	—
<b>Total</b>	<b>\$ 117,677</b>	<b>\$ 1,080</b>	<b>\$ 868</b>	<b>\$ —</b>	<b>\$ 119,625</b>	<b>\$ 1,122</b>	<b>\$ 278</b>
Total <i>GCB</i> and Citi Holdings consumer	\$ 316,789	\$ 3,454	\$ 3,046	\$ 2,318	\$ 325,607	\$ 3,633	\$ 3,537
<b>Other<sup>(6)</sup></b>	<b>164</b>	<b>7</b>	<b>7</b>	<b>—</b>	<b>178</b>	<b>25</b>	<b>—</b>
<b>Total Citigroup</b>	<b>\$ 316,953</b>	<b>\$ 3,461</b>	<b>\$ 3,053</b>	<b>\$ 2,318</b>	<b>\$ 325,785</b>	<b>\$ 3,658</b>	<b>\$ 3,537</b>

(1) Loans less than 30 days past due are presented as current.

(2) Includes \$34 million of residential first mortgages recorded at fair value.

(3) Excludes loans guaranteed by U.S. government-sponsored entities.

(4) Consists of residential first mortgages that are guaranteed by U.S. government-sponsored entities that are 30–89 days past due of \$0.3 billion and 90 days or more past due of \$2.0 billion.

(5) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.

(6) Represents loans classified as consumer loans on the Consolidated Balance Sheet that are not included in the Citi Holdings consumer credit metrics.

## Consumer Loan Delinquency and Non-Accrual Details at December 31, 2014

<i>In millions of dollars</i>	Total current <sup>(1)(2)</sup>	30–89 days past due <sup>(3)</sup>	≥ 90 days past due <sup>(3)</sup>	Past due government guaranteed <sup>(4)</sup>	Total loans <sup>(2)</sup>	Total non-accrual	90 days past due and accruing
<b>In North America offices</b>							
Residential first mortgages	\$ 61,730	\$ 1,280	\$ 1,371	\$ 3,443	\$ 67,824	\$ 2,746	\$ 2,759
Home equity loans <sup>(5)</sup>	27,262	335	520	—	28,117	1,271	—
Credit cards	111,441	1,316	1,271	—	114,028	—	1,273
Installment and other	12,680	229	284	—	13,193	282	3
Commercial market loans	8,611	31	13	—	8,655	107	15
<b>Total</b>	<b>\$ 221,724</b>	<b>\$ 3,191</b>	<b>\$ 3,459</b>	<b>\$ 3,443</b>	<b>\$ 231,817</b>	<b>\$ 4,406</b>	<b>\$ 4,050</b>
<b>In offices outside North America</b>							
Residential first mortgages	\$ 44,747	\$ 312	\$ 223	\$ —	\$ 45,282	\$ 454	\$ —
Credit cards	30,132	596	548	—	31,276	374	322
Installment and other	28,944	366	365	—	29,675	266	—
Commercial market loans	27,548	49	37	—	27,634	375	—
<b>Total</b>	<b>\$ 131,371</b>	<b>\$ 1,323</b>	<b>\$ 1,173</b>	<b>\$ —</b>	<b>\$ 133,867</b>	<b>\$ 1,469</b>	<b>\$ 322</b>
Total <i>GCB</i> and Citi Holdings	\$ 353,095	\$ 4,514	\$ 4,632	\$ 3,443	\$ 365,684	\$ 5,875	\$ 4,372
<b>Other<sup>(6)</sup></b>	<b>238</b>	<b>10</b>	<b>11</b>	<b>—</b>	<b>259</b>	<b>30</b>	<b>—</b>
<b>Total Citigroup</b>	<b>\$ 353,333</b>	<b>\$ 4,524</b>	<b>\$ 4,643</b>	<b>\$ 3,443</b>	<b>\$ 365,943</b>	<b>\$ 5,905</b>	<b>\$ 4,372</b>

- (1) Loans less than 30 days past due are presented as current.
- (2) Includes \$43 million of residential first mortgages recorded at fair value.
- (3) Excludes loans guaranteed by U.S. government-sponsored entities.
- (4) Consists of residential first mortgages that are guaranteed by U.S. government-sponsored entities that are 30–89 days past due of \$0.6 billion and 90 days or more past due of \$2.8 billion.
- (5) Fixed-rate home equity loans and loans extended under home equity lines of credit, which are typically in junior lien positions.
- (6) Represents loans classified as consumer loans on the Consolidated Balance Sheet that are not included in the Citi Holdings consumer credit metrics.

### Consumer Credit Scores (FICO)

In the U.S., independent credit agencies rate an individual's risk for assuming debt based on the individual's credit history and assign every consumer a "FICO" (Fair Isaac Corporation) credit score. These scores are continually updated by the agencies based upon an individual's credit actions (e.g., taking out a loan or missed or late payments).

The following tables provide details on the FICO scores attributable to Citi's U.S. consumer loan portfolio as of December 31, 2015 and 2014 (commercial market loans are not included in the table since they are business based and FICO scores are not a primary driver in their credit evaluation). FICO scores are updated monthly for substantially all of the portfolio or, otherwise, on a quarterly basis for the remaining portfolio.

<i>In millions of dollars</i>	FICO score distribution in U.S. portfolio <sup>(1)(2)</sup>		
	December 31, 2015		
	Less than 620	≥ 620 but less than 660	Equal to or greater than 660
Residential first mortgages	\$ 3,483	\$ 3,036	\$ 45,047
Home equity loans	2,067	1,782	17,837
Credit cards	7,341	10,072	93,194
Installment and other	337	270	2,662
<b>Total</b>	<b>\$ 13,228</b>	<b>\$ 15,160</b>	<b>\$ 158,740</b>

- (1) Excludes loans guaranteed by U.S. government entities, loans subject to long-term standby commitments (LTSCs) with U.S. government-sponsored entities and loans recorded at fair value.
- (2) Excludes balances where FICO was not available. Such amounts are not material.



<b>FICO score distribution in U.S. portfolio<sup>(1)(2)</sup></b>		December 31, 2014		
<i>In millions of dollars</i>	Less than 620	≥ 620 but less than 660	Equal to or greater than 660	
Residential first mortgages	\$ 8,911	\$ 5,463	\$ 45,783	
Home equity loans	3,257	2,456	20,957	
Credit cards	7,647	10,296	92,877	
Installment and other	4,015	2,520	5,150	
<b>Total</b>	<b>\$ 23,830</b>	<b>\$ 20,735</b>	<b>\$ 164,767</b>	

- (1) Excludes loans guaranteed by U.S. government entities, loans subject to LTSCs with U.S. government-sponsored entities and loans recorded at fair value.
- (2) Excludes balances where FICO was not available. Such amounts are not material.

#### *Loan to Value (LTV) Ratios*

LTV ratios (loan balance divided by appraised value) are calculated at origination and updated by applying market price data.

The following tables provide details on the LTV ratios attributable to Citi's U.S. consumer mortgage portfolios. LTV ratios are updated monthly using the most recent Core Logic Home Price Index data available for substantially all of the portfolio applied at the Metropolitan Statistical Area level, if available, or the state level if not. The remainder of the portfolio is updated in a similar manner using the Federal Housing Finance Agency indices.

<b>LTV distribution in U.S. portfolio<sup>(1)(2)</sup></b>		December 31, 2015		
<i>In millions of dollars</i>	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	
Residential first mortgages	\$ 46,559	\$ 4,478	\$ 626	
Home equity loans	13,904	5,147	2,527	
<b>Total</b>	<b>\$ 60,463</b>	<b>\$ 9,625</b>	<b>\$ 3,153</b>	

- (1) Excludes loans guaranteed by U.S. government entities, loans subject to LTSCs with U.S. government-sponsored entities and loans recorded at fair value.
- (2) Excludes balances where LTV was not available. Such amounts are not material.

<b>LTV distribution in U.S. portfolio<sup>(1)(2)</sup></b>		December 31, 2014		
<i>In millions of dollars</i>	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%	
Residential first mortgages	\$ 48,163	\$ 9,480	\$ 2,670	
Home equity loans	14,638	7,267	4,641	
<b>Total</b>	<b>\$ 62,801</b>	<b>\$ 16,747</b>	<b>\$ 7,311</b>	

- (1) Excludes loans guaranteed by U.S. government entities, loans subject to LTSCs with U.S. government-sponsored entities and loans recorded at fair value.
- (2) Excludes balances where LTV was not available. Such amounts are not material.

#### **Impaired Consumer Loans**

Impaired loans are those loans where Citigroup believes it is probable all amounts due according to the original contractual terms of the loan will not be collected. Impaired consumer loans include non-accrual commercial market loans, as well as smaller-balance homogeneous loans whose terms have been modified due to the borrower's financial difficulties and where Citigroup has granted a concession to the borrower. These modifications may include interest rate reductions and/or principal forgiveness. Impaired consumer loans exclude smaller-balance homogeneous loans that have not been modified and are carried on a non-accrual basis.

The following tables present information about total impaired consumer loans and for interest income recognized on impaired consumer loans:

<i>In millions of dollars</i>	At and for the year ended December 31, 2015				
	Recorded investment <sup>(1)(2)</sup>	Unpaid principal balance	Related specific allowance <sup>(3)</sup>	Average carrying value <sup>(4)</sup>	Interest income recognized <sup>(5)</sup>
Mortgage and real estate					
Residential first mortgages	\$ 6,038	\$ 6,610	\$ 739	\$ 8,932	\$ 439
Home equity loans	1,399	1,972	406	1,778	64
Credit cards	1,950	1,986	604	2,079	179
Installment and other					
Individual installment and other	464	519	197	449	33
Commercial market loans	339	567	100	361	13
<b>Total</b>	<b>\$ 10,190</b>	<b>\$ 11,654</b>	<b>\$ 2,046</b>	<b>\$ 13,599</b>	<b>\$ 728</b>

- (1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount and direct write-downs and includes accrued interest only on credit card loans.
- (2) \$1,151 million of residential first mortgages, \$459 million of home equity loans and \$86 million of commercial market loans do not have a specific allowance.
- (3) Included in the *Allowance for loan losses*.
- (4) Average carrying value represents the average recorded investment ending balance for the last four quarters and does not include the related specific allowance.
- (5) Includes amounts recognized on both an accrual and cash basis.

<i>In millions of dollars</i>	At and for the year ended December 31, 2014				
	Recorded investment <sup>(1)(2)</sup>	Unpaid principal balance	Related specific allowance <sup>(3)</sup>	Average carrying value <sup>(4)</sup>	Interest income recognized <sup>(5)(6)</sup>
Mortgage and real estate					
Residential first mortgages	\$ 13,551	\$ 14,387	\$ 1,920	\$ 15,389	\$ 690
Home equity loans	2,029	2,674	602	2,075	74
Credit cards	2,407	2,447	877	2,732	196
Installment and other					
Individual installment and other	948	963	424	975	124
Commercial market loans	411	579	88	368	22
<b>Total</b>	<b>\$ 19,346</b>	<b>\$ 21,050</b>	<b>\$ 3,911</b>	<b>\$ 21,539</b>	<b>\$ 1,106</b>

- (1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount and direct write-downs and includes accrued interest only on credit card loans.
- (2) \$1,896 million of residential first mortgages, \$554 million of home equity loans and \$158 million of commercial market loans do not have a specific allowance.
- (3) Included in the *Allowance for loan losses*.
- (4) Average carrying value represents the average recorded investment ending balance for the last four quarters and does not include the related specific allowance.
- (5) Includes amounts recognized on both an accrual and cash basis.
- (6) Interest income recognized for the year ended December 31, 2013 was \$1,280 million.

## Consumer Troubled Debt Restructurings

The following tables present consumer TDRs occurring:

At and for the year ended December 31, 2015

<i>In millions of dollars except number of loans modified</i>	Number of loans modified	Post-modification recorded investment <sup>(1)(2)</sup>	Deferred principal <sup>(3)</sup>	Contingent principal forgiveness <sup>(4)</sup>	Principal forgiveness <sup>(5)</sup>	Average interest rate reduction
<b>North America</b>						
Residential first mortgages	9,487	\$ 1,282	\$ 9	\$ 4	\$ 25	1%
Home equity loans	4,317	157	1	—	3	2
Credit cards	188,502	771	—	—	—	16
Installment and other revolving	4,287	37	—	—	—	13
Commercial markets <sup>(6)</sup>	300	47	—	—	—	—
<b>Total<sup>(8)</sup></b>	<b>206,893</b>	<b>\$ 2,294</b>	<b>\$ 10</b>	<b>\$ 4</b>	<b>\$ 28</b>	
<b>International</b>						
Residential first mortgages	3,918	\$ 104	\$ —	\$ —	\$ —	—%
Credit cards	142,851	374	—	—	7	13
Installment and other revolving	65,895	280	—	—	5	5
Commercial markets <sup>(6)</sup>	239	87	—	—	—	1
<b>Total<sup>(8)</sup></b>	<b>212,903</b>	<b>\$ 845</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 12</b>	

At and for the year ended December 31, 2014

<i>In millions of dollars except number of loans modified</i>	Number of loans modified	Post-modification recorded investment <sup>(1)(7)</sup>	Deferred principal <sup>(3)</sup>	Contingent principal forgiveness <sup>(4)</sup>	Principal forgiveness <sup>(5)</sup>	Average interest rate reduction
<b>North America</b>						
Residential first mortgages	20,114	\$ 2,478	\$ 52	\$ 36	\$ 16	1%
Home equity loans	7,444	279	3	—	14	2
Credit cards	185,962	808	—	—	—	15
Installment and other revolving	46,838	351	—	—	—	7
Commercial markets <sup>(6)</sup>	191	35	—	—	1	—
<b>Total<sup>(8)</sup></b>	<b>260,549</b>	<b>\$ 3,951</b>	<b>\$ 55</b>	<b>\$ 36</b>	<b>\$ 31</b>	
<b>International</b>						
Residential first mortgages	3,217	\$ 114	\$ —	\$ —	\$ 1	1%
Credit cards	139,128	447	—	—	9	13
Installment and other revolving	61,563	292	—	—	7	9
Commercial markets <sup>(6)</sup>	346	200	—	—	—	—
<b>Total<sup>(8)</sup></b>	<b>204,254</b>	<b>\$ 1,053</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 17</b>	

- (1) Post-modification balances include past due amounts that are capitalized at the modification date.
- (2) Post-modification balances in *North America* include \$209 million of residential first mortgages and \$55 million of home equity loans to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2015. These amounts include \$126 million of residential first mortgages and \$47 million of home equity loans that were newly classified as TDRs during 2015, based on previously received OCC guidance.
- (3) Represents portion of contractual loan principal that is non-interest bearing but still due from the borrower. Such deferred principal is charged off at the time of permanent modification to the extent that the related loan balance exceeds the underlying collateral value.
- (4) Represents portion of contractual loan principal that is non-interest bearing and, depending upon borrower performance, eligible for forgiveness.
- (5) Represents portion of contractual loan principal that was forgiven at the time of permanent modification.
- (6) Commercial markets loans are generally borrower-specific modifications and incorporate changes in the amount and/or timing of principal and/or interest.
- (7) Post-modification balances in *North America* include \$322 million of residential first mortgages and \$80 million of home equity loans to borrowers who have gone through Chapter 7 bankruptcy in the year ended December 31, 2014. These amounts include \$179 million of residential first mortgages and \$69 million of home equity loans that were newly classified as TDRs during 2014, based on previously received OCC guidance.
- (8) The above tables reflect activity for loans outstanding as of the end of the reporting period that were considered TDRs.

The following table presents consumer TDRs that defaulted for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due, except for classifiably managed commercial markets loans, where default is defined as 90 days past due.

<i>In millions of dollars</i>	<b>2015</b>	<b>2014</b>
<b>North America</b>		
Residential first mortgages	\$ 420	\$ 715
Home equity loans	38	72
Credit cards	187	194
Installment and other revolving	8	95
Commercial markets	9	9
<b>Total</b>	<b>\$ 662</b>	<b>\$ 1,085</b>
<b>International</b>		
Residential first mortgages	\$ 22	\$ 24
Credit cards	141	217
Installment and other revolving	88	104
Commercial markets	28	105
<b>Total</b>	<b>\$ 279</b>	<b>\$ 450</b>

## Corporate Loans

Corporate loans represent loans and leases managed by ICG. The following table presents information by corporate loan type:

<i>In millions of dollars</i>	<b>December 31, 2015</b>	December 31, 2014
<b>In U.S. offices</b>		
Commercial and industrial	\$ 41,147	\$ 35,055
Financial institutions	36,396	36,272
Mortgage and real estate <sup>(1)</sup>	37,565	32,537
Installment, revolving credit and other	33,374	29,207
Lease financing	1,780	1,758
	<b>\$ 150,262</b>	<b>\$ 134,829</b>
<b>In offices outside the U.S.</b>		
Commercial and industrial	\$ 82,358	\$ 83,206
Financial institutions	28,704	33,269
Mortgage and real estate <sup>(1)</sup>	5,106	6,031
Installment, revolving credit and other	20,853	19,259
Lease financing	303	419
Governments and official institutions	4,911	2,236
	<b>\$ 142,235</b>	<b>\$ 144,420</b>
<b>Total corporate loans</b>	<b>\$ 292,497</b>	<b>\$ 279,249</b>
Net unearned income	(665)	(557)
<b>Corporate loans, net of unearned income</b>	<b>\$ 291,832</b>	<b>\$ 278,692</b>

(1) Loans secured primarily by real estate.

The Company sold and/or reclassified to held-for-sale \$2.8 billion and \$4.8 billion of corporate loans during the years ended December 31, 2015 and 2014, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the years ended December 31, 2015 or 2014.

### *Delinquency Status*

Citi generally does not manage corporate loans on a delinquency basis. Corporate loans are identified as impaired and placed on a cash (non-accrual) basis when it is determined, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful or when interest or principal is 90 days past due, except when the loan is well collateralized and in the process of collection. Any interest accrued on impaired corporate loans and leases is reversed at 90 days and charged against current earnings, and interest is thereafter included in earnings only to the extent actually received in cash. When there is doubt regarding the ultimate collectability of principal, all cash receipts are thereafter applied to reduce the recorded investment in the loan. While corporate loans are generally managed based on their internally assigned risk rating (see further discussion below), the following tables present delinquency information by corporate loan type.

## Corporate Loan Delinquency and Non-Accrual Details at December 31, 2015

<i>In millions of dollars</i>	30–89 days past due and accruing <sup>(1)</sup>	≥ 90 days past due and accruing <sup>(1)</sup>	Total past due and accruing	Total non-accrual <sup>(2)</sup>	Total current <sup>(3)</sup>	Total loans <sup>(4)</sup>
Commercial and industrial	\$ 87	\$ 4	\$ 91	\$ 1,071	\$ 118,465	\$ 119,627
Financial institutions	16	—	16	173	64,128	64,317
Mortgage and real estate	137	7	144	232	42,095	42,471
Leases	—	—	—	76	2,006	2,082
Other	29	—	29	44	58,286	58,359
Loans at fair value						4,971
Purchased distressed loans						5
<b>Total</b>	<b>\$ 269</b>	<b>\$ 11</b>	<b>\$ 280</b>	<b>\$ 1,596</b>	<b>\$ 284,980</b>	<b>\$ 291,832</b>

## Corporate Loan Delinquency and Non-Accrual Details at December 31, 2014

<i>In millions of dollars</i>	30–89 days past due and accruing <sup>(1)</sup>	≥ 90 days past due and accruing <sup>(1)</sup>	Total past due and accruing	Total non-accrual <sup>(2)</sup>	Total current <sup>(3)</sup>	Total loans <sup>(4)</sup>
Commercial and industrial	\$ 50	\$ —	\$ 50	\$ 594	\$ 113,709	\$ 114,353
Financial institutions	2	—	2	250	67,580	67,832
Mortgage and real estate	86	—	86	252	38,135	38,473
Leases	—	—	—	51	2,125	2,176
Other	49	1	50	55	49,844	49,949
Loans at fair value						5,858
Purchased distressed loans						51
<b>Total</b>	<b>\$ 187</b>	<b>\$ 1</b>	<b>\$ 188</b>	<b>\$ 1,202</b>	<b>\$ 271,393</b>	<b>\$ 278,692</b>

- (1) Corporate loans that are 90 days past due are generally classified as non-accrual. Corporate loans are considered past due when principal or interest is contractually due but unpaid.
- (2) Non-accrual loans generally include those loans that are ≥ 90 days past due or those loans for which Citi believes, based on actual experience and a forward-looking assessment of the collectability of the loan in full, that the payment of interest or principal is doubtful.
- (3) Corporate loans are past due when principal or interest is contractually due but unpaid. Loans less than 30 days past due are presented as current.
- (4) Total loans include loans at fair value, which are not included in the various delinquency columns.

Citigroup has a risk management process to monitor, evaluate and manage the principal risks associated with its corporate loan portfolio. As part of its risk management process, Citi assigns numeric risk ratings to its corporate loan facilities based on quantitative and qualitative assessments of the obligor and facility. These risk ratings are reviewed at least annually or more often if material events related to the obligor or facility warrant. Factors considered in assigning the risk ratings include financial condition of the obligor, qualitative assessment of management and strategy, amount and sources of repayment, amount and type of collateral and guarantee arrangements, amount and type of any contingencies associated with the obligor, and the obligor's industry and geography.

The obligor risk ratings are defined by ranges of default probabilities. The facility risk ratings are defined by ranges of loss norms, which are the product of the probability of default and the loss given default. The investment grade rating categories are similar to the category BBB-/Baa3 and above as defined by S&P and Moody's. Loans classified according to the bank regulatory definitions as special mention, substandard and doubtful will have risk ratings within the non-investment grade categories.

## Corporate Loans Credit Quality Indicators

<i>In millions of dollars</i>	<b>Recorded investment in loans<sup>(1)</sup></b>	
	<b>December 31, 2015</b>	<b>December 31, 2014</b>
<b>Investment grade<sup>(2)</sup></b>		
Commercial and industrial	\$ 85,828	\$ 84,757
Financial institutions	53,522	56,154
Mortgage and real estate	18,869	16,068
Leases	1,725	1,732
Other	51,449	46,284
<b>Total investment grade</b>	<b>\$ 211,393</b>	<b>\$ 204,995</b>
<b>Non-investment grade<sup>(2)</sup></b>		
<i>Accrual</i>		
Commercial and industrial	\$ 32,726	\$ 29,003
Financial institutions	10,622	11,429
Mortgage and real estate	2,800	3,587
Leases	282	393
Other	6,867	3,609
<i>Non-accrual</i>		
Commercial and industrial	1,071	594
Financial institutions	173	250
Mortgage and real estate	232	252
Leases	76	51
Other	44	55
<b>Total non-investment grade</b>	<b>\$ 54,893</b>	<b>\$ 49,223</b>
<b>Private bank loans managed on a delinquency basis<sup>(2)</sup></b>	<b>\$ 20,575</b>	<b>\$ 18,616</b>
<b>Loans at fair value</b>	<b>4,971</b>	<b>5,858</b>
<b>Corporate loans, net of unearned income</b>	<b>\$ 291,832</b>	<b>\$ 278,692</b>

- (1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.
- (2) Held-for-investment loans are accounted for on an amortized cost basis.

Impaired collateral-dependent loans and leases, where repayment is expected to be provided solely by the sale of the underlying collateral and there are no other available and reliable sources of repayment, are written down to the lower of cost or collateral value, less cost to sell. Cash-basis loans are returned to an accrual status when all contractual principal and interest amounts are reasonably assured of repayment and there is a sustained period of repayment performance, generally six months, in accordance with the contractual terms of the loan.

The following tables present non-accrual loan information by corporate loan type and interest income recognized on non-accrual corporate loans:

### Non-Accrual Corporate Loans

At and for the year ended December 31, 2015

<i>In millions of dollars</i>	Recorded investment <sup>(1)</sup>	Unpaid principal balance	Related specific allowance	Average carrying value <sup>(2)</sup>	Interest income recognized <sup>(3)</sup>
Non-accrual corporate loans					
Commercial and industrial	\$ 1,071	\$ 1,224	\$ 246	\$ 859	\$ 7
Financial institutions	173	196	10	194	—
Mortgage and real estate	232	336	21	240	4
Lease financing	76	76	54	62	—
Other	44	114	32	39	—
<b>Total non-accrual corporate loans</b>	<b>\$ 1,596</b>	<b>\$ 1,946</b>	<b>\$ 363</b>	<b>\$ 1,394</b>	<b>\$ 11</b>

At and for the year ended December 31, 2014

<i>In millions of dollars</i>	Recorded investment <sup>(1)</sup>	Unpaid principal balance	Related specific allowance	Average carrying value <sup>(2)</sup>	Interest income recognized <sup>(3)</sup>
Non-accrual corporate loans					
Commercial and industrial	\$ 594	\$ 863	\$ 155	\$ 685	\$ 32
Financial institutions	250	262	7	278	4
Mortgage and real estate	252	287	24	263	8
Lease financing	51	53	29	85	—
Other	55	68	21	60	3
<b>Total non-accrual corporate loans</b>	<b>\$ 1,202</b>	<b>\$ 1,533</b>	<b>\$ 236</b>	<b>\$ 1,371</b>	<b>\$ 47</b>

<i>In millions of dollars</i>	December 31, 2015		December 31, 2014	
	Recorded investment <sup>(1)</sup>	Related specific allowance	Recorded investment <sup>(1)</sup>	Related specific allowance
Non-accrual corporate loans with valuation allowances				
Commercial and industrial	\$ 571	\$ 246	\$ 243	\$ 155
Financial institutions	18	10	37	7
Mortgage and real estate	60	21	70	24
Lease financing	75	54	47	29
Other	40	32	55	21
<b>Total non-accrual corporate loans with specific allowance</b>	<b>\$ 764</b>	<b>\$ 363</b>	<b>\$ 452</b>	<b>\$ 236</b>
Non-accrual corporate loans without specific allowance				
Commercial and industrial	\$ 500		\$ 351	
Financial institutions	155		213	
Mortgage and real estate	172		182	
Lease financing	1		4	
Other	4		—	
<b>Total non-accrual corporate loans without specific allowance</b>	<b>\$ 832</b>	<b>N/A</b>	<b>\$ 750</b>	<b>N/A</b>

(1) Recorded investment in a loan includes net deferred loan fees and costs, unamortized premium or discount, less any direct write-downs.

(2) Average carrying value represents the average recorded investment balance and does not include related specific allowance.

(3) Interest income recognized for the year ended December 31, 2013 was \$43 million.

N/A Not Applicable



## Corporate Troubled Debt Restructurings

The following table presents corporate TDR activity at and for the year ended December 31, 2015:

<i>In millions of dollars</i>	Carrying Value	TDRs involving changes in the amount and/or timing of principal payments <sup>(1)</sup>	TDRs involving changes in the amount and/or timing of interest payments <sup>(2)</sup>	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	\$ 120	\$ 67	\$ —	\$ 53
Mortgage and real estate	47	3	—	44
<b>Total</b>	<b>\$ 167</b>	<b>\$ 70</b>	<b>\$ —</b>	<b>\$ 97</b>

- (1) TDRs involving changes in the amount or timing of principal payments may involve principal forgiveness or deferral of periodic and/or final principal payments. Because forgiveness of principal is rare for commercial loans, modifications typically have little to no impact on the loans' projected cash flows and thus little to no impact on the allowance established for the loans. Charge-offs for amounts deemed uncollectable may be recorded at the time of the restructuring or may have already been recorded in prior periods such that no charge-off is required at the time of the modification.
- (2) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.

The following table presents corporate TDR activity at and for the year ended December 31, 2014:

<i>In millions of dollars</i>	Carrying Value	TDRs involving changes in the amount and/or timing of principal payments <sup>(1)</sup>	TDRs involving changes in the amount and/or timing of interest payments <sup>(2)</sup>	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	\$ 48	\$ 30	\$ 17	\$ 1
Mortgage and real estate	8	5	1	2
<b>Total</b>	<b>\$ 56</b>	<b>\$ 35</b>	<b>\$ 18</b>	<b>\$ 3</b>

- (1) TDRs involving changes in the amount or timing of principal payments may involve principal forgiveness or deferral of periodic and/or final principal payments. Because forgiveness of principal is rare for commercial loans, modifications typically have little to no impact on the loans' projected cash flows and thus little to no impact on the allowance established for the loans. Charge-offs for amounts deemed uncollectable may be recorded at the time of the restructuring or may have already been recorded in prior periods such that no charge-off is required at the time of the modification.
- (2) TDRs involving changes in the amount or timing of interest payments may involve a below-market interest rate.

The following table presents total corporate loans modified in a TDR as well as those TDRs that defaulted and for which the payment default occurred within one year of a permanent modification. Default is defined as 60 days past due, except for classifiably managed commercial markets loans, where default is defined as 90 days past due.

<i>In millions of dollars</i>	TDR balances at December 31, 2015	TDR loans in payment default during the year ended December 31, 2015	TDR balances at December 31, 2014	TDR loans in payment default during the year ended December 31, 2014
Commercial and industrial	\$ 135	\$ —	\$ 117	\$ —
Loans to financial institutions	5	1	—	—
Mortgage and real estate	138	—	107	—
Other	308	—	355	—
<b>Total<sup>(1)</sup></b>	<b>\$ 586</b>	<b>\$ 1</b>	<b>\$ 579</b>	<b>\$ —</b>

- (1) The above tables reflect activity for loans outstanding as of the end of the reporting period that were considered TDRs.

### Purchased Distressed Loans

Included in the corporate and consumer loans outstanding tables above are purchased distressed loans, which are loans that have evidenced significant credit deterioration subsequent to origination but prior to acquisition by Citigroup. In accordance with ASC 310-30, the difference between the total expected cash flows for these loans and the initial recorded investment is recognized in income over the life of the loans using a level yield. Accordingly, these loans have been excluded from the impaired loan table information presented above. In addition, per ASC 310-30, subsequent decreases in the expected cash flows for a purchased distressed loan require a build of an allowance so the loan

retains its level yield. However, increases in the expected cash flows are first recognized as a reduction of any previously established allowance and then recognized as income prospectively over the remaining life of the loan by increasing the loan's level yield. Where the expected cash flows cannot be reliably estimated, the purchased distressed loan is accounted for under the cost recovery method. The carrying amount of the Company's purchased distressed loan portfolio was \$234 million and \$361 million, net of an allowance of \$16 million and \$60 million, at December 31, 2015 and 2014, respectively.

The changes in the accretable yield, related allowance and carrying amount net of accretable yield were as follows:

<i>In millions of dollars</i>		Accretable yield		Carrying amount of loan receivable		Allowance
Balance at December 31, 2013	\$	107	\$	703	\$	113
Purchases <sup>(1)</sup>	\$	1	\$	46	\$	—
Disposals/payments received		(6)		(307)		(15)
Accretion		(24)		24		—
Builds (reductions) to the allowance		(36)		—		(27)
Increase to expected cash flows		23		—		—
FX translation/other		(9)		(45)		(11)
Balance at December 31, 2014 <sup>(2)</sup>	\$	56	\$	421	\$	60
Purchases <sup>(1)</sup>	\$	3	\$	54	\$	—
Disposals/payments received		(5)		(162)		(9)
Accretion		(13)		13		—
Builds (reductions) to the allowance		—		—		9
Increase to expected cash flows		1		—		—
FX translation/other		(9)		(76)		(44)
<b>Balance at December 31, 2015<sup>(2)</sup></b>	<b>\$</b>	<b>33</b>	<b>\$</b>	<b>250</b>	<b>\$</b>	<b>16</b>

- (1) The balance reported in the column "Carrying amount of loan receivable" consists of \$54 million and \$46 million in 2015 and 2014, respectively, of purchased loans accounted for under the level-yield method. No purchased loans were accounted for under the cost-recovery method. These balances represent the fair value of these loans at their acquisition date. The related total expected cash flows for the level-yield loans at their acquisition dates were \$56 million and \$46 million in 2015 and 2014, respectively.
- (2) The balance reported in the column "Carrying amount of loan receivable" consists of \$245 million and \$413 million of loans accounted for under the level-yield method and \$5 million and \$8 million accounted for under the cost-recovery method in 2015 and 2014, respectively.

## 16. ALLOWANCE FOR CREDIT LOSSES

<i>In millions of dollars</i>	2015	2014	2013
<b>Allowance for loan losses at beginning of period</b>	\$ 15,994	\$ 19,648	\$ 25,455
Gross credit losses	(9,041)	(11,108)	(12,769)
Gross recoveries <sup>(1)</sup>	1,739	2,135	2,306
<b>Net credit losses (NCLs)</b>	\$ (7,302)	\$ (8,973)	\$ (10,463)
NCLs	\$ 7,302	\$ 8,973	\$ 10,463
Net reserve builds (releases)	139	(1,879)	(1,961)
Net specific reserve releases	(333)	(266)	(898)
<b>Total provision for loan losses</b>	\$ 7,108	\$ 6,828	\$ 7,604
Other, net <sup>(2)(3)</sup>	(3,174)	(1,509)	(2,948)
<b>Allowance for loan losses at end of period</b>	\$ 12,626	\$ 15,994	\$ 19,648
<b>Allowance for credit losses on unfunded lending commitments at beginning of period</b>	\$ 1,063	\$ 1,229	\$ 1,119
Provision (release) for unfunded lending commitments	74	(162)	80
Other, net <sup>(3)</sup>	265	(4)	30
<b>Allowance for credit losses on unfunded lending commitments at end of period<sup>(4)</sup></b>	\$ 1,402	\$ 1,063	\$ 1,229
<b>Total allowance for loans, leases, and unfunded lending commitments</b>	\$ 14,028	\$ 17,057	\$ 20,877

(1) Recoveries have been reduced by certain collection costs that are incurred only if collection efforts are successful.

(2) 2015 includes reductions of approximately \$2.4 billion related to the sale or transfer to held-for-sale (HFS) of various loan portfolios, including approximately \$1.5 billion related to the transfer of various real estate loan portfolios to HFS. Additionally, 2015 includes a reduction of approximately \$474 million related to FX translation. 2014 includes reductions of approximately \$1.1 billion related to the sale or transfer to HFS of various loan portfolios, including approximately \$411 million related to the transfer of various real estate loan portfolios to HFS, approximately \$204 million related to the transfer to HFS of a business in Greece, approximately \$177 million related to the transfer to HFS of a business in Spain, approximately \$29 million related to the transfer to HFS of a business in Honduras, and approximately \$108 million related to the transfer to HFS of various *EMEA* loan portfolios. Additionally, 2014 includes a reduction of approximately \$463 million related to FX translation. 2013 includes reductions of approximately \$2.4 billion related to the sale or transfer to HFS of various loan portfolios, including approximately \$360 million related to the sale of Credicard and approximately \$255 million related to a transfer to HFS of a loan portfolio in Greece, approximately \$230 million related to a non-provision transfer of reserves associated with deferred interest to other assets which includes deferred interest and approximately \$220 million related to FX translation.

(3) 2015 includes a reclassification of \$271 million of Allowance for Loan Losses to Allowance for Unfunded Lending Commitments, included in Other, net. This reclassification reflects the re-attribution of \$271 million in Allowances for Credit Losses between the funded and unfunded portions of the corporate credit portfolios and does not reflect a change in the underlying credit performance of these portfolios.

(4) Represents additional credit loss reserves for unfunded lending commitments and letters of credit recorded in *Other liabilities* on the Consolidated Balance Sheet.

## Allowance for Credit Losses and Investment in Loans at December 31, 2015

*In millions of dollars*

	Corporate	Consumer	Total
Allowance for loan losses at beginning of period	\$ 2,447	\$ 13,547	\$ 15,994
Charge-offs	(349)	(8,692)	(9,041)
Recoveries	105	1,634	1,739
Replenishment of net charge-offs	244	7,058	7,302
Net reserve builds (releases)	550	(411)	139
Net specific reserve builds (releases)	86	(419)	(333)
Other	(292)	(2,882)	(3,174)
<b>Ending balance</b>	<b>\$ 2,791</b>	<b>\$ 9,835</b>	<b>\$ 12,626</b>
Allowance for loan losses			
Determined in accordance with ASC 450	\$ 2,408	\$ 7,776	\$ 10,184
Determined in accordance with ASC 310-10-35	380	2,046	2,426
Determined in accordance with ASC 310-30	3	13	16
<b>Total allowance for loan losses</b>	<b>\$ 2,791</b>	<b>\$ 9,835</b>	<b>\$ 12,626</b>
Loans, net of unearned income			
Loans collectively evaluated for impairment in accordance with ASC 450	\$ 285,053	\$ 315,316	\$ 600,369
Loans individually evaluated for impairment in accordance with ASC 310-10-35	1,803	10,190	11,993
Loans acquired with deteriorated credit quality in accordance with ASC 310-30	5	245	250
Loans held at fair value	4,971	34	5,005
<b>Total loans, net of unearned income</b>	<b>\$ 291,832</b>	<b>\$ 325,785</b>	<b>\$ 617,617</b>

## Allowance for Credit Losses and Investment in Loans at December 31, 2014

*In millions of dollars*

	Corporate	Consumer	Total
Allowance for loan losses at beginning of period	\$ 2,674	\$ 16,974	\$ 19,648
Charge-offs	(458)	(10,650)	(11,108)
Recoveries	160	1,975	2,135
Replenishment of net charge-offs	298	8,675	8,973
Net reserve releases	(145)	(1,734)	(1,879)
Net specific reserve releases	(20)	(246)	(266)
Other	(62)	(1,447)	(1,509)
<b>Ending balance</b>	<b>\$ 2,447</b>	<b>\$ 13,547</b>	<b>\$ 15,994</b>
Allowance for loan losses			
Determined in accordance with ASC 450	\$ 2,162	\$ 9,621	\$ 11,783
Determined in accordance with ASC 310-10-35	241	3,911	4,152
Determined in accordance with ASC 310-30	44	15	59
<b>Total allowance for loan losses</b>	<b>\$ 2,447</b>	<b>\$ 13,547</b>	<b>\$ 15,994</b>
Loans, net of unearned income			
Loans collectively evaluated for impairment in accordance with ASC 450	\$ 271,284	\$ 346,184	\$ 617,468
Loans individually evaluated for impairment in accordance with ASC 310-10-35	1,499	19,346	20,845
Loans acquired with deteriorated credit quality in accordance with ASC 310-30	51	370	421
Loans held at fair value	5,858	43	5,901
<b>Total loans, net of unearned income</b>	<b>\$ 278,692</b>	<b>\$ 365,943</b>	<b>\$ 644,635</b>

**Allowance for Credit Losses at December 31, 2013**

<i>In millions of dollars</i>	Corporate	Consumer	Total
Allowance for loan losses at beginning of period	\$ 2,870	\$ 22,585	\$ 25,455
Charge-offs	(445)	(12,324)	(12,769)
Recoveries	225	2,081	2,306
Replenishment of net charge-offs	220	10,243	10,463
Net reserve releases	(202)	(1,759)	(1,961)
Net specific reserve releases	(1)	(897)	(898)
Other	7	(2,955)	(2,948)
<b>Ending balance</b>	<b>\$ 2,674</b>	<b>\$ 16,974</b>	<b>\$ 19,648</b>

## 17. GOODWILL AND INTANGIBLE ASSETS

### Goodwill

The changes in *Goodwill* were as follows:

*In millions of dollars*

Balance at December 31, 2012	\$	25,673
Foreign currency translation		(577)
Divestitures, purchase accounting adjustments and other <sup>(1)</sup>		(25)
Sale of Brazil Credicard		(62)
Balance at December 31, 2013	\$	25,009
Foreign currency translation and other	\$	(1,214)
Divestitures and purchase accounting adjustments <sup>(1)</sup>		(203)
Balance at December 31, 2014	\$	23,592
Foreign currency translation and other	\$	(1,000)
Impairment of goodwill		(31)
Divestitures <sup>(2)</sup>		(212)
<b>Balance at December 31, 2015</b>	<b>\$</b>	<b>22,349</b>

The changes in *Goodwill* by segment were as follows:

<i>In millions of dollars</i>	Global Consumer Banking	Institutional Clients Group	Citi Holdings	Total
Balance at December 31, 2013	\$ 13,985	\$ 10,868	\$ 156	\$ 25,009
Foreign currency translation and other	(505)	(711)	2	(1,214)
Divestitures and purchase accounting adjustments <sup>(1)</sup>	(86)	(1)	(116)	(203)
Intersegment transfers in/(out) <sup>(3)</sup>	(177)	—	177	—
Balance at December 31, 2014	\$ 13,217	\$ 10,156	\$ 219	\$ 23,592
Foreign currency translation and other	(355)	(644)	(1)	(1,000)
Impairment of goodwill	—	—	(31)	(31)
Divestitures <sup>(2)</sup>	(24)	(1)	(187)	(212)
Intersegment transfers in (out) <sup>(4)</sup>	(106)	34	72	—
<b>Balance at December 31, 2015</b>	<b>\$ 12,732</b>	<b>\$ 9,545</b>	<b>\$ 72</b>	<b>\$ 22,349</b>

- (1) Primarily related to the sales of the Spain consumer operations and the Japan retail banking business. See Note 2 to the Consolidated Financial Statements.
- (2) Primarily related to the sales of the Latin America Retirement Services and Japan cards businesses completed during the year, and agreements to sell certain businesses in Citi Holdings as of December 31, 2015. See Note 2 to the Consolidated Financial Statements.
- (3) Goodwill allocation associated with the transfers of certain *GCB* businesses to Citi Holdings effective January 1, 2015.
- (4) Goodwill allocation associated with the transfers of *GCB* businesses to *ICG* and Citi Holdings effective January 1, 2016. See Note 3 to the Consolidated Financial Statements.

Goodwill impairment testing is performed at the level below each business segment (referred to as a reporting unit). The Company performed its annual goodwill impairment test as of July 1, 2015 resulting in no impairment for any of the reporting units. The reporting unit structure in 2015 was the same as the reporting unit structure in 2014, except for the effect of the January 1, 2015 and January 1, 2016 reorganization noted below and the sales involving the Citi Holdings—*Cards*, Latin America Retirement Services, and Citi Holdings—*Consumer Japan* reporting units during the third quarter of 2014 and second and fourth quarter of 2015, respectively.

Furthermore, interim goodwill impairment tests were performed during the year, which resulted in \$31 million of

total goodwill impairment recorded in *Operating expenses*, as discussed below. No goodwill was deemed impaired in 2014 and 2013.

Effective January 1, 2015, certain consumer banking and institutional businesses were transferred to Citi Holdings and aggregated to form five new reporting units: Citi Holdings—*Consumer EMEA*, Citi Holdings—*Consumer Latin America*, Citi Holdings—*Consumer Japan*, Citi Holdings—*Consumer Finance South Korea*, and Citi Holdings—*ICG*. Goodwill balances associated with the transfers were allocated to each of the component businesses based on their relative fair values to the legacy reporting units. An interim goodwill impairment test was performed as of January 1, 2015 under the legacy and new

reporting structures, which resulted in full impairment of the new Citi Holdings—*Consumer Finance South Korea* reporting unit's \$16 million of goodwill. Additionally, during the third quarter of 2015, Citi signed definitive agreements to sell most of its businesses reported in Citi Holdings—*Consumer Latin America* and allocated \$55 million of goodwill to these disposals, which are classified as held-for-sale. This resulted in full impairment of the remaining \$15 million of goodwill within the Citi Holdings—*Consumer Latin America* reporting unit.

During the first quarter of 2016, Citigroup announced its intention to exit its consumer businesses in Argentina, Brazil and Colombia. These businesses, which previously had been reported as part of *Latin America GCB*, are reported as part of Citi Holdings—*Consumer Latin America* beginning the first quarter of 2016. In addition, the other component businesses of *Latin America GCB*, except the Mexico consumer business, were either transferred to the *ICG* reporting units (Banking and Markets) or *North America GCB* reporting unit (International Personal Banking). Furthermore, the remaining businesses in *EMEA GCB*, except for the commercial business which was transferred to the *ICG*—Banking reporting unit, are reported under *Asia GCB*.

Goodwill balances associated with the transfers were allocated to each of the component businesses based on their relative fair values to the legacy reporting units. An interim goodwill impairment test was performed as of January 1, 2016 for the impacted reporting units resulting in no impairment under the legacy and current reporting unit structures. There were no other triggering events during the first quarter of 2016.

The fair values of the Company's reporting units substantially exceeded their carrying values and did not indicate a risk of impairment based on current valuations.

The following table shows reporting units with goodwill balances under the new reporting unit structures

effective January 1, 2016, as if they were already in existence at December 31, 2015. The fair value as a percentage of book value is based on the most recent impairment test.

*In millions of dollars*

Reporting unit <sup>(1)(2)</sup>	Fair value as a % of allocated book value	Goodwill
<i>North America Global Consumer Banking</i>	182%	\$ 6,751
<i>Asia Global Consumer Banking</i> <sup>(3)</sup>	237	4,775
<i>Latin America Global Consumer Banking</i> <sup>(4)</sup>	154	1,206
<i>Banking</i>	237	3,083
<i>Markets and Securities Services</i>	145	6,462
<i>Citi Holdings—Consumer Latin America</i>	222	72
<b>Total</b>		<b>\$ 22,349</b>

- (1) Citi Holdings—*Other* and Citi Holdings—*ICG* are excluded from the table as there is no goodwill allocated to them.
- (2) Citi Holdings—*Consumer EMEA*, Citi Holdings—*Consumer Latin America*, and Citi Holdings—*Consumer Finance South Korea* are excluded from the table as the allocated goodwill was either impaired or classified as held-for-sale as of December 31, 2015.
- (3) *Asia Global Consumer Banking* includes the consumer businesses in UK, Russia, Poland, UAE and Bahrain.
- (4) *Latin America Global Consumer Banking* contains only the consumer business in Mexico.

## Intangible Assets

The components of intangible assets were as follows:

<i>In millions of dollars</i>	December 31, 2015			December 31, 2014		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships	\$ 7,606	\$ 6,520	\$ 1,086	\$ 7,626	\$ 6,294	\$ 1,332
Core deposit intangibles	1,050	969	81	1,153	1,021	132
Other customer relationships	471	252	219	579	331	248
Present value of future profits	37	31	6	233	154	79
Indefinite-lived intangible assets	234	—	234	290	—	290
Other <sup>(1)</sup>	4,709	2,614	2,095	5,217	2,732	2,485
<b>Intangible assets (excluding MSR)</b>	<b>\$ 14,107</b>	<b>\$ 10,386</b>	<b>\$ 3,721</b>	<b>\$ 15,098</b>	<b>\$ 10,532</b>	<b>\$ 4,566</b>
Mortgage servicing rights (MSR) <sup>(2)</sup>	1,781	—	1,781	1,845	—	1,845
<b>Total intangible assets</b>	<b>\$ 15,888</b>	<b>\$ 10,386</b>	<b>\$ 5,502</b>	<b>\$ 16,943</b>	<b>\$ 10,532</b>	<b>\$ 6,411</b>

(1) Includes contract-related intangible assets.

(2) For additional information on Citi's MSRs, including the rollforward from 2014 to 2015, see Note 22 to the Consolidated Financial Statements.

Intangible assets amortization expense was \$625 million, \$756 million and \$808 million for 2015, 2014 and 2013, respectively. Intangible assets amortization expense is estimated to be \$528 million in 2016, \$840 million in 2017, \$348 million in 2018, \$334 million in 2019 and \$141 million in 2020.

The changes in intangible assets during the twelve months ended December 31, 2015 were as follows:

<i>In millions of dollars</i>	Net carrying amount at					FX translation and other	Net carrying amount at
	December 31, 2014	Acquisitions/divestitures	Amortization	Impairments	December 31, 2015		
Purchased credit card relationships	\$ 1,332	\$ —	\$ (261)	\$ —	\$ 15	\$ 1,086	
Core deposit intangibles	132	—	(41)	—	(10)	81	
Other customer relationships	248	—	(24)	—	(5)	219	
Present value of future profits	79	(68)	(4)	—	(1)	6	
Indefinite-lived intangible assets	290	—	—	(17)	(39)	234	
Other	2,485	(108)	(295)	(5)	18	2,095	
<b>Intangible assets (excluding MSR)</b>	<b>\$ 4,566</b>	<b>\$ (176)</b>	<b>\$ (625)</b>	<b>\$ (22)</b>	<b>\$ (22)</b>	<b>\$ 3,721</b>	
Mortgage servicing rights (MSR) <sup>(1)</sup>	1,845					1,781	
<b>Total intangible assets</b>	<b>\$ 6,411</b>					<b>\$ 5,502</b>	

(1) For additional information on Citi's MSRs, including the rollforward from 2014 to 2015, see Note 22 to the Consolidated Financial Statements.



## 18. DEBT

### Short-Term Borrowings

<i>In millions of dollars</i>	2015		2014	
	Balance	Weighted average coupon	Balance	Weighted average coupon
<b>Commercial paper</b>				
Citibank, N.A.	\$ 9,995	0.22%	\$ 16,085	0.22%
Non-bank and other <sup>(1)</sup>	—	—	70	0.95
<b>Total commercial paper</b>	<b>\$ 9,995</b>	<b>0.22%</b>	<b>\$ 16,155</b>	<b>0.23%</b>
<b>Other borrowings<sup>(2)</sup></b>	<b>11,084</b>	<b>1.50</b>	<b>42,180</b>	<b>0.53</b>
<b>Total</b>	<b>\$ 21,079</b>		<b>\$ 58,335</b>	

- (1) Includes parent holding company (Citigroup Inc.), Citi's broker-dealer subsidiaries and other non-bank subsidiaries that are consolidated into Citigroup Inc., as well as Banamex and Citibank (Switzerland) AG.
- (2) Includes borrowings from the Federal Home Loan Banks and other market participants. At December 31, 2014, collateralized short-term advances from the Federal Home Loan Banks were \$11.2 billion. At December 31, 2015, no amounts were outstanding.

Borrowings under bank lines of credit may be at interest rates based on LIBOR, CD rates, the prime rate or bids submitted by the banks. Citigroup pays commitment fees for its lines of credit.

Some of Citigroup's non-bank subsidiaries have credit facilities with Citigroup's subsidiary depository institutions, including Citibank. Borrowings under these facilities are secured in accordance with Section 23A of the Federal Reserve Act.

Citigroup Global Markets Holdings Inc. (CGMHI) has borrowing agreements consisting of facilities that CGMHI has been advised are available, but where no contractual lending obligation exists. These arrangements are reviewed on an ongoing basis to ensure flexibility in meeting CGMHI's short-term requirements.

### Long-Term Debt

<i>In millions of dollars</i>	Weighted average coupon	Maturities	Balances at December 31,	
			2015	2014
<b>Citigroup Inc.<sup>(1)</sup></b>				
Senior debt	3.84 %	2016-2098	\$ 113,569	\$ 122,323
Subordinated debt <sup>(2)</sup>	4.48	2016-2044	26,875	25,464
Trust preferred securities	6.90	2036-2067	1,713	1,725
<b>Bank<sup>(3)</sup></b>				
Senior debt	1.58	2016-2038	55,131	65,146
<b>Broker-dealer<sup>(4)</sup></b>				
Senior debt	3.25	2016-2042	3,968	8,399
Subordinated debt <sup>(2)</sup>	1.18	2016-2037	19	23
<b>Total</b>	<b>3.32%</b>		<b>\$ 201,275</b>	<b>\$ 223,080</b>
Senior debt			\$ 172,668	\$ 195,868
Subordinated debt <sup>(2)</sup>			26,894	25,487
Trust preferred securities			1,713	1,725
<b>Total</b>			<b>\$ 201,275</b>	<b>\$ 223,080</b>

- (1) Parent holding company, Citigroup Inc.
- (2) Includes notes that are subordinated within certain countries, regions or subsidiaries.
- (3) Represents Citibank entities as well as other bank entities. At December 31, 2015 and December 31, 2014, collateralized long-term advances from the Federal Home Loan Banks were \$17.8 billion and \$19.8 billion, respectively.
- (4) Represents broker-dealer subsidiaries that are consolidated into Citigroup Inc., the parent holding company.

The Company issues both fixed and variable rate debt in a range of currencies. It uses derivative contracts, primarily interest rate swaps, to effectively convert a portion of its fixed-rate debt to variable-rate debt and variable-rate debt to fixed-rate debt. The maturity structure of the derivatives generally corresponds to the maturity structure of the debt being hedged. In addition, the Company uses other derivative contracts to manage the foreign exchange impact of certain debt issuances. At December 31, 2015, the Company's overall weighted average interest rate for long-term debt was 3.32% on a contractual basis and 2.55% including the effects of derivative contracts.

Aggregate annual maturities of long-term debt obligations (based on final maturity dates) including trust preferred securities are as follows:

<i>In millions of dollars</i>	2016	2017	2018	2019	2020	Thereafter	Total
Bank	\$ 24,577	\$ 14,614	\$ 9,341	\$ 2,280	\$ 448	\$ 3,871	\$ 55,131
Broker-dealer	951	294	806	640	103	1,193	3,987
Citigroup Inc.	18,009	19,437	21,269	16,233	8,826	58,383	142,157
<b>Total</b>	<b>\$ 43,537</b>	<b>\$ 34,345</b>	<b>\$ 31,416</b>	<b>\$ 19,153</b>	<b>\$ 9,377</b>	<b>\$ 63,447</b>	<b>\$ 201,275</b>

The following table summarizes the Company's outstanding trust preferred securities at December 31, 2015:

Trust	Issuance date	Securities issued	Liquidation value <sup>(1)</sup>	Coupon rate <sup>(2)</sup>	Common shares issued to parent	Junior subordinated debentures owned by trust			
						Amount	Maturity	Redeemable by issuer beginning	
<i>In millions of dollars, except share amounts</i>									
Citigroup Capital III	Dec. 1996	194,053	\$ 194	7.625%	6,003	\$ 200	Dec. 1, 2036	Not redeemable	
Citigroup Capital XIII	Sept. 2010	89,840,000	2,246	7.875	1,000	2,246	Oct. 30, 2040	Oct. 30, 2015	
Citigroup Capital XVIII	June 2007	99,901	148	6.829	50	148	June 28, 2067	June 28, 2017	
<b>Total obligated</b>			<b>\$ 2,588</b>			<b>\$ 2,594</b>			

Note: Distributions on the trust preferred securities and interest on the subordinated debentures are payable semiannually for Citigroup Capital III and Citigroup Capital XVIII and quarterly for Citigroup Capital XIII.

(1) Represents the notional value received by investors from the trusts at the time of issuance.

(2) In each case, the coupon rate on the subordinated debentures is the same as that on the trust preferred securities.

## 19. REGULATORY CAPITAL

Citigroup is subject to risk-based capital and leverage standards issued by the Federal Reserve Board. Citi's U.S. insured depository institution subsidiaries, including Citibank, are subject to similar standards issued by their respective primary federal bank regulatory agencies. These standards are used to evaluate capital adequacy and include the required minimums shown in the following table. The regulatory agencies are required by law to take specific prompt actions

with respect to institutions that do not meet minimum capital standards.

The following table sets forth Citigroup's and Citibank's regulatory capital tiers, total risk-weighted assets, quarterly adjusted average total assets, Total Leverage Exposure, risk-based capital ratios and leverage ratios in accordance with current regulatory standards (reflecting Basel III Transition Arrangements):

	Citigroup			Citibank	
	Stated minimum	Well capitalized minimum	December 31, 2015	Well capitalized minimum <sup>(1)</sup>	December 31, 2015
<i>In millions of dollars, except ratios</i>					
Common Equity Tier 1 Capital			\$ 173,862	\$	126,496
Tier 1 Capital			176,420		126,496
Total Capital (Tier 1 Capital + Tier 2 Capital)			198,746		148,916
Total risk-weighted assets			1,190,853		998,181
Quarterly adjusted average total assets <sup>(2)</sup>			1,732,933		1,297,733
Total Leverage Exposure <sup>(3)</sup>			2,326,072		1,838,114
Common Equity Tier 1 Capital ratio <sup>(4)</sup>	4.5%	N/A	14.60%	6.5%	12.67%
Tier 1 Capital ratio <sup>(4)</sup>	6.0	6.0%	14.81	8.0	12.67
Total Capital ratio <sup>(4)</sup>	8.0	10.0	16.69	10.0	14.92
Tier 1 Leverage ratio	4.0	N/A	10.18	5.0	9.75
Supplementary Leverage ratio <sup>(5)</sup>	N/A	N/A	7.58	N/A	6.88

(1) Beginning January 1, 2015, an insured depository institution, such as Citibank, must maintain minimum Common Equity Tier 1 Capital, Tier 1 Capital, Total Capital, and Tier 1 Leverage ratios of 6.5%, 8%, 10% and 5%, respectively, to be considered "well capitalized."

(2) Tier 1 Leverage ratio denominator.

(3) Supplementary Leverage ratio denominator.

(4) As of December 31, 2015, Citigroup's reportable Common Equity Tier 1 Capital, Tier 1 Capital, and Total Capital ratios were the lower derived under the Basel III Advanced Approaches framework. As of December 31, 2015, Citibank's reportable Common Equity Tier 1 Capital, Tier 1 Capital, and Total Capital ratios were the lower derived under the Basel III Standardized Approach framework.

(5) Commencing with 2015, Citi and Citibank are required to publicly disclose their Supplementary Leverage ratios. Beginning on January 1, 2018, Citi and Citibank will be required to maintain a stated minimum Supplementary Leverage ratio of 3%, and Citibank will be required to maintain a Supplementary Leverage ratio of 6% to be considered "well capitalized."

N/A Not Applicable

As indicated in the table above, Citigroup and Citibank were "well capitalized" under the current federal bank regulatory definitions as of December 31, 2015.

organizations should generally pay dividends out of current operating earnings. Citigroup received \$13.5 billion and \$8.9 billion in dividends from Citibank during 2015 and 2014, respectively.

### Banking Subsidiaries—Constraints on Dividends

There are various legal limitations on the ability of Citigroup's subsidiary depository institutions to extend credit, pay dividends or otherwise supply funds to Citigroup and its non-bank subsidiaries. The approval of the Office of the Comptroller of the Currency is required if total dividends declared in any calendar year exceed amounts specified by the applicable agency's regulations. State-chartered depository institutions are subject to dividend limitations imposed by applicable state law.

In determining the dividends, each depository institution must also consider its effect on applicable risk-based capital and leverage ratio requirements, as well as policy statements of the federal regulatory agencies that indicate that banking

## 20. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Changes in each component of Citigroup's *Accumulated other comprehensive income (loss)*:

<i>In millions of dollars</i>	Net unrealized gains (losses) on investment securities	Cash flow hedges <sup>(1)</sup>	Benefit plans <sup>(2)</sup>	Foreign currency translation adjustment (CTA), net of hedges <sup>(3)(4)</sup>	Accumulated other comprehensive income (loss)
Balance, December 31, 2012	\$ 597	\$ (2,293)	\$ (5,270)	\$ (9,930)	\$ (16,896)
Change, net of taxes <sup>(5)</sup>	(1,962)	512	1,098	(2,534)	(2,886)
Increase (decrease) due to amounts reclassified from AOCI <sup>(5)</sup>	(275)	536	183	205	649
Change, net of taxes <sup>(5)</sup>	\$ (2,237)	\$ 1,048	\$ 1,281	\$ (2,329)	\$ (2,237)
Balance, December 31, 2013	\$ (1,640)	\$ (1,245)	\$ (3,989)	\$ (12,259)	\$ (19,133)
Other comprehensive income before reclassifications	\$ 1,790	\$ 85	\$ (1,346)	\$ (4,946)	\$ (4,417)
Increase (decrease) due to amounts reclassified from AOCI	(93)	251	176	—	334
Change, net of taxes	\$ 1,697	\$ 336	\$ (1,170)	\$ (4,946)	\$ (4,083)
Balance, December 31, 2014	\$ 57	\$ (909)	\$ (5,159)	\$ (17,205)	\$ (23,216)
Other comprehensive income before reclassifications	\$ (695)	\$ 83	\$ (143)	\$ (5,465)	\$ (6,220)
Increase (decrease) due to amounts reclassified from AOCI	(269)	209	186	(34)	92
Change, net of taxes	\$ (964)	\$ 292	\$ 43	\$ (5,499)	\$ (6,128)
<b>Balance at December 31, 2015</b>	<b>\$ (907)</b>	<b>\$ (617)</b>	<b>\$ (5,116)</b>	<b>\$ (22,704)</b>	<b>\$ (29,344)</b>

(1) Primarily driven by Citigroup's pay fixed/receive floating interest rate swap programs that hedge the floating rates on liabilities.

(2) Primarily reflects adjustments based on the quarterly actuarial valuations of the Company's significant pension and postretirement plans, annual actuarial valuations of all other plans, and amortization of amounts previously recognized in other comprehensive income.

(3) Primarily reflects the movements in (by order of impact) the Mexican peso, Brazilian real, Korean won and Euro against the U.S. dollar, and changes in related tax effects and hedges for the year ended December 31, 2015. Primarily reflects the movements in (by order of impact) the Mexican peso, Euro, Japanese yen, and Russian ruble against the U.S. dollar, and changes in related tax effects and hedges for the year ended December 31, 2014. Primarily reflects the movements in (by order of impact) the Japanese yen, Mexican peso, Australian dollar and Indian rupee against the U.S. dollar, and changes in related tax effects and hedges for the year ended December 31, 2013.

(4) During 2014, \$137 million (\$84 million net of tax) was reclassified to reflect the allocation of FX translation between net unrealized gains (losses) on investment securities to foreign currency translation adjustment (CTA).

(5) On December 20, 2013, the sale of Credicard was completed (see Note 2 to the Consolidated Financial Statements). The total impact to the gross CTA (net CTA including hedges) was a pretax loss of \$314 million (\$205 million net of tax).

The pretax and after-tax changes in each component of *Accumulated other comprehensive income (loss)* are as follows:

<i>In millions of dollars</i>	<b>Pretax</b>	<b>Tax effect</b>	<b>After-tax</b>
Balance, December 31, 2012	\$ (25,334)	\$ 8,438	\$ (16,896)
Change in net unrealized gains (losses) on investment securities	(3,537)	1,300	(2,237)
Cash flow hedges	1,673	(625)	1,048
Benefit plans	1,979	(698)	1,281
Foreign currency translation adjustment	(2,377)	48	(2,329)
Change	\$ (2,262)	\$ 25	\$ (2,237)
Balance, December 31, 2013	\$ (27,596)	\$ 8,463	\$ (19,133)
Change in net unrealized gains (losses) on investment securities	2,704	(1,007)	1,697
Cash flow hedges	543	(207)	336
Benefit plans	(1,830)	660	(1,170)
Foreign currency translation adjustment	(4,881)	(65)	(4,946)
Change	\$ (3,464)	\$ (619)	\$ (4,083)
Balance, December 31, 2014	\$ (31,060)	\$ 7,844	\$ (23,216)
Change in net unrealized gains (losses) on investment securities	(1,462)	498	(964)
Cash flow hedges	468	(176)	292
Benefit plans	19	24	43
Foreign currency translation adjustment	(6,405)	906	(5,499)
Change	\$ (7,380)	\$ 1,252	\$ (6,128)
<b>Balance, December 31, 2015</b>	<b>\$ (38,440)</b>	<b>\$ 9,096</b>	<b>\$ (29,344)</b>

During 2015, 2014 and 2013 the Company recognized pretax losses of \$155 million (\$92 million net of tax), \$542 million (\$334 million gain net of tax) and \$1,071 million (\$649 million net of tax), respectively, related to amounts reclassified out of *Accumulated other comprehensive income (loss)* into the Consolidated Statement of Income. See details in the table below:

<i>In millions of dollars</i>	<b>Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income</b>		
	<b>Year ended December 31,</b>		
	<b>2015</b>	2014	2013
Realized (gains) losses on sales of investments	\$ (682)	\$ (570)	\$ (748)
OTTI gross impairment losses	265	424	334
Subtotal, pretax	\$ (417)	\$ (146)	\$ (414)
Tax effect	148	53	139
<b>Net realized (gains) losses on investment securities, after-tax<sup>(1)</sup></b>	<b>\$ (269)</b>	<b>\$ (93)</b>	<b>\$ (275)</b>
Interest rate contracts	\$ 186	\$ 260	\$ 700
Foreign exchange contracts	146	149	176
Subtotal, pretax	\$ 332	\$ 409	\$ 876
Tax effect	(123)	(158)	(340)
<b>Amortization of cash flow hedges, after-tax<sup>(2)</sup></b>	<b>\$ 209</b>	<b>\$ 251</b>	<b>\$ 536</b>
Amortization of unrecognized			
Prior service cost (benefit)	\$ (40)	\$ (40)	\$ —
Net actuarial loss	276	243	271
Curtailment/settlement impact <sup>(3)</sup>	57	76	44
Cumulative effect of change in accounting policy <sup>(3)</sup>	—	—	(20)
Subtotal, pretax	\$ 293	\$ 279	\$ 295
Tax effect	(107)	(103)	(112)
<b>Amortization of benefit plans, after-tax<sup>(3)</sup></b>	<b>\$ 186</b>	<b>\$ 176</b>	<b>\$ 183</b>
Foreign currency translation adjustment	\$ (53)	\$ —	\$ 314
Tax effect	19	—	(109)
<b>Foreign currency translation adjustment</b>	<b>\$ (34)</b>	<b>\$ —</b>	<b>\$ 205</b>
<b>Total amounts reclassified out of AOCI, pretax</b>	<b>\$ 155</b>	<b>\$ 542</b>	<b>\$ 1,071</b>
<b>Total tax effect</b>	<b>(63)</b>	<b>(208)</b>	<b>(422)</b>
<b>Total amounts reclassified out of AOCI, after-tax</b>	<b>\$ 92</b>	<b>\$ 334</b>	<b>\$ 649</b>

- (1) The pretax amount is reclassified to *Realized gains (losses) on sales of investments, net* and *Gross impairment losses* on the Consolidated Statement of Income. See Note 14 to the Consolidated Financial Statements for additional details.
- (2) See Note 23 to the Consolidated Financial Statements for additional details.
- (3) See Note 8 to the Consolidated Financial Statements for additional details.

## 21. PREFERRED STOCK

The following table summarizes the Company's preferred stock outstanding:

	Issuance date	Redeemable by issuer beginning	Dividend rate	Redemption price per depositary share/preference share	Number of depositary shares	Carrying value <i>in millions of dollars</i>	
						December 31, 2015	December 31, 2014
Series AA <sup>(1)</sup>	January 25, 2008	February 15, 2018	8.125%	\$ 25	3,870,330	\$ 97	\$ 97
Series E <sup>(2)</sup>	April 28, 2008	April 30, 2018	8.400	1,000	121,254	121	121
Series A <sup>(3)</sup>	October 29, 2012	January 30, 2023	5.950	1,000	1,500,000	1,500	1,500
Series B <sup>(4)</sup>	December 13, 2012	February 15, 2023	5.900	1,000	750,000	750	750
Series C <sup>(5)</sup>	March 26, 2013	April 22, 2018	5.800	25	23,000,000	575	575
Series D <sup>(6)</sup>	April 30, 2013	May 15, 2023	5.350	1,000	1,250,000	1,250	1,250
Series J <sup>(7)</sup>	September 19, 2013	September 30, 2023	7.125	25	38,000,000	950	950
Series K <sup>(8)</sup>	October 31, 2013	November 15, 2023	6.875	25	59,800,000	1,495	1,495
Series L <sup>(9)</sup>	February 12, 2014	February 12, 2019	6.875	25	19,200,000	480	480
Series M <sup>(10)</sup>	April 30, 2014	May 15, 2024	6.300	1,000	1,750,000	1,750	1,750
Series N <sup>(11)</sup>	October 29, 2014	November 15, 2019	5.800	1,000	1,500,000	1,500	1,500
Series O <sup>(12)</sup>	March 20, 2015	March 27, 2020	5.875	1,000	1,500,000	1,500	—
Series P <sup>(13)</sup>	April 24, 2015	May 15, 2025	5.950	1,000	2,000,000	2,000	—
Series Q <sup>(14)</sup>	August 12, 2015	August 15, 2020	5.950	1,000	1,250,000	1,250	—
Series R <sup>(15)</sup>	November 13, 2015	November 15, 2020	6.125	1,000	1,500,000	1,500	—
						\$ 16,718	\$ 10,468

- (1) Issued as depositary shares, each representing a 1/1,000<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15, in each case when, as and if declared by the Citi Board of Directors.
- (2) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on April 30 and October 30 at a fixed rate until April 30, 2018, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (3) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on January 30 and July 30 at a fixed rate until January 30, 2023, thereafter payable quarterly on January 30, April 30, July 30 and October 30 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (4) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on February 15 and August 15 at a fixed rate until February 15, 2023, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (5) Issued as depositary shares, each representing a 1/1,000<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on January 22, April 22, July 22 and October 22 when, as and if declared by the Citi Board of Directors.
- (6) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on May 15 and November 15 at a fixed rate until May 15, 2023, thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (7) Issued as depositary shares, each representing a 1/1,000<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on March 30, June 30, September 30 and December 30 at a fixed rate until September 30, 2023, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (8) Issued as depositary shares, each representing a 1/1,000<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 15, May 15, August 15 and November 15 at a fixed rate until November 15, 2023, thereafter payable quarterly on the same dates at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (9) Issued as depositary shares, each representing a 1/1,000<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable quarterly on February 12, May 12, August 12 and November 12 at a fixed rate, in each case when, as and if declared by the Citi Board of Directors.
- (10) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on May 15 and November 15 at a fixed rate until May 15, 2024, thereafter payable quarterly on February 15, May 15, August 15, and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (11) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on May 15 and November 15 at a fixed rate until, but excluding, November 15, 2019, and thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (12) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on March 27 and September 27 at a fixed rate until, but excluding, March 27, 2020, and thereafter payable quarterly on March 27, June 27, September 27 and December 27 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (13) Issued as depositary shares, each representing a 1/25<sup>th</sup> interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on May 15 and November 15 at a fixed rate until, but excluding, May 15, 2025, and thereafter payable quarterly on February 15, May 15, August 15, and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

- (14) Issued as depository shares, each representing 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on February 15 and August 15 at a fixed rate until, but excluding, August 15, 2020, and thereafter payable quarterly on February 15, May 15, August 15, and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.
- (15) Issued as depository shares, each representing 1/25th interest in a share of the corresponding series of non-cumulative perpetual preferred stock. Dividends are payable semi-annually on May 15 and November 15 at a fixed rate until, but excluding, November 15, 2020, and thereafter payable quarterly on February 15, May 15, August 15 and November 15 at a floating rate, in each case when, as and if declared by the Citi Board of Directors.

On January 26, 2016, Citi issued \$1 billion of Series S Preferred Stock as depository shares, each representing 1/1000th interest in a share of corresponding series of non-cumulative perpetual preferred stock. The dividend rate is 6.3% payable quarterly on February 12, May 12, August 12 and November 12, beginning May 12, 2016, in each case when, as and if declared by the Citi Board of Directors.

During 2015, Citi distributed \$769 million in dividends on its outstanding preferred stock. Based on its preferred stock outstanding as of December 31, 2015, Citi estimates it will distribute preferred dividends of approximately \$1,027 million during 2016, in each case assuming such dividends are declared by the Citi Board of Directors.



## 22. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

### Uses of Special Purpose Entities

A special purpose entity (SPE) is an entity designed to fulfill a specific limited need of the company that organized it. The principal uses of SPEs by Citi are to obtain liquidity and favorable capital treatment by securitizing certain financial assets, to assist clients in securitizing their financial assets and to create investment products for clients. SPEs may be organized in various legal forms, including trusts, partnerships or corporations. In a securitization, the company transferring assets to an SPE converts all (or a portion) of those assets into cash before they would have been realized in the normal course of business through the SPE's issuance of debt and equity instruments, certificates, commercial paper or other notes of indebtedness. These issuances are recorded on the balance sheet of the SPE, which may or may not be consolidated onto the balance sheet of the company that organized the SPE.

Investors usually have recourse only to the assets in the SPE, but may also benefit from other credit enhancements, such as a collateral account, a line of credit or a liquidity facility, such as a liquidity put option or asset purchase agreement. Because of these enhancements, the SPE issuances typically obtain a more favorable credit rating than the transferor could obtain for its own debt issuances. This results in less expensive financing costs than unsecured debt. The SPE may also enter into derivative contracts in order to convert the yield or currency of the underlying assets to match the needs of the SPE investors or to limit or change the credit risk of the SPE. Citigroup may be the provider of certain credit enhancements as well as the counterparty to any related derivative contracts.

Most of Citigroup's SPEs are variable interest entities (VIEs), as described below.

### Variable Interest Entities

VIEs are entities that have either a total equity investment that is insufficient to permit the entity to finance its activities without additional subordinated financial support, or whose equity investors lack the characteristics of a controlling financial interest (i.e., ability to make significant decisions through voting rights and a right to receive the expected residual returns of the entity or an obligation to absorb the expected losses of the entity). Investors that finance the VIE through debt or equity interests or other counterparties providing other forms of support, such as guarantees, subordinated fee arrangements or certain types of derivative contracts are variable interest holders in the entity.

The variable interest holder, if any, that has a controlling financial interest in a VIE is deemed to be the primary beneficiary and must consolidate the VIE. Citigroup would be deemed to have a controlling financial interest and be the primary beneficiary if it has both of the following characteristics:

- power to direct the activities of the VIE that most significantly impact the entity's economic performance; and
- an obligation to absorb losses of the entity that could potentially be significant to the VIE, or a right to receive benefits from the entity that could potentially be significant to the VIE.

The Company must evaluate each VIE to understand the purpose and design of the entity, the role the Company had in the entity's design and its involvement in the VIE's ongoing activities. The Company then must evaluate which activities most significantly impact the economic performance of the VIE and who has the power to direct such activities.

For those VIEs where the Company determines that it has the power to direct the activities that most significantly impact the VIE's economic performance, the Company must then evaluate its economic interests, if any, and determine whether it could absorb losses or receive benefits that could potentially be significant to the VIE. When evaluating whether the Company has an obligation to absorb losses that could potentially be significant, it considers the maximum exposure to such loss without consideration of probability. Such obligations could be in various forms, including, but not limited to, debt and equity investments, guarantees, liquidity agreements and certain derivative contracts.

In various other transactions, the Company may: (i) act as a derivative counterparty (for example, interest rate swap, cross-currency swap, or purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE); (ii) act as underwriter or placement agent; (iii) provide administrative, trustee or other services; or (iv) make a market in debt securities or other instruments issued by VIEs. The Company generally considers such involvement, by itself, not to be variable interests and thus not an indicator of power or potentially significant benefits or losses.

See Note 1 to the Consolidated Financial Statements for a discussion of impending changes to targeted areas of consolidation guidance.

Citigroup's involvement with consolidated and unconsolidated VIEs with which the Company holds significant variable interests or has continuing involvement through servicing a majority of the assets in a VIE is presented below:

As of December 31, 2015									
Maximum exposure to loss in significant unconsolidated VIEs <sup>(1)</sup>									
Funded exposures <sup>(2)</sup> Unfunded exposures									
<i>In millions of dollars</i>	Total involvement with SPE assets	Consolidated VIE / SPE assets	Significant unconsolidated VIE assets <sup>(3)</sup>	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total	
Credit card securitizations	\$ 54,916	\$ 54,916	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Mortgage securitizations <sup>(4)</sup>									
U.S. agency-sponsored	217,291	—	217,291	3,571	—	—	95	3,666	
Non-agency-sponsored	13,036	1,586	11,450	527	—	—	1	528	
Citi-administered asset-backed commercial paper conduits (ABCP)	21,280	21,280	—	—	—	—	—	—	
Collateralized loan obligations (CLOs)	16,719	—	16,719	3,150	—	—	86	3,236	
Asset-based financing	58,862	1,364	57,498	21,270	269	3,616	436	25,591	
Municipal securities tender option bond trusts (TOBs)	8,572	3,830	4,742	2	—	3,100	—	3,102	
Municipal investments	20,290	44	20,246	2,196	2,487	2,335	—	7,018	
Client intermediation	434	335	99	49	—	—	—	49	
Investment funds <sup>(5)</sup>	1,730	842	888	13	138	102	—	253	
Other	4,915	597	4,318	292	554	—	52	898	
<b>Total<sup>(6)</sup></b>	<b>\$ 418,045</b>	<b>\$ 84,794</b>	<b>\$ 333,251</b>	<b>\$ 31,070</b>	<b>\$ 3,448</b>	<b>\$ 9,153</b>	<b>\$ 670</b>	<b>\$ 44,341</b>	

As of December 31, 2014									
Maximum exposure to loss in significant unconsolidated VIEs <sup>(1)</sup>									
Funded exposures <sup>(2)</sup> Unfunded exposures									
<i>In millions of dollars</i>	Total involvement with SPE assets	Consolidated VIE / SPE assets	Significant unconsolidated VIE assets <sup>(3)</sup>	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total	
Credit card securitizations	\$ 60,271	\$ 60,271	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Mortgage securitizations <sup>(4)</sup>									
U.S. agency-sponsored	247,590	—	247,590	5,205	—	—	110	5,315	
Non-agency-sponsored	15,110	1,304	13,806	575	—	—	1	576	
Citi-administered asset-backed commercial paper conduits (ABCP)	29,181	29,181	—	—	—	—	—	—	
Collateralized loan obligations (CLOs)	15,440	—	15,440	1,958	—	—	86	2,044	
Asset-based financing	45,555	1,151	44,404	17,712	63	2,014	333	20,122	
Municipal securities tender option bond trusts (TOBs)	12,278	6,671	5,607	3	—	3,669	—	3,672	
Municipal investments	21,375	70	21,305	1,930	2,180	2,222	—	6,332	
Client intermediation	187	137	50	6	—	—	10	16	
Investment funds <sup>(5)</sup>	2,139	1,096	1,043	16	185	124	—	325	
Other	8,214	2,909	5,305	183	1,451	23	73	1,730	
<b>Total<sup>(6)</sup></b>	<b>\$ 457,340</b>	<b>\$ 102,790</b>	<b>\$ 354,550</b>	<b>\$ 27,588</b>	<b>\$ 3,879</b>	<b>\$ 8,052</b>	<b>\$ 613</b>	<b>\$ 40,132</b>	

(1) The definition of maximum exposure to loss is included in the text that follows this table.

(2) Included on Citigroup's December 31, 2015 and 2014 Consolidated Balance Sheet.

(3) A significant unconsolidated VIE is an entity where the Company has any variable interest or continuing involvement considered to be significant, regardless of the likelihood of loss or the notional amount of exposure.

(4) Citigroup mortgage securitizations also include agency and non-agency (private-label) re-securitization activities. These SPEs are not consolidated. See "Re-securitizations" below for further discussion.

(5) Substantially all of the unconsolidated investment funds' assets are related to retirement funds in Mexico managed by Citi. See "Investment Funds" below for further discussion.

(6) Citi's total involvement with Citicorp SPE assets was \$383.2 billion and \$407.4 billion as of December 31, 2015 and 2014, respectively, with the remainder related to Citi Holdings.

The previous tables do not include:

- certain venture capital investments made by some of the Company's private equity subsidiaries, as the Company accounts for these investments in accordance with the Investment Company Audit Guide (codified in ASC 946);
- certain limited partnerships that are investment funds that qualify for the deferral from the requirements of ASC 810 where the Company is the general partner and the limited partners have the right to replace the general partner or liquidate the funds;
- certain investment funds for which the Company provides investment management services and personal estate trusts for which the Company provides administrative, trustee and/or investment management services;
- VIEs structured by third parties where the Company holds securities in inventory, as these investments are made on arm's-length terms;
- certain positions in mortgage-backed and asset-backed securities held by the Company, which are classified as *Trading account assets* or *Investments*, where the Company has no other involvement with the related securitization entity deemed to be significant (for more information on these positions, see Notes 13 and 14 to the Consolidated Financial Statements);
- certain representations and warranties exposures in legacy ICG-sponsored mortgage-backed and asset-backed securitizations, where the Company has no variable interest or continuing involvement as servicer. The outstanding balance of mortgage loans securitized during 2005 to 2008 where the Company has no variable interest or continuing involvement as servicer was approximately \$12 billion and \$14 billion at December 31, 2015 and 2014, respectively;
- certain representations and warranties exposures in Citigroup residential mortgage securitizations, where the original mortgage loan balances are no longer outstanding; and
- VIEs such as trust preferred securities trusts used in connection with the Company's funding activities. The Company does not have a variable interest in these trusts.

The asset balances for consolidated VIEs represent the carrying amounts of the assets consolidated by the Company. The carrying amount may represent the amortized cost or the current fair value of the assets depending on the legal form of the asset (e.g., security or loan) and the Company's standard accounting policies for the asset type and line of business.

The asset balances for unconsolidated VIEs where the Company has significant involvement represent the most current information available to the Company. In most cases, the asset balances represent an amortized cost basis without regard to impairments in fair value, unless fair value information is readily available to the Company. For VIEs that obtain asset exposures synthetically through derivative instruments, the tables generally include the full original notional amount of the derivative as an asset balance.

The maximum funded exposure represents the balance sheet carrying amount of the Company's investment in the VIE. It reflects the initial amount of cash invested in the VIE adjusted for any accrued interest and cash principal payments received. The carrying amount may also be adjusted for increases or declines in fair value or any impairment in value recognized in earnings. The maximum exposure of unfunded positions represents the remaining undrawn committed amount, including liquidity and credit facilities provided by the Company, or the notional amount of a derivative instrument considered to be a variable interest. In certain transactions, the Company has entered into derivative instruments or other arrangements that are not considered variable interests in the VIE (e.g., interest rate swaps, cross-currency swaps, or where the Company is the purchaser of credit protection under a credit default swap or total return swap where the Company pays the total return on certain assets to the SPE). Receivables under such arrangements are not included in the maximum exposure amounts.

### **Funding Commitments for Significant Unconsolidated VIEs—Liquidity Facilities and Loan Commitments**

The following table presents the notional amount of liquidity facilities and loan commitments that are classified as funding commitments in the VIE tables above:

<i>In millions of dollars</i>	December 31, 2015		December 31, 2014	
	Liquidity facilities	Loan / equity commitments	Liquidity facilities	Loan / equity commitments
Asset-based financing	\$ 5	\$ 3,611	\$ 5	\$ 2,009
Municipal securities tender option bond trusts (TOBs)	3,100	—	3,669	—
Municipal investments	—	2,335	—	2,222
Investment funds	—	102	—	124
Other	—	—	—	23
<b>Total funding commitments</b>	<b>\$ 3,105</b>	<b>\$ 6,048</b>	<b>\$ 3,674</b>	<b>\$ 4,378</b>

### **Consolidated VIEs**

The Company engages in on-balance sheet securitizations, which are securitizations that do not qualify for sales treatment; thus, the assets remain on the Company's Consolidated Balance Sheet, and any proceeds received are recognized as secured liabilities. The consolidated VIEs included in the tables below represent hundreds of separate entities with which the Company is involved. In general, the third-party investors in the obligations of consolidated VIEs have legal recourse only to the assets of the respective VIEs and do not have such recourse to the Company, except where the Company has provided a guarantee to the investors or is the counterparty to certain derivative transactions involving

the VIE. Thus, the Company's maximum legal exposure to loss related to consolidated VIEs is significantly less than the carrying value of the consolidated VIE assets due to outstanding third-party financing. Intercompany assets and liabilities are excluded from the table. All VIE assets are restricted from being sold or pledged as collateral. The cash flows from these assets are the only source used to pay down the associated liabilities, which are non-recourse to the Company's general assets.

The following table presents the carrying amounts and classifications of consolidated assets that are collateral for consolidated VIE obligations:

<i>In billions of dollars</i>	December 31, 2015	December 31, 2014
Cash	\$ 0.2	\$ 0.3
Trading account assets	0.6	0.7
Investments	5.3	8.0
Total loans, net of allowance	78.6	93.2
Other	0.1	0.6
<b>Total assets</b>	<b>\$ 84.8</b>	<b>\$ 102.8</b>
Short-term borrowings	\$ 14.0	\$ 22.7
Long-term debt	31.3	40.1
Other liabilities	2.1	0.9
<b>Total liabilities<sup>(1)</sup></b>	<b>\$ 47.4</b>	<b>\$ 63.7</b>

- (1) The total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citi were \$45.3 billion and \$61.2 billion as of December 31, 2015 and 2014, respectively. Liabilities of consolidated VIEs for which creditors or beneficial interest holders have recourse to the general credit of Citi comprise two items included in the above table: (i) credit enhancements provided to consolidated Citi-administered commercial paper conduits in the form of letters of credit of \$1.9 billion and \$2.3 billion at December 31, 2015 and 2014, respectively; and (ii) credit guarantees provided by Citi to certain consolidated municipal tender option bond trusts of \$82 million and \$198 million at December 31, 2015 and 2014, respectively.

### **Significant Interests in Unconsolidated VIEs—Balance Sheet Classification**

The following table presents the carrying amounts and classification of significant variable interests in unconsolidated VIEs:

<i>In billions of dollars</i>	December 31, 2015	December 31, 2014
Cash	\$ 0.1	\$ —
Trading account assets	6.2	7.6
Investments	3.0	2.6
Total loans, net of allowance	23.6	19.6
Other	1.7	1.7
<b>Total assets</b>	<b>\$ 34.6</b>	<b>\$ 31.5</b>

### Credit Card Securitizations

The Company securitizes credit card receivables through trusts established to purchase the receivables. Citigroup transfers receivables into the trusts on a non-recourse basis. Credit card securitizations are revolving securitizations; as customers pay their credit card balances, the cash proceeds are used to purchase new receivables and replenish the receivables in the trust.

Substantially all of the Company's credit card securitization activity is through two trusts—Citibank Credit Card Master Trust (Master Trust) and the Citibank Omni Master Trust (Omni Trust), with the substantial majority through the Master Trust. These trusts are consolidated entities because, as servicer, Citigroup has the power to direct

the activities that most significantly impact the economic performance of the trusts, Citigroup holds a seller's interest and certain securities issued by the trusts, and also provides liquidity facilities to the trusts, which could result in potentially significant losses or benefits from the trusts. Accordingly, the transferred credit card receivables remain on Citi's Consolidated Balance Sheet with no gain or loss recognized. The debt issued by the trusts to third parties is included on Citi's Consolidated Balance Sheet.

The Company utilizes securitizations as one of the sources of funding for its business in *North America*. The following table reflects amounts related to the Company's securitized credit card receivables:

<i>In billions of dollars</i>	December 31, 2015	December 31, 2014
<b>Ownership interests in principal amount of trust credit card receivables</b>		
Sold to investors via trust-issued securities	\$ 29.7	\$ 37.0
Retained by Citigroup as trust-issued securities	9.4	10.1
Retained by Citigroup via non-certificated interests	16.5	14.2
<b>Total</b>	<b>\$ 55.6</b>	<b>\$ 61.3</b>

The following tables summarize selected cash flow information related to Citigroup's credit card securitizations:

<i>In billions of dollars</i>	2015	2014	2013
Proceeds from new securitizations	\$ —	\$ 12.6	\$ 11.7
Pay down of maturing notes	(7.4)	(7.8)	(2.2)

### Managed Loans

After securitization of credit card receivables, the Company continues to maintain credit card customer account relationships and provides servicing for receivables transferred to the trusts. As a result, the Company considers the securitized credit card receivables to be part of the business it manages. As Citigroup consolidates the credit card trusts, all managed securitized card receivables are on-balance sheet.

### Funding, Liquidity Facilities and Subordinated Interests

As noted above, Citigroup securitizes credit card receivables through two securitization trusts—Master Trust, which is part of Citicorp, and Omni Trust, substantially all of which is also part of Citicorp. The liabilities of the trusts are included in the Consolidated Balance Sheet, excluding those retained by Citigroup.

The Master Trust issues fixed- and floating-rate term notes. Some of the term notes are issued to multi-seller commercial paper conduits. The weighted average maturity of the term notes issued by the Master Trust was 2.4 years as of December 31, 2015 and 2.8 years as of December 31, 2014.

### Master Trust Liabilities (at Par Value)

<i>In billions of dollars</i>	Dec. 31, 2015	Dec. 31, 2014
Term notes issued to third parties	\$ 28.4	\$ 35.7
Term notes retained by Citigroup affiliates	7.5	8.2
<b>Total Master Trust liabilities</b>	<b>\$ 35.9</b>	<b>\$ 43.9</b>

The Omni Trust issues fixed- and floating-rate term notes, some of which are purchased by multi-seller commercial paper conduits. The weighted average maturity of the third-party term notes issued by the Omni Trust was 0.9 years as of December 31, 2015 and 1.9 years as of December 31, 2014.

### Omni Trust Liabilities (at Par Value)

<i>In billions of dollars</i>	Dec. 31, 2015	Dec. 31, 2014
Term notes issued to third parties	\$ 1.3	\$ 1.3
Term notes retained by Citigroup affiliates	1.9	1.9
<b>Total Omni Trust liabilities</b>	<b>\$ 3.2</b>	<b>\$ 3.2</b>

### Mortgage Securitizations

The Company provides a wide range of mortgage loan products to a diverse customer base. Once originated, the Company often securitizes these loans through the use of VIEs. These VIEs are funded through the issuance of trust certificates backed solely by the transferred assets. These certificates have the same life as the transferred assets. In addition to providing a source of liquidity and less expensive funding, securitizing these assets also reduces the Company's credit exposure to the borrowers. These mortgage loan securitizations are primarily non-recourse, thereby effectively transferring the risk of future credit losses to the purchasers of the securities issued by the trust. However, the Company's U.S. consumer mortgage business generally retains the servicing rights and in certain instances retains investment securities, interest-only strips and residual interests in future cash flows from the trusts and also provides servicing for a limited number of ICG securitizations.

The Company securitizes mortgage loans generally through either a government-sponsored agency, such as Ginnie Mae, Fannie Mae or Freddie Mac (U.S. agency-sponsored

mortgages), or private-label (non-agency-sponsored mortgages) securitization. The Company is not the primary beneficiary of its U.S. agency-sponsored mortgage securitizations because Citigroup does not have the power to direct the activities of the VIE that most significantly impact the entity's economic performance. Therefore, Citi does not consolidate these U.S. agency-sponsored mortgage securitizations.

The Company does not consolidate certain non-agency-sponsored mortgage securitizations because Citi is either not the servicer with the power to direct the significant activities of the entity or Citi is the servicer but the servicing relationship is deemed to be a fiduciary relationship; therefore, Citi is not deemed to be the primary beneficiary of the entity.

In certain instances, the Company has (i) the power to direct the activities and (ii) the obligation to either absorb losses or the right to receive benefits that could be potentially significant to its non-agency-sponsored mortgage securitizations and, therefore, is the primary beneficiary and thus consolidates the VIE.

The following tables summarize selected cash flow information related to Citigroup mortgage securitizations:

	2015		2014	2013
	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	Agency- and non-agency-sponsored mortgages	Agency- and non-agency-sponsored mortgages
<i>In billions of dollars</i>				
Proceeds from new securitizations <sup>(1)</sup>	\$ 25.6	\$ 12.1	\$ 39.6	\$ 72.7
Contractual servicing fees received	0.5	—	0.5	0.7
Cash flows received on retained interests and other net cash flows	0.1	—	0.1	0.1

(1) The proceeds from new securitizations in 2015 include \$0.7 billion related to personal loan securitizations.

Agency and non-agency securitization gains for the year ended December 31, 2015 were \$150 million and \$44 million, respectively.

Agency and non-agency securitization gains for the years ended December 31, 2014 and 2013 were \$267 million and \$223 million, respectively.

Key assumptions used in measuring the fair value of retained interests at the date of sale or securitization of mortgage receivables were as follows:

	December 31, 2015		
	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages <sup>(1)</sup>	
		Senior interests	Subordinated interests
Discount rate	0.0% to 11.3%	2.0% to 3.2%	2.9% to 12.1%
Weighted average discount rate	8.0%	2.9%	5.2%
Constant prepayment rate	5.7% to 34.9%	—	2.8% to 8.0%
Weighted average constant prepayment rate	11.7%	—	3.5%
Anticipated net credit losses <sup>(2)</sup>	NM	40.0%	38.1% to 92.0%
Weighted average anticipated net credit losses	NM	40.0%	70.6%
Weighted average life	3.5 to 10.4 years	2.5 to 9.8 years	8.9 to 12.9 years

	December 31, 2014		
	Non-agency-sponsored mortgages <sup>(1)</sup>		
	U.S. agency- sponsored mortgages	Senior interests	Subordinated interests
Discount rate	0.0% to 14.7%	1.4% to 6.6%	2.6% to 9.1%
Weighted average discount rate	11.0%	4.2%	7.8%
Constant prepayment rate	0.0% to 23.1%	0.0% to 7.0%	0.5% to 8.9%
Weighted average constant prepayment rate	6.2%	5.4%	3.2%
Anticipated net credit losses <sup>(2)</sup>	NM	40.0% to 67.1%	8.9% to 58.5%
Weighted average anticipated net credit losses	NM	56.3%	43.1%
Weighted average life	0.0 to 9.7 years	2.6 to 11.1 years	3.0 to 14.5 years

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

The interests retained by the Company range from highly rated and/or senior in the capital structure to unrated and/or residual interests.

The key assumptions used to value retained interests, and the sensitivity of the fair value to adverse changes of 10% and 20% in each of the key assumptions, are set forth in the tables

below. The negative effect of each change is calculated independently, holding all other assumptions constant. Because the key assumptions may not be independent, the net effect of simultaneous adverse changes in the key assumptions may be less than the sum of the individual effects shown below.

	December 31, 2015		
	Non-agency-sponsored mortgages <sup>(1)</sup>		
	U.S. agency- sponsored mortgages	Senior interests	Subordinated interests
Discount rate	0.0% to 22.1%	1.6% to 67.6%	2.0% to 24.9%
Weighted average discount rate	5.7%	7.6%	8.4%
Constant prepayment rate	6.5% to 27.8%	4.2% to 100.0%	0.5% to 20.8%
Weighted average constant prepayment rate	12.5%	14.0%	7.5%
Anticipated net credit losses <sup>(2)</sup>	NM	0.2% to 89.1%	3.8% to 92.0%
Weighted average anticipated net credit losses	NM	48.9%	54.4%
Weighted average life	1.3 to 21.0 years	0.3 to 18.1 years	0.9 to 19.0 years

	December 31, 2014		
	Non-agency-sponsored mortgages <sup>(1)</sup>		
	U.S. agency- sponsored mortgages	Senior interests	Subordinated interests
Discount rate	0.0% to 21.2%	1.1% to 47.1%	1.3% to 19.6%
Weighted average discount rate	8.4%	7.7%	8.2%
Constant prepayment rate	6.0% to 41.4%	2.0% to 100.0%	0.5% to 16.2%
Weighted average constant prepayment rate	15.3%	10.9%	7.2%
Anticipated net credit losses <sup>(2)</sup>	NM	0.0% to 92.4%	13.7% to 83.8%
Weighted average anticipated net credit losses	NM	51.7%	52.5%
Weighted average life	0.0 to 16.0 years	0.3 to 14.4 years	0.0 to 24.4 years

Note: Citi Holdings held no subordinated interests in mortgage securitizations as of December 31, 2015 and 2014.

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

(2) Anticipated net credit losses represent estimated loss severity associated with defaulted mortgage loans underlying the mortgage securitizations disclosed above. Anticipated net credit losses, in this instance, do not represent total credit losses incurred to date, nor do they represent credit losses expected on retained interests in mortgage securitizations.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.



	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages <sup>(1)</sup>	
		Senior interests	Subordinated interests
<i>In millions of dollars at December 31, 2015</i>			
<b>Carrying value of retained interests</b>	\$ 2,563	\$ 179	\$ 553
Discount rates			
Adverse change of 10%	\$ (65)	\$ (8)	\$ (25)
Adverse change of 20%	(127)	(15)	(49)
Constant prepayment rate			
Adverse change of 10%	(102)	(3)	(9)
Adverse change of 20%	(196)	(6)	(18)
Anticipated net credit losses			
Adverse change of 10%	NM	(6)	(7)
Adverse change of 20%	NM	(11)	(14)

	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages <sup>(1)</sup>	
		Senior interests	Subordinated interests
<i>In millions of dollars at December 31, 2014</i>			
<b>Carrying value of retained interests</b>	\$ 2,374	\$ 310	\$ 554
Discount rates			
Adverse change of 10%	\$ (69)	\$ (7)	\$ (30)
Adverse change of 20%	(134)	(13)	(57)
Constant prepayment rate			
Adverse change of 10%	(93)	(3)	(9)
Adverse change of 20%	(179)	(5)	(18)
Anticipated net credit losses			
Adverse change of 10%	NM	(6)	(9)
Adverse change of 20%	NM	(10)	(16)

Note: Citi Holdings held no subordinated interests in mortgage securitizations as of December 31, 2015 and December 31, 2014.

(1) Disclosure of non-agency-sponsored mortgages as senior and subordinated interests is indicative of the interests' position in the capital structure of the securitization.

NM Anticipated net credit losses are not meaningful due to U.S. agency guarantees.

### Mortgage Servicing Rights

In connection with the securitization of mortgage loans, the Company's U.S. consumer mortgage business generally retains the servicing rights, which entitle the Company to a future stream of cash flows based on the outstanding principal balances of the loans and the contractual servicing fee. Failure to service the loans in accordance with contractual requirements may lead to a termination of the servicing rights and the loss of future servicing fees.

These transactions create an intangible asset referred to as mortgage servicing rights (MSRs), which are recorded at fair value on Citi's Consolidated Balance Sheet. The fair value of Citi's capitalized MSRs was \$1.8 billion at December 31, 2015 and 2014. Of these amounts, approximately \$1.7 billion was specific to Citicorp, with the remainder to Citi Holdings as of December 31, 2015 and 2014. The MSRs correspond to principal loan balances of \$198 billion and \$224 billion as of December 31, 2015 and 2014, respectively. The following table summarizes the changes in capitalized MSRs:

<i>In millions of dollars</i>	2015	2014
<b>Balance, beginning of year</b>	\$ 1,845	\$ 2,718
Originations	214	217
Changes in fair value of MSRs due to changes in inputs and assumptions	110	(344)
Other changes <sup>(1)</sup>	(350)	(429)
Sale of MSRs	(38)	(317)
<b>Balance, as of December 31</b>	\$ 1,781	\$ 1,845

(1) Represents changes due to customer payments and passage of time.



The fair value of the MSRs is primarily affected by changes in prepayments of mortgages that result from shifts in mortgage interest rates. Specifically, higher interest rates tend to lead to declining prepayments, which causes the fair value of the MSRs to increase. In managing this risk, the Company economically hedges a significant portion of the value of its MSRs through the use of interest rate derivative contracts, forward purchase and sale commitments of mortgage-backed securities and purchased securities all classified as *Trading account assets*. The Company receives fees during the course of servicing previously securitized mortgages. The amounts of these fees were as follows:

<i>In millions of dollars</i>	2015	2014	2013
Servicing fees	\$ 552	\$ 638	\$ 800
Late fees	16	25	42
Ancillary fees	31	56	100
<b>Total MSR fees</b>	<b>\$ 599</b>	<b>\$ 719</b>	<b>\$ 942</b>

These fees and changes in MSR fair values are classified in the Consolidated Statement of Income as *Other revenue*.

#### *Re-securitizations*

The Company engages in re-securitization transactions in which debt securities are transferred to a VIE in exchange for new beneficial interests. During the years ended December 31, 2015 and 2014, Citi transferred non-agency (private-label) securities with an original par value of approximately \$885 million and \$1.2 billion, respectively, to re-securitization entities. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of December 31, 2015, the fair value of Citi-retained interests in private-label re-securitization transactions structured by Citi totaled approximately \$428 million (including \$132 million related to re-securitization transactions executed in 2015), which has been recorded in *Trading account assets*. Of this amount, approximately \$18 million was related to senior beneficial interests and approximately \$410 million was related to subordinated beneficial interests. As of December 31, 2014, the fair value of Citi-retained interests in private-label re-securitization transactions structured by Citi totaled approximately \$545 million (including \$194 million related to re-securitization transactions executed in 2014). Of this amount, approximately \$133 million was related to senior beneficial interests, and approximately \$412 million was related to subordinated beneficial interests. The original par value of private-label re-securitization transactions in which Citi holds a retained interest as of December 31, 2015 and 2014 was approximately \$3.7 billion and \$5.1 billion, respectively.

The Company also re-securitizes U.S. government-agency guaranteed mortgage-backed (agency) securities. During the years ended December 31, 2015 and 2014, Citi transferred agency securities with a fair value of approximately \$17.8 billion and \$22.5 billion, respectively, to re-securitization entities.

As of December 31, 2015, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately \$1.8 billion (including \$1.5 billion related to re-securitization transactions executed in 2015) compared to \$1.8 billion as of December 31, 2014 (including \$1.5 billion related to re-securitization transactions executed in 2014), which is recorded in *Trading account assets*. The original fair value of agency re-securitization transactions in which Citi holds a retained interest as of December 31, 2015 and 2014 was approximately \$65.0 billion and \$73.0 billion, respectively.

As of December 31, 2015 and 2014, the Company did not consolidate any private-label or agency re-securitization entities.

#### *Citi-Administered Asset-Backed Commercial Paper Conduits*

The Company is active in the asset-backed commercial paper conduit business as administrator of several multi-seller commercial paper conduits and also as a service provider to single-seller and other commercial paper conduits sponsored by third parties.

Citi's multi-seller commercial paper conduits are designed to provide the Company's clients access to low-cost funding in the commercial paper markets. The conduits purchase assets from or provide financing facilities to clients and are funded by issuing commercial paper to third-party investors. The conduits generally do not purchase assets originated by the Company. The funding of the conduits is facilitated by the liquidity support and credit enhancements provided by the Company.

As administrator to Citi's conduits, the Company is generally responsible for selecting and structuring assets purchased or financed by the conduits, making decisions regarding the funding of the conduits, including determining the tenor and other features of the commercial paper issued, monitoring the quality and performance of the conduits' assets, and facilitating the operations and cash flows of the conduits. In return, the Company earns structuring fees from customers for individual transactions and earns an administration fee from the conduit, which is equal to the income from the client program and liquidity fees of the conduit after payment of conduit expenses. This administration fee is fairly stable, since most risks and rewards of the underlying assets are passed back to the clients. Once the asset pricing is negotiated, most ongoing income, costs and fees are relatively stable as a percentage of the conduit's size.

The conduits administered by the Company do not generally invest in liquid securities that are formally rated by third parties. The assets are privately negotiated and structured transactions that are generally designed to be held by the conduit, rather than actively traded and sold. The yield earned by the conduit on each asset is generally tied to the rate on the commercial paper issued by the conduit, thus passing interest rate risk to the client. Each asset purchased by the conduit is structured with transaction-specific credit enhancement features provided by the third-party client seller, including over collateralization, cash and excess spread collateral accounts, direct recourse or third-party guarantees. These credit enhancements are sized with the objective of approximating a credit rating of A or above, based on the

Company's internal risk ratings. At December 31, 2015 and 2014, the conduits had approximately \$21.3 billion and \$29.2 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately \$11.6 billion and \$13.5 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At December 31, 2015 and 2014, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 56 and 57 days, respectively.

The primary credit enhancement provided to the conduit investors is in the form of transaction-specific credit enhancements described above. In addition to the transaction-specific credit enhancements, the conduits, other than the government guaranteed loan conduit, have obtained a letter of credit from the Company, which is equal to at least 8% to 10% of the conduit's assets with a minimum of \$200 million. The letters of credit provided by the Company to the conduits total approximately \$1.9 billion and \$2.3 billion as of December 31, 2015 and 2014, respectively. The net result across multi-seller conduits administered by the Company, other than the government guaranteed loan conduit, is that, in the event defaulted assets exceed the transaction-specific credit enhancements described above, any losses in each conduit are allocated first to the Company and then the commercial paper investors.

The Company also provides the conduits with two forms of liquidity agreements that are used to provide funding to the conduits in the event of a market disruption, among other events. Each asset of the conduits is supported by a transaction-specific liquidity facility in the form of an asset purchase agreement (APA). Under the APA, the Company has generally agreed to purchase non-defaulted eligible receivables from the conduit at par. The APA is not designed to provide credit support to the conduit, as it generally does not permit the purchase of defaulted or impaired assets. Any funding under the APA will likely subject the underlying conduit clients to increased interest costs. In addition, the Company provides the conduits with program-wide liquidity in the form of short-term lending commitments. Under these commitments, the Company has agreed to lend to the conduits in the event of a short-term disruption in the commercial paper market, subject to specified conditions. The Company receives fees for providing both types of liquidity agreements and considers these fees to be on fair market terms.

Finally, the Company is one of several named dealers in the commercial paper issued by the conduits and earns a market-based fee for providing such services. Along with third-party dealers, the Company makes a market in the commercial paper and may from time to time fund commercial paper pending sale to a third party. On specific dates with less liquidity in the market, the Company may hold in inventory commercial paper issued by conduits administered by the Company, as well as conduits administered by third parties. Separately, in the normal course of business, the Company invests in commercial paper, including commercial paper issued by the Company's conduits. At December 31, 2015 and 2014, the Company owned \$11.4 billion and \$10.6 billion, respectively, of the commercial paper issued by its administered conduits. The Company's investments were not

driven by market illiquidity and the Company is not obligated under any agreement to purchase the commercial paper issued by the conduits.

The asset-backed commercial paper conduits are consolidated by the Company. The Company has determined that, through its roles as administrator and liquidity provider, it has the power to direct the activities that most significantly impact the entities' economic performance. These powers include its ability to structure and approve the assets purchased by the conduits, its ongoing surveillance and credit mitigation activities, its ability to sell or repurchase assets out of the conduits, and its liability management. In addition, as a result of all the Company's involvement described above, it was concluded that the Company has an economic interest that could potentially be significant. However, the assets and liabilities of the conduits are separate and apart from those of Citigroup. No assets of any conduit are available to satisfy the creditors of Citigroup or any of its other subsidiaries.

### ***Collateralized Loan Obligations***

A collateralized loan obligation (CLO) is a VIE that purchases a portfolio of assets consisting primarily of non-investment grade corporate loans. The CLO issues multiple tranches of debt and equity to investors to fund the asset purchases and pay upfront expenses associated with forming the CLO. A third-party asset manager is contracted by the CLO to purchase the underlying assets from the open market and monitor the credit risk associated with those assets. Over the term of the CLO, the asset manager directs purchases and sales of assets in a manner consistent with the CLO's asset management agreement and indenture. In general, the CLO asset manager will have the power to direct the activities of the entity that most significantly impact the economic performance of the CLO. Investors in the CLO, through their ownership of debt and/or equity in the CLO, can also direct certain activities of the CLO, including removing the CLO asset manager under limited circumstances, optionally redeeming the notes, voting on amendments to the CLO's operating documents and other activities. The CLO has a finite life, typically 12 years.

Citi serves as a structuring and placement agent with respect to the CLO. Typically, the debt and equity of the CLO are sold to third-party investors. On occasion, certain Citi entities may purchase some portion of the CLO's liabilities for investment purposes. In addition, Citi may purchase, typically in the secondary market, certain securities issued by the CLO to support its market making activities.

The Company does not generally have the power to direct the activities of the entity that most significantly impact the economic performance of the CLOs, as this power is generally held by a third-party asset manager of the CLO. As such, those CLOs are not consolidated.

### Key Assumptions and Retained Interests

The key assumptions used to value retained interests in CLOs, and the sensitivity of the fair value to adverse changes of 10% and 20% are set forth in the tables below:

	Dec. 31, 2015	Dec. 31, 2014
<b>Discount rate</b>	<b>1.4% to 49.6%</b>	1.4% to 49.2%

<i>In millions of dollars</i>	Dec. 31, 2015	Dec. 31, 2014
<b>Carrying value of retained interests</b>	<b>\$ 918</b>	\$ 1,555
Discount rates		
Adverse change of 10%	\$ (5)	(10)
Adverse change of 20%	(10)	(20)

### Asset-Based Financing

The Company provides loans and other forms of financing to VIEs that hold assets. Those loans are subject to the same credit approvals as all other loans originated or purchased by the Company. Financings in the form of debt securities or derivatives are, in most circumstances, reported in *Trading account assets* and accounted for at fair value through earnings. The Company generally does not have the power to direct the activities that most significantly impact these VIEs' economic performance, and thus it does not consolidate them.

The primary types of Citigroup's asset-based financings, total assets of the unconsolidated VIEs with significant involvement, and the Company's maximum exposure to loss are shown below. For the Company to realize the maximum loss, the VIE (borrower) would have to default with no recovery from the assets held by the VIE.

<i>In millions of dollars</i>	December 31, 2015	
	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type		
Commercial and other real estate	\$ 17,459	\$ 6,528
Corporate loans	1,274	1,871
Hedge funds and equities	385	55
Airplanes, ships and other assets	38,380	17,137
<b>Total<sup>(1)</sup></b>	<b>\$ 57,498</b>	<b>\$ 25,591</b>

<i>In millions of dollars</i>	December 31, 2014	
	Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type		
Commercial and other real estate	\$ 7,987	\$ 4,003
Corporate loans	460	473
Hedge funds and equities	—	—
Airplanes, ships and other assets	35,957	15,646
<b>Total</b>	<b>\$ 44,404</b>	<b>\$ 20,122</b>

(1) The increase in the total unconsolidated VIE assets and related maximum exposure to unconsolidated VIEs is due to normal, yet increased, client activity.

The following table summarizes selected cash flow information related to asset-based financings:

<i>In billions of dollars</i>	2015	2014	2013
Proceeds from new securitizations	\$ —	\$ 0.5	\$ 0.5
Cash flows received on retained interests and other net cash flows	—	0.3	1.0

There were no gains recognized on the securitizations of asset-based financings for the years ended December 31, 2015, 2014 and 2013.

### Municipal Securities Tender Option Bond (TOB) Trusts

Municipal TOB trusts may hold fixed- or floating-rate, taxable or tax-exempt securities issued by state and local governments and municipalities. TOB trusts are typically structured as single-issuer entities whose assets are purchased from either the Company or from other investors in the municipal securities market. TOB trusts finance the purchase of their municipal assets by issuing two classes of certificates: long-dated, floating rate certificates ("Floaters") that are puttable pursuant to a liquidity facility and residual interest certificates ("Residuals"). The Floaters are purchased by third-party investors, typically tax-exempt money market funds. The Residuals are purchased by the original owner of the municipal securities that are being financed.

From the Company's perspective, there are two types of TOB trusts: customer TOB trusts and non-customer TOB trusts. Customer TOB trusts are those trusts utilized by customers of the Company to finance their municipal securities investments. The Residuals issued by these trusts are purchased by the customer being financed. Non-customer TOB trusts are trusts that are used by the Company to finance its own municipal securities investments; the Residuals issued by non-customer TOB trusts are purchased by the Company.

With respect to both customer and non-customer TOB trusts, the Company may provide remarketing agent services. If Floaters are optionally tendered and the Company, in its role as remarketing agent, is unable to find a new investor to purchase the optionally tendered Floaters within a specified period of time, the Company may, but is not obligated to, purchase the tendered Floaters into its own inventory. The level of the Company's inventory of such Floaters fluctuates. At December 31, 2015 and 2014, the Company held \$2 million and \$3 million, respectively, of Floaters related to customer and non-customer TOB trusts.

For certain customer TOB trusts, the Company may also serve as a voluntary advance provider. In this capacity, the Company may, but is not obligated to, make loan advances to customer TOB trusts to purchase optionally tendered Floaters that have not otherwise been successfully remarketed to new investors. Such loans are secured by pledged Floaters. As of December 31, 2015, the Company had no outstanding voluntary advances to customer TOB trusts.

For certain non-customer trusts, the Company also provides credit enhancement. At December 31, 2015 and 2014, approximately \$82 million and \$198 million, respectively, of the municipal bonds owned by non-customer TOB trusts are subject to a credit guarantee provided by the Company.

The Company also provides liquidity services to many customer and non-customer trusts. If a trust is unwound early due to an event other than a credit event on the underlying municipal bonds, the underlying municipal bonds are sold out of the Trust and bond sale proceeds are used to redeem the outstanding Trust certificates. If this results in a shortfall between the bond sale proceeds and the redemption price of the tendered Floaters, the Company, pursuant to the liquidity agreement, would be obligated to make a payment to the trust to satisfy that shortfall. For certain customer TOB trusts the Company has also executed a reimbursement agreement with the holder of the Residual, pursuant to which the Residual holder is obligated to reimburse the Company for any payment the Company makes under the liquidity arrangement. These reimbursement agreements may be subject to daily margining based on changes in the market value of the underlying municipal bonds. In cases where a third party provides liquidity to a non-customer TOB trust, a similar reimbursement arrangement may be executed, whereby the Company (or a consolidated subsidiary of the Company), as Residual holder, would absorb any losses incurred by the liquidity provider.

For certain other non-customer TOB trusts, the Company serves as tender option provider. The tender option provider arrangement allows Floater holders to put their interests directly to the Company at any time, subject to the requisite notice period requirements, at a price of par.

At December 31, 2015 and 2014, liquidity agreements provided with respect to customer TOB trusts totaled \$3.1 billion and \$3.7 billion, respectively, of which \$2.2 billion and \$2.6 billion, respectively, were offset by reimbursement agreements. For the remaining exposure related to TOB transactions, where the Residual owned by the customer was at least 25% of the bond value at the inception of the transaction, no reimbursement agreement was executed.

The Company considers both customer and non-customer TOB trusts to be VIEs. Customer TOB trusts are not consolidated by the Company, as the power to direct the activities that most significantly impact the trust's economic performance rests with the customer Residual holder, which may unilaterally cause the sale of the trust's bonds.

Non-customer TOB trusts generally are consolidated because the Company holds the Residual interest, and thus has the unilateral power to cause the sale of the trust's bonds.

The Company also provides other liquidity agreements or letters of credit to customer-sponsored municipal investment funds, which are not variable interest entities, and municipality-related issuers that totaled \$8.1 billion and \$7.4 billion as of December 31, 2015 and 2014, respectively. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

### ***Municipal Investments***

Municipal investment transactions include debt and equity interests in partnerships that finance the construction and rehabilitation of low-income housing, facilitate lending in new or underserved markets, or finance the construction or operation of renewable municipal energy facilities. The Company generally invests in these partnerships as a limited partner and earns a return primarily through the receipt of tax credits and grants earned from the investments made by the partnership. The Company may also provide construction loans or permanent loans for the development or operation of real estate properties held by partnerships. These entities are generally considered VIEs. The power to direct the activities of these entities is typically held by the general partner. Accordingly, these entities are not consolidated by the Company.

### ***Client Intermediation***

Client intermediation transactions represent a range of transactions designed to provide investors with specified returns based on the returns of an underlying security, referenced asset or index. These transactions include credit-linked notes and equity-linked notes. In these transactions, the VIE typically obtains exposure to the underlying security, referenced asset or index through a derivative instrument, such as a total-return swap or a credit-default swap. In turn the VIE issues notes to investors that pay a return based on the specified underlying security, referenced asset or index. The VIE invests the proceeds in a financial asset or a guaranteed insurance contract that serves as collateral for the derivative contract over the term of the transaction. The Company's involvement in these transactions includes being the counterparty to the VIE's derivative instruments and investing in a portion of the notes issued by the VIE. In certain transactions, the investor's maximum risk of loss is limited, and the Company absorbs risk of loss above a specified level. The Company does not have the power to direct the activities of the VIEs that most significantly impact their economic performance, and thus it does not consolidate them.

The Company's maximum risk of loss in these transactions is defined as the amount invested in notes issued by the VIE and the notional amount of any risk of loss absorbed by the Company through a separate instrument issued by the VIE. The derivative instrument held by the Company may generate a receivable from the VIE (for example, where the Company purchases credit protection from the VIE in connection with the VIE's issuance of a credit-linked note), which is collateralized by the assets owned by the VIE. These derivative instruments are not considered variable interests, and any associated receivables are not included in the calculation of maximum exposure to the VIE.

The proceeds from new securitizations related to the Company's client intermediation transactions for the years ended December 31, 2015 and 2014 totaled approximately \$2.0 billion.

### ***Investment Funds***

The Company is the investment manager for certain investment funds and retirement funds that invest in various asset classes including private equity, hedge funds, real estate, fixed income and infrastructure. The Company earns a management fee, which is a percentage of capital under management, and may earn performance fees. In addition, for some of these funds the Company has an ownership interest in the investment funds. The Company has also established a number of investment funds as opportunities for qualified employees to invest in private equity investments. The Company acts as investment manager to these funds and may provide employees with financing on both recourse and non-recourse bases for a portion of the employees' investment commitments.

The Company has determined that a majority of the investment entities managed by Citigroup are provided a deferral from the requirements of ASC 810, because they meet the criteria in Accounting Standards Update No. 2010-10, *Consolidation (Topic 810), Amendments for Certain Investment Funds* (ASU 2010-10). These entities continue to be evaluated under the requirements of ASC 810-10, prior to the implementation of SFAS 167 (FIN 46(R), *Consolidation of Variable Interest Entities*), which required that a VIE be consolidated by the party with a variable interest that will absorb a majority of the entity's expected losses or residual returns, or both. See Note 1 to the Consolidated Financial Statements for a discussion of ASU 2015-02 which includes impending changes to targeted areas of consolidation guidance. When ASU 2015-02 becomes effective on January 1, 2016, it will eliminate the above noted deferral for certain investment entities pursuant to ASU 2010-10.

## 23. DERIVATIVES ACTIVITIES

In the ordinary course of business, Citigroup enters into various types of derivative transactions. These derivative transactions include:

- *Futures and forward contracts*, which are commitments to buy or sell at a future date a financial instrument, commodity or currency at a contracted price and may be settled in cash or through delivery.
- *Swap contracts*, which are commitments to settle in cash at a future date or dates that may range from a few days to a number of years, based on differentials between specified indices or financial instruments, as applied to a notional principal amount.
- *Option contracts*, which give the purchaser, for a premium, the right, but not the obligation, to buy or sell within a specified time a financial instrument, commodity or currency at a contracted price that may also be settled in cash, based on differentials between specified indices or prices.

Swaps and forwards and some option contracts are over-the-counter (OTC) derivatives that are bilaterally negotiated with counterparties and settled with those counterparties, except for swap contracts that are novated and "cleared" through central counterparties (CCPs). Futures contracts and other option contracts are standardized contracts that are traded on an exchange with a CCP as the counterparty from the inception of the transaction. Citigroup enters into these derivative contracts relating to interest rate, foreign currency, commodity and other market/credit risks for the following reasons:

- *Trading Purposes*: Citigroup trades derivatives as an active market maker. Citigroup offers its customers derivatives in connection with their risk management actions to transfer, modify or reduce their interest rate, foreign exchange and other market/credit risks or for their own trading purposes. Citigroup also manages its derivative risk positions through offsetting trade activities, controls focused on price verification, and daily reporting of positions to senior managers.
- *Hedging*: Citigroup uses derivatives in connection with its risk management activities to hedge certain risks or reposition the risk profile of the Company. For example, Citigroup issues fixed-rate long-term debt and then enters into a receive-fixed, pay-variable-rate interest rate swap with the same tenor and notional amount to convert the interest payments to a net variable-rate basis. This strategy is the most common form of an interest rate hedge, as it minimizes net interest cost in certain yield curve environments. Derivatives are also used to manage risks inherent in specific groups of on-balance sheet assets and liabilities, including AFS securities and borrowings, as well as other interest-sensitive assets and liabilities. In addition, foreign-exchange contracts are used to hedge non-U.S.-dollar-denominated debt, foreign-currency-denominated AFS securities and net investment exposures.

Derivatives may expose Citigroup to market, credit or liquidity risks in excess of the amounts recorded on the Consolidated Balance Sheet. Market risk on a derivative product is the exposure created by potential fluctuations in interest rates, foreign-exchange rates and other factors and is a function of the type of product, the volume of transactions, the tenor and terms of the agreement and the underlying volatility. Credit risk is the exposure to loss in the event of nonperformance by the other party to the transaction where the value of any collateral held is not adequate to cover such losses. The recognition in earnings of unrealized gains on these transactions is subject to management's assessment of the probability of counterparty default. Liquidity risk is the potential exposure that arises when the size of a derivative position may not be able to be monetized in a reasonable period of time and at a reasonable cost in periods of high volatility and financial stress.

Derivative transactions are customarily documented under industry standard master agreements that provide that, following an uncured payment default or other event of default, the non-defaulting party may promptly terminate all transactions between the parties and determine the net amount due to be paid to, or by, the defaulting party. Events of default include: (i) failure to make a payment on a derivatives transaction that remains uncured following applicable notice and grace periods, (ii) breach of agreement that remains uncured after applicable notice and grace periods, (iii) breach of a representation, (iv) cross default, either to third-party debt or to other derivative transactions entered into between the parties, or, in some cases, their affiliates, (v) the occurrence of a merger or consolidation which results in a party's becoming a materially weaker credit, and (vi) the cessation or repudiation of any applicable guarantee or other credit support document. Obligations under master netting agreements are often secured by collateral posted under an industry standard credit support annex to the master netting agreement. An event of default may also occur under a credit support annex if a party fails to make a collateral delivery that remains uncured following applicable notice and grace periods.

The netting and collateral rights incorporated in the master netting agreements are considered to be legally enforceable if a supportive legal opinion has been obtained from counsel of recognized standing that provides the requisite level of certainty regarding enforceability and that the exercise of rights by the non-defaulting party to terminate and close-out transactions on a net basis under these agreements will not be stayed or avoided under applicable law upon an event of default including bankruptcy, insolvency or similar proceeding.

A legal opinion may not be sought for certain jurisdictions where local law is silent or unclear as to the enforceability of such rights or where adverse case law or conflicting regulation may cast doubt on the enforceability of such rights. In some jurisdictions and for some counterparty types, the insolvency law may not provide the requisite level of certainty. For example, this may be the case for certain sovereigns, municipalities, central banks and U.S. pension plans.

Exposure to credit risk on derivatives is affected by market volatility, which may impair the ability of counterparties to satisfy their obligations to the Company. Credit limits are established and closely monitored for customers engaged in derivatives transactions. Citi considers the level of legal certainty regarding enforceability of its offsetting rights under master netting agreements and credit support annexes to be an important factor in its risk management process. Specifically, Citi generally transacts much lower volumes of derivatives under master netting agreements where Citi does not have the requisite level of legal certainty regarding enforceability, because such derivatives consume greater amounts of single counterparty credit limits than those executed under enforceable master netting agreements.

Cash collateral and security collateral in the form of G10 government debt securities is often posted by a party to a master netting agreement to secure the net open exposure of the other party; the receiving party is free to commingle/rehypothecate such collateral in the ordinary course of its business. Nonstandard collateral such as corporate bonds, municipal bonds, U.S. agency securities and/or MBS may also be pledged as collateral for derivative transactions. Security collateral posted to open and maintain a master netting agreement with a counterparty, in the form of cash and/or securities, may from time to time be segregated in an account at a third-party custodian pursuant to a tri-party account control agreement.



Information pertaining to Citigroup's derivative activity, based on notional amounts is presented in the table below. Derivative notional amounts are reference amounts from which contractual payments are derived and do not represent a complete and accurate measure of Citi's exposure to derivative transactions. Rather, as discussed above, Citi's derivative exposure arises primarily from market fluctuations (i.e., market risk), counterparty failure (i.e., credit risk) and/or periods of high volatility or financial stress (i.e., liquidity risk), as well as any market valuation adjustments that may be

required on the transactions. Moreover, notional amounts do not reflect the netting of offsetting trades (also as discussed above). For example, if Citi enters into an interest rate swap with \$100 million notional, and offsets this risk with an identical but opposite position with a different counterparty, \$200 million in derivative notionals is reported, although these offsetting positions may result in de minimis overall market risk. Aggregate derivative notional amounts can fluctuate from period to period in the normal course of business based on Citi's market share, levels of client activity and other factors.

## Derivative Notionals

<i>In millions of dollars</i>	Hedging instruments under ASC 815 <sup>(1)(2)</sup>		Other derivative instruments			
	December 31, 2015	December 31, 2014	Trading derivatives		Management hedges <sup>(3)</sup>	
			December 31, 2015	December 31, 2014	December 31, 2015	December 31, 2014
<b>Interest rate contracts</b>						
Swaps	\$ 166,576	\$ 163,348	\$ 22,208,794	\$ 31,906,549	\$ 28,969	\$ 31,945
Futures and forwards	—	—	6,868,340	7,044,990	38,421	42,305
Written options	—	—	3,033,617	3,311,904	2,606	3,913
Purchased options	—	—	2,887,605	3,171,184	4,575	4,910
<b>Total interest rate contract notionals</b>	<b>\$ 166,576</b>	<b>\$ 163,348</b>	<b>\$ 34,998,356</b>	<b>\$ 45,434,627</b>	<b>\$ 74,571</b>	<b>\$ 83,073</b>
<b>Foreign exchange contracts</b>						
Swaps	\$ 23,007	\$ 25,157	\$ 4,765,687	\$ 4,567,977	\$ 23,960	\$ 23,990
Futures, forwards and spot <sup>(4)</sup>	72,124	73,219	2,563,649	3,003,295	3,034	7,069
Written options	448	—	1,125,664	1,343,520	—	432
Purchased options	819	—	1,131,816	1,363,382	—	432
<b>Total foreign exchange contract notionals</b>	<b>\$ 96,398</b>	<b>\$ 98,376</b>	<b>\$ 9,586,816</b>	<b>\$ 10,278,174</b>	<b>\$ 26,994</b>	<b>\$ 31,923</b>
<b>Equity contracts</b>						
Swaps	\$ —	\$ —	\$ 180,963	\$ 131,344	\$ —	\$ —
Futures and forwards	—	—	33,735	30,510	—	—
Written options	—	—	298,876	305,627	—	—
Purchased options	—	—	265,062	275,216	—	—
<b>Total equity contract notionals</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 778,636</b>	<b>\$ 742,697</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Commodity and other contracts</b>						
Swaps	\$ —	\$ —	\$ 70,561	\$ 90,817	\$ —	\$ —
Futures and forwards	789	1,089	106,474	106,021	—	—
Written options	—	—	72,648	104,581	—	—
Purchased options	—	—	66,051	95,567	—	—
<b>Total commodity and other contract notionals</b>	<b>\$ 789</b>	<b>\$ 1,089</b>	<b>\$ 315,734</b>	<b>\$ 396,986</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Credit derivatives<sup>(5)</sup></b>						
Protection sold	\$ —	\$ —	\$ 950,922	\$ 1,063,858	\$ —	\$ —
Protection purchased	—	—	981,586	1,100,369	23,628	16,018
<b>Total credit derivatives</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 1,932,508</b>	<b>\$ 2,164,227</b>	<b>\$ 23,628</b>	<b>\$ 16,018</b>
<b>Total derivative notionals</b>	<b>\$ 263,763</b>	<b>\$ 262,813</b>	<b>\$ 47,612,050</b>	<b>\$ 59,016,711</b>	<b>\$ 125,193</b>	<b>\$ 131,014</b>

- (1) The notional amounts presented in this table do not include hedge accounting relationships under ASC 815 where Citigroup is hedging the foreign currency risk of a net investment in a foreign operation by issuing a foreign-currency-denominated debt instrument. The notional amount of such debt was \$2,102 million and \$3,752 million at December 31, 2015 and December 31, 2014, respectively.
- (2) Derivatives in hedge accounting relationships accounted for under ASC 815 are recorded in either *Other assets/Other liabilities* or *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet.
- (3) Management hedges represent derivative instruments used to mitigate certain economic risks, but for which hedge accounting is not applied. These derivatives are recorded in either *Other assets/Other liabilities* or *Trading account assets/Trading account liabilities* on the Consolidated Balance Sheet.



- (4) Foreign exchange notional contracts include spot contract notionals of \$335 billion and \$849 billion at December 31, 2015 and December 31, 2014, respectively. Previous presentations of foreign exchange derivative notional contracts did not include spot contracts. There was no impact to the Consolidated Financial Statements related to this updated presentation.
- (5) Credit derivatives are arrangements designed to allow one party (protection buyer) to transfer the credit risk of a “reference asset” to another party (protection seller). These arrangements allow a protection seller to assume the credit risk associated with the reference asset without directly purchasing that asset. The Company enters into credit derivative positions for purposes such as risk management, yield enhancement, reduction of credit concentrations and diversification of overall risk.

The following tables present the gross and net fair values of the Company’s derivative transactions, and the related offsetting amounts permitted under ASC 210-20-45 and ASC 815-10-45, as of December 31, 2015 and December 31, 2014. Under ASC 210-20-45, gross positive fair values are offset against gross negative fair values by counterparty pursuant to enforceable master netting agreements. Under ASC 815-10-45, payables and receivables in respect of cash collateral received from or paid to a given counterparty pursuant to a credit support annex are included in the offsetting amount if a legal opinion supporting enforceability of netting and collateral rights has been obtained. GAAP does not permit similar offsetting for security collateral. The tables also include amounts that are not permitted to be offset under ASC 210-20-45 and ASC 815-10-45, such as security collateral posted or cash collateral posted at third-party custodians, but which would be eligible for offsetting to the extent an event of default occurred and a legal opinion supporting enforceability of the netting and collateral rights has been obtained.

## Derivative Mark-to-Market (MTM) Receivables/Payables

<i>In millions of dollars at December 31, 2015</i>	Derivatives classified in Trading account assets / liabilities <sup>(1)(2)(3)</sup>		Derivatives classified in Other assets / liabilities <sup>(2)(3)</sup>	
	Assets	Liabilities	Assets	Liabilities
<b>Derivatives instruments designated as ASC 815 hedges</b>				
Over-the-counter	\$ 262	\$ 105	\$ 2,328	\$ 106
Cleared	4,607	1,471	5	—
<b>Interest rate contracts</b>	\$ 4,869	\$ 1,576	\$ 2,333	\$ 106
Over-the-counter	\$ 2,688	\$ 364	\$ 95	\$ 677
<b>Foreign exchange contracts</b>	\$ 2,688	\$ 364	\$ 95	\$ 677
<b>Total derivative instruments designated as ASC 815 hedges</b>	\$ 7,557	\$ 1,940	\$ 2,428	\$ 783
<b>Derivatives instruments not designated as ASC 815 hedges</b>				
Over-the-counter	\$ 289,124	\$ 267,761	\$ 182	\$ 12
Cleared	120,848	126,532	244	216
Exchange traded	53	35	—	—
<b>Interest rate contracts</b>	\$ 410,025	\$ 394,328	\$ 426	\$ 228
Over-the-counter	\$ 126,474	\$ 133,361	\$ —	\$ 66
Cleared	134	152	—	—
Exchange traded	21	36	—	—
<b>Foreign exchange contracts</b>	\$ 126,629	\$ 133,549	\$ —	\$ 66
Over-the-counter	\$ 14,560	\$ 20,107	\$ —	\$ —
Cleared	28	3	—	—
Exchange traded	7,297	6,406	—	—
<b>Equity contracts</b>	\$ 21,885	\$ 26,516	\$ —	\$ —
Over-the-counter	\$ 16,794	\$ 18,641	\$ —	\$ —
Exchange traded	1,216	1,912	—	—
<b>Commodity and other contracts</b>	\$ 18,010	\$ 20,553	\$ —	\$ —
Over-the-counter	\$ 31,072	\$ 30,608	\$ 711	\$ 245
Cleared	3,803	3,560	131	318
<b>Credit derivatives<sup>(4)</sup></b>	\$ 34,875	\$ 34,168	\$ 842	\$ 563
<b>Total derivatives instruments not designated as ASC 815 hedges</b>	\$ 611,424	\$ 609,114	\$ 1,268	\$ 857
<b>Total derivatives</b>	\$ 618,981	\$ 611,054	\$ 3,696	\$ 1,640
Cash collateral paid/received <sup>(5)(6)</sup>	\$ 4,911	\$ 13,628	\$ 8	\$ 37
Less: Netting agreements <sup>(7)</sup>	(524,481)	(524,481)	—	—
Less: Netting cash collateral received/paid <sup>(8)</sup>	(43,227)	(42,609)	(1,949)	(53)
<b>Net receivables/payables included on the consolidated balance sheet<sup>(9)</sup></b>	\$ 56,184	\$ 57,592	\$ 1,755	\$ 1,624
<b>Additional amounts subject to an enforceable master netting agreement but not offset on the Consolidated Balance Sheet</b>				
<b>Less: Cash collateral received/paid</b>	\$ (779)	\$ (2)	\$ —	\$ —
<b>Less: Non-cash collateral received/paid</b>	(9,855)	(5,131)	(270)	—
<b>Total net receivables/payables<sup>(9)</sup></b>	\$ 45,550	\$ 52,459	\$ 1,485	\$ 1,624

(1) The trading derivatives fair values are presented in Note 13 to the Consolidated Financial Statements.

(2) Derivative mark-to-market receivables/payables related to management hedges are recorded in either *Other assets/Other liabilities* or *Trading account assets/Trading account liabilities*.

(3) Over-the-counter (OTC) derivatives are derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market but then novated to a central clearing house, whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.

(4) The credit derivatives trading assets comprise \$17,957 million related to protection purchased and \$16,918 million related to protection sold as of December 31, 2015. The credit derivatives trading liabilities comprise \$16,968 million related to protection purchased and \$17,200 million related to protection sold as of December 31, 2015.

(5) For the trading account assets/liabilities, reflects the net amount of the \$47,520 million and \$56,855 million of gross cash collateral paid and received, respectively. Of the gross cash collateral paid, \$42,609 million was used to offset trading derivative liabilities and, of the gross cash collateral received, \$43,227 million was used to offset trading derivative assets.

- (6) For cash collateral paid with respect to non-trading derivative assets, reflects the net amount of \$61 million of gross cash collateral paid, of which \$53 million is netted against non-trading derivative positions within *Other liabilities*. For cash collateral received with respect to non-trading derivative liabilities, reflects the net amount of \$1,986 million of gross cash collateral received, of which \$1,949 million is netted against OTC non-trading derivative positions within *Other assets*.
- (7) Represents the netting of derivative receivable and payable balances with the same counterparty under enforceable netting agreements. Approximately \$391 billion, \$126 billion and \$7 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.
- (8) Represents the netting of cash collateral paid and received by counterparty under enforceable credit support agreements. Substantially all cash collateral received and paid is netted against OTC derivative assets and liabilities, respectively.
- (9) The net receivables/payables include approximately \$10 billion of derivative asset and \$10 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

*In millions of dollars at December 31, 2014*

Derivatives instruments designated as ASC 815 hedges	Derivatives classified in Trading account assets / liabilities <sup>(1)(2)(3)</sup>		Derivatives classified in Other assets / liabilities <sup>(2)(3)</sup>	
	Assets	Liabilities	Assets	Liabilities
Over-the-counter	\$ 1,508	\$ 204	\$ 3,117	\$ 414
Cleared	4,300	868	—	25
<b>Interest rate contracts</b>	<b>\$ 5,808</b>	<b>\$ 1,072</b>	<b>\$ 3,117</b>	<b>\$ 439</b>
Over-the-counter	\$ 3,885	\$ 743	\$ 678	\$ 588
<b>Foreign exchange contracts</b>	<b>\$ 3,885</b>	<b>\$ 743</b>	<b>\$ 678</b>	<b>\$ 588</b>
<b>Total derivative instruments designated as ASC 815 hedges</b>	<b>\$ 9,693</b>	<b>\$ 1,815</b>	<b>\$ 3,795</b>	<b>\$ 1,027</b>
<b>Derivatives instruments not designated as ASC 815 hedges</b>				
Over-the-counter	\$ 376,778	\$ 359,689	\$ 106	\$ —
Cleared	255,847	261,499	6	21
Exchange traded	20	22	141	164
<b>Interest rate contracts</b>	<b>\$ 632,645</b>	<b>\$ 621,210</b>	<b>\$ 253</b>	<b>\$ 185</b>
Over-the-counter	\$ 151,736	\$ 157,650	\$ —	\$ 17
Cleared	366	387	—	—
Exchange traded	7	46	—	—
<b>Foreign exchange contracts</b>	<b>\$ 152,109</b>	<b>\$ 158,083</b>	<b>\$ —</b>	<b>\$ 17</b>
Over-the-counter	\$ 20,425	\$ 28,333	\$ —	\$ —
Cleared	16	35	—	—
Exchange traded	4,311	4,101	—	—
<b>Equity contracts</b>	<b>\$ 24,752</b>	<b>\$ 32,469</b>	<b>\$ —</b>	<b>\$ —</b>
Over-the-counter	\$ 19,943	\$ 23,103	\$ —	\$ —
Exchange traded	3,577	3,083	—	—
<b>Commodity and other contracts</b>	<b>\$ 23,520</b>	<b>\$ 26,186</b>	<b>\$ —</b>	<b>\$ —</b>
Over-the-counter	\$ 39,412	\$ 39,439	\$ 265	\$ 384
Cleared	4,106	3,991	13	171
<b>Credit derivatives<sup>(4)</sup></b>	<b>\$ 43,518</b>	<b>\$ 43,430</b>	<b>\$ 278</b>	<b>\$ 555</b>
<b>Total derivatives instruments not designated as ASC 815 hedges</b>	<b>\$ 876,544</b>	<b>\$ 881,378</b>	<b>\$ 531</b>	<b>\$ 757</b>
<b>Total derivatives</b>	<b>\$ 886,237</b>	<b>\$ 883,193</b>	<b>\$ 4,326</b>	<b>\$ 1,784</b>
Cash collateral paid/received <sup>(5)(6)</sup>	\$ 6,523	\$ 9,846	\$ 123	\$ 7
Less: Netting agreements <sup>(7)</sup>	(777,178)	(777,178)	—	—
Less: Netting cash collateral received/paid <sup>(8)</sup>	(47,625)	(47,769)	(1,791)	(15)
<b>Net receivables/payables included on the Consolidated Balance Sheet<sup>(9)</sup></b>	<b>\$ 67,957</b>	<b>\$ 68,092</b>	<b>\$ 2,658</b>	<b>\$ 1,776</b>
<b>Additional amounts subject to an enforceable master netting agreement but not offset on the Consolidated Balance Sheet</b>				
<b>Less: Cash collateral received/paid</b>	<b>\$ (867)</b>	<b>\$ (11)</b>	<b>\$ —</b>	<b>\$ —</b>
<b>Less: Non-cash collateral received/paid</b>	<b>(10,043)</b>	<b>(6,264)</b>	<b>(1,293)</b>	<b>—</b>
<b>Total net receivables/payables<sup>(9)</sup></b>	<b>\$ 57,047</b>	<b>\$ 61,817</b>	<b>\$ 1,365</b>	<b>\$ 1,776</b>

- (1) The trading derivatives fair values are presented in Note 13 to the Consolidated Financial Statements.
- (2) Derivative mark-to-market receivables/payables related to management hedges are recorded in either *Other assets/Other liabilities* or *Trading account assets/Trading account liabilities*.
- (3) Over-the-counter (OTC) derivatives include derivatives executed and settled bilaterally with counterparties without the use of an organized exchange or central clearing house. Cleared derivatives include derivatives executed bilaterally with a counterparty in the OTC market but then novated to a central clearing house,

whereby the central clearing house becomes the counterparty to both of the original counterparties. Exchange traded derivatives include derivatives executed directly on an organized exchange that provides pre-trade price transparency.

- (4) The credit derivatives trading assets comprise \$18,430 million related to protection purchased and \$25,088 million related to protection sold as of December 31, 2014. The credit derivatives trading liabilities comprise \$25,972 million related to protection purchased and \$17,458 million related to protection sold as of December 31, 2014.
- (5) For the trading account assets/liabilities, reflects the net amount of the \$54,292 million and \$57,471 million of gross cash collateral paid and received, respectively. Of the gross cash collateral paid, \$47,769 million was used to offset derivative liabilities and, of the gross cash collateral received, \$47,625 million was used to offset derivative assets.
- (6) For cash collateral paid with respect to non-trading derivative assets, reflects the net amount of \$138 million of the gross cash collateral paid, of which \$15 million is netted against non-trading derivative positions within *Other liabilities*. For cash collateral received with respect to non-trading derivative liabilities, reflects the net amount of \$1,798 million of gross cash collateral received of which \$1,791 million is netted against non-trading derivative positions within *Other assets*.
- (7) Represents the netting of derivative receivable and payable balances with the same counterparty under enforceable netting agreements. Approximately \$510 billion, \$264 billion and \$3 billion of the netting against trading account asset/liability balances is attributable to each of the OTC, cleared and exchange-traded derivatives, respectively.
- (8) Represents the netting of cash collateral paid and received by counterparty under enforceable credit support agreements. Substantially all cash collateral received is netted against OTC derivative assets. Cash collateral paid of approximately \$46 billion and \$2 billion is netted against OTC and cleared derivative liabilities, respectively.
- (9) The net receivables/payables include approximately \$11 billion of derivative asset and \$10 billion of liability fair values not subject to enforceable master netting agreements.

For the years ended December 31, 2015, 2014 and 2013, the amounts recognized in *Principal transactions* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship, as well as the underlying non-derivative instruments, are presented in Note 6 to the Consolidated Financial Statements. Citigroup presents this disclosure by business classification, showing derivative gains and losses related to its trading activities together with gains and losses related to non-derivative instruments within the same trading portfolios, as this represents the way these portfolios are risk managed.

The amounts recognized in *Other revenue* in the Consolidated Statement of Income related to derivatives not designated in a qualifying hedging relationship are shown below. The table below does not include any offsetting gains/losses on the economically hedged items to the extent such amounts are also recorded in *Other revenue*.

**Gains (losses) included in  
*Other revenue***

<i>In millions of dollars</i>	<b>2015</b>	2014	2013
Interest rate contracts	\$ 117	\$ (227)	\$ 208
Foreign exchange	(39)	14	(41)
Credit derivatives	476	(150)	(594)
<b>Total Citigroup</b>	<b>\$ 554</b>	<b>\$ (363)</b>	<b>\$ (427)</b>

## Accounting for Derivative Hedging

Citigroup accounts for its hedging activities in accordance with ASC 815, *Derivatives and Hedging*. As a general rule, hedge accounting is permitted where the Company is exposed to a particular risk, such as interest-rate or foreign-exchange risk, that causes changes in the fair value of an asset or liability or variability in the expected future cash flows of an existing asset, liability or a forecasted transaction that may affect earnings.

Derivative contracts hedging the risks associated with changes in fair value are referred to as fair value hedges, while contracts hedging the variability of expected future cash flows are cash flow hedges. Hedges that utilize derivatives or debt instruments to manage the foreign exchange risk associated with equity investments in non-U.S.-dollar-functional-currency foreign subsidiaries (net investment in a foreign operation) are net investment hedges.

If certain hedging criteria specified in ASC 815 are met, including testing for hedge effectiveness, hedge accounting may be applied. The hedge effectiveness assessment methodologies for similar hedges are performed in a similar manner and are used consistently throughout the hedging relationships. For fair value hedges, changes in the value of the hedging derivative, as well as changes in the value of the related hedged item due to the risk being hedged, are reflected in current earnings. For cash flow hedges and net investment hedges, changes in the value of the hedging derivative are reflected in *Accumulated other comprehensive income (loss)* in Citigroup's stockholders' equity to the extent the hedge is highly effective. Hedge ineffectiveness, in either case, is reflected in current earnings.

For asset/liability management hedging, fixed-rate long-term debt is recorded at amortized cost under GAAP. However, by designating an interest rate swap contract as a hedging instrument and electing to apply ASC 815 fair value hedge accounting, the carrying value of the debt is adjusted for changes in the benchmark interest rate, with such changes in value recorded in current earnings. The related interest-rate swap also is recorded on the balance sheet at fair value, with any changes in fair value also reflected in earnings. Thus, any ineffectiveness resulting from the hedging relationship is captured in current earnings.

Alternatively, for management hedges that do not meet the ASC 815 hedging criteria, the derivative is recorded at fair value on the balance sheet, with the associated changes in fair value recorded in earnings, while the debt continues to be carried at amortized cost. Therefore, current earnings are affected only by the interest rate shifts and other factors that cause a change in the swap's value. This type of hedge is undertaken when hedging requirements cannot be achieved or management decides not to apply ASC 815 hedge accounting.

Another alternative is to elect to carry the debt at fair value under the fair value option. Once the irrevocable election is made upon issuance of the debt, the full change in fair value of the debt is reported in earnings. The related interest rate swap, with changes in fair value, is also reflected in earnings, which provides a natural offset to the debt's fair value change. To the extent the two offsets are not exactly equal because the full change in the fair value of the debt

includes risks not offset by the interest rate swap, the difference is captured in current earnings.

The key requirements to achieve ASC 815 hedge accounting are documentation of a hedging strategy and specific hedge relationships at hedge inception and substantiating hedge effectiveness on an ongoing basis. A derivative must be highly effective in accomplishing the hedge objective of offsetting either changes in the fair value or cash flows of the hedged item for the risk being hedged. Any ineffectiveness in the hedge relationship is recognized in current earnings. The assessment of effectiveness may exclude changes in the value of the hedged item that are unrelated to the risks being hedged. Similarly, the assessment of effectiveness may exclude changes in the fair value of a derivative related to time value that, if excluded, are recognized in current earnings.

## Fair Value Hedges

### *Hedging of Benchmark Interest Rate Risk*

Citigroup hedges exposure to changes in the fair value of outstanding fixed-rate issued debt. These hedges are designated as fair value hedges of the benchmark interest rate risk associated with the currency of the hedged liability. The fixed cash flows of the hedged items are converted to benchmark variable-rate cash flows by entering into receive-fixed, pay-variable interest rate swaps. These fair value hedge relationships use either regression or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

Citigroup also hedges exposure to changes in the fair value of fixed-rate assets due to changes in benchmark interest rates, including available-for-sale debt securities and loans. The hedging instruments used are receive-variable, pay-fixed interest rate swaps. These fair value hedging relationships use either regression or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis.

### ***Hedging of Foreign Exchange Risk***

Citigroup hedges the change in fair value attributable to foreign-exchange rate movements in available-for-sale securities that are denominated in currencies other than the functional currency of the entity holding the securities, which may be within or outside the U.S. The hedging instrument employed is generally a forward foreign-exchange contract. In this hedge, the change in fair value of the hedged available-for-sale security attributable to the portion of foreign exchange risk hedged is reported in earnings, and not *Accumulated other comprehensive income (loss)*—which serves to offset the change in fair value of the forward contract that is also reflected in earnings. Citigroup considers the premium associated with forward contracts (i.e., the differential between spot and contractual forward rates) as the cost of hedging; this is excluded from the assessment of hedge effectiveness and reflected directly in earnings. The dollar-offset method is used to assess hedge effectiveness. Since that assessment is based on changes in fair value attributable to changes in spot rates on both the available-for-sale securities and the forward contracts for the portion of the relationship hedged, the amount of hedge ineffectiveness is not significant.

The following table summarizes the gains (losses) on the Company's fair value hedges:

<i>In millions of dollars</i>	<b>Gains (losses) on fair value hedges<sup>(1)</sup></b>		
	<b>Year ended December 31,</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
<b>Gain (loss) on the derivatives in designated and qualifying fair value hedges</b>			
Interest rate contracts	\$ (847)	\$ 1,546	\$ (3,288)
Foreign exchange contracts	1,315	1,367	265
Commodity contracts	41	(221)	—
<b>Total gain (loss) on the derivatives in designated and qualifying fair value hedges</b>	<b>\$ 509</b>	<b>\$ 2,692</b>	<b>\$ (3,023)</b>
<b>Gain (loss) on the hedged item in designated and qualifying fair value hedges</b>			
Interest rate hedges	\$ 792	\$ (1,496)	\$ 3,204
Foreign exchange hedges	(1,258)	(1,422)	(185)
Commodity hedges	(35)	250	—
<b>Total gain (loss) on the hedged item in designated and qualifying fair value hedges</b>	<b>\$ (501)</b>	<b>\$ (2,668)</b>	<b>\$ 3,019</b>
<b>Hedge ineffectiveness recognized in earnings on designated and qualifying fair value hedges</b>			
Interest rate hedges	\$ (47)	\$ 53	\$ (84)
Foreign exchange hedges	(23)	(16)	(4)
<b>Total hedge ineffectiveness recognized in earnings on designated and qualifying fair value hedges</b>	<b>\$ (70)</b>	<b>\$ 37</b>	<b>\$ (88)</b>
<b>Net gain (loss) excluded from assessment of the effectiveness of fair value hedges</b>			
Interest rate contracts	\$ (8)	\$ (3)	\$ —
Foreign exchange contracts <sup>(2)</sup>	80	(39)	84
Commodity hedges <sup>(2)</sup>	6	29	—
<b>Total net gain (loss) excluded from assessment of the effectiveness of fair value hedges</b>	<b>\$ 78</b>	<b>\$ (13)</b>	<b>\$ 84</b>

(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.

(2) 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.

## Cash Flow Hedges

### **Hedging of Benchmark Interest Rate Risk**

Citigroup hedges variable cash flows associated with floating-rate liabilities and the rollover (re-issuance) of liabilities. Variable cash flows from those liabilities are converted to fixed-rate cash flows by entering into receive-variable, pay-fixed interest rate swaps and receive-variable, pay-fixed forward-starting interest rate swaps. Citi also hedges variable cash flows from recognized and forecasted floating-rate assets. Variable cash flows from those assets are converted to fixed-rate cash flows by entering into receive-fixed, pay-variable interest rate swaps. These cash-flow hedging relationships use either regression analysis or dollar-offset ratio analysis to assess whether the hedging relationships are highly effective at inception and on an ongoing basis. When certain variable interest rates, associated with hedged items, do not qualify as benchmark interest rates, Citigroup designates the risk being hedged as the risk of overall changes in the hedged cash flows. Since efforts are made to match the terms of the derivatives to those of the hedged forecasted cash flows as closely as possible, the amount of hedge ineffectiveness is not significant.

### **Hedging of Foreign Exchange Risk**

Citigroup locks in the functional currency equivalent cash flows of long-term debt and short-term borrowings that are denominated in currencies other than the functional currency of the issuing entity. Depending on the risk management objectives, these types of hedges are designated as either cash flow hedges of only foreign exchange risk or cash flow hedges of both foreign exchange and interest rate risk, and the hedging instruments used are foreign exchange cross-currency swaps and forward contracts. These cash flow hedge relationships use dollar-offset ratio analysis to determine whether the hedging relationships are highly effective at inception and on an ongoing basis.

### **Hedging Total Return**

Citigroup generally manages the risk associated with leveraged loans it has originated or in which it participates by transferring a majority of its exposure to the market through SPEs prior to or shortly after funding. Retained exposures to leveraged loans receivable are generally hedged using total return swaps.

The amount of hedge ineffectiveness on the cash flow hedges recognized in earnings for the years ended December 31, 2015, 2014 and 2013 is not significant. The pretax change in *Accumulated other comprehensive income (loss)* from cash flow hedges is presented below:

<i>In millions of dollars</i>	Year ended December 31,		
	2015	2014	2013
<b>Effective portion of cash flow hedges included in AOCI</b>			
Interest rate contracts	\$ 357	\$ 299	\$ 749
Foreign exchange contracts	(220)	(167)	34
Credit derivatives	—	2	14
<b>Total effective portion of cash flow hedges included in AOCI</b>	<b>\$ 137</b>	<b>\$ 134</b>	<b>\$ 797</b>
<b>Effective portion of cash flow hedges reclassified from AOCI to earnings</b>			
Interest rate contracts	\$ (186)	\$ (260)	\$ (700)
Foreign exchange contracts	(146)	(149)	(176)
<b>Total effective portion of cash flow hedges reclassified from AOCI to earnings<sup>(1)</sup></b>	<b>\$ (332)</b>	<b>\$ (409)</b>	<b>\$ (876)</b>

(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 remaining in *Accumulated other comprehensive income (loss)* on the Consolidated Balance Sheet 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 loss associated with cash flow hedges expected to be reclassified from *Accumulated other comprehensive income (loss)* within 12 months of December 31, 2015 is approximately \$0.3 billion. 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 20 to the Consolidated Financial Statements.

### **Net Investment Hedges**

Consistent with ASC 830-20, *Foreign Currency Matters—Foreign Currency Transactions*, ASC 815 allows hedging of the foreign currency risk of a net investment in a foreign operation. Citigroup uses foreign currency forwards, options and foreign-currency-denominated debt instruments to manage the foreign exchange risk associated with Citigroup's equity investments in several non-U.S.-dollar-functional-currency foreign subsidiaries. Citigroup records the change in the carrying amount of these investments in the *Foreign currency translation adjustment* account within *Accumulated other comprehensive income (loss)*. Simultaneously, the effective portion of the hedge of this exposure is also recorded in the *Foreign currency translation adjustment* account and the ineffective portion, if any, is immediately recorded in earnings.

For derivatives designated as net investment hedges, Citigroup follows the forward-rate method outlined in ASC 815-35-35-16 through 35-26. According to that method, all changes in fair value, including changes related to the forward-rate component of the foreign currency forward contracts and the time value of foreign currency options, are recorded in the *Foreign currency translation adjustment* account within *Accumulated other comprehensive income (loss)*.

For foreign-currency-denominated debt instruments that are designated as hedges of net investments, the translation gain or loss that is recorded in the *Foreign currency translation adjustment* account is based on the spot exchange rate between the functional currency of the respective subsidiary and the U.S. dollar, which is the functional currency of Citigroup. To the extent the notional amount of the hedging instrument exactly matches the hedged net investment and the underlying exchange rate of the derivative hedging instrument relates to the exchange rate between the functional currency of the net investment and Citigroup's functional currency (or, in the case of a non-derivative debt instrument, such instrument is denominated in the functional currency of the net investment), no ineffectiveness is recorded in earnings.

The pretax gain (loss) recorded in the *Foreign currency translation adjustment* account within *Accumulated other comprehensive income (loss)*, related to the effective portion of the net investment hedges, is \$2,475 million, \$2,890 million and \$2,370 million for the years ended December 31, 2015, 2014 and 2013, respectively.

### **Credit Derivatives**

Citi is a market maker and trades a range of credit derivatives. Through these contracts, Citi either purchases or writes protection on either a single name or a portfolio of reference credits. Citi also uses credit derivatives to help mitigate credit risk in its corporate and consumer loan portfolios and other cash positions, and to facilitate client transactions.

Citi monitors its counterparty credit risk in credit derivative contracts. As of December 31, 2015 and December 31, 2014, approximately 98% of the gross receivables are from counterparties with which Citi maintains collateral agreements. A majority of Citi's top 15 counterparties (by receivable balance owed to Citi) are banks, financial institutions or other dealers. Contracts with these counterparties do not include ratings-based termination events. However, counterparty ratings downgrades may have an incremental effect by lowering the threshold at which Citi may call for additional collateral.

The range of credit derivatives entered into includes credit default swaps, total return swaps, credit options and credit-linked notes.

A credit default swap is a contract in which, for a fee, a protection seller agrees to reimburse a protection buyer for any losses that occur due to a predefined credit event on a reference entity. These credit events are defined by the terms of the derivative contract and the reference credit and are generally limited to the market standard of failure to pay on indebtedness and bankruptcy of the reference credit and, in a more limited range of transactions, debt restructuring. Credit

derivative transactions that reference emerging market entities will also typically include additional credit events to cover the acceleration of indebtedness and the risk of repudiation or a payment moratorium. In certain transactions, protection may be provided on a portfolio of reference entities or asset-backed securities. If there is no credit event, as defined by the specific derivative contract, then the protection seller makes no payments to the protection buyer and receives only the contractually specified fee. However, if a credit event occurs as defined in the specific derivative contract sold, the protection seller will be required to make a payment to the protection buyer. Under certain contracts, the seller of protection may not be required to make a payment until a specified amount of losses has occurred with respect to the portfolio and/or may only be required to pay for losses up to a specified amount.

A total return swap typically transfers the total economic performance of a reference asset, which includes all associated cash flows, as well as capital appreciation or depreciation. The protection buyer receives a floating rate of interest and any depreciation on the reference asset from the protection seller and, in return, the protection seller receives the cash flows associated with the reference asset plus any appreciation. Thus, according to the total return swap agreement, the protection seller will be obligated to make a payment any time the floating interest rate payment plus any depreciation of the reference asset exceeds the cash flows associated with the underlying asset. A total return swap may terminate upon a default of the reference asset or a credit event with respect to the reference entity subject to the provisions of the related total return swap agreement between the protection seller and the protection buyer.

A credit option is a credit derivative that allows investors to trade or hedge changes in the credit quality of a reference entity. For example, in a credit spread option, the option writer assumes the obligation to purchase or sell credit protection on the reference entity at a specified "strike" spread level. The option purchaser buys the right to sell credit default protection on the reference entity to, or purchase it from, the option writer at the strike spread level. The payments on credit spread options depend either on a particular credit spread or the price of the underlying credit-sensitive asset or other reference. The options usually terminate if a credit event occurs with respect to the underlying reference entity.

A credit-linked note is a form of credit derivative structured as a debt security with an embedded credit default swap. The purchaser of the note effectively provides credit protection to the issuer by agreeing to receive a return that could be negatively affected by credit events on the underlying reference credit. If the reference entity defaults, the note may be cash settled or physically settled by delivery of a debt security of the reference entity. Thus, the maximum amount of the note purchaser's exposure is the amount paid for the credit-linked note.



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

<i>In millions of dollars at December 31, 2015</i>	Fair values		Notionals	
	Receivable <sup>(1)</sup>	Payable <sup>(2)</sup>	Protection purchased	Protection sold
<b>By industry/counterparty</b>				
Banks	\$ 18,377	\$ 16,988	\$ 513,335	\$ 508,459
Broker-dealers	5,895	6,697	155,195	152,604
Non-financial	128	123	3,969	2,087
Insurance and other financial institutions	11,317	10,923	332,715	287,772
<b>Total by industry/counterparty</b>	<b>\$ 35,717</b>	<b>\$ 34,731</b>	<b>\$ 1,005,214</b>	<b>\$ 950,922</b>
<b>By instrument</b>				
Credit default swaps and options	\$ 34,849	\$ 34,158	\$ 981,999	\$ 940,650
Total return swaps and other	868	573	23,215	10,272
<b>Total by instrument</b>	<b>\$ 35,717</b>	<b>\$ 34,731</b>	<b>\$ 1,005,214</b>	<b>\$ 950,922</b>
<b>By rating</b>				
Investment grade	\$ 12,694	\$ 13,142	\$ 764,040	\$ 720,521
Non-investment grade	23,023	21,589	241,174	230,401
<b>Total by rating</b>	<b>\$ 35,717</b>	<b>\$ 34,731</b>	<b>\$ 1,005,214</b>	<b>\$ 950,922</b>
<b>By maturity</b>				
Within 1 year	\$ 3,871	\$ 3,559	\$ 265,632	\$ 254,225
From 1 to 5 years	27,991	27,488	669,834	639,460
After 5 years	3,855	3,684	69,748	57,237
<b>Total by maturity</b>	<b>\$ 35,717</b>	<b>\$ 34,731</b>	<b>\$ 1,005,214</b>	<b>\$ 950,922</b>

(1) The fair value amount receivable is composed of \$18,799 million under protection purchased and \$16,918 million under protection sold.

(2) The fair value amount payable is composed of \$17,531 million under protection purchased and \$17,200 million under protection sold.

<i>In millions of dollars at December 31, 2014</i>	Fair values		Notionals	
	Receivable <sup>(1)</sup>	Payable <sup>(2)</sup>	Protection purchased	Protection sold
<b>By industry/counterparty</b>				
Banks	\$ 24,828	\$ 23,189	\$ 574,764	\$ 604,700
Broker-dealers	8,093	9,309	204,542	199,693
Non-financial	91	113	3,697	1,595
Insurance and other financial institutions	10,784	11,374	333,384	257,870
<b>Total by industry/counterparty</b>	<b>\$ 43,796</b>	<b>\$ 43,985</b>	<b>\$ 1,116,387</b>	<b>\$ 1,063,858</b>
<b>By instrument</b>				
Credit default swaps and options	\$ 42,930	\$ 42,201	\$ 1,094,199	\$ 1,054,671
Total return swaps and other	866	1,784	22,188	9,187
<b>Total by instrument</b>	<b>\$ 43,796</b>	<b>\$ 43,985</b>	<b>\$ 1,116,387</b>	<b>\$ 1,063,858</b>
<b>By rating</b>				
Investment grade	\$ 17,432	\$ 17,182	\$ 824,831	\$ 786,848
Non-investment grade	26,364	26,803	291,556	277,010
<b>Total by rating</b>	<b>\$ 43,796</b>	<b>\$ 43,985</b>	<b>\$ 1,116,387</b>	<b>\$ 1,063,858</b>
<b>By maturity</b>				
Within 1 year	\$ 4,356	\$ 4,278	\$ 250,489	\$ 229,502
From 1 to 5 years	34,692	35,160	790,251	772,001
After 5 years	4,748	4,547	75,647	62,355
<b>Total by maturity</b>	<b>\$ 43,796</b>	<b>\$ 43,985</b>	<b>\$ 1,116,387</b>	<b>\$ 1,063,858</b>

- (1) The fair value amount receivable is composed of \$18,708 million under protection purchased and \$25,088 million under protection sold.
- (2) The fair value amount payable is composed of \$26,527 million under protection purchased and \$17,458 million under protection sold.

Fair values included in the above tables are prior to application of any netting agreements and cash collateral. For notional amounts, Citi generally has a mismatch between the total notional amounts of protection purchased and sold, and it may hold the reference assets directly, rather than entering into offsetting credit derivative contracts as and when desired. The open risk exposures from credit derivative contracts are largely matched after certain cash positions in reference assets are considered and after notional amounts are adjusted, either to a duration-based equivalent basis or to reflect the level of subordination in tranching structures. The ratings of the credit derivatives portfolio presented in the tables and used to evaluate payment/performance risk are based on the assigned internal or external ratings of the referenced asset or entity. Where external ratings are used, investment-grade ratings are considered to be 'Baa/BBB' and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system.

Citigroup evaluates the payment/performance risk of the credit derivatives for which it stands as a protection seller based on the credit rating assigned to the underlying referenced credit. Credit derivatives written on an underlying non-investment grade reference credit represent greater payment risk to the Company. The non-investment grade category in the table above also includes credit derivatives where the underlying referenced entity has been downgraded subsequent to the inception of the derivative.

The maximum potential amount of future payments under credit derivative contracts presented in the table above is based on the notional value of the derivatives. The Company believes that the notional amount for credit protection sold is not representative of the actual loss exposure based on historical experience. This amount has not been reduced by the value of the reference assets and the related cash flows. In accordance with most credit derivative contracts, should a credit event occur, the Company usually is liable for the difference between the protection sold and the value of the reference assets. Furthermore, the notional amount for credit protection sold has not been reduced for any cash collateral paid to a given counterparty, as such payments would be calculated after netting all derivative exposures, including any credit derivatives with that counterparty in accordance with a related master netting agreement. Due to such netting processes, determining the amount of collateral that corresponds to credit derivative exposures alone is not possible. The Company actively monitors open credit-risk exposures and manages this exposure by using a variety of strategies, including purchased credit derivatives, cash collateral or direct holdings of the referenced assets. This risk mitigation activity is not captured in the table above.

### **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 December 31, 2015 and December 31, 2014 was \$22 billion and \$30 billion, respectively. The Company had posted \$19 billion and \$27 billion as collateral for this exposure in the normal course of business as of December 31, 2015 and December 31, 2014, 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 December 31, 2015, the Company could be required to post an additional \$1.8 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 \$0.1 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately \$1.9 billion.

### **Derivatives Accompanied by Financial Asset Transfers**

The Company executes total return swaps which provide it with synthetic exposure to substantially all of the economic return of the securities or other financial assets referenced in the contract. In certain cases, the derivative transaction is accompanied by the Company's transfer of the referenced financial asset to the derivative counterparty, most typically in response to the derivative counterparty's desire to hedge, in whole or in part, its synthetic exposure under the derivative contract by holding the referenced asset in funded form. In certain jurisdictions these transactions qualify as sales, resulting in derecognition of the securities transferred (see Note 1 to the Consolidated Financial Statements for further discussion of the related sale conditions for transfers of financial assets). For a significant portion of the transactions, the Company has also executed another total return swap where the Company passes on substantially all of the economic return of the referenced securities to a different third party seeking the exposure. In those cases, the Company is not exposed, on a net basis, to changes in the economic return of the referenced securities.

These transactions generally involve the transfer of the Company's liquid government bonds, convertible bonds, or publicly traded corporate equity securities from the trading portfolio and are executed with third-party financial institutions. The accompanying derivatives are typically total return swaps. The derivatives are cash settled and subject to ongoing margin requirements.

When the conditions for sale accounting are met, the Company reports the transfer of the referenced financial asset as a sale and separately reports the accompanying derivative

transaction. These transactions generally do not result in a gain or loss on the sale of the security, because the transferred security was held at fair value in the Company's trading portfolio. For transfers of financial assets accounted for by the Company as a sale, 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 December 31, 2015, both the asset carrying amounts derecognized and gross cash proceeds received as of the date of derecognition were \$1.0 billion. At December 31, 2015, the fair value of these previously derecognized assets was \$1.0 billion and the fair value of the total return swaps was \$7 million recorded as gross derivative assets and \$35 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.

## 24. CONCENTRATIONS OF CREDIT RISK

Concentrations of credit risk exist when changes in economic, industry or geographic factors similarly affect groups of counterparties whose aggregate credit exposure is material in relation to Citigroup's total credit exposure. Although Citigroup's portfolio of financial instruments is broadly diversified along industry, product, and geographic lines, material transactions are completed with other financial institutions, particularly in the securities trading, derivatives and foreign exchange businesses.

In connection with the Company's efforts to maintain a diversified portfolio, the Company limits its exposure to any one geographic region, country or individual creditor and monitors this exposure on a continuous basis. At December 31, 2015, Citigroup's most significant concentration of credit risk was with the U.S. government and its agencies. The Company's exposure, which primarily results from trading assets and investments issued by the U.S. government and its agencies, amounted to \$223.0 billion and \$216.3 billion at December 31, 2015 and 2014, respectively. The Mexican and United Kingdom governments and their agencies, which are rated investment grade by both Moody's and S&P, were the next largest exposures. The Company's exposure to Mexico amounted to \$22.5 billion and \$29.7 billion at December 31, 2015 and 2014, respectively, and was composed of investment securities, loans and trading assets. The Company's exposure to the United Kingdom amounted to \$20.4 billion and \$18.0 billion at December 31, 2015 and 2014, respectively, and was composed of investment securities, loans and trading assets.

The Company's exposure to states and municipalities amounted to \$29.3 billion and \$31.0 billion at December 31, 2015 and 2014, respectively, and was composed of trading assets, investment securities, derivatives and lending activities.

## 25. FAIR VALUE MEASUREMENT

ASC 820-10 *Fair Value Measurement*, defines fair value, establishes a consistent framework for measuring fair value and requires disclosures about fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Among other things, the standard requires the Company to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

Under ASC 820-10, the probability of default of a counterparty is factored into the valuation of derivative and other positions as well as the impact of Citigroup's own credit risk on derivatives and other liabilities measured at fair value.

### Fair Value Hierarchy

ASC 820-10 specifies a hierarchy of inputs based on whether the inputs are observable or unobservable. Observable inputs are developed using market data and reflect market participant assumptions, while unobservable inputs reflect the Company's market assumptions. These two types of inputs have created the following fair value hierarchy:

- Level 1: Quoted prices for *identical* instruments in active markets.
- Level 2: Quoted prices for *similar* instruments in active markets; quoted prices for identical or similar instruments in markets that are not active; and model-derived valuations in which all significant inputs and significant value drivers are *observable* in active markets.
- Level 3: Valuations derived from valuation techniques in which one or more significant inputs or significant value drivers are *unobservable*.

As required under the fair value hierarchy, the Company considers relevant and observable market inputs in its valuations where possible. The frequency of transactions, the size of the bid-ask spread and the amount of adjustment necessary when comparing similar transactions are all factors in determining the liquidity of markets and the relevance of observed prices in those markets.

The Company's policy with respect to transfers between levels of the fair value hierarchy is to recognize transfers into and out of each level as of the end of the reporting period.

### Determination of Fair Value

For assets and liabilities carried at fair value, the Company measures fair value using the procedures set out below, irrespective of whether the assets and liabilities are measured at fair value as a result of an election or whether they are required to be measured at fair value.

When available, the Company uses quoted market prices to determine fair value and classifies such items as Level 1. In some cases where a market price is available, the

Company will make use of acceptable practical expedients (such as matrix pricing) to calculate fair value, in which case the items are classified as Level 2.

The Company may also apply a price-based methodology, which utilizes, where available, quoted prices or other market information obtained from recent trading activity in positions with the same or similar characteristics to the position being valued. The market activity and the amount of the bid-ask spread are among the factors considered in determining the liquidity of markets and the observability of prices from those markets. If relevant and observable prices are available, those valuations may be classified as Level 2. When less liquidity exists for a security or loan, a quoted price is stale, a significant adjustment to the price of a similar security is necessary to reflect differences in the terms of the actual security or loan being valued, or prices from independent sources are insufficient to corroborate the valuation, the "price" inputs are considered unobservable and the fair value measurements are classified as Level 3.

If quoted market prices are not available, fair value is based upon internally developed valuation techniques that use, where possible, current market-based parameters, such as interest rates, currency rates and option volatilities. Items valued using such internally generated valuation techniques are classified according to the lowest level input or value driver that is significant to the valuation. Thus, an item may be classified as Level 3 even though there may be some significant inputs that are readily observable.

Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors or brokers. Vendors' and brokers' valuations may be based on a variety of inputs ranging from observed prices to proprietary valuation models.

The following section describes the valuation methodologies used by the Company to measure various financial instruments at fair value, including an indication of the level in the fair value hierarchy in which each instrument is generally classified. Where appropriate, the description includes details of the valuation models, the key inputs to those models and any significant assumptions.

### Market Valuation Adjustments

Generally, the unit of account for a financial instrument is the individual financial instrument. The Company applies market valuation adjustments that are consistent with the unit of account, which does not include adjustment due to the size of the Company's position, except as follows. ASC 820-10 permits an exception, through an accounting policy election, to measure the fair value of a portfolio of financial assets and financial liabilities on the basis of the net open risk position when certain criteria are met. Citi has elected to measure certain portfolios of financial instruments, such as derivatives, that meet those criteria on the basis of the net open risk position. The Company applies market valuation adjustments, including adjustments to account for the size of the net open risk position, consistent with market participant assumptions and in accordance with the unit of account.

Liquidity adjustments are applied to items in Level 2 or Level 3 of the fair-value hierarchy in an effort to ensure that the fair value reflects the price at which the net open risk position could be liquidated. The liquidity adjustment is based on the bid/offer spread for an instrument. When Citi has elected to measure certain portfolios of financial investments, such as derivatives, on the basis of the net open risk position, the liquidity adjustment may be adjusted to take into account the size of the position.

Credit valuation adjustments (CVA) and, effective in the third quarter of 2014, funding valuation adjustments (FVA), are applied to over-the-counter (OTC) derivative instruments in which the base valuation generally discounts expected cash flows using the relevant base interest rate curve for the currency of the derivative (e.g., LIBOR for uncollateralized U.S.-dollar derivatives). As not all counterparties have the same credit risk as that implied by the relevant base curve, a CVA is necessary to incorporate the market view of both counterparty credit risk and Citi's own credit risk in the valuation. FVA reflects a market funding risk premium inherent in the uncollateralized portion of derivative portfolios, and in collateralized derivatives where the terms of the agreement do not permit the reuse of the collateral received.

Citi's CVA and FVA methodology is composed of two steps.

- First, the exposure profile for each counterparty is determined using the terms of all individual derivative positions and a Monte Carlo simulation or other quantitative analysis to generate a series of expected cash flows at future points in time. The calculation of this exposure profile considers the effect of credit risk mitigants and sources of funding, including pledged cash or other collateral and any legal right of offset that exists with a counterparty through arrangements such as netting agreements. Individual derivative contracts that are subject to an enforceable master netting agreement with a counterparty are aggregated as a netting set for this purpose, since it is those aggregate net cash flows that are subject to nonperformance risk. This process identifies specific, point-in-time future cash flows that are subject to nonperformance risk and unsecured funding, rather than using the current recognized net asset or liability as a basis to measure the CVA and FVA.
- Second, for CVA, market-based views of default probabilities derived from observed credit spreads in the credit default swap (CDS) market are applied to the expected future cash flows determined in step one. Citi's own-credit CVA is determined using Citi-specific CDS spreads for the relevant tenor. Generally, counterparty CVA is determined using CDS spread indices for each credit rating and tenor. For certain identified netting sets where individual analysis is practicable (e.g., exposures to counterparties with liquid CDSs), counterparty-specific CDS spreads are used. For FVA, a term structure of future liquidity spreads is applied to the expected future funding requirement.

The CVA and FVA are designed to incorporate a market view of the credit and funding risk, respectively, inherent in the derivative portfolio. However, most unsecured derivative instruments are negotiated bilateral contracts and are not commonly transferred to third parties. Derivative instruments are normally settled contractually or, if terminated early, are terminated at a value negotiated bilaterally between the counterparties. Thus, the CVA and FVA may not be realized upon a settlement or termination in the normal course of business. In addition, all or a portion of these adjustments may be reversed or otherwise adjusted in future periods in the event of changes in the credit or funding risk associated with the derivative instruments.

The table below summarizes the CVA and FVA applied to the fair value of derivative instruments at December 31, 2015 and 2014:

<i>In millions of dollars</i>	<b>Credit and funding valuation adjustments contra-liability (contra-asset)</b>	
	<b>December 31,</b>	<b>December 31,</b>
	<b>2015</b>	<b>2014</b>
Counterparty CVA	\$ (1,470)	\$ (1,853)
Asset FVA	(584)	(518)
Citigroup (own-credit) CVA	471	580
Liability FVA	106	19
<b>Total CVA—derivative instruments<sup>(1)</sup></b>	<b>\$ (1,477)</b>	<b>\$ (1,772)</b>

(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 years indicated:

<i>In millions of dollars</i>	<b>Credit/funding/debt valuation adjustments gain (loss)</b>		
	<b>2015</b>	<b>2014</b>	<b>2013</b>
	Counterparty CVA	\$ (115)	\$ (43)
Asset FVA	(66)	(518)	—
Own-credit CVA	(28)	(65)	(223)
Liability FVA	98	19	—
<b>Total CVA—derivative instruments</b>	<b>\$ (111)</b>	<b>\$ (607)</b>	<b>\$ 68</b>
DVA related to own FVO liabilities	\$ 366	\$ 217	\$ (410)
<b>Total CVA and DVA<sup>(1)</sup></b>	<b>\$ 255</b>	<b>\$ (390)</b>	<b>\$ (342)</b>

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

### Valuation Process for Fair Value Measurements

Price verification procedures and related internal control procedures are governed by the Citigroup *Pricing and Price Verification Policy and Standards*, which is jointly owned by Finance and Risk Management.

For fair value measurements of substantially all assets and liabilities held by the Company, individual business units are responsible for valuing the trading account assets and liabilities, and Product Control within Finance performs independent price verification procedures to evaluate those fair value measurements. Product Control is independent of the individual business units and reports to the Global Head of Product Control. It has authority over the valuation of financial assets and liabilities. Fair value measurements of assets and liabilities are determined using various techniques, including, but not limited to, discounted cash flows and internal models, such as option and correlation models.

Based on the observability of inputs used, Product Control classifies the inventory as Level 1, Level 2 or Level 3 of the fair value hierarchy. When a position involves one or more significant inputs that are not directly observable, price verification procedures are performed that may include reviewing relevant historical data, analyzing profit and loss, valuing each component of a structured trade individually, and benchmarking, among others.

Reports of inventory that is classified within Level 3 of the fair value hierarchy are distributed to senior management in Finance, Risk and the business. This inventory is also discussed in Risk Committees and in monthly meetings with senior trading management. As deemed necessary, reports may go to the Audit Committee of the Board of Directors or to the full Board of Directors. Whenever an adjustment is needed to bring the price of an asset or liability to its exit price, Product Control reports it to management along with other price verification results.

In addition, the pricing models used in measuring fair value are governed by an independent control framework. Although the models are developed and tested by the individual business units, they are independently validated by the Model Validation Group within Risk Management and reviewed by Finance with respect to their impact on the price verification procedures. The purpose of this independent control framework is to assess model risk arising from models' theoretical soundness, calibration techniques where needed, and the appropriateness of the model for a specific product in a defined market. To ensure their continued applicability, models are independently reviewed annually. In addition, Risk Management approves and maintains a list of products permitted to be valued under each approved model for a given business.

#### ***Securities Purchased Under Agreements to Resell and Securities Sold Under Agreements to Repurchase***

No quoted prices exist for these instruments, so fair value is determined using a discounted cash-flow technique. Cash flows are estimated based on the terms of the contract, taking into account any embedded derivative or other features. These cash flows are discounted using interest rates appropriate to the maturity of the instrument as well as the nature of the underlying collateral. Generally, when such instruments are recorded at fair value, they are classified within Level 2 of the fair value hierarchy, as the inputs used in the valuation are readily observable. However, certain

long-dated positions are classified within Level 3 of the fair value hierarchy.

#### ***Trading Account Assets and Liabilities—Trading Securities and Trading Loans***

When available, the Company uses quoted market prices in active markets to determine the fair value of trading securities; such items are classified as Level 1 of the fair value hierarchy. Examples include government securities and exchange-traded equity securities.

For bonds and secondary market loans traded over the counter, the Company generally determines fair value utilizing valuation techniques, including discounted cash flows, price-based and internal models, such as Black-Scholes and Monte Carlo simulation. Fair value estimates from these internal valuation techniques are verified, where possible, to prices obtained from independent sources, including third-party vendors. Vendors compile prices from various sources and may apply matrix pricing for similar bonds or loans where no price is observable. A price-based methodology utilizes, where available, quoted prices or other market information obtained from recent trading activity of assets with similar characteristics to the bond or loan being valued. The yields used in discounted cash flow models are derived from the same price information. Trading securities and loans priced using such methods are generally classified as Level 2. However, when less liquidity exists for a security or loan, a quoted price is stale, a significant adjustment to the price of a similar security or loan is necessary to reflect differences in the terms of the actual security or loan being valued, or prices from independent sources are insufficient to corroborate valuation, a loan or security is generally classified as Level 3. The price input used in a price-based methodology may be zero for a security, such as a subprime CDO, that is not receiving any principal or interest and is currently written down to zero.

When the Company's principal market for a portfolio of loans is the securitization market, the Company uses the securitization price to determine the fair value of the portfolio. The securitization price is determined from the assumed proceeds of a hypothetical securitization in the current market, adjusted for transformation costs (i.e., direct costs other than transaction costs) and securitization uncertainties such as market conditions and liquidity. As a result of the severe reduction in the level of activity in certain securitization markets since the second half of 2007, observable securitization prices for certain directly comparable portfolios of loans have not been readily available. Therefore, such portfolios of loans are generally classified as Level 3 of the fair value hierarchy. However, for other loan securitization markets, such as commercial real estate loans, price verification of the hypothetical securitizations has been possible, since these markets have remained active. Accordingly, this loan portfolio is classified as Level 2 of the fair value hierarchy.

For most of the lending and structured direct subprime exposures, fair value is determined utilizing observable transactions where available, other market data for similar assets in markets that are not active and other internal

valuation techniques. The valuation of certain asset-backed security (ABS) CDO positions utilizes prices based on the underlying assets of the ABS CDO.

#### ***Trading Account Assets and Liabilities—Derivatives***

Exchange-traded derivatives, measured at fair value using quoted (i.e., exchange) prices in active markets, where available, are classified as Level 1 of the fair value hierarchy.

Derivatives without a quoted price in an active market and derivatives executed over the counter are valued using internal valuation techniques. These derivative instruments are classified as either Level 2 or Level 3 depending upon the observability of the significant inputs to the model.

The valuation techniques and inputs depend on the type of derivative and the nature of the underlying instrument. The principal techniques used to value these instruments are discounted cash flows and internal models, including Black-Scholes and Monte Carlo simulation.

The key inputs depend upon the type of derivative and the nature of the underlying instrument and include interest rate yield curves, foreign-exchange rates, volatilities and correlation. The Company uses overnight indexed swap (OIS) curves as fair value measurement inputs for the valuation of certain collateralized derivatives. Citi uses the relevant benchmark curve for the currency of the derivative (e.g., the London Interbank Offered Rate for U.S. dollar derivatives) as the discount rate for uncollateralized derivatives.

As referenced above, during the third quarter of 2014, Citi incorporated FVA into the fair value measurements due to what it believes to be an industry migration toward incorporating the market's view of funding risk premium in OTC derivatives. The charge incurred in connection with the implementation of FVA was reflected in *Principal transactions* as a change in accounting estimate. Citi's FVA methodology leverages the existing CVA methodology to estimate a funding exposure profile. The calculation of this exposure profile considers collateral agreements where the terms do not permit the firm to reuse the collateral received, including where counterparties post collateral to third-party custodians.

#### ***Investments***

The investments category includes available-for-sale debt and marketable equity securities whose fair values are generally determined by utilizing similar procedures described for trading securities above or, in some cases, using vendor pricing as the primary source.

Also included in investments are nonpublic investments in private equity and real estate entities. Determining the fair value of nonpublic securities involves a significant degree of management judgment, as no quoted prices exist and such securities are generally thinly traded. In addition, there may be transfer restrictions on private equity securities. The Company's process for determining the fair value of such securities utilizes commonly accepted valuation techniques, including comparables analysis. In determining the fair value of nonpublic securities, the Company also considers events

such as a proposed sale of the investee company, initial public offerings, equity issuances or other observable transactions.

Private equity securities are generally classified as Level 3 of the fair value hierarchy.

In addition, the Company holds investments in certain alternative investment funds that calculate NAV per share, including hedge funds, private equity funds and real estate funds. Investments in funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV per share of the Company's ownership interest in the funds where it is not probable that the investment will be realized at a price other than the NAV. Consistent with the provisions of ASU No. 2015-07 these investments have not been categorized within the fair value hierarchy and are not included in the tables below. See Note 13 to the Consolidated Financial Statements for additional information.

#### ***Short-Term Borrowings and Long-Term Debt***

Where fair value accounting has been elected, the fair value of non-structured liabilities is determined by utilizing internal models using the appropriate discount rate for the applicable maturity. Such instruments are generally classified as Level 2 of the fair value hierarchy when all significant inputs are readily observable.

The Company determines the fair value of hybrid financial instruments, including structured liabilities, using the appropriate derivative valuation methodology (described above in "Trading account assets and liabilities—derivatives") given the nature of the embedded risk profile. Such instruments are classified as Level 2 or Level 3 depending on the observability of significant inputs to the model.

#### ***Alt-A Mortgage Securities***

The Company classifies its Alt-A mortgage securities as held-to-maturity, available-for-sale or trading investments. The securities classified as trading and available-for-sale are recorded at fair value with changes in fair value reported in current earnings and AOCI, respectively. For these purposes, Citi defines Alt-A mortgage securities as non-agency residential mortgage-backed securities (RMBS) where (i) the underlying collateral has weighted average FICO scores between 680 and 720 or (ii) for instances where FICO scores are greater than 720, RMBS have 30% or less of the underlying collateral composed of full documentation loans.

Similar to the valuation methodologies used for other trading securities and trading loans, the Company generally determines the fair values of Alt-A mortgage securities utilizing internal valuation techniques. Fair value estimates from internal valuation techniques are verified, where possible, to prices obtained from independent vendors. Consensus data providers compile prices from various sources. Where available, the Company may also make use of quoted prices for recent trading activity in securities with the same or similar characteristics to the security being valued.



The valuation techniques used for Alt-A mortgage securities, as with other mortgage exposures, are price-based and yield analysis. The primary market-derived input is yield. Cash flows are based on current collateral performance with prepayment rates and loss projections reflective of current economic conditions of housing price change, unemployment rates, interest rates, borrower attributes and other market indicators.

Alt-A mortgage securities that are valued using these methods are generally classified as Level 2. However, Alt-A mortgage securities backed by Alt-A mortgages of lower quality or subordinated tranches in the capital structure are mostly classified as Level 3 due to the reduced liquidity that exists for such positions, which reduces the reliability of prices available from independent sources.

## 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 December 31, 2015 and December 31, 2014. The Company's hedging of positions that have been classified in the Level 3 category is not limited to other financial instruments (hedging

instruments) that have been classified as Level 3, but also 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

<i>In millions of dollars at December 31, 2015</i>	Level 1 <sup>(1)</sup>	Level 2 <sup>(1)</sup>	Level 3	Gross inventory	Netting <sup>(2)</sup>	Net balance
<b>Assets</b>						
<b>Federal funds sold and securities borrowed or purchased under agreements to resell</b>	\$ —	\$ 177,538	\$ 1,337	\$ 178,875	\$ (40,911)	\$ 137,964
<b>Trading non-derivative assets</b>						
<b>Trading mortgage-backed securities</b>						
U.S. government-sponsored agency guaranteed	—	24,023	744	24,767	—	24,767
Residential	—	1,059	1,326	2,385	—	2,385
Commercial	—	2,338	517	2,855	—	2,855
<b>Total trading mortgage-backed securities</b>	\$ —	\$ 27,420	\$ 2,587	\$ 30,007	\$ —	\$ 30,007
<b>U.S. Treasury and federal agency securities</b>	\$ 14,208	\$ 3,587	\$ 1	\$ 17,796	\$ —	\$ 17,796
State and municipal	—	2,345	351	2,696	—	2,696
Foreign government	35,715	20,697	197	56,609	—	56,609
Corporate	302	13,759	376	14,437	—	14,437
Equity securities	50,429	2,382	3,684	56,495	—	56,495
Asset-backed securities	—	1,217	2,739	3,956	—	3,956
Other trading assets	—	9,293	2,483	11,776	—	11,776
<b>Total trading non-derivative assets</b>	\$ 100,654	\$ 80,700	\$ 12,418	\$ 193,772	\$ —	\$ 193,772
<b>Trading derivatives</b>						
Interest rate contracts	\$ 9	\$ 412,802	\$ 2,083	\$ 414,894		
Foreign exchange contracts	5	128,189	1,123	129,317		
Equity contracts	2,422	17,866	1,597	21,885		
Commodity contracts	204	16,706	1,100	18,010		
Credit derivatives	—	31,082	3,793	34,875		
<b>Total trading derivatives</b>	\$ 2,640	\$ 606,645	\$ 9,696	\$ 618,981		
Cash collateral paid <sup>(3)</sup>				\$ 4,911		
Netting agreements					\$ (524,481)	
Netting of cash collateral received					(43,227)	
<b>Total trading derivatives</b>	\$ 2,640	\$ 606,645	\$ 9,696	\$ 623,892	\$ (567,708)	\$ 56,184
<b>Investments</b>						
<b>Mortgage-backed securities</b>						
U.S. government-sponsored agency guaranteed	\$ —	\$ 39,575	\$ 139	\$ 39,714	\$ —	\$ 39,714
Residential	—	5,982	4	5,986	—	5,986
Commercial	—	569	2	571	—	571
<b>Total investment mortgage-backed securities</b>	\$ —	\$ 46,126	\$ 145	\$ 46,271	\$ —	\$ 46,271
<b>U.S. Treasury and federal agency securities</b>	\$ 111,536	\$ 11,375	\$ 4	\$ 122,915	\$ —	\$ 122,915
State and municipal	—	9,267	2,192	11,459	—	11,459
Foreign government	42,073	49,868	260	92,201	—	92,201
Corporate	3,605	11,595	603	15,803	—	15,803
Equity securities	430	71	124	625	—	625
Asset-backed securities	—	8,578	596	9,174	—	9,174
Other debt securities	—	688	—	688	—	688
Non-marketable equity securities <sup>(4)</sup>	—	58	1,135	1,193	—	1,193
<b>Total investments</b>	\$ 157,644	\$ 137,626	\$ 5,059	\$ 300,329	\$ —	\$ 300,329

<i>In millions of dollars at December 31, 2015</i>	Level 1 <sup>(1)</sup>	Level 2 <sup>(1)</sup>	Level 3	Gross inventory	Netting <sup>(2)</sup>	Net balance
<b>Loans<sup>(5)</sup></b>	\$ —	\$ 2,839	\$ 2,166	\$ 5,005	\$ —	\$ 5,005
<b>Mortgage servicing rights</b>	—	—	1,781	1,781	—	1,781
<b>Non-trading derivatives and other financial assets measured on a recurring basis, gross</b>	\$ —	\$ 7,882	\$ 180	\$ 8,062		
<b>Cash collateral paid<sup>(6)</sup></b>				8		
<b>Netting of cash collateral received</b>					\$ (1,949)	
<b>Non-trading derivatives and other financial assets measured on a recurring basis</b>	\$ —	\$ 7,882	\$ 180	\$ 8,070	\$ (1,949)	\$ 6,121
<b>Total assets</b>	\$ 260,938	\$ 1,013,230	\$ 32,637	\$ 1,311,724	\$ (610,568)	\$ 701,156
<b>Total as a percentage of gross assets<sup>(7)</sup></b>	20.0%	77.5%	2.5%			
<b>Liabilities</b>						
<b>Interest-bearing deposits</b>	\$ —	\$ 1,156	\$ 434	\$ 1,590	\$ —	\$ 1,590
<b>Federal funds purchased and securities loaned or sold under agreements to repurchase</b>	—	76,507	1,247	77,754	(40,911)	36,843
<b>Trading account liabilities</b>						
<b>Securities sold, not yet purchased</b>	\$ 48,452	\$ 9,176	\$ 199	\$ 57,827	\$ —	\$ 57,827
<b>Other trading liabilities</b>	—	2,093	—	2,093	—	2,093
<b>Total trading liabilities</b>	\$ 48,452	\$ 11,269	\$ 199	\$ 59,920	\$ —	\$ 59,920
<b>Trading derivatives</b>						
Interest rate contracts	\$ 5	\$ 393,321	\$ 2,578	\$ 395,904		
Foreign exchange contracts	6	133,404	503	133,913		
Equity contracts	2,244	21,875	2,397	26,516		
Commodity contracts	263	17,329	2,961	20,553		
Credit derivatives	—	30,682	3,486	34,168		
<b>Total trading derivatives</b>	\$ 2,518	\$ 596,611	\$ 11,925	\$ 611,054		
<b>Cash collateral received<sup>(8)</sup></b>				\$ 13,628		
<b>Netting agreements</b>					\$ (524,481)	
<b>Netting of cash collateral paid</b>					(42,609)	
<b>Total trading derivatives</b>	\$ 2,518	\$ 596,611	\$ 11,925	\$ 624,682	\$ (567,090)	\$ 57,592
<b>Short-term borrowings</b>	\$ —	\$ 1,198	\$ 9	\$ 1,207	\$ —	\$ 1,207
<b>Long-term debt</b>	—	18,342	6,951	25,293	—	25,293
<b>Non-trading derivatives and other financial liabilities measured on a recurring basis, gross</b>	\$ —	\$ 1,626	\$ 14	\$ 1,640		
<b>Cash collateral received<sup>(9)</sup></b>				37		
<b>Netting of cash collateral paid</b>					\$ (53)	
<b>Total non-trading derivatives and other financial liabilities measured on a recurring basis</b>	\$ —	\$ 1,626	\$ 14	\$ 1,677	\$ (53)	\$ 1,624
<b>Total liabilities</b>	\$ 50,970	\$ 706,709	\$ 20,779	\$ 792,123	\$ (608,054)	\$ 184,069
<b>Total as a percentage of gross liabilities<sup>(7)</sup></b>	6.5%	90.8%	2.7%			

- (1) In 2015, the Company transferred assets of approximately \$3.3 billion from Level 1 to Level 2, respectively, primarily related to foreign government securities and equity securities not traded in active markets. In 2015, the Company transferred assets of approximately \$4.4 billion from Level 2 to Level 1, respectively, primarily related to foreign government bonds and equity securities traded with sufficient frequency to constitute a liquid market. In 2015, the Company transferred liabilities of approximately \$0.6 billion from Level 2 to Level 1. In 2015, the Company transferred liabilities of approximately \$0.4 billion from Level 1 to Level 2.
- (2) 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.
- (3) Reflects the net amount of \$47,520 million of gross cash collateral paid, of which \$42,609 million was used to offset trading derivative liabilities.
- (4) Amounts exclude \$0.9 billion investments measured at Net Asset Value (NAV) in accordance with ASU No. 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*. See Note 1 to the Consolidated Financial Statements.
- (5) There is no allowance for loan losses recorded for loans reported at fair value.
- (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.
- (7) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, 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 \$56,855 million of gross cash collateral received, of which \$43,227 million was used to offset trading derivative assets.
- (9) Reflects the net amount of \$1,986 million of gross cash collateral received, of which \$1,949 million was used to offset non-trading derivative assets.

## Fair Value Levels

<i>In millions of dollars at December 31, 2014</i>	Level 1 <sup>(1)</sup>	Level 2 <sup>(1)</sup>	Level 3	Gross inventory	Netting <sup>(2)</sup>	Net balance
<b>Assets</b>						
<b>Federal funds sold and securities borrowed or purchased under agreements to resell</b>	\$ —	\$ 187,922	\$ 3,398	\$ 191,320	\$ (47,129)	\$144,191
<b>Trading non-derivative assets</b>						
<b>Trading mortgage-backed securities</b>						
U.S. government-sponsored agency guaranteed	—	25,968	1,085	27,053	—	27,053
Residential	—	2,158	2,680	4,838	—	4,838
Commercial	—	3,903	440	4,343	—	4,343
<b>Total trading mortgage-backed securities</b>	\$ —	\$ 32,029	\$ 4,205	\$ 36,234	\$ —	\$ 36,234
<b>U.S. Treasury and federal agency securities</b>	\$ 15,991	\$ 4,483	\$ —	\$ 20,474	\$ —	\$ 20,474
<b>State and municipal</b>	—	3,161	241	3,402	—	3,402
<b>Foreign government</b>	37,995	26,736	206	64,937	—	64,937
<b>Corporate</b>	1,337	25,640	820	27,797	—	27,797
<b>Equity securities</b>	51,346	4,281	2,219	57,846	—	57,846
<b>Asset-backed securities</b>	—	1,252	3,294	4,546	—	4,546
<b>Other trading assets</b>	—	9,221	4,372	13,593	—	13,593
<b>Total trading non-derivative assets</b>	\$ 106,669	\$ 106,803	\$ 15,357	\$ 228,829	\$ —	\$228,829
<b>Trading derivatives</b>						
Interest rate contracts	\$ 74	\$ 634,318	\$ 4,061	\$ 638,453		
Foreign exchange contracts	—	154,744	1,250	155,994		
Equity contracts	2,748	19,969	2,035	24,752		
Commodity contracts	647	21,850	1,023	23,520		
Credit derivatives	—	40,618	2,900	43,518		
<b>Total trading derivatives</b>	\$ 3,469	\$ 871,499	\$ 11,269	\$ 886,237		
<b>Cash collateral paid<sup>(3)</sup></b>				\$ 6,523		
<b>Netting agreements</b>					\$ (777,178)	
<b>Netting of cash collateral received<sup>(4)(8)</sup></b>					(47,625)	
<b>Total trading derivatives</b>	\$ 3,469	\$ 871,499	\$ 11,269	\$ 892,760	\$ (824,803)	\$ 67,957
<b>Investments</b>						
<b>Mortgage-backed securities</b>						
U.S. government-sponsored agency guaranteed	\$ —	\$ 36,053	\$ 38	\$ 36,091	\$ —	\$ 36,091
Residential	—	8,355	8	8,363	—	8,363
Commercial	—	553	1	554	—	554
<b>Total investment mortgage-backed securities</b>	\$ —	\$ 44,961	\$ 47	\$ 45,008	\$ —	\$ 45,008
<b>U.S. Treasury and federal agency securities</b>	\$ 110,710	\$ 12,974	\$ 6	\$ 123,690	\$ —	\$123,690
<b>State and municipal</b>	—	10,519	2,180	12,699	—	12,699
<b>Foreign government</b>	37,280	52,739	678	90,697	—	90,697
<b>Corporate</b>	1,739	9,746	672	12,157	—	12,157
<b>Equity securities</b>	1,770	274	681	2,725	—	2,725
<b>Asset-backed securities</b>	—	11,957	549	12,506	—	12,506
<b>Other debt securities</b>	—	661	—	661	—	661
<b>Non-marketable equity securities<sup>(5)</sup></b>	—	233	1,460	1,693	—	1,693
<b>Total investments</b>	\$ 151,499	\$ 144,064	\$ 6,273	\$ 301,836	\$ —	\$301,836

<i>In millions of dollars at December 31, 2014</i>	Level 1 <sup>(1)</sup>	Level 2 <sup>(1)</sup>	Level 3	Gross inventory	Netting <sup>(2)</sup>	Net balance
<b>Loans<sup>(6)</sup></b>	\$ —	\$ 2,793	\$ 3,108	\$ 5,901	\$ —	\$ 5,901
<b>Mortgage servicing rights</b>	—	—	1,845	1,845	—	1,845
<b>Non-trading derivatives and other financial assets measured on a recurring basis, gross</b>	\$ —	\$ 9,352	\$ 78	\$ 9,430		
<b>Cash collateral paid<sup>(7)</sup></b>				123		
<b>Netting of cash collateral received<sup>(8)</sup></b>					\$ (1,791)	
<b>Non-trading derivatives and other financial assets measured on a recurring basis</b>	\$ —	\$ 9,352	\$ 78	\$ 9,553	\$ (1,791)	\$ 7,762
<b>Total assets</b>	\$ 261,637	\$ 1,322,433	\$ 41,328	\$ 1,632,044	\$ (873,723)	\$ 758,321
<b>Total as a percentage of gross assets<sup>(7)</sup></b>	16.1%	81.4%	2.5%			
<b>Liabilities</b>						
<b>Interest-bearing deposits</b>	\$ —	\$ 1,198	\$ 486	\$ 1,684	\$ —	\$ 1,684
<b>Federal funds purchased and securities loaned or sold under agreements to repurchase</b>	—	82,811	1,043	83,854	(47,129)	36,725
<b>Trading account liabilities</b>						
<b>Securities sold, not yet purchased</b>	59,463	11,057	424	70,944	—	70,944
<b>Other trading liabilities</b>	—	—	—	—	—	—
<b>Total trading liabilities</b>	\$ 59,463	\$ 11,057	\$ 424	\$ 70,944	\$ —	\$ 70,944
<b>Trading account derivatives</b>						
Interest rate contracts	\$ 77	\$ 617,933	\$ 4,272	\$ 622,282		
Foreign exchange contracts	—	158,354	472	158,826		
Equity contracts	2,955	26,616	2,898	32,469		
Commodity contracts	669	22,872	2,645	26,186		
Credit derivatives	—	39,787	3,643	43,430		
<b>Total trading derivatives</b>	\$ 3,701	\$ 865,562	\$ 13,930	\$ 883,193		
<b>Cash collateral received<sup>(8)</sup></b>				\$ 9,846		
<b>Netting agreements</b>					\$ (777,178)	
<b>Netting of cash collateral paid<sup>(3)</sup></b>					(47,769)	
<b>Total trading derivatives</b>	\$ 3,701	\$ 865,562	\$ 13,930	\$ 893,039	\$ (824,947)	\$ 68,092
<b>Short-term borrowings</b>	\$ —	\$ 1,152	\$ 344	\$ 1,496	\$ —	\$ 1,496
<b>Long-term debt</b>	—	18,890	7,290	26,180	—	26,180
<b>Non-trading derivatives and other financial liabilities measured on a recurring basis, gross</b>	\$ —	\$ 1,777	\$ 7	\$ 1,784		
<b>Cash collateral received<sup>(9)</sup></b>				7		
<b>Netting of cash collateral paid<sup>(7)</sup></b>					\$ (15)	
<b>Non-trading derivatives and other financial liabilities measured on a recurring basis</b>	\$ —	\$ 1,777	\$ 7	\$ 1,791	\$ (15)	\$ 1,776
<b>Total liabilities</b>	\$ 63,164	\$ 982,447	\$ 23,524	\$ 1,078,988	\$ (872,091)	\$ 206,897
<b>Total as a percentage of gross liabilities<sup>(4)</sup></b>	5.9%	91.9%	2.2%			

- (1) In 2014, the Company transferred assets of approximately \$4.1 billion from Level 1 to Level 2, primarily related to foreign government securities not traded with sufficient frequency to constitute an active market and Citi refining its methodology for certain equity contracts to reflect the prevalence of off-exchange trading. In 2014, the Company transferred assets of approximately \$4.2 billion from Level 2 to Level 1, primarily related to foreign government bonds traded with sufficient frequency to constitute a liquid market. In 2014, the Company transferred liabilities of approximately \$1.4 billion from Level 1 to Level 2, as Citi refined its methodology for certain equity contracts to reflect the prevalence of off-exchange trading. In 2014, there were no material liability transfers from Level 2 to Level 1.
- (2) 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.
- (3) Reflects the net amount of \$54,292 million of gross cash collateral paid, of which \$47,769 million was used to offset trading derivative liabilities.
- (4) Because the amount of the cash collateral paid/received has not been allocated to the Level 1, 2 and 3 subtotals, 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.
- (5) Amounts exclude \$1.1 billion investments measured at Net Asset Value (NAV) in accordance with ASU No. 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or Its Equivalent)*. See Note 1 to the Consolidated Financial Statements.
- (6) There is no allowance for loan losses recorded for loans reported at fair value.
- (7) Reflects the net amount of \$138 million of gross cash collateral paid, of which \$15 million was used to offset non-trading derivative liabilities.
- (8) Reflects the net amount of \$57,471 million of gross cash collateral received, of which \$47,625 million was used to offset trading derivative assets.
- (9) Reflects the net amount of \$1,798 million of gross cash collateral received, of which \$1,791 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 years ended December 31, 2015 and 2014. As discussed above, the Company classifies financial instruments as Level 3 of the fair value hierarchy when there is reliance on at least one significant unobservable input to the valuation model. In addition to these unobservable inputs, the valuation models for Level 3 financial instruments typically also rely on a number of inputs that are readily observable either directly or indirectly. 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 have been classified by the Company in the Level 1 and 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 effects of these hedges are presented gross in the following tables:

### Level 3 Fair Value Rollforward

<i>In millions of dollars</i>	Dec. 31, 2014	Net realized/unrealized gains (losses) incl. in		Transfers		Purchases	Issuances	Sales	Settlements	Dec. 31, 2015	Unrealized gains (losses) still held <sup>(3)</sup>
		Principal transactions	Other <sup>(1)(2)</sup>	into Level 3	out of Level 3						
<b>Assets</b>											
<b>Federal funds sold and securities borrowed or purchased under agreements to resell</b>	\$ 3,398	\$ (147)	\$ —	\$ 279	\$ (2,856)	\$ 784	\$ —	\$ —	\$ (121)	\$ 1,337	\$ (5)
<b>Trading non-derivative assets</b>											
<b>Trading mortgage-backed securities</b>											
U.S. government-sponsored agency guaranteed	1,085	24	—	872	(1,277)	796	—	(756)	—	744	(4)
Residential	2,680	254	—	370	(480)	1,574	—	(3,072)	—	1,326	(101)
Commercial	440	18	—	252	(157)	697	—	(733)	—	517	(7)
<b>Total trading mortgage-backed securities</b>	\$ 4,205	\$ 296	\$ —	\$ 1,494	\$ (1,914)	\$ 3,067	\$ —	\$ (4,561)	\$ —	\$ 2,587	\$ (112)
<b>U.S. Treasury and federal agency securities</b>	\$ —	\$ —	\$ —	\$ 2	\$ (1)	\$ 1	\$ —	\$ (1)	\$ —	\$ 1	\$ —
State and municipal	241	—	—	67	(35)	183	—	(105)	—	351	(7)
Foreign government	206	(10)	—	53	(100)	271	—	(169)	(54)	197	6
Corporate	820	111	—	186	(288)	802	—	(1,244)	(11)	376	(29)
Equity securities	2,219	547	—	344	(371)	1,377	—	(432)	—	3,684	464
Asset-backed securities	3,294	141	—	663	(282)	4,426	—	(5,503)	—	2,739	(174)
Other trading assets	4,372	180	—	968	(3,290)	2,504	51	(2,110)	(192)	2,483	(45)
<b>Total trading non-derivative assets</b>	\$ 15,357	\$ 1,265	\$ —	\$ 3,777	\$ (6,281)	\$ 12,631	\$ 51	\$ (14,125)	\$ (257)	\$ 12,418	\$ 103
<b>Trading derivatives, net<sup>(4)</sup></b>											
Interest rate contracts	\$ (211)	\$ (492)	\$ —	\$ (124)	\$ 15	\$ 24	\$ —	\$ 141	\$ 152	\$ (495)	\$ 553
Foreign exchange contracts	778	(245)	—	(11)	27	393	—	(381)	59	620	(12)
Equity contracts	(863)	148	—	(126)	66	496	—	(334)	(187)	(800)	41
Commodity contracts	(1,622)	(753)	—	214	(28)	—	—	—	328	(1,861)	(257)
Credit derivatives	(743)	555	—	9	61	1	—	(3)	427	307	442
<b>Total trading derivatives, net<sup>(4)</sup></b>	\$ (2,661)	\$ (787)	\$ —	\$ (38)	\$ 141	\$ 914	\$ —	\$ (577)	\$ 779	\$ (2,229)	\$ 767

In millions of dollars	Dec. 31, 2014	Net realized/unrealized gains (losses) incl. in		Transfers		Purchases	Issuances	Sales	Settlements	Dec. 31, 2015	Unrealized gains (losses) still held <sup>(3)</sup>	
		Principal transactions	Other <sup>(1)(2)</sup>	into Level 3	out of Level 3							
<b>Investments</b>												
<b>Mortgage-backed securities</b>												
U.S. government-sponsored agency guaranteed	\$ 38	\$ —	\$ 29	\$ 171	\$ (118)	\$ 62	\$ —	\$ (43)	\$ —	\$ 139	(2)	
Residential	8	—	(1)	4	—	11	—	(18)	—	4	—	
Commercial	1	—	—	4	(3)	—	—	—	—	2	—	
<b>Total investment mortgage-backed securities</b>	<b>\$ 47</b>	<b>\$ —</b>	<b>\$ 28</b>	<b>\$ 179</b>	<b>\$ (121)</b>	<b>\$ 73</b>	<b>\$ —</b>	<b>\$ (61)</b>	<b>\$ —</b>	<b>\$ 145</b>	<b>(2)</b>	
<b>U.S. Treasury and federal agency securities</b>												
State and municipal	2,180	—	(23)	834	(721)	842	—	(671)	(249)	2,192	9	
Foreign government	678	—	45	(5)	(270)	601	—	(519)	(270)	260	(1)	
Corporate	672	—	(7)	15	(52)	144	—	(134)	(35)	603	(4)	
Equity securities	681	—	(22)	12	(14)	7	—	(540)	—	124	(120)	
Asset-backed securities	549	—	(17)	45	(58)	202	—	(125)	—	596	14	
Other debt securities	—	—	—	—	—	10	—	(10)	—	—	—	
Non-marketable equity securities	1,460	—	(50)	76	6	5	—	(58)	(304)	1,135	26	
<b>Total investments</b>	<b>\$ 6,273</b>	<b>\$ —</b>	<b>\$ (46)</b>	<b>\$ 1,156</b>	<b>\$ (1,230)</b>	<b>\$ 1,890</b>	<b>\$ —</b>	<b>\$ (2,126)</b>	<b>\$ (858)</b>	<b>\$ 5,059</b>	<b>(78)</b>	
<b>Loans</b>												
Mortgage servicing rights	1,845	—	110	—	—	—	214	(38)	(350)	1,781	(390)	
Other financial assets measured on a recurring basis	78	—	100	201	(66)	6	208	(85)	(262)	180	582	
<b>Liabilities</b>												
Interest-bearing deposits	\$ 486	\$ —	\$ 10	\$ 1	\$ (1)	\$ —	\$ 36	\$ —	\$ (78)	\$ 434	(154)	
Federal funds purchased and securities loaned or sold under agreements to repurchase	1,043	(23)	—	—	—	—	—	302	(121)	1,247	134	
<b>Trading account liabilities</b>												
Securities sold, not yet purchased	424	88	—	311	(231)	—	—	385	(602)	199	(25)	
Short-term borrowings	344	11	—	23	(30)	—	1	—	(318)	9	(4)	
Long-term debt	7,290	539	—	2,311	(3,958)	—	3,407	—	(1,560)	6,951	(347)	
Other financial liabilities measured on a recurring basis	7	—	(11)	10	(4)	(5)	5	2	(12)	14	(4)	

- (1) Changes in fair value for available-for-sale investments are recorded in *Accumulated other comprehensive income (loss)*, unless related to 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.
- (3) Represents the amount of total gains or losses for the period, included in earnings (and *Accumulated other comprehensive income (loss)* 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 December 31, 2015.
- (4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

<i>In millions of dollars</i>	Dec. 31, 2013	Net realized/unrealized gains (losses) incl. in		Transfers		Purchases	Issuances	Sales	Settlements	Dec. 31, 2014	Unrealized gains (losses) still held <sup>(3)</sup>
		Principal transactions	Other <sup>(1)(2)</sup>	into Level 3	out of Level 3						
<b>Assets</b>											
<b>Federal funds sold and securities borrowed or purchased under agreements to resell</b>	\$ 3,566	\$ (61)	\$ —	\$ 84	\$ (8)	\$ 75	\$ —	\$ —	\$ (258)	\$ 3,398	\$ 133
<b>Trading non-derivative assets</b>											
<b>Trading mortgage-backed securities</b>											
U.S. government-sponsored agency guaranteed	1,094	117	—	854	(966)	714	26	(695)	(59)	1,085	8
Residential	2,854	457	—	442	(514)	2,582	—	(3,141)	—	2,680	132
Commercial	256	17	—	187	(376)	758	—	(402)	—	440	(4)
<b>Total trading mortgage-backed securities</b>	\$ 4,204	\$ 591	\$ —	\$ 1,483	\$ (1,856)	\$ 4,054	\$ 26	\$ (4,238)	\$ (59)	\$ 4,205	\$ 136
<b>U.S. Treasury and federal agency securities</b>	\$ —	\$ 3	\$ —	\$ —	\$ —	\$ 7	\$ —	\$ (10)	\$ —	\$ —	\$ —
State and municipal	222	10	—	150	(105)	34	—	(70)	—	241	1
Foreign government	416	(56)	—	130	(253)	676	—	(707)	—	206	5
Corporate	1,835	(127)	—	465	(502)	1,988	—	(2,839)	—	820	(139)
Equity securities	1,057	87	—	142	(209)	1,437	—	(295)	—	2,219	337
Asset-backed securities	4,342	876	—	158	(332)	3,893	—	(5,643)	—	3,294	3
Other trading assets	3,184	269	—	2,637	(2,278)	5,427	—	(4,490)	(377)	4,372	31
<b>Total trading non-derivative assets</b>	\$ 15,260	\$ 1,653	\$ —	\$ 5,165	\$ (5,535)	\$ 17,516	\$ 26	\$ (18,292)	\$ (436)	\$ 15,357	\$ 374
<b>Trading derivatives, net<sup>(4)</sup></b>											
Interest rate contracts	\$ 839	\$ (818)	\$ —	\$ 24	\$ (98)	\$ 113	\$ —	\$ (162)	\$ (109)	\$ (211)	\$ (414)
Foreign exchange contracts	695	92	—	47	(39)	59	—	(59)	(17)	778	56
Equity contracts	(858)	482	—	(916)	766	435	—	(279)	(493)	(863)	(274)
Commodity contracts	(1,393)	(338)	—	92	(12)	—	—	—	29	(1,622)	(174)
Credit derivatives	(274)	(567)	—	4	(156)	103	—	(3)	150	(743)	(369)
<b>Total trading derivatives, net<sup>(4)</sup></b>	\$ (991)	\$ (1,149)	\$ —	\$ (749)	\$ 461	\$ 710	\$ —	\$ (503)	\$ (440)	\$ (2,661)	\$ (1,175)
<b>Investments</b>											
<b>Mortgage-backed securities</b>											
U.S. government-sponsored agency guaranteed	\$ 187	\$ —	\$ 52	\$ 60	\$ (203)	\$ 17	\$ —	\$ (73)	\$ (2)	\$ 38	\$ (8)
Residential	102	—	33	31	(2)	17	—	(173)	—	8	—
Commercial	—	—	(6)	4	(7)	10	—	—	—	1	—
<b>Total investment mortgage-backed securities</b>	\$ 289	\$ —	\$ 79	\$ 95	\$ (212)	\$ 44	\$ —	\$ (246)	\$ (2)	\$ 47	\$ (8)
<b>U.S. Treasury and federal agency securities</b>	\$ 8	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —	\$ (2)	\$ —	\$ 6	\$ —
State and municipal	1,643	—	(64)	811	(584)	923	—	(549)	—	2,180	49
Foreign government	344	—	(27)	286	(105)	851	—	(490)	(181)	678	(17)
Corporate	285	—	(6)	26	(143)	728	—	(218)	—	672	(4)
Equity securities	815	—	111	19	(19)	10	—	(255)	—	681	(78)
Asset-backed securities	1,960	—	41	—	(47)	95	—	(195)	(1,305)	549	(18)
Other debt securities	50	—	(1)	—	—	116	—	(115)	(50)	—	—
<b>Non-marketable equity securities</b>	2,508	—	211	67	—	416	—	(768)	(974)	1,460	81
<b>Total investments</b>	\$ 7,902	\$ —	\$ 344	\$ 1,304	\$ (1,110)	\$ 3,183	\$ —	\$ (2,838)	\$ (2,512)	\$ 6,273	\$ 5



In millions of dollars	Dec. 31, 2013	Net realized/unrealized gains (losses) incl. in		Transfers		Purchases	Issuances	Sales	Settlements	Dec. 31, 2014	Unrealized gains (losses) still held <sup>(3)</sup>
		Principal transactions	Other <sup>(1)(2)</sup>	into Level 3	out of Level 3						
<b>Loans</b>	\$ 4,143	\$ —	\$ (233)	\$ 92	\$ 6	\$ 951	\$ 197	\$ (895)	\$ (1,153)	\$ 3,108	\$ 37
<b>Mortgage servicing rights</b>	2,718	—	(390)	—	—	—	217	(317)	(383)	1,845	(390)
<b>Other financial assets measured on a recurring basis</b>	181	—	100	(83)	—	3	178	(18)	(283)	78	14
<b>Liabilities</b>											
<b>Interest-bearing deposits</b>	\$ 890	\$ —	\$ 357	\$ 5	\$ (12)	\$ —	\$ 127	\$ —	\$ (167)	\$ 486	\$ (69)
<b>Federal funds purchased and securities loaned or sold under agreements to repurchase</b>	902	(6)	—	54	—	78	—	220	(217)	1,043	(34)
<b>Trading account liabilities</b>											
Securities sold, not yet purchased	590	(81)	—	79	(111)	—	—	534	(749)	424	(58)
<b>Short-term borrowings</b>	29	(31)	—	323	(12)	—	49	—	(76)	344	(8)
<b>Long-term debt</b>	7,621	109	49	2,701	(4,206)	—	3,893	—	(2,561)	7,290	(446)
<b>Other financial liabilities measured on a recurring basis</b>	10	—	(5)	7	(3)	(2)	1	(3)	(8)	7	(4)

- (1) Changes in fair value of available-for-sale investments are recorded in *Accumulated other comprehensive income (loss)*, unless related to 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.
- (3) Represents the amount of total gains or losses for the period, included in earnings (and *Accumulated other comprehensive income (loss)* 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 December 31, 2014.
- (4) Total Level 3 derivative assets and liabilities have been netted in these tables for presentation purposes only.

### Level 3 Fair Value Rollforward

The following were the significant Level 3 transfers for the period December 31, 2014 to December 31, 2015:

- Transfers of *Federal Funds sold and securities borrowed or purchased under agreements to resell* of \$2.9 billion from Level 3 to Level 2 related to shortening of the remaining tenor of certain reverse repos. There is more transparency and observability for repo curves used in the valuation of structured reverse repos with tenors up to five years; thus, these positions are generally classified as Level 2.
- Transfers of U.S. government-sponsored agency guaranteed MBS in *Trading account assets* of \$0.9 billion from Level 2 to Level 3, and of \$1.3 billion from Level 3 to Level 2 primarily related to changes in observability due to market trading activity.
- Transfers of other trading assets of \$1.0 billion from Level 2 to Level 3, and of \$3.3 billion from Level 3 to Level 2 primarily related to trading loans for which there were changes in volume of and transparency into market quotations.
- Transfers of *Long-term debt* of \$2.3 billion from Level 2 to Level 3, and of \$4.0 billion from Level 3 to Level 2, mainly related to structured debt, reflecting certain unobservable inputs becoming less significant and certain underlying market inputs being more observable.

The following were the significant Level 3 transfers for the period December 31, 2013 to December 31, 2014:

- Transfers of *Long-term debt* of \$2.7 billion from Level 2 to Level 3, and of \$4.2 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.
- Transfers of other trading assets of \$2.6 billion from Level 2 to Level 3, and of \$2.3 billion from Level 3 to Level 2, related to trading loans, reflecting changes in the volume of market quotations.

## Valuation Techniques and Inputs for Level 3 Fair Value Measurements

The Company's Level 3 inventory consists of both cash securities and derivatives of varying complexity. The valuation methodologies used to measure the fair value of these positions include discounted cash flow analysis, internal models and comparative analysis. A position is classified within Level 3 of the fair value hierarchy when at least one input is unobservable and is considered significant to its valuation. The specific reason an input is deemed unobservable varies. For example, at least one significant input to the pricing model is not observable in the market, at least one significant input has been adjusted to make it more representative of the position being valued, or the price quote available does not reflect sufficient trading activities.

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.

## Valuation Techniques and Inputs for Level 3 Fair Value Measurements

<i>As of December 31, 2015</i>	<b>Fair value<sup>(1)</sup></b> <i>(in millions)</i>	<b>Methodology</b>	<b>Input</b>	<b>Low<sup>(2)(3)</sup></b>	<b>High<sup>(2)(3)</sup></b>	<b>Weighted average<sup>(4)</sup></b>
<b>Assets</b>						
<b>Federal funds sold and securities borrowed or purchased under agreements to resell</b>	\$ 1,337	Model-based	IR log-normal volatility	29.02 %	137.02%	37.90 %
			Interest rate	— %	2.03%	0.27 %
<b>Mortgage-backed securities</b>	\$ 1,287	Price-based	Price	\$ 3.45	\$ 109.21	\$ 78.25
	1,377	Yield analysis	Yield	0.50 %	14.07%	4.83 %
<b>State and municipal, foreign government, corporate and other debt securities</b>	\$ 3,761	Price-based	Price	\$ —	\$ 217.00	\$ 79.41
	1,719	Cash flow	Credit spread	20 bps	600 bps	251 bps
<b>Equity securities<sup>(5)</sup></b>	\$ 3,499	Model-based	WAL	1.5 years	1.5 years	1.5 years
			Redemption rate	41.21 %	41.21%	41.21 %
<b>Asset-backed securities</b>	\$ 3,075	Price-based	Price	\$ 5.55	\$ 100.21	\$ 71.57
<b>Non-marketable equity</b>	\$ 633	Comparables analysis	EBITDA multiples	6.80x	10.80x	9.05x
	473	Price-based	Discount to price	— %	90.00%	10.89 %
			Price-to-book ratio	0.19x	1.09x	0.60x
			Price	\$ —	\$ 132.78	\$ 46.66
<b>Derivatives—gross<sup>(6)</sup></b>						
Interest rate contracts (gross)	\$ 4,553	Model-based	IR log-normal volatility	17.41 %	137.02%	37.60 %
			Mean reversion	(5.52)%	20.00%	0.71 %
Foreign exchange contracts (gross)	\$ 1,326	Model-based	Foreign exchange (FX) volatility	0.38 %	25.73%	11.63 %
	275	Cash flow	Interest rate	7.50 %	7.50%	7.50 %
			Forward price	1.48 %	138.09%	56.80 %
			Credit spread	3 bps	515 bps	235 bps
			IR-IR correlation	(51.00)%	77.94%	32.91 %
			IR-FX correlation	(20.30)%	60.00%	48.85 %
Equity contracts (gross) <sup>(7)</sup>	\$ 3,976	Model-based	Equity volatility	11.87 %	49.57%	27.33 %
			Equity-FX correlation	(88.17)%	65.00%	(21.09)%
			Equity forward	82.72 %	100.53%	95.20 %
			Equity-equity correlation	(80.54)%	100.00%	49.54 %
Commodity contracts (gross)	\$ 4,061	Model-based	Forward price	35.09 %	299.32%	112.98 %
			Commodity volatility	5.00 %	83.00%	24.00 %
			Commodity correlation	(57.00)%	91.00%	30.00 %
Credit derivatives (gross)	\$ 5,849	Model-based	Recovery rate	1.00 %	75.00%	32.49 %

<i>As of December 31, 2015</i>	<b>Fair value<sup>(1)</sup></b> <i>(in millions)</i>	<b>Methodology</b>	<b>Input</b>	<b>Low<sup>(2)(3)</sup></b>	<b>High<sup>(2)(3)</sup></b>	<b>Weighted average<sup>(4)</sup></b>
	<b>1,424</b>	Price-based	Credit correlation	<b>5.00 %</b>	<b>90.00%</b>	<b>43.48 %</b>
			Price	<b>\$ 0.33</b>	<b>\$ 101.00</b>	<b>\$ 61.52</b>
			Credit spread	<b>1 bps</b>	<b>967 bps</b>	<b>133 bps</b>
			Upfront points	<b>7.00 %</b>	<b>99.92%</b>	<b>66.75 %</b>
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (gross) <sup>(6)</sup>	<b>\$ 194</b>	Model-based	Recovery rate	<b>7.00 %</b>	<b>40.00%</b>	<b>10.72 %</b>
			Redemption rate	<b>27.00 %</b>	<b>99.50%</b>	<b>74.80 %</b>
			Interest rate	<b>5.26 %</b>	<b>5.28%</b>	<b>5.27 %</b>
<b>Loans</b>	<b>\$ 750</b>	Price-based	Yield	<b>1.50 %</b>	<b>4.50%</b>	<b>2.52 %</b>
	<b>892</b>	Model-based	Price	<b>\$ —</b>	<b>\$ 106.98</b>	<b>\$ 40.69</b>
	<b>524</b>	Cash flow	Credit spread	<b>29 bps</b>	<b>500 bps</b>	<b>105 bps</b>
<b>Mortgage servicing rights</b>	<b>\$ 1,690</b>	Cash flow	Yield	<b>— %</b>	<b>23.32%</b>	<b>6.83 %</b>
			WAL	<b>3.38 years</b>	<b>7.48 years</b>	<b>5.5 years</b>
<b>Liabilities</b>						
<b>Interest-bearing deposits</b>	<b>\$ 434</b>	Model-based	Equity-IR correlation	<b>23.00 %</b>	<b>39.00%</b>	<b>34.51 %</b>
			Forward price	<b>35.09 %</b>	<b>299.32%</b>	<b>112.72 %</b>
			Commodity correlation	<b>(57.00)%</b>	<b>91.00%</b>	<b>30.00 %</b>
			Commodity volatility	<b>5.00 %</b>	<b>83.00%</b>	<b>24.00 %</b>
<b>Federal funds purchased and securities loaned or sold under agreements to repurchase</b>	<b>\$ 1,245</b>	Model-based	Interest rate	<b>1.27 %</b>	<b>2.02%</b>	<b>1.92 %</b>
<b>Trading account liabilities</b>						
Securities sold, not yet purchased	<b>\$ 152</b>	Price-based	Price	<b>\$ —</b>	<b>\$ 217.00</b>	<b>\$ 87.78</b>
<b>Short-term borrowings and long-term debt</b>	<b>\$ 7,004</b>	Model-based	Mean reversion	<b>(5.52)%</b>	<b>20.00%</b>	<b>7.80 %</b>
			Equity volatility	<b>9.55 %</b>	<b>42.56%</b>	<b>22.26 %</b>
			Equity forward	<b>82.72 %</b>	<b>100.80%</b>	<b>94.48 %</b>
			Equity-equity correlation	<b>(80.54)%</b>	<b>100.00%</b>	<b>49.16 %</b>
			Forward price	<b>35.09 %</b>	<b>299.32%</b>	<b>106.32 %</b>
			Equity-FX correlation	<b>(88.20)%</b>	<b>56.85%</b>	<b>(31.76)%</b>

<i>As of December 31, 2014</i>	<b>Fair value<sup>(1)</sup></b> <i>(in millions)</i>	<b>Methodology</b>	<b>Input</b>	<b>Low<sup>(2)(3)</sup></b>	<b>High<sup>(2)(3)</sup></b>	<b>Weighted average<sup>(4)</sup></b>		
<b>Assets</b>								
<b>Federal funds sold and securities borrowed or purchased under agreements to resell</b>	\$ 3,156	Model-based	Interest rate	1.27 %	1.97%	1.80 %		
<b>Mortgage-backed securities</b>	\$ 2,874	Price-based	Price	\$ —	\$ 127.87	\$ 81.43		
	1,117	Yield analysis	Yield	0.01 %	19.91%	5.89 %		
<b>State and municipal, foreign government, corporate and other debt securities</b>	\$ 5,937	Price-based	Price	\$ —	\$ 124.00	\$ 90.62		
	1,860	Cash flow	Credit spread	25 bps	600 bps	233 bps		
<b>Equity securities<sup>(5)</sup></b>	\$ 2,163	Price-based	Price <sup>(5)</sup>	\$ —	\$ 141.00	\$ 91.00		
	679	Cash flow	Yield	4.00 %	5.00%	4.50 %		
			WAL	0.01 years	3.14 years	1.07 years		
<b>Asset-backed securities</b>	\$ 3,607	Price-based	Price	\$ —	\$ 105.50	\$ 67.01		
<b>Non-marketable equity</b>	\$ 1,224	Price-based	Discount to price	— %	90.00%	4.04 %		
	1,055	Comparables analysis	EBITDA multiples	2.90x	13.10x	9.77x		
			PE ratio	8.10x	13.10x	8.43x		
			Price-to-book ratio	0.99x	1.56x	1.15x		
<b>Derivatives—gross<sup>(6)</sup></b>								
Interest rate contracts (gross)	\$ 8,309	Model-based	Interest rate (IR) log-normal volatility	18.05 %	90.65%	30.21 %		
			Mean reversion	1.00 %	20.00%	10.50 %		
Foreign exchange contracts (gross)	\$ 1,428	Model-based	Foreign exchange (FX) volatility	0.37 %	58.40%	8.57 %		
			Cash flow	Interest rate	3.72 %	8.27%	5.02 %	
				IR-FX correlation	40.00 %	60.00%	50.00 %	
Equity contracts (gross) <sup>(7)</sup>	\$ 4,431	Model-based	Equity volatility	9.56 %	82.44%	24.61 %		
			Price-based	Equity forward	84.10 %	100.80%	94.10 %	
				Equity-FX correlation	(88.20)%	48.70%	(25.17)%	
				Equity-equity correlation	(66.30)%	94.80%	36.87 %	
				Price	\$ 0.01	\$ 144.50	\$ 93.05	
Commodity contracts (gross)	\$ 3,606	Model-based	Commodity volatility	5.00 %	83.00%	24.00 %		
			Commodity correlation	(57.00)%	91.00%	30.00 %		
			Forward price	35.34 %	268.77%	101.74 %		
Credit derivatives (gross)	\$ 4,944	Model-based	Recovery rate	13.97 %	75.00%	37.62 %		
			Price-based	Credit correlation	— %	95.00%	58.76 %	
				Price	\$ 1.00	\$ 144.50	\$ 53.86	
				Credit spread	1 bps	3,380 bps	180 bps	
				Upfront points	0.39	100.00	52.26	
Non-trading derivatives and other financial assets and liabilities measured on a recurring basis (gross) <sup>(6)</sup>	\$ 74	Model-based	Redemption rate	13.00 %	99.50%	68.73 %		
			Forward Price	107.00 %	107.10%	107.05 %		
<b>Loans</b>	\$ 1,095	Cash flow	Yield	1.60 %	4.50%	2.23 %		
			Model-based	Price	\$ 4.72	\$ 106.55	\$ 98.56	
				Price-based	Credit spread	35 bps	500 bps	199 bps
					Yield analysis	441		

<i>As of December 31, 2014</i>	<b>Fair value<sup>(1)</sup></b> <i>(in millions)</i>	<b>Methodology</b>	<b>Input</b>	<b>Low<sup>(2)(3)</sup></b>	<b>High<sup>(2)(3)</sup></b>	<b>Weighted average<sup>(4)</sup></b>
<b>Mortgage servicing rights</b>	\$ 1,750	Cash flow	Yield	5.19 %	21.40%	10.25 %
			WAL	3.31 years	7.89 years	5.17 years
<b>Liabilities</b>						
<b>Interest-bearing deposits</b>	\$ 486	Model-based	Equity-IR correlation	34.00 %	37.00%	35.43 %
			Commodity correlation	(57.00)%	91.00%	30.00 %
			Commodity volatility	5.00 %	83.00%	24.00 %
			Forward price	35.34 %	268.77%	101.74 %
<b>Federal funds purchased and securities loaned or sold under agreements to repurchase</b>	\$ 1,043	Model-based	Interest rate	0.74 %	2.26%	1.90 %
<b>Trading account liabilities</b>						
Securities sold, not yet purchased	\$ 251	Model-based	Credit-IR correlation	(70.49)%	8.81%	47.17 %
	\$ 142	Price-based	Price	\$ —	\$ 117.00	\$ 70.33
<b>Short-term borrowings and long-term debt</b>	\$ 7,204	Model-based	IR log-normal volatility	18.05 %	90.65%	30.21 %
			Mean reversion	1.00 %	20.00%	10.50 %
			Equity volatility	10.18 %	69.65%	23.72 %
			Credit correlation	87.50 %	87.50%	87.50 %
			Equity forward	89.50 %	100.80%	95.80 %
			Forward price	35.34 %	268.77%	101.80 %
			Commodity correlation	(57.00)%	91.00%	30.00 %
			Commodity volatility	5.00 %	83.00%	24.00 %

(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 and fund NAV 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.

## **Sensitivity to Unobservable Inputs and Interrelationships between Unobservable Inputs**

The impact of key unobservable inputs on the Level 3 fair value measurements may not be independent of one another. In addition, the amount and direction of the impact on a fair value measurement for a given change in an unobservable input depends on the nature of the instrument as well as whether the Company holds the instrument as an asset or a liability. For certain instruments, the pricing, hedging and risk management are sensitive to the correlation between various inputs rather than on the analysis and aggregation of the individual inputs.

The following section describes the sensitivities and interrelationships of the most significant unobservable inputs used by the Company in Level 3 fair value measurements.

### ***Correlation***

Correlation is a measure of the extent to which two or more variables change in relation to each other. A variety of correlation-related assumptions are required for a wide range of instruments, including equity and credit baskets, foreign-exchange options, CDOs backed by loans or bonds, mortgages, subprime mortgages and many other instruments. For almost all of these instruments, correlations are not observable in the market and must be calculated using historical information. Estimating correlation can be especially difficult where it may vary over time. Calculating correlation information from market data requires significant assumptions regarding the informational efficiency of the market (for example, swaption markets). Changes in correlation levels can have a major impact, favorable or unfavorable, on the value of an instrument, depending on its nature. A change in the default correlation of the fair value of the underlying bonds comprising a CDO structure would affect the fair value of the senior tranche. For example, an increase in the default correlation of the underlying bonds would reduce the fair value of the senior tranche, because highly correlated instruments produce larger losses in the event of default and a part of these losses would become attributable to the senior tranche. That same change in default correlation would have a different impact on junior tranches of the same structure.

### ***Volatility***

Volatility represents the speed and severity of market price changes and is a key factor in pricing options. Typically, instruments can become more expensive if volatility increases. For example, as an index becomes more volatile, the cost to Citi of maintaining a given level of exposure increases because more frequent rebalancing of the portfolio is required. Volatility generally depends on the tenor of the underlying instrument and the strike price or level defined in the contract. Volatilities for certain combinations of tenor and strike are not observable. The general relationship between changes in the value of a portfolio to changes in volatility also depends on changes in interest rates and the level of the underlying index. Generally, long option positions (assets) benefit from increases in volatility, whereas short option positions (liabilities) will suffer losses. Some instruments are more sensitive to changes in volatility than others. For example, an

at-the-money option would experience a larger percentage change in its fair value than a deep-in-the-money option. In addition, the fair value of an option with more than one underlying security (for example, an option on a basket of bonds) depends on the volatility of the individual underlying securities as well as their correlations.

### ***Yield***

Adjusted yield is generally used to discount the projected future principal and interest cash flows on instruments, such as asset-backed securities. Adjusted yield is impacted by changes in the interest rate environment and relevant credit spreads.

In some circumstances, the yield of an instrument is not observable in the market and must be estimated from historical data or from yields of similar securities. This estimated yield may need to be adjusted to capture the characteristics of the security being valued. In other situations, the estimated yield may not represent sufficient market liquidity and must be adjusted as well. Whenever the amount of the adjustment is significant to the value of the security, the fair value measurement is classified as Level 3.

### ***Prepayment***

Voluntary unscheduled payments (prepayments) change the future cash flows for the investor and thereby change the fair value of the security. The effect of prepayments is more pronounced for residential mortgage-backed securities. An increase in prepayments—in speed or magnitude—generally creates losses for the holder of these securities. Prepayment is generally negatively correlated with delinquency and interest rate. A combination of low prepayment and high delinquencies amplify each input's negative impact on mortgage securities' valuation. As prepayment speeds change, the weighted average life of the security changes, which impacts the valuation either positively or negatively, depending upon the nature of the security and the direction of the change in the weighted average life.

### ***Recovery***

Recovery is the proportion of the total outstanding balance of a bond or loan that is expected to be collected in a liquidation scenario. For many credit securities (such as asset-backed securities), there is no directly observable market input for recovery, but indications of recovery levels are available from pricing services. The assumed recovery of a security may differ from its actual recovery that will be observable in the future. The recovery rate impacts the valuation of credit securities. Generally, an increase in the recovery rate assumption increases the fair value of the security. An increase in loss severity, the inverse of the recovery rate, reduces the amount of principal available for distribution and, as a result, decreases the fair value of the security.

### ***Credit Spread***

Credit spread is a component of the security representing its credit quality. Credit spread reflects the market perception of changes in prepayment, delinquency and recovery rates, therefore capturing the impact of other variables on the fair value. Changes in credit spread affect the fair value of

securities differently depending on the characteristics and maturity profile of the security. For example, credit spread is a more significant driver of the fair value measurement of a high yield bond as compared to an investment grade bond. Generally, the credit spread for an investment grade bond is also more observable and less volatile than its high yield counterpart.

### **Qualitative Discussion of the Ranges of Significant Unobservable Inputs**

The following section describes the ranges of the most significant unobservable inputs used by the Company in Level 3 fair value measurements. The level of aggregation and the diversity of instruments held by the Company lead to a wide range of unobservable inputs that may not be evenly distributed across the Level 3 inventory.

#### ***Correlation***

There are many different types of correlation inputs, including credit correlation, cross-asset correlation (such as equity-interest rate correlation), and same-asset correlation (such as interest rate-interest rate correlation). Correlation inputs are generally used to value hybrid and exotic instruments. Generally, same-asset correlation inputs have a narrower range than cross-asset correlation inputs. However, due to the complex and unique nature of these instruments, the ranges for correlation inputs can vary widely across portfolios.

#### ***Volatility***

Similar to correlation, asset-specific volatility inputs vary widely by asset type. For example, ranges for foreign exchange volatility are generally lower and narrower than equity volatility. Equity volatilities are wider due to the nature of the equities market and the terms of certain exotic instruments. For most instruments, the interest rate volatility input is on the lower end of the range; however, for certain structured or exotic instruments (such as market-linked deposits or exotic interest rate derivatives), the range is much wider.

#### ***Yield***

Ranges for the yield inputs vary significantly depending upon the type of security. For example, securities that typically have lower yields, such as municipal bonds, will fall on the lower end of the range, while more illiquid securities or securities with lower credit quality, such as certain residual tranche asset-backed securities, will have much higher yield inputs.

#### ***Credit Spread***

Credit spread is relevant primarily for fixed income and credit instruments; however, the ranges for the credit spread input can vary across instruments. For example, certain fixed income instruments, such as certificates of deposit, typically have lower credit spreads, whereas certain derivative instruments with high-risk counterparties are typically subject to higher credit spreads when they are uncollateralized or have a longer tenor. Other instruments, such as credit default swaps, also have credit spreads that vary with the attributes of the

underlying obligor. Stronger companies have tighter credit spreads, and weaker companies have wider credit spreads.

#### ***Price***

The price input is a significant unobservable input for certain fixed income instruments. For these instruments, the price input is expressed as a percentage of the notional amount, with a price of \$100 meaning that the instrument is valued at par. For most of these instruments, the price varies between zero to \$100, or slightly above \$100. Relatively illiquid assets that have experienced significant losses since issuance, such as certain asset-backed securities, are at the lower end of the range, whereas most investment grade corporate bonds will fall in the middle to the higher end of the range. For certain structured debt instruments with embedded derivatives, the price input may be above \$100 to reflect the embedded features of the instrument (for example, a step-up coupon or a conversion option).

The price input is also a significant unobservable input for certain equity securities; however, the range of price inputs varies depending on the nature of the position, the number of shares outstanding and other factors.

#### ***Mean Reversion***

A number of financial instruments require an estimate of the rate at which the interest rate reverts to its long term average. Changes in this estimate can significantly affect the fair value of these instruments. However, sometimes there is insufficient external market data to calibrate this parameter, especially when pricing more complex instruments. The level of mean reversion affects the correlation between short and long term interest rates. The fair values of more complex instruments, such as Bermudan swaptions (options with multiple exercise dates) and constant maturity spread options or structured debts with these embedded features, are more sensitive to the changes in this correlation as compared to less complex instruments, such as caps and floors.

### 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:

<i>In millions of dollars</i>	Fair value	Level 2	Level 3
<b>December 31, 2015</b>			
Loans held-for-sale	\$ 10,326	\$ 6,752	\$ 3,574
Other real estate owned	107	15	92
Loans <sup>(1)</sup>	1,173	836	337
<b>Total assets at fair value on a nonrecurring basis</b>	<b>\$ 11,606</b>	<b>\$ 7,603</b>	<b>\$ 4,003</b>

<i>In millions of dollars</i>	Fair value	Level 2	Level 3
<b>December 31, 2014</b>			
Loans held-for-sale	\$ 4,152	\$ 1,084	\$ 3,068
Other real estate owned	102	21	81
Loans <sup>(1)</sup>	3,367	2,881	486
<b>Total assets at fair value on a nonrecurring basis</b>	<b>\$ 7,621</b>	<b>\$ 3,986</b>	<b>\$ 3,635</b>

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

### 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:

<i>As of December 31, 2015</i>	Fair value <sup>(1)</sup> <i>(in millions)</i>	Methodology	Input	Low <sup>(5)</sup>	High	Weighted average <sup>(2)</sup>
<b>Loans held-for-sale</b>	\$ 3,486	Price-based	Price	\$ —	\$ 100.00	\$ 81.05
<b>Other real estate owned</b>	90	Price-based	Discount to price <sup>(4)</sup>	0.34%	13.00%	2.86%
	2		Appraised value	\$ —	\$ 8,518,230	\$ 3,813,045
<b>Loans<sup>(3)</sup></b>	\$ 157	Recovery analysis	Recovery rate	11.79%	60.00%	23.49%
	87	Price-based	Discount to price <sup>(4)</sup>	13.00%	34.00%	7.99%

- (1) The fair value amounts presented in this table represent the primary valuation technique or techniques for each class of assets or liabilities.  
(2) Weighted averages are calculated based on the fair values of the instruments.  
(3) Represents loans held for investment whose carrying amounts are based on the fair value of the underlying collateral.  
(4) Includes estimated costs to sell.  
(5) Some inputs are shown as zero due to rounding.

The fair value of loans-held-for-sale is determined where possible using quoted secondary-market prices. If no such quoted price exists, the fair value of a loan is determined using quoted prices for a similar asset or assets, adjusted for the specific attributes of that loan. Fair value for the other real estate owned is based on appraisals. For loans whose carrying amount is based on the fair value of the underlying collateral, the fair values depend on the type of collateral. Fair value of the collateral is typically estimated based on quoted market prices if available, appraisals or other internal valuation techniques.

Where the fair value of the related collateral is based on an unadjusted appraised value, the loan is generally classified as Level 2. Where significant adjustments are made to the appraised value, the loan is classified as Level 3. Additionally, for corporate loans, appraisals of the collateral are often based on sales of similar assets; however, because the prices of similar assets require significant adjustments to reflect the unique features of the underlying collateral, these fair value measurements are generally classified as Level 3.



<i>As of December 31, 2014</i>	<b>Fair value<sup>(1)</sup></b> <i>(in millions)</i>	<b>Methodology</b>	<b>Input</b>	<b>Low</b>	<b>High</b>	<b>Weighted average<sup>(2)</sup></b>
<b>Loans held-for-sale</b>	\$ 2,740	Price-based	Price	\$ 92.00	\$ 100.00	\$ 99.54
			Credit spread	5 bps	358 bps	175 bps
<b>Other real estate owned</b>	\$ 76	Price-based	Appraised value	\$11,000	\$11,124,137	\$4,730,129
			Discount to price <sup>(4)</sup>	13.00%	64.00%	28.80%
<b>Loans<sup>(3)</sup></b>	\$ 437	Price-based	Discount to price <sup>(4)</sup>	13.00%	34.00%	28.92%

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

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

(3) Represents loans held for investment whose carrying amounts are based on the fair value of the underlying collateral.

(4) Includes estimated costs to sell.

### 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:

<i>In millions of dollars</i>	<b>Year ended December 31, 2015</b>
Loans held-for-sale	\$ (79)
Other real estate owned	(17)
Loans <sup>(1)</sup>	(142)
<b>Total nonrecurring fair value gains (losses)</b>	<b>\$ (238)</b>

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

<i>In millions of dollars</i>	<b>Year ended December 31, 2014</b>
Loans held-for-sale	\$ 34
Other real estate owned	(16)
Loans <sup>(1)</sup>	(533)
<b>Total nonrecurring fair value gains (losses)</b>	<b>\$ (515)</b>

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

## Estimated Fair Value of Financial Instruments Not Carried at Fair Value

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

The disclosure also excludes leases, affiliate investments, pension and benefit obligations and insurance policy claim reserves. In addition, contract-holder fund amounts exclude certain insurance contracts. Also, as required, the disclosure excludes the effect of taxes, any premium or discount that could result from offering for sale at one time the entire holdings of a particular instrument, excess fair value associated with deposits with no fixed maturity, and other expenses that would be incurred in a market transaction. In addition, the table excludes the values of non-financial assets and liabilities, as well as a wide range of franchise, relationship and intangible values, which are integral to a full assessment of Citigroup's financial position and the value of its net assets.

The fair value represents management's best estimates based on a range of methodologies and assumptions. The

carrying value of short-term financial instruments not accounted for at fair value, as well as receivables and payables arising in the ordinary course of business, approximates fair value because of the relatively short period of time between their origination and expected realization. Quoted market prices are used when available for investments and for liabilities, such as long-term debt not carried at fair value. For loans not accounted for at fair value, cash flows are discounted at quoted secondary market rates or estimated market rates if available. Otherwise, sales of comparable loan portfolios or current market origination rates for loans with similar terms and risk characteristics are used. Expected credit losses are either embedded in the estimated future cash flows or incorporated as an adjustment to the discount rate used. The value of collateral is also considered. For liabilities such as long-term debt not accounted for at fair value and without quoted market prices, market borrowing rates of interest are used to discount contractual cash flows.

<i>In billions of dollars</i>	December 31, 2015		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
<b>Assets</b>					
Investments	\$ 41.7	\$ 42.7	\$ 3.5	\$ 36.4	\$ 2.8
Federal funds sold and securities borrowed or purchased under agreements to resell	81.7	81.7	—	77.4	4.3
Loans <sup>(1)(2)</sup>	597.5	599.4	—	6.0	593.4
Other financial assets <sup>(2)(3)</sup>	186.5	186.5	6.9	126.2	53.4
<b>Liabilities</b>					
Deposits	\$ 906.3	\$ 896.7	\$ —	\$ 749.4	\$ 147.3
Federal funds purchased and securities loaned or sold under agreements to repurchase	109.7	109.7	—	109.4	0.3
Long-term debt <sup>(4)</sup>	176.0	180.8	—	153.8	27.0
Other financial liabilities <sup>(5)</sup>	97.6	97.6	—	18.0	79.6

<i>In billions of dollars</i>	December 31, 2014		Estimated fair value		
	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
<b>Assets</b>					
Investments	\$ 30.5	\$ 32.2	\$ 4.5	\$ 25.2	\$ 2.5
Federal funds sold and securities borrowed or purchased under agreements to resell	98.4	98.4	—	89.7	8.7
Loans <sup>(1)(2)</sup>	620.0	617.6	—	5.6	612.0
Other financial assets <sup>(2)(3)</sup>	213.8	213.8	8.3	151.9	53.6
<b>Liabilities</b>					
Deposits	\$ 897.6	\$ 894.4	\$ —	\$ 766.7	\$ 127.7
Federal funds purchased and securities loaned or sold under agreements to repurchase	136.7	136.7	—	136.5	0.2
Long-term debt <sup>(4)</sup>	196.9	202.5	—	172.7	29.8
Other financial liabilities <sup>(5)</sup>	136.2	136.2	—	41.4	94.8

- (1) The carrying value of loans is net of the *Allowance for loan losses* of \$12.6 billion for December 31, 2015 and \$16.0 billion for December 31, 2014. In addition, the carrying values exclude \$2.4 billion and \$2.7 billion of lease finance receivables at December 31, 2015 and December 31, 2014, respectively.
- (2) Includes items measured at fair value on a nonrecurring basis.
- (3) Includes cash and due from banks, deposits with banks, brokerage receivables, reinsurance recoverable 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.
- (5) Includes brokerage payables, separate and variable accounts, short-term borrowings (carried at cost) and other 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.

Fair values vary from period to period based on changes in a wide range of factors, including interest rates, credit quality and market perceptions of value, and as existing assets and liabilities run off and new transactions are entered into. The estimated fair values of loans reflect changes in credit status since the loans were made, changes in interest rates in the case of fixed-rate loans, and premium values at origination of certain loans.

The estimated fair values of the Company's corporate unfunded lending commitments at December 31, 2015 and December 31, 2014 were liabilities of \$7.0 billion and \$5.5 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.

## 26. 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. 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. Additional discussion regarding the applicable areas in which fair value elections were made is presented in Note 25 to the Consolidated Financial Statements.

All servicing rights are recognized initially at fair value. The Company has elected fair value accounting for its mortgage servicing rights. See Note 22 to the Consolidated Financial Statements for further discussions regarding the accounting and reporting of MSRs.

The following table presents the changes in fair value gains and losses associated with those items for which the fair value option was elected:

<i>In millions of dollars</i>	Changes in fair value gains (losses) for the years ended December 31,	
	2015	2014
<b>Assets</b>		
Federal funds sold and securities borrowed or purchased under agreements to resell selected portfolios of securities purchased under agreements to resell and securities borrowed	\$ (153)	\$ (154)
Trading account assets	(305)	190
Investments	57	30
<b>Loans</b>		
Certain corporate loans <sup>(1)</sup>	(192)	(135)
Certain consumer loans <sup>(1)</sup>	3	(41)
Total loans	\$ (189)	\$ (176)
<b>Other assets</b>		
MSRs	\$ 104	\$ (344)
Certain mortgage loans held for sale <sup>(2)</sup>	331	474
Total other assets	\$ 435	\$ 130
<b>Total assets</b>	<b>\$ (155)</b>	<b>\$ 20</b>
<b>Liabilities</b>		
Interest-bearing deposits	\$ (94)	\$ (77)
Federal funds purchased and securities loaned or sold under agreements to repurchase selected portfolios of securities sold under agreements to repurchase and securities loaned	3	(5)
Trading account liabilities	(60)	29
Short-term borrowings	(59)	8
Long-term debt	343	(307)
<b>Total liabilities</b>	<b>\$ 133</b>	<b>\$ (352)</b>

(1) Includes mortgage loans held by mortgage loan securitization VIEs consolidated upon the adoption of ASC 810, *Consolidation* (SFAS 167), on January 1, 2010.

(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

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. The fair value of liabilities for which the fair value option is 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 risk (or instrument-specific credit risk) was a gain of \$367 million and \$218 million for the years ended December 31, 2015 and 2014, 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.

### 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 derivative instruments that are accounted for at fair value through earnings.

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

<i>In millions of dollars</i>	December 31, 2015		December 31, 2014	
	Trading assets	Loans	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	\$ 9,314	\$ 5,005	\$ 10,290	\$ 5,901
Aggregate unpaid principal balance in excess of (less than) fair value	980	280	234	125
Balance of non-accrual loans or loans more than 90 days past due	5	2	13	3
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	13	1	28	1

In addition to the amounts reported above, \$2,113 million and \$2,335 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of December 31, 2015 and 2014, respectively.

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 elected the fair value option for certain 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.

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 years ended December 31, 2015 and 2014 due to instrument-specific credit risk totaled to a loss of \$221 million and \$155 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 \$0.6 billion and \$1.2 billion at December 31, 2015 and 2014, 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 sells (buys) unallocated precious metals investments and executes forward purchase (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 (sale) contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings. As of December 31, 2015, there were approximately \$10.6 billion and \$9.2 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 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:

<i>In millions of dollars</i>	<b>December 31, 2015</b>	December 31, 2014
Carrying amount reported on the Consolidated Balance Sheet	<b>\$ 745</b>	\$ 1,447
Aggregate fair value in excess of unpaid principal balance	<b>20</b>	67
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 years ended December 31, 2015 and 2014 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.

### ***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:

<i>In billions of dollars</i>	<b>December 31, 2015</b>		December 31, 2014	
Interest rate linked	\$	9.6	\$	10.9
Foreign exchange linked		0.3		0.3
Equity linked		9.9		8.0
Commodity linked		1.4		1.4
Credit linked		1.6		2.5
<b>Total</b>	\$	22.8	\$	23.1

The change in the fair value of these structured liabilities is reported in *Principal transactions* in the Company's Consolidated Statement of Income. Changes in the fair value of these structured liabilities include an economic component for accrued interest, which is 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 is 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 election has 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. The change in the fair value of these non-structured liabilities is reported in *Principal transactions* in the Company's Consolidated Statement of Income. Related 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:

<i>In millions of dollars</i>	<b>December 31, 2015</b>		December 31, 2014	
Carrying amount reported on the Consolidated Balance Sheet	\$	25,293	\$	26,180
Aggregate unpaid principal balance in excess of (less than) fair value		1,569		(151)

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

<i>In millions of dollars</i>	<b>December 31, 2015</b>		December 31, 2014	
Carrying amount reported on the Consolidated Balance Sheet	\$	1,207	\$	1,496
Aggregate unpaid principal balance in excess of (less than) fair value		130		31



## 27. PLEDGED ASSETS, COLLATERAL, GUARANTEES AND COMMITMENTS

### Pledged Assets

In connection with the Company's financing and trading activities, the Company has pledged assets to collateralize its obligations under repurchase agreements, secured financing agreements, secured liabilities of consolidated VIEs and other borrowings. The approximate carrying values of the significant components of pledged assets recognized on the Company's Consolidated Balance Sheet included:

<i>In millions of dollars</i>	2015	2014
Investment securities	\$ 210,604	\$ 173,015
Loans	203,568	214,530
Trading account assets	97,205	111,832
<b>Total</b>	<b>\$ 511,377</b>	<b>\$ 499,377</b>

In addition, included in *Cash and due from banks* at December 31, 2015 and 2014 were \$5.0 billion and \$6.2 billion, respectively, of cash segregated under federal and other brokerage regulations or deposited with clearing organizations.

### Collateral

At December 31, 2015 and 2014, the approximate fair value of collateral received by the Company that may be resold or repledged, excluding the impact of allowable netting, was \$347.5 billion and \$362.7 billion, respectively. This collateral was received in connection with resale agreements, securities borrowings and loans, derivative transactions and margined broker loans.

At December 31, 2015 and 2014, a substantial portion of the collateral received by the Company had been sold or repledged in connection with repurchase agreements, securities sold, not yet purchased, securities borrowings and loans, pledges to clearing organizations, segregation requirements under securities laws and regulations, derivative transactions and bank loans.

In addition, at December 31, 2015 and 2014, the Company had pledged \$405 billion and \$378 billion,

respectively, of collateral that may not be sold or repledged by the secured parties.

### Lease Commitments

Rental expense (principally for offices and computer equipment) was \$1.3 billion, \$1.4 billion and \$1.5 billion for the years ended December 31, 2015, 2014 and 2013, respectively.

Future minimum annual rentals under noncancellable leases, net of sublease income, are as follows:

<i>In millions of dollars</i>	
2016	\$ 1,238
2017	1,002
2018	778
2019	698
2020	567
Thereafter	4,483
<b>Total</b>	<b>\$ 8,766</b>

### Guarantees

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.

The following tables present information about Citi's guarantees:

<i>In billions of dollars at December 31, 2015 except carrying value in millions</i>	Maximum potential amount of future payments			Carrying value <i>(in millions of dollars)</i>
	Expire within 1 year	Expire after 1 year	Total amount outstanding	
Financial standby letters of credit	\$ 23.8	\$ 73.0	\$ 96.8	\$ 153
Performance guarantees	7.4	4.1	11.5	24
Derivative instruments considered to be guarantees	3.6	74.9	78.5	1,779
Loans sold with recourse	—	0.2	0.2	17
Securities lending indemnifications <sup>(1)</sup>	79.0	—	79.0	—
Credit card merchant processing <sup>(1)</sup>	84.2	—	84.2	—
Custody indemnifications and other	—	51.7	51.7	56
<b>Total</b>	<b>\$ 198.0</b>	<b>\$ 203.9</b>	<b>\$ 401.9</b>	<b>\$ 2,029</b>



<i>In billions of dollars at December 31, 2014 except carrying value in millions</i>	Maximum potential amount of future payments			Carrying value <i>(in millions of dollars)</i>
	Expire within 1 year	Expire after 1 year	Total amount outstanding	
Financial standby letters of credit	\$ 25.4	\$ 73.0	\$ 98.4	\$ 242
Performance guarantees	7.1	4.8	11.9	29
Derivative instruments considered to be guarantees	12.5	79.2	91.7	2,806
Loans sold with recourse	—	0.2	0.2	15
Securities lending indemnifications <sup>(1)</sup>	115.9	—	115.9	—
Credit card merchant processing <sup>(1)</sup>	86.0	—	86.0	—
Custody indemnifications and other	—	48.9	48.9	54
<b>Total</b>	<b>\$ 246.9</b>	<b>\$ 206.1</b>	<b>\$ 453.0</b>	<b>\$ 3,146</b>

(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.

### ***Financial Standby Letters of Credit***

Citi issues standby letters of credit, which substitute its own credit for that of the borrower. If a letter of credit is drawn down, the borrower is obligated to repay Citi. Standby letters of credit protect a third party from defaults on contractual obligations. Financial standby letters of credit include (i) guarantees of payment of insurance premiums and reinsurance risks that support industrial revenue bond underwriting; (ii) settlement of payment obligations to clearing houses, including futures and over-the-counter derivatives clearing (see further discussion below); (iii) support options and purchases of securities in lieu of escrow deposit accounts; and (iv) letters of credit that backstop loans, credit facilities, promissory notes and trade acceptances.

### ***Performance Guarantees***

Performance guarantees and letters of credit are issued to guarantee a customer's tender bid on a construction or systems-installation project or to guarantee completion of such projects in accordance with contract terms. They are also issued to support a customer's obligation to supply specified products, commodities, or maintenance or warranty services to a third party.

### ***Derivative Instruments Considered to Be Guarantees***

Derivatives are financial instruments whose cash flows are based on a notional amount and an underlying instrument, reference credit or index, where there is little or no initial investment, and whose terms require or permit net settlement. For a discussion of Citi's derivatives activities, see Note 23 to the Consolidated Financial Statements.

Derivative instruments considered to be guarantees include only those instruments that require Citi to make payments to the counterparty based on changes in an underlying instrument that is related to an asset, a liability or an equity security held by the guaranteed party. More specifically, derivative instruments considered to be guarantees include certain over-the-counter written put options where the counterparty is not a bank, hedge fund or broker-dealer (such counterparties are considered to be dealers in these markets and may, therefore, not hold the underlying

instruments). Credit derivatives sold by Citi are excluded from the tables above as they are disclosed separately in Note 23 to the Consolidated Financial Statements. In instances where Citi's maximum potential future payment is unlimited, the notional amount of the contract is disclosed.

### ***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 \$152 million and \$224 million at December 31, 2015 and 2014, respectively, and these amounts are included in *Other liabilities* on the Consolidated Balance Sheet.

### ***Securities Lending Indemnifications***

Owners of securities frequently lend those securities for a fee to other parties who may sell them short or deliver them to another party to satisfy some other obligation. Banks may administer such securities lending programs for their clients. Securities lending indemnifications are issued by the bank to guarantee that a securities lending customer will be made whole in the event that the security borrower does not return the security subject to the lending agreement and collateral held is insufficient to cover the market value of the security.

### ***Credit Card Merchant Processing***

Credit card merchant processing guarantees represent the Company's indirect obligations in connection with: (i) providing transaction processing services to various merchants with respect to its private-label cards; and

(ii) potential liability for bank card transaction processing services. The nature of the liability in either case arises as a result of a billing dispute between a merchant and a cardholder that is ultimately resolved in the cardholder's favor. The merchant is liable to refund the amount to the cardholder. In general, if the credit card processing company is unable to collect this amount from the merchant, the credit card processing company bears the loss for the amount of the credit or refund paid to the cardholder.

With regard to (i) above, Citi has the primary contingent liability with respect to its portfolio of private-label merchants. The risk of loss is mitigated as the cash flows between Citi and the merchant are settled on a net basis, and Citi has the right to offset any payments with cash flows otherwise due to the merchant. To further mitigate this risk, Citi may delay settlement, require a merchant to make an escrow deposit, include event triggers to provide Citi with more financial and operational control in the event of the financial deterioration of the merchant or require various credit enhancements (including letters of credit and bank guarantees). In the unlikely event that a private-label merchant is unable to deliver products, services or a refund to its private-label cardholders, Citi is contingently liable to credit or refund cardholders.

With regard to (ii) above, Citi has a potential liability for bank card transactions where Citi provides the transaction processing services as well as those where a third party provides the services and Citi acts as a secondary guarantor, should that processor fail to perform.

Citi's maximum potential contingent liability related to both bank card and private-label merchant processing services is estimated to be the total volume of credit card transactions that meet the requirements to be valid charge-back transactions at any given time. At December 31, 2015 and 2014, 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 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. Citi assesses the probability and amount of its contingent liability related to merchant processing based on the financial strength of the primary guarantor, the extent and nature of unresolved charge-backs and its historical loss experience. At December 31, 2015 and 2014, the losses incurred and the carrying amounts of Citi's contingent obligations related to merchant processing activities were immaterial.

#### ***Custody Indemnifications***

Custody indemnifications are issued to guarantee that custody clients will be made whole in the event that a third-party subcustodian or depository institution fails to safeguard clients' assets.

#### ***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 December 31, 2015 and 2014, the actual and estimated losses incurred and the carrying value of Citi's obligations related to these programs were immaterial.

##### *Other Representation and Warranty Indemnifications*

In the normal course of business, Citi provides standard representations and warranties to counterparties in contracts in connection with numerous transactions and also provides indemnifications, including indemnifications that protect the counterparties to the contracts in the event that additional taxes are owed, due either to a change in the tax law or an adverse interpretation of the tax law. Counterparties to these transactions provide Citi with comparable indemnifications. While such representations, warranties and indemnifications are essential components of many contractual relationships, they do not represent the underlying business purpose for the transactions. The indemnification clauses are often standard contractual terms related to Citi's own performance under the terms of a contract and are entered into in the normal course of business based on an assessment that the risk of loss is remote. Often these clauses are intended to ensure that terms of a contract are met at inception. No compensation is received for these standard representations and warranties, and it is not possible to determine their fair value because they rarely, if ever, result in a payment. In many cases, there are no stated or notional amounts included in the indemnification clauses, and the contingencies potentially triggering the obligation to indemnify have not occurred and are not expected to occur. As a result, these indemnifications are not included in the tables above.

##### *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 December 31, 2015 or 2014 for potential obligations that could arise from Citi's involvement with VTN associations.

#### *Long-Term Care Insurance Indemnification*

In the sale of an insurance subsidiary, the Company provided an indemnification to an insurance company 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 another insurance company. The reinsurer has funded two trusts with securities whose fair value (approximately \$6.3 billion at December 31, 2015, compared to \$6.2 billion at December 31, 2014) is designed to cover the insurance company's statutory liabilities for the LTC policies. 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 the reinsurer fails to perform under the reinsurance agreement for any reason, including insolvency, and the assets in the two trusts are insufficient or unavailable to the ceding insurance company, then Citi must indemnify the ceding insurance company 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 the ceding insurance company 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 December 31, 2015 and 2014 related to this indemnification. Citi continues to closely monitor its potential exposure under this indemnification obligation.

#### ***Futures and Over-the-Counter Derivatives Clearing***

Citi provides clearing services for clients executing exchange-traded futures and over-the-counter (OTC) derivatives contracts with central counterparties (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 futures or OTC derivatives contracts in its Consolidated Financial Statements. See Note 23 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. 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 is reflected within *Brokerage Payables* (payables to customers) and *Brokerage Receivables* (receivables from brokers, dealers and clearing organizations), respectively. However, for OTC derivatives contracts where Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP on cash initial margin; (ii) Citi will not utilize its right as clearing member to transform cash margin into other assets; and (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP, cash initial margin collected from clients and remitted to the CCP is not reflected on Citi's Consolidated Balance Sheet. The total amount of cash initial margin collected and remitted in this manner was approximately \$4.3 billion and \$3.2 billion as of December 31, 2015 and 2014, 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 non-performance 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 December 31, 2015 and 2014, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately \$2.0 billion and \$3.1 billion, respectively. The carrying value of financial and performance guarantees is included in *Other liabilities*, as is the carrying value of the liability for loans sold with recourse.

### Collateral

Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to \$52 billion and \$63 billion at December 31, 2015 and 2014, respectively. Securities and other marketable assets held as collateral amounted to \$33 billion and \$59 billion at December 31, 2015 and 2014, 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 \$4.2 billion and \$4.0 billion at December 31, 2015 and 2014, respectively. 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

Citi evaluates the performance risk of its guarantees based on the assigned referenced counterparty internal or external ratings. Where external ratings are used, investment-grade ratings are considered to be Baa/BBB and above, while anything below is considered non-investment grade. Citi's internal ratings are in line with the related external rating system. On certain underlying referenced assets or entities, ratings are not available. Such referenced assets are included in the "not rated" category. The maximum potential amount of the future payments related to the outstanding guarantees is determined to be the notional amount of these contracts, which is the par amount of the assets guaranteed.

Presented in the tables below are the maximum potential amounts of future payments that are classified based upon internal and external credit ratings. As previously mentioned, 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.

#### Maximum potential amount of future payments

*In billions of dollars at December 31, 2015*

	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	\$ 69.2	\$ 15.4	\$ 12.2	\$ 96.8
Performance guarantees	6.6	4.1	0.8	11.5
Derivative instruments deemed to be guarantees	—	—	78.5	78.5
Loans sold with recourse	—	—	0.2	0.2
Securities lending indemnifications	—	—	79.0	79.0
Credit card merchant processing	—	—	84.2	84.2
Custody indemnifications and other	51.6	0.1	—	51.7
<b>Total</b>	<b>\$ 127.4</b>	<b>\$ 19.6</b>	<b>\$ 254.9</b>	<b>\$ 401.9</b>

#### Maximum potential amount of future payments

*In billions of dollars at December 31, 2014*

	Investment grade	Non-investment grade	Not rated	Total
Financial standby letters of credit	\$ 73.0	\$ 15.9	\$ 9.5	\$ 98.4
Performance guarantees	7.3	3.9	0.7	11.9
Derivative instruments deemed to be guarantees	—	—	91.7	91.7
Loans sold with recourse	—	—	0.2	0.2
Securities lending indemnifications	—	—	115.9	115.9
Credit card merchant processing	—	—	86.0	86.0
Custody indemnifications and other	48.8	0.1	—	48.9
<b>Total</b>	<b>\$ 129.1</b>	<b>\$ 19.9</b>	<b>\$ 304.0</b>	<b>\$ 453.0</b>

## Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

<i>In millions of dollars</i>	U.S.	Outside of U.S.	December 31, 2015	December 31, 2014
Commercial and similar letters of credit	\$ 1,248	\$ 4,854	\$ 6,102	\$ 6,634
One- to four-family residential mortgages	1,343	1,853	3,196	5,674
Revolving open-end loans secured by one- to four-family residential properties	12,648	2,078	14,726	16,098
Commercial real estate, construction and land development	9,177	1,345	10,522	9,242
Credit card lines	481,897	91,160	573,057	612,049
Commercial and other consumer loan commitments	178,957	92,119	271,076	243,680
Other commitments and contingencies	3,943	6,039	9,982	10,663
<b>Total</b>	<b>\$ 689,213</b>	<b>\$ 199,448</b>	<b>\$ 888,661</b>	<b>\$ 904,040</b>

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.

### ***Commercial and similar letters of credit***

A commercial letter of credit is an instrument by which Citigroup substitutes its credit for that of a customer to enable the customer to finance the purchase of goods or to incur other commitments. Citigroup issues a letter on behalf of its client to a supplier and agrees to pay the supplier upon presentation of documentary evidence that the supplier has performed in accordance with the terms of the letter of credit. When a letter of credit is drawn, the customer is then required to reimburse Citigroup.

### ***One- to four-family residential mortgages***

A one- to four-family residential mortgage commitment is a written confirmation from Citigroup to a seller of a property that the bank will advance the specified sums enabling the buyer to complete the purchase.

### ***Revolving open-end loans secured by one- to four-family residential properties***

Revolving open-end loans secured by one- to four-family residential properties are essentially home equity lines of credit. A home equity line of credit is a loan secured by a primary residence or second home to the extent of the excess of fair market value over the debt outstanding for the first mortgage.

### ***Commercial real estate, construction and land development***

Commercial real estate, construction and land development include unused portions of commitments to extend credit for the purpose of financing commercial and multifamily residential properties as well as land development projects.

Both secured-by-real-estate and unsecured commitments are included in this line, as well as undistributed loan proceeds, where there is an obligation to advance for

construction progress payments. However, this line only includes those extensions of credit that, once funded, will be classified as *Total loans, net* on the Consolidated Balance Sheet.

### ***Credit card lines***

Citigroup provides credit to customers by issuing credit cards. The credit card lines are cancellable by providing notice to the cardholder or without such notice as permitted by local law.

### ***Commercial and other consumer loan commitments***

Commercial and other consumer loan commitments include overdraft and liquidity facilities, as well as commercial commitments to make or purchase loans, to purchase third-party receivables, to provide note issuance or revolving underwriting facilities and to invest in the form of equity.

In addition, included in this line item are highly leveraged financing commitments, which are agreements that provide funding to a borrower with higher levels of debt (measured by the ratio of debt capital to equity capital of the borrower) than is generally considered normal for other companies. This type of financing is commonly employed in corporate acquisitions, management buy-outs and similar transactions.

### ***Other commitments and contingencies***

Other commitments and contingencies include committed or unsettled regular-way reverse repurchase agreements and all other transactions related to commitments and contingencies not reported on the lines above.

## 28. CONTINGENCIES

### Accounting and Disclosure Framework

ASC 450 governs the disclosure and recognition of loss contingencies, including potential losses from litigation and regulatory matters. ASC 450 defines a “loss contingency” as “an existing condition, situation, or set of circumstances involving uncertainty as to possible loss to an entity that will ultimately be resolved when one or more future events occur or fail to occur.” It imposes different requirements for the recognition and disclosure of loss contingencies based on the likelihood of occurrence of the contingent future event or events. It distinguishes among degrees of likelihood using the following three terms: “probable,” meaning that “the future event or events are likely to occur”; “remote,” meaning that “the chance of the future event or events occurring is slight”; and “reasonably possible,” meaning that “the chance of the future event or events occurring is more than remote but less than likely.” These three terms are used below as defined in ASC 450.

*Accruals.* ASC 450 requires accrual for a loss contingency when it is “probable that one or more future events will occur confirming the fact of loss” and “the amount of the loss can be reasonably estimated.” 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. When the reasonable estimate of the loss is within a range of amounts, the minimum amount of the range is accrued, unless some higher amount within the range is a better estimate than any other amount within the range. 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.

*Disclosure.* ASC 450 requires disclosure of a loss contingency if “there is at least a reasonable possibility that a loss or an additional loss may have been incurred” and there is no accrual for the loss because the conditions described above are not met or an exposure to loss exists in excess of the amount accrued. In accordance with ASC 450, if Citigroup has not accrued for a matter because Citigroup believes that a loss is reasonably possible but not probable, or that a loss is probable but not reasonably estimable, and the matter thus does not meet the criteria for accrual, and the reasonably possible loss is material, it discloses the loss contingency. In addition, Citigroup discloses matters for which it has accrued if it believes a reasonably possible exposure to material loss exists in excess of the amount accrued. In accordance with ASC 450, Citigroup’s disclosure includes an estimate of the reasonably possible loss or range of loss for those matters as to which an estimate can be made. ASC 450 does not require disclosure of an estimate of the reasonably possible loss or range of loss where an estimate cannot be made. Neither accrual nor disclosure is required for losses that are deemed remote.

### Litigation and Regulatory Contingencies

*Overview.* In addition to the matters described below, in the ordinary course of business, Citigroup, its affiliates and subsidiaries, and current and former officers, directors and employees (for purposes of this section, sometimes collectively referred to as Citigroup and Related Parties) routinely are named as defendants in, or as parties to, various legal actions and proceedings. Certain of these actions and proceedings assert claims or seek relief in connection with alleged violations of consumer protection, fair lending, securities, banking, antifraud, antitrust, anti-money laundering, employment and other statutory and common laws. Certain of these actual or threatened legal actions and proceedings include claims for substantial or indeterminate compensatory or punitive damages, or for injunctive relief, and in some instances seek recovery on a class-wide basis.

In the ordinary course of business, Citigroup and Related Parties also are subject to governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal), certain of which may result in adverse judgments, settlements, fines, penalties, restitution, disgorgement, injunctions or other relief. In addition, certain affiliates and subsidiaries of Citigroup are banks, registered broker-dealers, futures commission merchants, investment advisers or other regulated entities and, in those capacities, are subject to regulation by various U.S., state and foreign securities, banking, commodity futures, consumer protection and other regulators. In connection with formal and informal inquiries by these regulators, Citigroup and such affiliates and subsidiaries receive numerous requests, subpoenas and orders seeking documents, testimony and other information in connection with various aspects of their regulated activities. From time to time Citigroup and Related Parties also receive grand jury subpoenas and other requests for information or assistance, formal or informal, from federal or state law enforcement agencies including, among others, various United States Attorneys’ Offices, the Asset Forfeiture and Money Laundering Section and other divisions of the Department of Justice, the Financial Crimes Enforcement Network of the United States Department of the Treasury, and the Federal Bureau of Investigation relating to Citigroup and its customers.

Because of the global scope of Citigroup’s operations, and its presence in countries around the world, Citigroup and Related Parties are subject to litigation and governmental and regulatory examinations, information-gathering requests, investigations and proceedings (both formal and informal) in multiple jurisdictions with legal and regulatory regimes that may differ substantially, and present substantially different risks, from those Citigroup and Related Parties are subject to in the United States. In some instances Citigroup and Related Parties may be involved in proceedings involving the same subject matter in multiple jurisdictions, which may result in overlapping, cumulative or inconsistent outcomes.

Citigroup seeks to resolve all litigation and regulatory matters in the manner management believes is in the best interests of Citigroup and its shareholders, and contests liability, allegations of wrongdoing and, where applicable, the

amount of damages or scope of any penalties or other relief sought as appropriate in each pending matter.

*Inherent Uncertainty of the Matters Disclosed.* Certain of the matters disclosed below involve claims for substantial or indeterminate damages. The claims asserted in these matters typically are broad, often spanning a multi-year period and sometimes a wide range of business activities, and the plaintiffs' or claimants' alleged damages frequently are not quantified or factually supported in the complaint or statement of claim. Other matters relate to regulatory investigations or proceedings, as to which there may be no objective basis for quantifying the range of potential fine, penalty, or other remedy. As a result, Citigroup is often unable to estimate the loss in such matters, even if it believes that a loss is probable or reasonably possible, until developments in the case or investigation have yielded additional information sufficient to support a quantitative assessment of the range of reasonably possible loss. Such developments may include, among other things, discovery from adverse parties or third parties, rulings by the court on key issues, analysis by retained experts, and engagement in settlement negotiations. Depending on a range of factors, such as the complexity of the facts, the novelty of the legal theories, the pace of discovery, the court's scheduling order, the timing of court decisions, and the adverse party's willingness to negotiate in good faith toward a resolution, it may be months or years after the filing of a case or commencement of an investigation before an estimate of the range of reasonably possible loss can be made.

*Matters as to Which an Estimate Can Be Made.* For some of the matters disclosed below, Citigroup is currently able to estimate a reasonably possible loss or range of loss in excess of amounts accrued (if any). For some of the matters included within this estimation, an accrual has been made because a loss is believed to be both probable and reasonably estimable, but an exposure to loss exists in excess of the amount accrued. In these cases, the estimate reflects the reasonably possible range of loss in excess of the accrued amount. For other matters included within this estimation, no accrual has been made because a loss, although estimable, is believed to be reasonably possible, but not probable; in these cases the estimate reflects the reasonably possible loss or range of loss. As of December 31, 2015, Citigroup estimates that the reasonably possible unaccrued loss for these matters ranges up to approximately \$3.5 billion in the aggregate.

These estimates are based on currently available information. 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, (i) Citigroup may have only preliminary, incomplete, or inaccurate information about the facts underlying the claim; (ii) 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 (iii) 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 estimate 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.

*Matters as to Which an Estimate Cannot Be Made.* For other matters disclosed below, Citigroup is not currently able to estimate the reasonably possible loss or range of loss. Many of these matters remain in very preliminary stages (even in some cases where a substantial period of time has passed since the commencement of the matter), with few or no substantive legal decisions by the court or tribunal defining the scope of the claims, the class (if any), or the potentially available damages, and fact discovery is still in progress or has not yet begun. In many of these matters, Citigroup has not yet answered the complaint or statement of claim or asserted its defenses, nor has it engaged in any negotiations with the adverse party (whether a regulator or a private party). For all these reasons, Citigroup cannot at this time estimate the reasonably possible loss or range of loss, if any, for these matters.

*Opinion of Management as to Eventual Outcome.* 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.

### **Allied Irish Bank Litigation**

In 2003, Allied Irish Bank (AIB) filed a complaint in the United States District Court for the Southern District of New York seeking to hold Citibank and Bank of America, N.A., former prime brokers for AIB's subsidiary Allfirst Bank (Allfirst), liable for losses incurred by Allfirst as a result of fraudulent and fictitious foreign currency trades entered into by one of Allfirst's traders. In December 2015, the remaining parties reached a settlement that released all claims against Citibank. A notice of voluntary dismissal with prejudice was filed on January 14, 2016. Additional information concerning this action is publicly available in court filings under docket number 03 Civ. 3748 (S.D.N.Y.) (Batts, J.).

### **Commodities Financing Contracts**

Beginning in May 2014, Citigroup became aware of reports of potential fraud relating to the financing of physical metal stored at the Qingdao and Penglai ports in China. Citibank and Citigroup Global Markets Limited (CGML) have contracts with a counterparty in relation to the provision of financing to that counterparty, collateralized by physical metal



stored at these ports, with the agreements providing that the counterparty would repurchase the inventory at a specified date in the future (typically three to six months). Pursuant to the agreements, the counterparty is responsible for providing clean title to the inventory, insuring it, and attesting that there are no third party encumbrances. The counterparty is a non-Chinese subsidiary of a large multinational corporation, and the counterparty's obligations under the contracts are guaranteed by the parent company.

On July 22, 2014, Citibank and CGML commenced proceedings in the Commercial Court in London to enforce their rights against the counterparty under the relevant agreements in relation to approximately \$285 million in financing. That counterparty and a Chinese warehouse provider previously brought actions in the English courts to establish the parties' rights and obligations under these agreements. In early December 2014, the English court conducted a preliminary trial concerning, among other issues, the question of whether Citibank and/or CGML had appropriately accelerated their counterparty's obligation to repay under the applicable agreements, given these facts and circumstances. The High Court in London issued a judgment on May 22, 2015 holding that the Citigroup affiliates had properly served bring forward event notices, but that because the metal had not been properly delivered, the counterparty did not yet have to pay Citibank and CGML.

As a result of various filings by the parties, on January 15, 2016, Citibank and CGML were informed by the English Court of Appeal (i) that their application for permission to appeal certain aspects of the High Court's 2015 judgment had been granted; and (ii) that the counterparty had also been given permission to appeal certain aspects of the 2015 judgment. Various procedural matters continue. Additional information concerning this action is publicly available in court filings under the claim reference: Mercuria Energy Trading PTE Ltd & Another v. Citibank, N.A. & Another, Claim No. 2014 Folio 709, Appeal Nos. 2015/2407 (Citigroup) and 2015/2395 (Mercuria) as regards the appeals.

The financings at issue are carried at fair value. As with any position carried at fair value, Citigroup adjusts the positions and records a gain or loss on the Consolidated Statement of Income in accordance with GAAP.

### **Credit Crisis-Related Litigation and Other Matters**

Citigroup and Related Parties have been named as defendants in numerous legal actions and other proceedings asserting claims for damages and related relief for losses arising from the global financial credit crisis that began in 2007. Such matters include, among other types of proceedings, claims asserted by: (i) individual investors and purported classes of investors in Citigroup's common and preferred stock and debt, alleging violations of the federal securities laws, foreign laws, state securities and fraud law, and the Employee Retirement Income Security Act (ERISA); and (ii) individual investors and purported classes of investors in securities and other investments underwritten, issued or marketed by Citigroup, including securities issued by other public companies, collateralized debt obligations (CDOs), mortgage-backed securities (MBS), auction rate securities, investment funds,

and other structured or leveraged instruments, which have suffered losses as a result of the credit crisis. These matters have been filed in state and federal courts across the U.S. and in foreign tribunals, as well as in arbitrations before the Financial Industry Regulatory Authority (FINRA) and other arbitration associations.

In addition to these litigations and arbitrations, Citigroup continues to cooperate fully in response to subpoenas and requests for information from the Securities and Exchange Commission (SEC), FINRA, state attorneys general, the U.S. Department of Justice and subdivisions thereof, the Office of the Special Inspector General for the Troubled Asset Relief Program, bank regulators, and other government agencies and authorities, in connection with various formal and informal (and, in many instances, industry-wide) inquiries concerning Citigroup's mortgage-related conduct and business activities, as well as other business activities affected by the credit crisis. These business activities include, but are not limited to, Citigroup's sponsorship, packaging, issuance, marketing, trading, servicing and underwriting of CDOs and MBS, its origination, sale or other transfer, servicing, and foreclosure of residential mortgages, and its origination and securitization of auto loans.

### ***Mortgage-Related Litigation and Other Matters***

*Securities Actions:* Beginning in November 2007, Citigroup and Related Parties were named as defendants in a variety of class and individual securities actions filed by investors in Citigroup's equity and debt securities in state and federal courts relating to Citigroup's disclosures regarding its exposure to subprime-related assets.

Citigroup and Related Parties have been named as defendants in a variety of putative class actions and individual actions arising out of Citigroup's exposure to CDOs and other assets that declined in value during the financial crisis. Many of these matters have been dismissed or settled. These actions assert a wide range of claims, including claims under the federal securities laws, foreign securities laws, ERISA, and state law. Additional information concerning certain of these actions is publicly available in court filings under the docket numbers 10 Civ. 9646 (S.D.N.Y.) (Stein, J.), 11 Civ. 7672 (S.D.N.Y.) (Koeltl, J.), 13-4488, 13-4504, and 15-2461 (2d Cir.).

Beginning in November 2007, certain Citigroup affiliates also have been named as defendants arising out of their activities as underwriters of securities in actions brought by investors in securities issued by public companies adversely affected by the credit crisis. Many of these matters have been dismissed or settled. As a general matter, issuers indemnify underwriters in connection with such claims, but in certain of these matters Citigroup affiliates are not being indemnified or may in the future cease to be indemnified because of the financial condition of the issuer.

*Mortgage-Backed Securities and CDO Investor Actions:* Beginning in July 2010, Citigroup and Related Parties have been named as defendants in complaints filed by purchasers of MBS and CDOs sold or underwritten by Citigroup. The complaints generally assert that defendants made material misrepresentations and omissions about the credit quality of



the assets underlying the securities or the manner in which those assets were selected, and typically assert claims under Section 11 of the Securities Act of 1933, state blue sky laws, and/or common-law misrepresentation-based causes of action.

The majority of these matters have been resolved through settlement or otherwise. As of December 31, 2015, the aggregate original purchase amount of the purchases at issue in the pending litigations was approximately \$1.2 billion, and the aggregate original purchase amount of the purchases covered by tolling agreements with investors threatening litigation was approximately \$500 million. Additional information concerning certain of these actions is publicly available in court filings under the docket numbers 13-1729-II (Tenn. Ch. Ct.) (McCoy, C.), 650212/2012 (N.Y. Sup. Ct.) (Kornreich, J.), and 12 Civ. 3868 (S.D.N.Y.) (Forrest, J.).

*Mortgage-Backed Security Repurchase Claims:* Various parties to MBS securitizations and other interested parties have asserted that certain Citigroup affiliates breached representations and warranties made in connection with mortgage loans sold into securitization trusts (private-label securitizations). Typically, these claims are based on allegations that securitized mortgages were not underwritten in accordance with the applicable underwriting standards. Citigroup also has received numerous inquiries, demands for loan files, and requests to toll (extend) the applicable statutes of limitation for representation and warranty claims relating to its private-label securitizations. These inquiries, demands and requests have been made by trustees of securitization trusts and others.

On April 7, 2014, Citigroup entered into an agreement with 18 institutional investors represented by Gibbs & Bruns LLP regarding the resolution of representation and warranty repurchase claims related to certain legacy securitizations. Pursuant to the agreement, Citigroup made a binding offer to the trustees of 68 Citigroup-sponsored mortgage securitization trusts to pay \$1.125 billion to the trusts to resolve these claims, plus certain fees and expenses. The 68 trusts covered by the agreement represent all of the trusts established by Citigroup's legacy *Securities and Banking* business during 2005-2008 for which Citigroup affiliates made representations and warranties to the trusts. The trustees accepted the settlement for 64 trusts in whole, and four in part. Pursuant to the terms of the settlement agreement, the trustees' acceptance was subject to a judicial approval proceeding. On December 18, 2015, the court filed a decision and order approving the trustees' entry into the settlement and finding that the trustees, in entering the settlement, had exercised their authority reasonably and in good faith. Additional information concerning this proceeding is publicly available in court filings under the docket number 653902/2014 (N.Y. Sup. Ct.) (Friedman, J.).

To date, trustees have filed six actions against Citigroup seeking to enforce certain of these contractual repurchase claims that were excluded from the April 7, 2014 settlement in connection with four private-label securitizations. Citigroup has reached an agreement with the trustees to resolve three of these actions, and those actions were dismissed with prejudice on January 26, 2016. The remaining three actions are in various stages of discovery. In the aggregate, plaintiffs are

asserting repurchase claims in the remaining actions as to approximately 2,900 loans that were securitized into these three securitizations, as well as any other loans that are later found to have breached representations and warranties. Additional information concerning these actions is publicly available in court filings under the docket numbers 13 Civ. 2843 (S.D.N.Y.) (Daniels, J.), 13 Civ. 6989 (S.D.N.Y.) (Daniels, J.), 653816/2013 (N.Y. Sup. Ct.) (Kornreich, J.), 653919/2014 (N.Y. Sup. Ct.), 653929/2014 (N.Y. Sup. Ct.), and 653930/2014 (N.Y. Sup. Ct.).

*Mortgage-Backed Securities Trustee Actions:* On June 18, 2014, a group of investors in 48 RMBS trusts for which Citibank served or currently serves as trustee filed a complaint in New York State Supreme Court in BLACKROCK ALLOCATION TARGET SHARES: SERIES S. PORTFOLIO, ET AL. V. CITIBANK, N.A. The complaint, like those filed against other RMBS trustees, alleges that Citibank failed to pursue contractual remedies against securitization sponsors and servicers. This action was withdrawn without prejudice, effective December 17, 2014. On November 24, 2014, largely the same group of investors filed an action in the United States District Court for the Southern District of New York, captioned FIXED INCOME SHARES: SERIES M ET AL. V. CITIBANK N.A., alleging similar claims relating to 27 MBS trusts for which Citibank allegedly served or currently serves as trustee. On September 8, 2015, the United States District Court for the Southern District of New York dismissed all claims as to 24 of the 27 trusts and allowed certain of the claims to proceed as to the other three trusts. 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 November 24, 2015, largely the same group of investors filed another action in the New York State Supreme Court, captioned FIXED INCOME SHARES: SERIES M, ET AL. V. CITIBANK N.A., related to the 24 trusts dismissed from the federal court action and one additional trust, asserting claims similar to the original complaint filed in state 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 August 19, 2015, the Federal Deposit Insurance Corporation as receiver for a financial institution filed a civil action against Citibank in the United States District Court for the Southern District of New York, captioned FEDERAL DEPOSIT INSURANCE CORPORATION AS RECEIVER FOR GUARANTY BANK V. CITIBANK N.A. The complaint concerns one RMBS trust for which Citibank formerly served as trustee, and alleges that Citibank failed to pursue contractual remedies against the sponsor and servicers of that trust. Additional information concerning this action is publicly available in court filings under the docket number 15-cv-6574 (S.D.N.Y.) (Carter, J.).

#### ***Counterparty and Investor Actions***

In 2010, Abu Dhabi Investment Authority (ADIA) commenced an arbitration (ADIA I) against Citigroup before the International Center for Dispute Resolution (ICDR), alleging statutory and common law claims in connection with

its \$7.5 billion investment in Citigroup in December 2007. ADIA sought rescission of the investment agreement or, in the alternative, more than \$4 billion in damages. On October 14, 2011, the arbitration panel issued a final award and statement of reasons finding in favor of Citigroup on all claims asserted by ADIA.

On March 4, 2013, the United States District Court for the Southern District of New York denied ADIA's petition to vacate the arbitration award and granted Citigroup's cross-petition to confirm. ADIA appealed and, on February 19, 2014, the United States Court of Appeals for the Second Circuit affirmed the judgment. Additional information concerning this action is publicly available in court filings under the docket numbers 12 Civ. 283 (S.D.N.Y.) (Daniels, J.), 13-1068-cv (2d Cir.), and 13-1500 (U.S.).

On August 20, 2013, ADIA commenced a second arbitration (ADIA II) against Citigroup before the ICDR, alleging common law claims arising out of the same investment at issue in ADIA I. On August 28, 2013, Citigroup filed a complaint against ADIA in the United States District Court for the Southern District of New York seeking to enjoin ADIA II on the ground that it is barred by the court's judgment confirming the arbitral award in ADIA I. On September 23, 2013, ADIA filed motions to dismiss Citigroup's complaint and to compel arbitration. On November 25, 2013, the court denied Citigroup's motion for a preliminary injunction and granted ADIA's motions to dismiss and to compel arbitration. On December 23, 2013, Citigroup appealed that ruling to the United States Court of Appeals for the Second Circuit. On January 14, 2015, the Second Circuit affirmed the district court's ruling. Additional information concerning this action is publicly available in court filings under the docket numbers 13 Civ. 6073 (S.D.N.Y.) (Castel, J.) and 13-4825 (2d Cir.).

#### ***Alternative Investment Fund-Related Litigation and Other Matters***

Citigroup and Related Parties have been named as defendants in a putative class action lawsuit filed in October 2012 on behalf of investors in CSO Ltd., CSO US Ltd., and Corporate Special Opportunities Ltd., whose investments were managed indirectly by a Citigroup affiliate. Plaintiffs asserted a variety of state common law claims, alleging that they and other investors were misled into investing in the funds and, later, not redeeming their investments. The complaint sought to recover more than \$400 million on behalf of a putative class of investors. On August 10, 2015, the parties entered into an agreement providing for a class action settlement of the litigation. The court held a final settlement hearing on December 17, 2015 and entered an order approving the settlement on January 28, 2016. Additional information concerning this action is publicly available in court filings under the docket number 12-cv-7717 (S.D.N.Y.) (Woods, J.).

#### ***Auction Rate Securities-Related Litigation and Other Matters***

Citigroup and Related Parties have been named as defendants in numerous actions and proceedings brought by Citigroup shareholders and purchasers or issuers of auction rate securities (ARS) and an issuer of variable rate demand

obligations, asserting federal and state law claims arising from the collapse of the market in 2008, which plaintiffs contend Citigroup and other ARS underwriters and broker-dealers foresaw or should have foreseen, but failed adequately to disclose. Many of these matters have been dismissed or settled. Most of the remaining matters are in arbitrations pending before FINRA.

#### ***Lehman Brothers Bankruptcy Proceedings***

On February 8, 2012, Citibank and certain Citigroup affiliates were named as defendants in an adversary proceeding asserting objections to proofs of claim totaling approximately \$2.6 billion filed by Citibank and those affiliates, and claims under federal bankruptcy and state law to recover \$2 billion deposited by Lehman Brothers Holdings Inc. (LBHI) with Citibank against which Citibank asserts a right of setoff. Plaintiffs also sought avoidance of a \$500 million transfer and an amendment to a guarantee in favor of Citibank and other relief; plaintiffs dismissed, with prejudice, their claim to avoid the \$500 million transfer pursuant to a stipulation entered by the court on March 12, 2015. Plaintiffs filed various amended complaints asserting additional claims and factual allegations, and amending certain previously asserted claims.

Discovery related to the remaining claims is ongoing. Additional information concerning this action is publicly available in court filings under the docket numbers 12-01044 and 08-13555 (Bankr. S.D.N.Y.) (Chapman, J.).

On July 21, 2014, an adversary proceeding was filed on behalf of Lehman Brothers Finance AG against Citibank, Citibank Korea Inc. and CGML asserting that defendants improperly have withheld termination payments under certain derivatives contracts. An amended complaint was filed by plaintiff on August 6, 2014. Plaintiff seeks to recover approximately \$70 million, plus interest. Discovery is ongoing. Additional information concerning this action is publicly available in court filings under the docket numbers 14-02050 and 09-10583 (Bankr. S.D.N.Y.) (Chapman, J.).

#### ***Terra Firma Litigation***

In December 2009, the general partners of two related private equity funds filed a complaint in New York state court, subsequently removed to the United States District Court for the Southern District of New York, asserting multi-billion-dollar claims against Citigroup and certain of its affiliates arising out of the May 2007 auction of the music company, EMI, in which Citigroup affiliates acted as advisor to EMI and as a lender to plaintiffs' acquisition vehicle. Following a jury trial, a verdict was returned in favor of Citigroup on November 4, 2010. Plaintiffs appealed from the entry of the judgment. On May 31, 2013, the United States Court of Appeals for the Second Circuit vacated the November 2010 jury verdict in favor of the defendants and ordered that the case be retried. On March 7, 2014, the parties stipulated to the dismissal of all remaining claims in the action, without prejudice to plaintiffs' rights to re-file those claims in England. Additional information concerning this action is publicly available in court filings under the docket numbers 09 Civ. 10459 (S.D.N.Y.) (Rakoff, J.) and 11-0126-cv (2d Cir.).

In August and September 2013, plaintiffs in the New York proceedings, together with their affiliates and principal, filed claims against CGML, Citibank and Citigroup arising out of the EMI auction in the High Court of Justice, Queen's Bench Division and Manchester District Registry Mercantile Court in Manchester, England. The cases have since been transferred to the High Court of Justice, Queen's Bench Division, Commercial Court in London. On March 7, 2014, the parties to the separate proceedings filed by Terra Firma in 2013 before the High Court of Justice, Queen's Bench Division, consented to the service by plaintiffs of an amended complaint incorporating the claims that would have proceeded to trial in the United States District Court for the Southern District of New York in July 2014, had the New York action not been dismissed. A trial (which is based on allegations of fraudulent misrepresentations) is scheduled to begin in London on June 7, 2016. Additional information concerning this action is publicly available in court filings under the claim reference Terra Firma Investments (GP) 2 Ltd. & Ors v Citigroup Global Markets Ltd. & Ors (CL-2013-000293).

#### ***Tribune Company Bankruptcy***

Certain Citigroup affiliates have been named as defendants in adversary proceedings related to the Chapter 11 cases of Tribune Company (Tribune) filed in the United States Bankruptcy Court for the District of Delaware, asserting claims arising out of the approximately \$11 billion leveraged buyout of Tribune in 2007. On August 2, 2013, the Litigation Trustee, as successor plaintiff to the Official Committee of Unsecured Creditors, filed a fifth amended complaint in the adversary proceeding KIRSCHNER v. FITZSIMONS, ET AL. The complaint seeks to avoid and recover as actual fraudulent transfers the transfers of Tribune stock that occurred as a part of the leveraged buyout. Several Citigroup affiliates are named as "Shareholder Defendants" and are alleged to have tendered Tribune stock to Tribune as a part of the buyout.

Several Citigroup affiliates are named as defendants in certain actions brought by Tribune noteholders, also seeking to recover the transfers of Tribune stock that occurred as a part of the leveraged buyout, as alleged state-law constructive fraudulent conveyances. Finally, Citigroup Global Markets Inc. (CGMI) has been named in a separate action as a defendant in connection with its role as advisor to Tribune. The noteholders' claims were previously dismissed, and an appeal to the United States Court of Appeals for the Second Circuit is pending. A motion to dismiss the action against CGMI in its role as advisor to Tribune is pending.

In the FITZSIMONS action, claims against certain Citigroup affiliates have been dismissed or reduced in amount by various orders. Additional information concerning these actions is publicly available in court filings under the docket numbers 08-13141 (Bankr. D. Del.) (Carey, J.), 11 MD 02296 (S.D.N.Y.) (Sullivan, J.), 12 MC 2296 (S.D.N.Y.) (Sullivan, J.), and 13-3992 (2d Cir.).

#### **Credit Default Swaps Matters**

In April 2011, the European Commission (EC) opened an investigation (Case No COMP/39.745) into the credit default swap (CDS) industry. The scope of the investigation initially concerned the question of "whether 16 investment banks and Markit, the leading provider of financial information in the CDS market, have colluded and/or may hold and abuse a dominant position in order to control the financial information on CDS."

On July 2, 2013, the EC issued to Citigroup, CGMI, CGML, Citicorp North America Inc. and Citibank, as well as Markit, ISDA, and 12 other investment bank dealer groups, a statement of objections alleging that Citi and the other dealers colluded to prevent exchanges from entering the credit derivatives business in breach of Article 101 of the Treaty on the Functioning of the European Union. The statement of objections set forth the EC's preliminary conclusions, did not prejudice the final outcome of the case, and did not benefit from the review and consideration of Citi's arguments and defenses. Thereafter, Citi filed a reply and made oral submissions to the EC. On December 4, 2015, the EC informed Citi that it had closed its proceeding against Citi and the other investment bank dealer groups, without further action.

In July 2009 and September 2011, the Antitrust Division of the U.S. Department of Justice served Civil Investigative Demands (CIDs) on Citi concerning potential anticompetitive conduct in the CDS industry.

In addition, putative class action complaints were filed by various entities against Citigroup, CGMI and Citibank, among other defendants, alleging anticompetitive conduct in the CDS industry and asserting various claims under Sections 1 and 2 of the Sherman Act as well as a state law claim for unjust enrichment. On October 16, 2013, the U.S. Judicial Panel on Multidistrict Litigation centralized these putative class actions in the Southern District of New York for coordinated or consolidated pretrial proceedings before Judge Denise Cote. On September 30, 2015, the defendants, including Citigroup and Related Parties, entered into settlement agreements to settle all claims of the putative class, and on October 29, 2015, the court granted plaintiffs' motion for preliminary approval of the proposed settlements. Additional information relating to this action is publicly available in court filings under the docket number 13 MD 2476 (S.D.N.Y.) (Cote, J.).

#### **Foreign Exchange Matters**

*Regulatory Actions:* Government and regulatory agencies in the U.S. and in other jurisdictions are conducting investigations or making inquiries regarding Citigroup's foreign exchange business. Citigroup is fully cooperating with these and related investigations and inquiries.

*Antitrust and Other Litigation:* Numerous foreign exchange dealers, including Citigroup and Citibank, are named as defendants in putative class actions that are proceeding on a consolidated basis in the United States District Court for the Southern District of New York under the caption IN RE FOREIGN EXCHANGE BENCHMARK RATES ANTITRUST LITIGATION. The plaintiffs in these actions allege that the defendants colluded to manipulate the

WM/Reuters rate (WMR), thereby causing the putative classes to suffer losses in connection with WMR-based financial instruments. The plaintiffs assert federal and state antitrust claims and claims for unjust enrichment, and seek compensatory damages, treble damages and declaratory and injunctive relief. On March 31, 2014, plaintiffs in the putative class actions filed a consolidated amended complaint.

Citibank, Citigroup, and Citibank Korea Inc., as well as numerous other foreign exchange dealers, were named as defendants in a putative class action captioned *SIMMTECH CO. v. BARCLAYS BANK PLC, ET AL.* (*SIMMTECH*) that was proceeding before the same court. The plaintiff sought to represent a putative class of persons who traded foreign currency with the defendants in Korea, alleging that the class suffered losses as a result of the defendants' alleged WMR manipulation. The plaintiff asserted federal and state antitrust claims, and sought compensatory damages, treble damages and declaratory and injunctive relief.

Additionally, Citibank and Citigroup, as well as numerous other foreign exchange dealers, were named as defendants in a putative class action captioned *LARSEN v. BARCLAYS BANK PLC, ET AL.* (*LARSEN*), that was proceeding before the same court. The plaintiff sought to represent a putative class of persons or entities in Norway who traded foreign currency with defendants, alleging that the class suffered losses as a result of defendants' alleged WMR manipulation. The plaintiff asserted federal antitrust and unjust enrichment claims, and sought compensatory damages, treble damages and declaratory and injunctive relief.

Citigroup and Citibank, along with other defendants, moved to dismiss all of these actions. On January 28, 2015, the court issued an opinion and order denying the motion as to the *IN RE FOREIGN EXCHANGE BENCHMARK RATES ANTITRUST LITIGATION* plaintiffs, but dismissing the claims of the *SIMMTECH* and *LARSEN* plaintiffs in their entirety on the grounds that their federal claims were barred by the Foreign Trade Antitrust Improvements Act and their state claims had an insufficient nexus to New York. Additional information concerning these actions is publicly available in court filings under the docket numbers 13 Civ. 7789, 13 Civ. 7953, and 14 Civ. 1364 (S.D.N.Y.) (Schofield, J.).

Additional actions have been consolidated in the *IN RE FOREIGN EXCHANGE BENCHMARK RATES ANTITRUST LITIGATION* proceeding, including lawsuits brought by, or on behalf of putative classes of, investors that transacted in exchange-traded foreign exchange futures contracts and/or options on foreign exchange futures contracts on certain exchanges. The plaintiffs allege that they suffered losses as a result of the defendants' alleged manipulation of, and collusion with respect to, the foreign exchange market. The plaintiffs allege violations of the Commodity Exchange Act, the Sherman Act, and/or the Clayton Act, and seek compensatory damages, treble damages and declaratory and injunctive relief.

On December 15, 2015, the court entered an order preliminarily approving a proposed settlement between the Citi defendants and classes of plaintiffs who traded foreign exchange instruments in the spot market and on exchanges.

The proposed settlement provides for the Citi defendants to receive a release in exchange for a payment of \$394 million (which was made on December 18, 2015) plus a separate payment of \$8 million (which is due upon final approval of the settlement by the court).

Additional information concerning these actions is publicly available in court filings under the following docket numbers: 15 Civ. 1350; 15 Civ. 2705; 15 Civ. 4230; 15 Civ. 4436; and 15 Civ. 4926 (S.D.N.Y.) (Schofield, J.).

On May 21, 2015, an action captioned *NYPL v. JPMORGAN CHASE & CO., ET AL.* was brought in the United States District Court for the Northern District of California against Citigroup, as well as numerous other foreign exchange dealers. The plaintiff seeks to represent a putative class of "consumers and businesses in the United States who directly purchased supracompetitive foreign currency exchange rates" from defendants for their end use. The plaintiff filed an amended complaint on June 11, 2015, alleging violations of the Sherman Act, and seeking compensatory damages, treble damages and declaratory and injunctive relief. On November 9, 2015, the court granted the defendants' motion to transfer the action to the United States District Court for the Southern District of New York for possible consolidation with *IN RE FOREIGN EXCHANGE BENCHMARK RATES ANTITRUST LITIGATION*. 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 June 3, 2015, an action captioned *ALLEN v. BANK OF AMERICA CORPORATION, ET AL.* was brought in the United States District Court for the Southern District of New York against Citigroup, as well as numerous other foreign exchange dealers. The plaintiff seeks to represent a putative class of participants, beneficiaries, and named fiduciaries of qualified Employee Retirement Income Security Act (ERISA) plans for whom a defendant provided foreign exchange transactional services or authorized or permitted foreign exchange transactional services involving a plan's assets in connection with its exercise of authority or control regarding an ERISA plan. The plaintiff alleges violations of ERISA, and seeks compensatory damages, restitution, disgorgement and declaratory and injunctive relief. On June 29, 2015, *ALLEN* was consolidated with *IN RE FOREIGN EXCHANGE BENCHMARK RATES ANTITRUST LITIGATION* for discovery purposes only. Additional information concerning this action is publicly available in court filings under the docket number 15 Civ. 4285 (S.D.N.Y.) (Schofield, J.).

In September 2015, putative class actions captioned *BÉLAND v. ROYAL BANK OF CANADA, ET AL.* and *STAINES v. ROYAL BANK OF CANADA, ET AL.* were filed in the Quebec Superior Court of Justice and the Ontario Superior Court of Justice, respectively, against Citigroup and Related Parties, as well as numerous other foreign exchange dealers. Plaintiffs allege that defendants conspired to fix the prices and supply of currency purchased in the foreign exchange market, and that this manipulation caused investors to pay inflated rates for currency and/or to receive deflated rates for currency. Plaintiffs assert claims under the Canadian

Competition Act and the Quebec Civil Code and/or for civil conspiracy, unjust enrichment and waiver of tort. Plaintiffs seek compensatory and punitive damages, or disgorgement, on behalf of putative classes of all persons in Quebec or in Canada who entered into a foreign exchange instrument or participated in a fund or investment vehicle that entered into a foreign exchange instrument between January 1, 2003 and December 31, 2013. Additional information concerning these actions is publicly available in court filings under the docket numbers 200-06-000189-152 (C.S.Q. Quebec) and CV-15-536174 (Ont. S.C.J.).

On September 16, 2015, an action captioned *NEGRETE v. CITIBANK, N.A.* was filed in the United States District Court for the Southern District of New York. Plaintiffs allege that Citibank, N.A. engaged in conduct in connection with plaintiffs' foreign exchange trading that caused them losses. Plaintiffs assert claims for fraud, breach of contract, and negligence, and seek compensatory damages, punitive damages and injunctive relief. On November 17, 2015, Citi filed a motion to dismiss and a motion to stay discovery pending resolution of the motion to dismiss. On December 7, 2015, the court granted Citi's motion for a stay of discovery. Additional information concerning this action is publicly available in court filings under the docket number 15 Civ. 7250 (S.D.N.Y.) (Sweet, J.).

*Derivative Actions and Related Proceedings:* In June 2015, Citigroup was named as a defendant in *IRA FOR THE BENEFIT OF VICTORIA SHAEV V. CITIGROUP INC.* The complaint was filed by a putative stockholder in New York Supreme Court seeking to inspect Citigroup's books and records pursuant to Section 220 of Chapter 8 of the Delaware Corporations Law with regard to various matters, including Citigroup's participation and activity in foreign exchange markets. On January 26, 2016, the court granted Citigroup's motion to dismiss the complaint. Additional information concerning this action is publicly available in court filings under the docket number 652339/2015 (N.Y. Sup. Ct.).

#### **Interbank Offered Rates-Related Litigation and Other Matters**

*Regulatory Actions:* The CFTC and a consortium of state attorneys general, as well as government and regulatory agencies in other jurisdictions, are conducting investigations or making inquiries regarding submissions made by panel banks to bodies that publish various interbank offered rates and other benchmark rates. As members of a number of such panels, Citigroup subsidiaries have received requests for information and documents. Citigroup is cooperating with the investigations and inquiries and is responding to the requests.

*Antitrust and Other Litigation:* Citigroup and Citibank, along with other U.S. Dollar (USD) LIBOR panel banks, are defendants in a multi-district litigation (MDL) proceeding before the United States District Court for the Southern District of New York captioned *IN RE LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION* (the LIBOR MDL). Consolidated amended complaints were filed on behalf of two separate putative classes of plaintiffs: (i) over-the-counter (OTC) purchasers of derivative instruments tied to USD LIBOR; and (ii) purchasers of exchange-traded

derivative instruments tied to USD LIBOR. Each of these putative classes alleges that the panel bank defendants conspired to suppress USD LIBOR: (i) OTC purchasers assert claims under the Sherman Act and for unjust enrichment and breach of the implied covenant of good faith and fair dealing; and (ii) purchasers of exchange-traded derivative instruments assert claims under the Commodity Exchange Act and the Sherman Act and for unjust enrichment. Individual actions commenced by various Charles Schwab entities also were consolidated into the LIBOR MDL. The plaintiffs seek compensatory damages and restitution for losses caused by the alleged violations, as well as treble damages under the Sherman Act. The Schwab and OTC plaintiffs also seek injunctive relief.

Additional actions have been consolidated in the LIBOR MDL proceeding, including (i) lawsuits filed by, or on behalf of putative classes of, community and other banks, savings and loans institutions, credit unions, municipalities and purchasers and holders of LIBOR-linked financial products; and (ii) lawsuits filed by putative classes of lenders and adjustable rate mortgage borrowers. The plaintiffs allege that defendant panel banks artificially suppressed USD LIBOR in violation of applicable law and seek compensatory and other damages.

Additional information relating to these actions is publicly available in court filings under the following docket numbers: 12 Civ. 4205; 12 Civ. 5723; 12 Civ. 5822; 12 Civ. 6056; 12 Civ. 6693; 12 Civ. 7461; 13 Civ. 346; 13 Civ. 407; 13 Civ. 1016, 13 Civ. 1456, 13 Civ. 1700, 13 Civ. 2262, 13 Civ. 2297; 13 Civ. 4018; 13 Civ. 7720; 14 Civ. 146 (S.D.N.Y.) (Buchwald, J.); 12 Civ. 6294 (E.D.N.Y.) (Seybert, J.); 12 Civ. 6571 (N.D. Cal.) (Conti, J.); 12 Civ. 10903 (C.D. Cal.) (Snyder, J.); 13 Civ. 48 (S.D. Cal.) (Sammartino, J.); 13 Civ. 62 (C.D. Cal.) (Phillips, J.); 13 Civ. 106 (N.D. Cal.) (Beller, J.); 13 Civ. 108 (N.D. Cal.) (Ryu, J.); 13 Civ. 109 (N.D. Cal.) (Laporte, J.); 13 Civ. 122 (C.D. Cal.) (Bernal, J.); 13 Civ. 334, 13 Civ. 335 (S.D. Iowa) (Pratt, J.); 13 Civ. 342 (E.D. Va.) (Brinkema, J.); 13 Civ. 1466 (S.D. Cal.) (Lorenz, J.); 13 Civ. 1476 (E.D. Cal.) (Mueller, J.); 13 Civ. 2149 (S.D. Tex.) (Hoyt, J.); 13 Civ. 2244 (N.D. Cal.) (Hamilton, J.); 13 Civ. 2921 (N.D. Cal.) (Chesney, J.); 13 Civ. 2979 (N.D. Cal.) (Tigar, J.); 13 Civ. 4352 (E.D. Pa.) (Restrepo, J.); 13 Civ. 5278 (N.D. Cal.) (Vadas, J.); 15 Civ. 1334 (S.D.N.Y.) (Buchwald, J.); and 15 Civ. 2973 (S.D.N.Y.) (Buchwald, J.).

On August 4, 2015, the court in *IN RE LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION* granted in part defendants' motions to dismiss various individual actions that were previously stayed, dismissing plaintiffs' antitrust claims for failure to state a claim, and holding that plaintiffs cannot pursue certain other claims based on lack of personal jurisdiction or the operation of the applicable statute of limitations. The court allowed certain of plaintiffs' claims for common law fraud, breach of contract, unjust enrichment and tortious interference to proceed. On October 8, 2015, the City of Philadelphia and the Pennsylvania Intergovernmental Cooperation Authority amended their complaint in response to the court's August 4, 2015 decision. Additional information concerning these

actions is publicly available in court filings under the docket number 11 MD 2262 (S.D.N.Y.) (Buchwald, J.).

On June 30, 2014, the United States Supreme Court granted a petition for a writ of certiorari in *GELBOIM, ET AL. v. BANK OF AMERICA CORP., ET AL.* with respect to the dismissal by the United States Court of Appeals for the Second Circuit of an appeal by the plaintiff class of indirect OTC purchasers of U.S. debt securities. On January 21, 2015, the Supreme Court ruled that, contrary to the Second Circuit's opinion, the plaintiffs had a right to appeal, and remanded the case to the Second Circuit for consideration of the plaintiffs' appeal on the merits. The Second Circuit heard oral argument on November 13, 2015. Additional information concerning this appeal is publicly available in court filings under the docket numbers 13-3565 (2d Cir.), 13-3636 (2d Cir.), and 13-1174 (U.S.).

Citigroup and Citibank, along with other USD LIBOR panel banks, also are named as defendants in an individual action filed in the United States District Court for the Southern District of New York on February 13, 2013, captioned *7 WEST 57<sup>th</sup> STREET REALTY CO. v. CITIGROUP, INC., ET AL.* The plaintiff alleges that the defendant panel banks manipulated USD LIBOR to keep it artificially high and that this manipulation affected the value of plaintiffs' OTC municipal bond portfolio in violation of federal and state antitrust laws and federal RICO law. The plaintiff seeks compensatory damages, treble damages where authorized by statute, and declaratory relief. On March 31, 2015, the United States District Court for the Southern District of New York dismissed this action. On June 1, 2015, the plaintiff moved for leave to file a second amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 13 Civ. 981 (Gardephe, J.).

On May 2, 2014, plaintiffs in the class action *SULLIVAN v. BARCLAYS PLC, ET AL.* pending in the United States District Court for the Southern District of New York filed a second amended complaint naming Citigroup and Citibank, N.A. as defendants. Plaintiffs claim to have suffered losses as a result of purported EURIBOR manipulation and assert claims under the Commodity Exchange Act, the Sherman Act and the federal RICO law, and for unjust enrichment. On September 11, 2014, the court granted the U.S. Department of Justice's motion to stay discovery for eight months, until May 12, 2015. Plaintiffs filed a fourth amended complaint on August 13, 2015. Defendants filed a motion to dismiss on October 14, 2015. Additional information concerning this action is publicly available in court filings under the docket number 13 Civ. 2811 (S.D.N.Y.) (Castel, J.).

### **Interchange Fees Litigation**

Beginning in 2005, several putative class actions were filed against Citigroup and Related Parties, together with Visa, MasterCard and other banks and their affiliates, in various federal district courts and consolidated with other related cases in a multi-district litigation proceeding before Judge Gleeson in the United States District Court for the Eastern District of New York (Interchange MDL). This proceeding is captioned *IN RE PAYMENT CARD INTERCHANGE FEE AND MERCHANT DISCOUNT ANTITRUST LITIGATION*.

The plaintiffs, merchants that accept Visa- and MasterCard-branded payment cards as well as membership associations that claim to represent certain groups of merchants, allege, among other things, that defendants have engaged in conspiracies to set the price of interchange and merchant discount fees on credit and debit card transactions and to restrain trade through various Visa and MasterCard rules governing merchant conduct, all in violation of Section 1 of the Sherman Act and certain California statutes. Supplemental complaints also have been filed against defendants in the putative class actions alleging that Visa's and MasterCard's respective initial public offerings were anticompetitive and violated Section 7 of the Clayton Act, and that MasterCard's initial public offering constituted a fraudulent conveyance.

On January 14, 2014, the court entered a final judgment approving the terms of a class settlement providing for, among other things, a total payment to the class of \$6.05 billion; a rebate to merchants participating in the damages class settlement of 10 basis points on interchange collected for a period of eight months by the Visa and MasterCard networks; and changes to certain network rules.

On July 28, 2015, various objectors to the class settlement filed motions in the U.S. District Court to vacate the court's prior approval of the class settlement, alleging improprieties by two of the lawyers involved in the Interchange MDL. Various objectors appealed from the final class settlement approval order with the United States Court of Appeals for the Second Circuit, which heard oral argument regarding the appeals on September 28, 2015. Additional information concerning these consolidated actions is publicly available in court filings under the docket number MDL 05-1720 (E.D.N.Y.) (Brodie, J.) and 12-4671 (2d Cir.).

Numerous merchants, including large national merchants, have requested exclusion from the class settlements, and some of those opting out have filed complaints against Visa, MasterCard, and in some instances one or more issuing banks. One of these suits, *7-ELEVEN, INC., ET AL. v. VISA INC., ET AL.*, brought on behalf of numerous individual merchants, names Citigroup as a defendant. On December 5, 2014, the Interchange MDL, including the opt-out cases, was transferred from Judge Gleeson to Judge Brodie. Additional information concerning these actions is publicly available in court filings under the docket numbers MDL 05-1720 (E.D.N.Y.) (Brodie, J.).

## **ISDAFIX-Related Litigation and Other Matters**

*Regulatory Actions:* Government and regulatory agencies in the U.S., including the CFTC, are conducting investigations or making inquiries concerning submissions for the global benchmark for fixed interest rate swaps (ISDAFIX) and trading in products that reference ISDAFIX. Citigroup is fully cooperating with these and related investigations and inquiries.

*Antitrust and Other Litigation.* Beginning in September 2014, various plaintiffs filed putative class action complaints in the United States District Court for the Southern District of New York against Citigroup and other U.S. dollar (USD) ISDAFIX panel banks, which are proceeding on a consolidated basis. On February 12, 2015, plaintiffs filed an amended complaint alleging that the defendants colluded to manipulate ISDAFIX, thereby causing the putative class to suffer losses in connection with USD interest rate derivatives purchased from the defendants. Plaintiffs assert federal and various common law claims and seek compensatory damages, treble damages where authorized by statute, restitution and declaratory and injunctive relief. On April 13, 2015, defendants filed a motion to dismiss the claims in plaintiffs' amended consolidated complaint. Additional information concerning these actions is publicly available in court filings under the consolidated lead docket number 14 Civ. 7126 (S.D.N.Y.) (Furman, J.).

## **Money Laundering Inquiries**

*Regulatory Actions:* Citigroup and Related Parties, including Citigroup's indirect, wholly owned subsidiary Banamex USA (BUSA), a California state-chartered bank, have received grand jury subpoenas issued by the United States Attorney's Office for the District of Massachusetts concerning, among other issues, policies, procedures and activities related to BUSA, Citibank and related parties' compliance with Bank Secrecy Act (BSA) and anti-money laundering (AML) requirements under applicable federal laws and banking regulations. Citigroup and BUSA also have received inquiries and requests for information from other regulators, including the Financial Crimes Enforcement Network, concerning BSA- and AML-related issues. Citigroup is cooperating fully with these inquiries.

Citibank has received a subpoena from the United States Attorney for the Eastern District of New York in connection with its investigation of alleged bribery, corruption and money laundering associated with the Federation Internationale de Football Association (FIFA), and the potential involvement of financial institutions in that activity. The subpoena requests information relating to, among other things, banking relationships and transactions at Citibank and its affiliates associated with certain individuals and entities identified as having had involvement with the alleged corrupt conduct. Citi is cooperating with the authorities in this matter.

*Derivative Actions and Related Proceedings:* On September 22, 2015, a derivative action captioned FIREMAN'S RETIREMENT SYSTEM OF ST. LOUIS, ET AL. v. CORBAT, ET AL. was filed in the United States District Court for the Southern District of New York on behalf of Citigroup (as nominal defendant) against certain of

Citigroup's and certain of its affiliates' present and former directors and officers. The plaintiffs asserted claims derivatively for violation of Section 14(a) of the Securities Exchange Act of 1934, breach of fiduciary duty, waste of corporate assets, and unjust enrichment in connection with the defendants' alleged failure to exercise appropriate oversight and management of BSA and AML laws and regulations and related consent decrees concerning Citigroup's subsidiaries Banco Nacional de Mexico, or Banamex, and BUSA. On December 14, 2015, plaintiffs, with the permission of the court, filed an amended complaint naming additional present and former directors and officers of Citigroup affiliates as defendants. Defendants' motion to dismiss the amended complaint was filed on January 22, 2016. Additional information concerning this action is publicly available in court filings under the docket number 15 Civ. 7501 (S.D.N.Y.) (Furman, J.).

## **Oceanografia Fraud and Related Matters**

*Regulatory Actions:* As a result of Citigroup's announcement in the first quarter of 2014 of a fraud discovered in a Petróleos Mexicanos (Pemex) supplier program involving Oceanografia SA de CV (OSA), a Mexican oil services company and a key supplier to Pemex, the SEC commenced a formal investigation and the U.S. Department of Justice requested information regarding Banamex's dealings with OSA. The SEC inquiry has included requests for documents and witness testimony. Citi continues to cooperate fully with these inquiries.

*Derivative Actions and Related Proceedings:* Beginning in April 2014, Citigroup has been named as a defendant in two complaints filed by its stockholders seeking to inspect Citigroup's books and records pursuant to Section 220 of Chapter 8 of the Delaware Corporations Law with regard to various matters, including the OSA fraud. On April 24, 2015, in the action brought by Oklahoma Firefighters Pension & Retirement System, the Court of Chancery issued a decision adopting the Master in Chancery's September 30, 2014 recommendation granting in part and denying in part plaintiff's request to inspect Citigroup's books and records. On May 5, 2015, Citigroup answered a similar complaint filed by Key West Municipal Firefighters & Police Officers' Retirement Trust Fund. Additional information concerning these actions is publicly available in court filings under the docket numbers C.A. No. 9587-ML (Del. Ch.) (LeGrow, M.) and C.A. No. 10468-ML (Del. Ch.) (LeGrow, M.).

## **Parmalat Litigation and Related Matters**

On July 29, 2004, Dr. Enrico Bondi, the Extraordinary Commissioner appointed under Italian law to oversee the administration of various Parmalat companies, filed a complaint in New Jersey state court against Citigroup and Related Parties alleging, among other things, that the defendants "facilitated" a number of frauds by Parmalat insiders. On October 20, 2008, following trial, a jury rendered a verdict in Citigroup's favor on Parmalat's claims and in favor of Citibank, N.A. on three counterclaims. Parmalat has exhausted all appeals, and the judgment is now final. Additional information concerning this action is publicly available in court filings under the docket number

A-2654-08T2 (N.J. Sup. Ct.). Following the jury verdict awarding \$431 million in damages on Citigroup's counterclaim, Citigroup has taken steps to enforce that judgment in the Italian courts. On August 29, 2014, the Court of Appeal of Bologna affirmed the decision in the full amount of \$431 million, to be paid in Parmalat shares. Parmalat has appealed the judgment to the Italian Supreme Court.

Prosecutors in Parma and Milan, Italy, brought criminal proceedings against certain current and former Citigroup employees (along with numerous other investment banks and certain of their current and former employees, as well as former Parmalat officers and accountants). On April 18, 2011, the Milan criminal court acquitted the sole Citigroup defendant of market-rigging charges. The Milan prosecutors appealed part of that judgment and sought administrative remedies against Citigroup under Italian Administrative Law 231. On February 5, 2014, the Milan Court of Appeal restricted the remedy to an administrative fine of €500,000, which was later upheld by the Italian Supreme Court.

Additionally, the Parmalat administrator filed a purported civil complaint against Citigroup in the context of the Parma criminal proceedings. On March 5, 2015, the Parma criminal court accepted plea bargain agreements from each of the defendants (eight current and former Citigroup employees) and closed the criminal proceedings that had been commenced by prosecutors in Parma. As a result of the agreements entered into by the individuals, the Parma criminal court was no longer able to hear the civil complaint filed by the Parmalat administrator against Citigroup. On June 16, 2015, the Parmalat administrator refiled the claim in an Italian civil court in Milan, this time claiming damages of €1.8 billion against Citigroup and Related Parties and other financial institutions. A preliminary hearing in this new Milan proceeding is scheduled for April 19, 2016.

### **Regulatory Review of Student Loan Servicing**

Citibank is currently subject to regulatory investigation concerning certain student loan servicing practices. Citibank is cooperating with the investigation. Similar servicing practices have been the subject of an enforcement action against at least one other institution. In light of that action and the current regulatory focus on student loans, regulators may order that Citibank remediate customers and/or impose penalties or other relief.

### **Sovereign Securities Matters**

*Regulatory Actions:* Government and regulatory agencies in the U.S. and in other jurisdictions are conducting investigations or making inquiries regarding Citigroup's sales and trading activities in connection with sovereign securities. Citigroup is fully cooperating with these investigations and inquiries.

*Antitrust and Other Litigation:* Beginning in July 2015, CGMI, along with numerous other U.S. Treasury primary dealer banks, have been named as defendants in a number of substantially similar putative class actions involving allegations that they colluded to manipulate U.S. Treasury securities markets. The actions are based upon the defendants' roles as registered primary dealers of U.S. Treasury securities

and assert claims of alleged collusion under the antitrust laws and manipulation under the Commodity Exchange Act. These actions were filed in the United States District Court for the Southern District of New York, the Northern District of Illinois, the Southern District of Alabama and the District of the Virgin Islands.

In December 2015, the cases were consolidated before Judge Paul G. Gardephe in the United States District Court for the Southern District of New York by the Judicial Panel on Multidistrict Litigation. Additional information relating to these actions is publicly available in court filings under the docket number: 15-MD-2673 (S.D.N.Y.) (Gardephe, J.).

### **Settlement Payments**

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



## **29. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS**

Citigroup expects to amend its Registration Statement on Form S-3 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 years ended December 31, 2015, 2014 and 2013, Condensed Consolidating Balance Sheet as of December 31, 2015 and 2014 and Condensed Consolidating Statement of Cash Flows for the years ended December 31, 2015, 2014 and 2013 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

Year ended December 31, 2015

<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Revenues</b>					
Dividends from subsidiaries	\$ 13,500	\$ —	\$ —	\$ (13,500)	\$ —
Interest revenue	9	4,389	54,153	—	58,551
Interest revenue—intercompany	2,880	272	(3,152)	—	—
Interest expense	4,563	997	6,361	—	11,921
Interest expense—intercompany	(475)	1,295	(820)	—	—
<b>Net interest revenue</b>	<b>\$ (1,199)</b>	<b>\$ 2,369</b>	<b>\$ 45,460</b>	<b>\$ —</b>	<b>\$ 46,630</b>
Commissions and fees	\$ —	\$ 4,854	\$ 6,994	\$ —	\$ 11,848
Commissions and fees—intercompany	—	214	(214)	—	—
Principal transactions	1,012	10,365	(5,369)	—	6,008
Principal transactions—intercompany	(1,733)	(8,709)	10,442	—	—
Other income	3,294	426	8,148	—	11,868
Other income—intercompany	(3,054)	1,079	1,975	—	—
<b>Total non-interest revenues</b>	<b>\$ (481)</b>	<b>\$ 8,229</b>	<b>\$ 21,976</b>	<b>\$ —</b>	<b>\$ 29,724</b>
<b>Total revenues, net of interest expense</b>	<b>\$ 11,820</b>	<b>\$ 10,598</b>	<b>\$ 67,436</b>	<b>\$ (13,500)</b>	<b>\$ 76,354</b>
<b>Provisions for credit losses and for benefits and claims</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 7,913</b>	<b>\$ —</b>	<b>\$ 7,913</b>
<b>Operating expenses</b>					
Compensation and benefits	\$ (58)	\$ 5,003	\$ 16,824	\$ —	\$ 21,769
Compensation and benefits—intercompany	59	—	(59)	—	—
Other operating	271	1,948	19,627	—	21,846
Other operating—intercompany	247	1,164	(1,411)	—	—
<b>Total operating expenses</b>	<b>\$ 519</b>	<b>\$ 8,115</b>	<b>\$ 34,981</b>	<b>\$ —</b>	<b>\$ 43,615</b>
<b>Income (loss) before income taxes and equity in undistributed income of subsidiaries</b>	<b>\$ 11,301</b>	<b>\$ 2,483</b>	<b>\$ 24,542</b>	<b>\$ (13,500)</b>	<b>\$ 24,826</b>
Provision (benefit) for income taxes	(1,340)	537	8,243	—	7,440
Equity in undistributed income of subsidiaries	4,601	—	—	(4,601)	—
<b>Income (loss) from continuing operations</b>	<b>\$ 17,242</b>	<b>\$ 1,946</b>	<b>\$ 16,299</b>	<b>\$ (18,101)</b>	<b>\$ 17,386</b>
<b>Income (loss) from discontinued operations, net of taxes</b>	<b>—</b>	<b>—</b>	<b>(54)</b>	<b>—</b>	<b>(54)</b>
<b>Net income (loss) before attribution of noncontrolling interests</b>	<b>\$ 17,242</b>	<b>\$ 1,946</b>	<b>\$ 16,245</b>	<b>\$ (18,101)</b>	<b>\$ 17,332</b>
<b>Net income attributable to noncontrolling interests</b>	<b>—</b>	<b>9</b>	<b>81</b>	<b>—</b>	<b>90</b>
<b>Net income (loss) after attribution of noncontrolling interests</b>	<b>\$ 17,242</b>	<b>\$ 1,937</b>	<b>\$ 16,164</b>	<b>\$ (18,101)</b>	<b>\$ 17,242</b>
<b>Comprehensive income</b>					
Other comprehensive income (loss)	\$ (6,128)	\$ (125)	\$ (6,367)	\$ 6,492	\$ (6,128)
<b>Comprehensive income</b>	<b>\$ 11,114</b>	<b>\$ 1,812</b>	<b>\$ 9,797</b>	<b>\$ (11,609)</b>	<b>\$ 11,114</b>

## Condensed Consolidating Statements of Income and Comprehensive Income

Year ended December 31, 2014

<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Revenues</b>					
Dividends from subsidiaries	\$ 8,900	\$ —	\$ —	\$ (8,900)	\$ —
Interest revenue	12	4,210	57,461	—	61,683
Interest revenue—intercompany	3,109	144	(3,253)	—	—
Interest expense	5,055	1,010	7,625	—	13,690
Interest expense—intercompany	(618)	1,258	(640)	—	—
<b>Net interest revenue</b>	<b>\$ (1,316)</b>	<b>\$ 2,086</b>	<b>\$ 47,223</b>	<b>\$ —</b>	<b>\$ 47,993</b>
Commissions and fees	\$ —	\$ 5,185	\$ 7,847	\$ —	\$ 13,032
Commissions and fees—intercompany	—	95	(95)	—	—
Principal transactions	13	(1,115)	7,800	—	6,698
Principal transactions—intercompany	(672)	3,822	(3,150)	—	—
Other income	1,037	425	8,034	—	9,496
Other income—intercompany	(131)	1,206	(1,075)	—	—
<b>Total non-interest revenues</b>	<b>\$ 247</b>	<b>\$ 9,618</b>	<b>\$ 19,361</b>	<b>\$ —</b>	<b>\$ 29,226</b>
<b>Total revenues, net of interest expense</b>	<b>\$ 7,831</b>	<b>\$ 11,704</b>	<b>\$ 66,584</b>	<b>\$ (8,900)</b>	<b>\$ 77,219</b>
<b>Provisions for credit losses and for benefits and claims</b>	<b>\$ —</b>	<b>\$ —</b>	<b>\$ 7,467</b>	<b>\$ —</b>	<b>\$ 7,467</b>
<b>Operating expenses</b>					
Compensation and benefits	\$ 158	\$ 5,156	\$ 18,645	\$ —	\$ 23,959
Compensation and benefits—intercompany	38	—	(38)	—	—
Other operating	1,572	6,082	23,438	—	31,092
Other operating—intercompany	212	1,651	(1,863)	—	—
<b>Total operating expenses</b>	<b>\$ 1,980</b>	<b>\$ 12,889</b>	<b>\$ 40,182</b>	<b>\$ —</b>	<b>\$ 55,051</b>
<b>Income (loss) before income taxes and equity in undistributed income of subsidiaries</b>	<b>\$ 5,851</b>	<b>\$ (1,185)</b>	<b>\$ 18,935</b>	<b>\$ (8,900)</b>	<b>\$ 14,701</b>
Provision (benefit) for income taxes	(643)	600	7,240	—	7,197
Equity in undistributed income of subsidiaries	816	—	—	(816)	—
<b>Income (loss) from continuing operations</b>	<b>\$ 7,310</b>	<b>\$ (1,785)</b>	<b>\$ 11,695</b>	<b>\$ (9,716)</b>	<b>\$ 7,504</b>
<b>Income (loss) from discontinued operations, net of taxes</b>	<b>—</b>	<b>—</b>	<b>(2)</b>	<b>—</b>	<b>(2)</b>
<b>Net income (loss) before attribution of noncontrolling interests</b>	<b>\$ 7,310</b>	<b>\$ (1,785)</b>	<b>\$ 11,693</b>	<b>\$ (9,716)</b>	<b>\$ 7,502</b>
<b>Net income attributable to noncontrolling interests</b>	<b>—</b>	<b>8</b>	<b>184</b>	<b>—</b>	<b>192</b>
<b>Net income (loss) after attribution of noncontrolling interests</b>	<b>\$ 7,310</b>	<b>\$ (1,793)</b>	<b>\$ 11,509</b>	<b>\$ (9,716)</b>	<b>\$ 7,310</b>
<b>Comprehensive income</b>					
Other comprehensive income (loss)	\$ (4,083)	\$ 194	\$ (4,760)	\$ 4,566	\$ (4,083)
<b>Comprehensive income</b>	<b>\$ 3,227</b>	<b>\$ (1,599)</b>	<b>\$ 6,749</b>	<b>\$ (5,150)</b>	<b>\$ 3,227</b>

## Condensed Consolidating Statements of Income and Comprehensive Income

Year ended December 31, 2013

<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Revenues</b>					
Dividends from subsidiaries	\$ 13,044	\$ —	\$ —	\$ (13,044)	\$ —
Interest revenue	14	4,475	58,481	—	62,970
Interest revenue—intercompany	3,220	159	(3,379)	—	—
Interest expense	5,995	1,067	9,115	—	16,177
Interest expense—intercompany	(436)	1,425	(989)	—	—
<b>Net interest revenue</b>	<b>\$ (2,325)</b>	<b>\$ 2,142</b>	<b>\$ 46,976</b>	<b>\$ —</b>	<b>\$ 46,793</b>
Commissions and fees	\$ —	\$ 4,871	\$ 8,070	\$ —	\$ 12,941
Commissions and fees—intercompany	—	27	(27)	—	—
Principal transactions	(257)	389	7,170	—	7,302
Principal transactions—intercompany	(387)	1,491	(1,104)	—	—
Other income	3,770	571	5,347	—	9,688
Other income—intercompany	(2,987)	928	2,059	—	—
<b>Total non-interest revenues</b>	<b>\$ 139</b>	<b>\$ 8,277</b>	<b>\$ 21,515</b>	<b>\$ —</b>	<b>\$ 29,931</b>
<b>Total revenues, net of interest expense</b>	<b>\$ 10,858</b>	<b>\$ 10,419</b>	<b>\$ 68,491</b>	<b>\$ (13,044)</b>	<b>\$ 76,724</b>
<b>Provisions for credit losses and for benefits and claims</b>	<b>\$ —</b>	<b>\$ 18</b>	<b>\$ 8,496</b>	<b>\$ —</b>	<b>\$ 8,514</b>
<b>Operating expenses</b>					
Compensation and benefits	\$ 136	\$ 5,169	\$ 18,662	\$ —	\$ 23,967
Compensation and benefits—intercompany	52	—	(52)	—	—
Other operating	474	3,461	20,506	—	24,441
Other operating—intercompany	189	2,856	(3,045)	—	—
<b>Total operating expenses</b>	<b>\$ 851</b>	<b>\$ 11,486</b>	<b>\$ 36,071</b>	<b>\$ —</b>	<b>\$ 48,408</b>
<b>Income (loss) before income taxes and equity in undistributed income of subsidiaries</b>	<b>\$ 10,007</b>	<b>\$ (1,085)</b>	<b>\$ 23,924</b>	<b>\$ (13,044)</b>	<b>\$ 19,802</b>
Provision (benefit) for income taxes	(1,638)	(249)	8,073	—	6,186
Equity in undistributed income of subsidiaries	2,014	—	—	(2,014)	—
<b>Income (loss) from continuing operations</b>	<b>\$ 13,659</b>	<b>\$ (836)</b>	<b>\$ 15,851</b>	<b>\$ (15,058)</b>	<b>\$ 13,616</b>
<b>Income (loss) from discontinued operations, net of taxes</b>	<b>—</b>	<b>—</b>	<b>270</b>	<b>—</b>	<b>270</b>
<b>Net income (loss) before attribution of noncontrolling interests</b>	<b>\$ 13,659</b>	<b>\$ (836)</b>	<b>\$ 16,121</b>	<b>\$ (15,058)</b>	<b>\$ 13,886</b>
<b>Net income attributable to noncontrolling interests</b>	<b>—</b>	<b>25</b>	<b>202</b>	<b>—</b>	<b>227</b>
<b>Net income (loss) after attribution of noncontrolling interests</b>	<b>\$ 13,659</b>	<b>\$ (861)</b>	<b>\$ 15,919</b>	<b>\$ (15,058)</b>	<b>\$ 13,659</b>
<b>Comprehensive income</b>					
Other comprehensive income (loss)	\$ (2,237)	\$ (139)	\$ (3,138)	\$ 3,277	\$ (2,237)
<b>Comprehensive income</b>	<b>\$ 11,422</b>	<b>\$ (1,000)</b>	<b>\$ 12,781</b>	<b>\$ (11,781)</b>	<b>\$ 11,422</b>

## Condensed Consolidating Balance Sheet

	December 31, 2015				
<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Assets</b>					
Cash and due from banks	\$ —	\$ 592	\$ 20,308	\$ —	\$ 20,900
Cash and due from banks—intercompany	124	1,403	(1,527)	—	—
Federal funds sold and resale agreements	—	178,178	41,497	—	219,675
Federal funds sold and resale agreements—intercompany	—	15,035	(15,035)	—	—
Trading account assets	(8)	124,731	125,233	—	249,956
Trading account assets—intercompany	1,032	1,765	(2,797)	—	—
Investments	484	402	342,069	—	342,955
Loans, net of unearned income	—	1,068	616,549	—	617,617
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for loan losses	—	(3)	(12,623)	—	(12,626)
<b>Total loans, net</b>	<b>\$ —</b>	<b>\$ 1,065</b>	<b>\$ 603,926</b>	<b>\$ —</b>	<b>\$ 604,991</b>
Advances to subsidiaries	\$ 104,405	\$ —	\$ (104,405)	\$ —	\$ —
Investments in subsidiaries	221,362	—	—	(221,362)	—
Other assets <sup>(1)</sup>	25,819	36,860	230,054	—	292,733
Other assets—intercompany	58,207	30,737	(88,944)	—	—
<b>Total assets</b>	<b>\$ 411,425</b>	<b>\$ 390,768</b>	<b>\$ 1,150,379</b>	<b>\$ (221,362)</b>	<b>\$ 1,731,210</b>
<b>Liabilities and equity</b>					
Deposits	\$ —	\$ —	\$ 907,887	\$ —	\$ 907,887
Deposits—intercompany	—	—	—	—	—
Federal funds purchased and securities loaned or sold	—	122,459	24,037	—	146,496
Federal funds purchased and securities loaned or sold—intercompany	185	22,042	(22,227)	—	—
Trading account liabilities	—	62,386	55,126	—	117,512
Trading account liabilities—intercompany	1,036	2,045	(3,081)	—	—
Short-term borrowings	146	188	20,745	—	21,079
Short-term borrowings—intercompany	—	34,916	(34,916)	—	—
Long-term debt	141,914	2,530	56,831	—	201,275
Long-term debt—intercompany	—	51,171	(51,171)	—	—
Advances from subsidiaries	36,453	—	(36,453)	—	—
Other liabilities	3,560	55,482	54,827	—	113,869
Other liabilities—intercompany	6,274	10,967	(17,241)	—	—
Stockholders' equity	221,857	26,582	196,015	(221,362)	223,092
<b>Total liabilities and equity</b>	<b>\$ 411,425</b>	<b>\$ 390,768</b>	<b>\$ 1,150,379</b>	<b>\$ (221,362)</b>	<b>\$ 1,731,210</b>

(1) *Other assets* for Citigroup parent company at December 31, 2015 included \$21.8 billion of placements to Citibank and its branches, of which \$13.9 billion had a remaining term of less than 30 days.

## Condensed Consolidating Balance Sheet

December 31, 2014

<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Assets</b>					
Cash and due from banks	\$ —	\$ 239	\$ 31,869	\$ —	\$ 32,108
Cash and due from banks—intercompany	125	1,512	(1,637)	—	—
Federal funds sold and resale agreements	—	194,649	47,921	—	242,570
Federal funds sold and resale agreements—intercompany	—	6,601	(6,601)	—	—
Trading account assets	(103)	141,608	155,281	—	296,786
Trading account assets—intercompany	707	4,956	(5,663)	—	—
Investments	830	483	332,130	—	333,443
Loans, net of unearned income	—	1,495	643,140	—	644,635
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for loan losses	—	(45)	(15,949)	—	(15,994)
<b>Total loans, net</b>	<b>\$ —</b>	<b>\$ 1,450</b>	<b>\$ 627,191</b>	<b>\$ —</b>	<b>\$ 628,641</b>
Advances to subsidiaries	\$ 77,951	\$ —	\$ (77,951)	\$ —	\$ —
Investments in subsidiaries	211,004	—	—	(211,004)	—
Other assets <sup>(1)</sup>	26,734	38,654	243,245	—	308,633
Other assets—intercompany	84,174	22,081	(106,255)	—	—
<b>Total assets</b>	<b>\$ 401,422</b>	<b>\$ 412,233</b>	<b>\$ 1,239,530</b>	<b>\$ (211,004)</b>	<b>\$ 1,842,181</b>
<b>Liabilities and equity</b>					
Deposits	\$ —	\$ —	\$ 899,332	\$ —	\$ 899,332
Deposits—intercompany	—	—	—	—	—
Federal funds purchased and securities loaned or sold	—	149,773	23,665	—	173,438
Federal funds purchased and securities loaned or sold—intercompany	185	22,170	(22,355)	—	—
Trading account liabilities	3	76,965	62,068	—	139,036
Trading account liabilities—intercompany	759	4,853	(5,612)	—	—
Short-term borrowings	1,075	2,042	55,218	—	58,335
Short-term borrowings—intercompany	—	30,862	(30,862)	—	—
Long-term debt	149,512	3,062	70,506	—	223,080
Long-term debt—intercompany	—	39,145	(39,145)	—	—
Advances from subsidiaries	27,430	—	(27,430)	—	—
Other liabilities	5,056	49,968	82,240	—	137,264
Other liabilities—intercompany	7,217	8,385	(15,602)	—	—
Stockholders' equity	210,185	25,008	187,507	(211,004)	211,696
<b>Total liabilities and equity</b>	<b>\$ 401,422</b>	<b>\$ 412,233</b>	<b>\$ 1,239,530</b>	<b>\$ (211,004)</b>	<b>\$ 1,842,181</b>

(1) *Other assets* for Citigroup parent company at December 31, 2014 included \$42.7 billion of placements to Citibank and its branches, of which \$33.9 billion had a remaining term of less than 30 days.

## Condensed Consolidating Statement of Cash Flows

Year ended December 31, 2015

<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Net cash provided by (used in) operating activities of continuing operations</b>	\$ 27,825	\$ 12,336	\$ (424)	\$ —	\$ 39,737
<b>Cash flows from investing activities of continuing operations</b>					
Purchases of investments	\$ —	\$ (4)	\$ (242,358)	\$ —	\$ (242,362)
Proceeds from sales of investments	—	53	141,417	—	141,470
Proceeds from maturities of investments	237	—	81,810	—	82,047
Change in deposits with banks	—	(8,414)	23,902	—	15,488
Change in loans	—	—	1,353	—	1,353
Proceeds from sales and securitizations of loans	—	—	9,610	—	9,610
Proceeds from significant disposals	—	—	5,932	—	5,932
Payments due to transfers of net liabilities associated with significant disposals	—	—	(18,929)	—	(18,929)
Change in federal funds sold and resales	—	8,037	14,858	—	22,895
Changes in investments and advances—intercompany	(35,548)	1,044	34,504	—	—
Other investing activities	3	(101)	(2,523)	—	(2,621)
<b>Net cash provided by (used in) investing activities of continuing operations</b>	\$ (35,308)	\$ 615	\$ 49,576	\$ —	\$ 14,883
<b>Cash flows from financing activities of continuing operations</b>					
Dividends paid	\$ (1,253)	\$ —	\$ —	\$ —	\$ (1,253)
Issuance of preferred stock	6,227	—	—	—	6,227
Treasury stock acquired	(5,452)	—	—	—	(5,452)
Proceeds (repayments) from issuance of long-term debt, net	127	(139)	(8,212)	—	(8,224)
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	12,557	(12,557)	—	—
Change in deposits	—	—	8,555	—	8,555
Change in federal funds purchased and repos	—	(27,442)	500	—	(26,942)
Change in short-term borrowings	(845)	(1,737)	(34,674)	—	(37,256)
Net change in short-term borrowings and other advances—intercompany	9,106	4,054	(13,160)	—	—
Other financing activities	(428)	—	—	—	(428)
<b>Net cash provided by (used in) financing activities of continuing operations</b>	\$ 7,482	\$ (12,707)	\$ (59,548)	\$ —	\$ (64,773)
Effect of exchange rate changes on cash and due from banks	\$ —	\$ —	\$ (1,055)	\$ —	\$ (1,055)
<b>Change in cash and due from banks</b>	\$ (1)	\$ 244	\$ (11,451)	\$ —	\$ (11,208)
<b>Cash and due from banks at beginning of period</b>	125	1,751	30,232	—	32,108
<b>Cash and due from banks at end of period</b>	\$ 124	\$ 1,995	\$ 18,781	\$ —	\$ 20,900
<b>Supplemental disclosure of cash flow information for continuing operations</b>					
Cash paid during the year for income taxes	\$ 111	\$ 175	\$ 4,692	\$ —	\$ 4,978
Cash paid during the year for interest	4,916	2,346	4,769	—	12,031

<b>Non-cash investing activities</b>							
Decrease in net loans associated with significant disposals reclassified to HFS	\$	—	\$	—	\$	(9,063)	\$ — \$ (9,063)
Decrease in investments associated with significant disposals reclassified to HFS		—		—		(1,402)	— (1,402)
Decrease in goodwill and intangible assets associated with significant disposals reclassified to HFS		—		—		(223)	— (223)
Decrease in deposits with banks with significant disposals reclassified to HFS		—		—		(404)	— (404)
Transfers to loans HFS from loans		—		—		28,600	— 28,600
Transfers to OREO and other repossessed assets		—		—		276	— 276
<b>Non-cash financing activities</b>							
Decrease in long-term debt associated with significant disposals reclassified to HFS	\$	—	\$	—	\$	(4,673)	\$ — \$ (4,673)



## Condensed Consolidating Statement of Cash Flows

	Year ended December 31, 2014					
<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated	
<b>Net cash provided by (used in) operating activities of continuing operations</b>	\$ 5,940	\$ (10,915)	\$ 51,318	\$ —	\$ 46,343	
<b>Cash flows from investing activities of continuing operations</b>						
Purchases of investments	\$ —	\$ (188)	\$ (258,804)	\$ —	\$ (258,992)	
Proceeds from sales of investments	41	42	135,741	—	135,824	
Proceeds from maturities of investments	155	—	93,962	—	94,117	
Change in deposits with banks	—	4,183	36,733	—	40,916	
Change in loans	—	—	1,170	—	1,170	
Proceeds from sales and securitizations of loans	—	—	4,752	—	4,752	
Proceeds from significant disposals	—	—	346	—	346	
Payments due to transfers of net liabilities associated with significant disposals	—	—	(1,255)	—	(1,255)	
Change in federal funds sold and resales	—	8,832	5,635	—	14,467	
Changes in investments and advances—intercompany	(7,986)	3,549	4,437	—	—	
Other investing activities	5	(72)	(2,696)	—	(2,763)	
<b>Net cash provided by (used in) investing activities of continuing operations</b>	\$ (7,785)	\$ 16,346	\$ 20,021	\$ —	\$ 28,582	
<b>Cash flows from financing activities of continuing operations</b>						
Dividends paid	\$ (633)	\$ —	\$ —	\$ —	\$ (633)	
Issuance of preferred stock	3,699	—	—	—	3,699	
Treasury stock acquired	(1,232)	—	—	—	(1,232)	
Proceeds (repayments) from issuance of long-term debt, net	(3,636)	(634)	12,183	—	7,913	
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	1,131	(1,131)	—	—	
Change in deposits	—	—	(48,336)	—	(48,336)	
Change in federal funds purchased and repos	—	(15,268)	(14,806)	—	(30,074)	
Change in short-term borrowings	749	143	(1,991)	—	(1,099)	
Net change in short-term borrowings and other advances—intercompany	3,297	1,212	(4,509)	—	—	
Capital contributions from parent	—	8,500	(8,500)	—	—	
Other financing activities	(507)	—	(1)	—	(508)	
<b>Net cash provided by (used in) financing activities of continuing operations</b>	\$ 1,737	\$ (4,916)	\$ (67,091)	\$ —	\$ (70,270)	
Effect of exchange rate changes on cash and due from banks	\$ —	\$ —	\$ (2,432)	\$ —	\$ (2,432)	
<b>Change in cash and due from banks</b>	\$ (108)	\$ 515	\$ 1,816	\$ —	\$ 2,223	
<b>Cash and due from banks at beginning of period</b>	233	1,236	28,416	—	29,885	
<b>Cash and due from banks at end of period</b>	\$ 125	\$ 1,751	\$ 30,232	\$ —	\$ 32,108	
<b>Supplemental disclosure of cash flow information for continuing operations</b>						
Cash paid during the year for income taxes	\$ 235	\$ 353	\$ 4,044	\$ —	\$ 4,632	
Cash paid during the year for interest	5,632	2,298	6,071	—	14,001	
<b>Non-cash investing activities</b>						
Change in loans due to consolidation/deconsolidation of VIEs	\$ —	\$ —	\$ (374)	\$ —	\$ (374)	
Transfers to loans held-for-sale from loans	—	—	15,100	—	15,100	
Transfers to OREO and other repossessed assets	—	—	321	—	321	
<b>Non-cash financing activities</b>						
Decrease in deposits associated with reclassifications to HFS	\$ —	\$ —	\$ (20,605)	\$ —	\$ (20,605)	
Increase in short-term borrowings due to consolidation of VIEs	—	—	500	—	500	
Decrease in long-term debt due to deconsolidation of VIEs	—	—	(864)	—	(864)	

## Condensed Consolidating Statements of Cash Flows

	Year ended December 31, 2013				
<i>In millions of dollars</i>	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
<b>Net cash provided by (used in) operating activities of continuing operations</b>	\$ (7,881)	\$ (5,692)	\$ 76,817	\$ —	\$ 63,244
<b>Cash flows from investing activities of continuing operations</b>					
Purchases of investments	\$ —	\$ (34)	\$ (220,789)	\$ —	\$ (220,823)
Proceeds from sales of investments	385	—	130,715	—	131,100
Proceeds from maturities of investments	233	—	84,598	—	84,831
Change in deposits with banks	—	6,242	(73,113)	—	(66,871)
Change in loans	—	—	(30,198)	—	(30,198)
Proceeds from sales and securitizations of loans	—	—	9,123	—	9,123
Change in federal funds sold and resales	—	(2,838)	7,112	—	4,274
Changes in investments and advances—intercompany	7,226	(2,118)	(5,108)	—	—
Other investing activities	4	(171)	(2,607)	—	(2,774)
<b>Net cash provided by (used in) investing activities of continuing operations</b>	\$ 7,848	\$ 1,081	\$ (100,267)	\$ —	\$ (91,338)
<b>Cash flows from financing activities of continuing operations</b>					
Dividends paid	\$ (314)	\$ —	\$ —	\$ —	\$ (314)
Issuance of preferred stock	4,192	—	—	—	4,192
Redemption of preferred stock	(94)	—	—	—	(94)
Treasury stock acquired	(837)	—	—	—	(837)
Proceeds (repayments) from issuance of long-term debt, net	(13,426)	53	3,784	—	(9,589)
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	(202)	202	—	—
Change in deposits	—	—	37,713	—	37,713
Change in federal funds purchased and repos	—	2,768	(10,492)	—	(7,724)
Change in short-term borrowings	(359)	1,130	(572)	—	199
Net change in short-term borrowings and other advances—intercompany	11,402	(13,149)	1,747	—	—
Capital contributions from parent	—	12,330	(12,330)	—	—
Other financing activities	(451)	—	(1)	—	(452)
<b>Net cash provided by (used in) financing activities of continuing operations</b>	\$ 113	\$ 2,930	\$ 20,051	\$ —	\$ 23,094
Effect of exchange rate changes on cash and due from banks	\$ —	\$ —	\$ (1,558)	\$ —	\$ (1,558)
<b>Discontinued operations</b>					—
<b>Net cash used in discontinued operations</b>	\$ —	\$ —	\$ (10)	\$ —	\$ (10)
<b>Change in cash and due from banks</b>	\$ 80	\$ (1,681)	\$ (4,967)	\$ —	\$ (6,568)
<b>Cash and due from banks at beginning of period</b>	153	2,917	33,383	—	36,453
<b>Cash and due from banks at end of period</b>	\$ 233	\$ 1,236	\$ 28,416	\$ —	\$ 29,885
<b>Supplemental disclosure of cash flow information for continuing operations</b>					
Cash paid during the year for income taxes	\$ (71)	\$ (20)	\$ 4,586	\$ —	\$ 4,495
Cash paid during the year for interest	6,514	2,575	6,566	—	15,655
<b>Non-cash investing activities</b>					
Change in loans due to consolidation/deconsolidation of VIEs	\$ —	\$ —	\$ 6,718	\$ —	\$ 6,718
Transfers to loans held-for-sale from loans	—	—	17,300	—	17,300
Transfers to OREO and other repossessed assets	—	—	325	—	325
<b>Non-cash financing activities</b>					
Increase in short-term borrowings due to consolidation of VIEs	—	—	6,718	—	6,718

### **30. SUBSEQUENT EVENT**

#### **Venezuela**

Citi uses the U.S. dollar as the functional currency for its operations in Venezuela. On February 17, 2016, the Venezuelan government announced changes to its foreign exchange controls. Based on this announcement, Citi expects to begin using the SIMADI rate in the first quarter of 2016 to remeasure its net bolivar-denominated monetary assets, despite the possibly limited availability of U.S. dollars (notwithstanding the fact that it has been described as a free floating rate) and although the new SIMADI rate may not necessarily be reflective of economic reality. Re-measurement of Citi's bolivar-denominated assets and liabilities due to changes in the exchange rate is recorded in earnings. At the expected minimum new SIMADI rate of 202 bolivars per U.S. dollar, Citi estimates that it will incur an approximate \$172 million foreign currency loss in the first quarter of 2016, which could increase if the bolivar continues to devalue in the new SIMADI market. Additionally, Citi expects its revenues and expenses will be translated at the SIMADI rate beginning in the first quarter of 2016. Because the new foreign exchange control rules have not yet been officially published and are thus not yet effective, however, the impact to Citi's results of operations as a result of the February 17th announcement is not yet certain.

### 31. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

<i>In millions of dollars, except per share amounts</i>	2015				2014			
	Fourth	Third	Second	First	Fourth	Third	Second	First
<b>Revenues, net of interest expense</b>	\$ 18,456	\$ 18,692	\$ 19,470	\$ 19,736	\$ 17,899	\$ 19,689	\$ 19,425	\$ 20,206
Operating expenses	11,134	10,669	10,928	10,884	14,426	12,955	15,521	12,149
Provisions for credit losses and for benefits and claims	2,514	1,836	1,648	1,915	2,013	1,750	1,730	1,974
<b>Income from continuing operations before income taxes</b>	\$ 4,808	\$ 6,187	\$ 6,894	\$ 6,937	\$ 1,460	\$ 4,984	\$ 2,174	\$ 6,083
Income taxes	1,403	1,881	2,036	2,120	1,077	2,068	1,921	2,131
<b>Income from continuing operations</b>	\$ 3,405	\$ 4,306	\$ 4,858	\$ 4,817	\$ 383	\$ 2,916	\$ 253	\$ 3,952
Income (loss) from discontinued operations, net of taxes	(45)	(10)	6	(5)	(1)	(16)	(22)	37
<b>Net income before attribution of noncontrolling interests</b>	\$ 3,360	\$ 4,296	\$ 4,864	\$ 4,812	\$ 382	\$ 2,900	\$ 231	\$ 3,989
Noncontrolling interests	25	5	18	42	38	59	50	45
<b>Citigroup's net income</b>	\$ 3,335	\$ 4,291	\$ 4,846	\$ 4,770	\$ 344	\$ 2,841	\$ 181	\$ 3,944
<b>Earnings per share<sup>(1)</sup></b>								
<b>Basic</b>								
Income from continuing operations	\$ 1.04	\$ 1.36	\$ 1.51	\$ 1.51	\$ 0.06	\$ 0.89	\$ 0.03	\$ 1.23
Net income	1.02	1.36	1.52	1.51	0.06	0.88	0.03	1.24
<b>Diluted</b>								
Income from continuing operations	1.03	1.36	1.51	1.51	0.06	0.88	0.03	1.22
Net income	1.02	1.35	1.51	1.51	0.06	0.88	0.03	1.23
<b>Common stock price per share</b>								
High	55.87	60.34	57.39	54.26	56.37	53.66	49.58	55.20
Low	49.88	49.00	51.52	46.95	49.68	46.90	45.68	46.34
Close	51.75	49.61	55.24	51.52	54.11	51.82	47.10	47.60
Dividends per share of common stock	0.05	0.05	0.05	0.01	0.01	0.01	0.01	0.01

This Note to the Consolidated Financial Statements is unaudited due to the Company's individual quarterly results not being subject to an audit.

(1) Due to averaging of shares, quarterly earnings per share may not sum to the totals reported for the full year.

**[End of Consolidated Financial Statements and Notes to Consolidated Financial Statements]**

**Exhibit 99.03**

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
Citigroup Inc.:

We consent to the incorporation by reference in the Registration Statements on:

- Form S-3 Nos. 33-54093, 33-52281, 33-59791, 33-68760, 33-62903, 33-63663, 333-12439, 333-20803, 333-21143, 333-27155, 333-32065, 333-37992, 333-42575, 333-44549, 333-46628, 333-48474, 333-49442, 333-50338, 333-51201, 333-56088, 333-68949, 333-57364, 333-68989, 333-75554, 333-82741, 333-83741, 333-102206, 333-103940, 333-105316, 333-106510, 333-106598, 333-108047, 333-117615, 333-122925, 333-125845, 333-126744, 333-132177, 333-132370, 333-132373, 333-135163, 333-135867, 333-142849, 333-146471, 333-152454, 333-154914, 333-157386, 333-157459, 333-172554, 333-172555, 333-172562, 333-186425, 333-191056, and 333-192302
- Form S-8 Nos. 333-58460, 333-58458, 333-02811, 333-56589, 333-63016, 333-101134, 333-107166, 333-124635, 333-163852, 333-166242, 333-166215, 333-173683, 333-181647, 333-203791, 333-203792 and 333-211479

of Citigroup Inc. of our reports dated February 26, 2016, with respect to the consolidated balance sheet of Citigroup Inc. and subsidiaries (the “Company” or “Citigroup”) as of December 31, 2015 and 2014, the related consolidated statements of income, comprehensive income, changes in stockholders’ equity and cash flows for each of the years in the three-year period ended December 31, 2015, and Citigroup’s effectiveness of internal control over financial reporting as of December 31, 2015, which reports appear in the December 31, 2015 Annual Report on Form 10-K of Citigroup.

/s/ KPMG LLP

New York, New York

February 26, 2016, except as to Notes 3, 15, 16, 17 and 22 which are as of June 17, 2016.