CITIGROUP INC
Form 10-Q
October 31, 2017

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-Q
QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2017
Commission file number 1-9924
Citigroup Inc.
(Exact name of registrant as specified in its charter)

Delaware	52-1568099
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
388 Greenwich Street, New York, NY	10013
(Address of principal executive offices)	(Zip code)

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o
Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer x	Accelerated filer o	Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o
			Emerging growth company o

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. Yes o
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x
Number of shares of Citigroup Inc. common stock outstanding on September 30, 2017: 2,644,001,999

Available on the web at www.citigroup.com

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OVERVIEW

This Quarterly Report on Form 10-Q should be read in conjunction with Citigroup's Annual Report on Form 10-K for the year ended December 31, 2016, including the historical audited consolidated financial statements of Citigroup reflecting certain reclassifications set forth in Citigroup's Current Report on Form 8-K filed with the SEC on June 16, 2017 (2016 Annual Report on Form 10-K), and Citigroup's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 (First Quarter of 2017 Form 10-Q) and June 30, 2017 (Second Quarter of 2017 Form 10-Q).

Additional information about Citigroup is available on Citi's website at www.citigroup.com. Citigroup's annual reports on Form 10-K, quarterly reports on Form 10-Q and proxy statements, as well as other filings with the U.S. Securities and Exchange Commission (SEC), are available free of charge through Citi's website by clicking on the "Investors" page and selecting "All SEC Filings." The SEC's website also contains current reports on Form 8-K, and other information regarding Citi at www.sec.gov.

Certain reclassifications, including a realignment of certain businesses, have been made to the prior periods' financial statements and disclosures to conform to the current period's presentation. For additional information on certain recent reclassifications, see Notes 1 and 3 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Throughout this report, "Citigroup," "Citi" and "the Company" refer to Citigroup Inc. and its consolidated subsidiaries.

Citigroup is managed pursuant to the following segments:
The following are the four regions in which Citigroup operates. The regional results are fully reflected in the segment results above.

(1) Asia GCB includes the results of operations of GCB activities in certain EMEA countries for all periods presented.
(2) North America includes the U.S., Canada and Puerto Rico, Latin America includes Mexico and Asia includes Japan.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION
AND RESULTS OF OPERATIONS

EXECUTIVE SUMMARY

Third Quarter of 2017—Balanced Growth Across Citi's Franchise

As described further throughout this Executive Summary, Citi reported balanced operating results in the third quarter of 2017, reflecting continued momentum across businesses and geographies, notably many of those where Citi has been making investments. During the quarter, Citi had revenue and loan growth in both Global Consumer Banking (GCB) and the Institutional Clients Group (ICG) compared to the prior-year quarter, while continuing to wind-down legacy assets in Corporate/Other. Results during the quarter also included a $580 million pretax ($355 million after-tax) gain on the sale of a fixed income analytics business, which was included in ICG's results.

North America GCB generated positive operating leverage driven by revenue growth in retail banking and Citi retail services as well as strong expense discipline. North America GCB's results also included higher cost of credit, largely reflecting volume growth, seasoning and additional cards-related loan loss reserve builds. International GCB generated positive operating leverage driven by year-over-year revenue growth in both Latin America and Asia GCB, excluding the impact of foreign currency translation into U.S. dollars for reporting purposes (FX translation). ICG had a strong quarter with revenue growth across all Banking businesses, as well as in equity markets and securities services, partially offset by a decline in fixed income markets revenues. These increases in revenues were partially offset by lower revenues in Corporate/Other, mostly reflecting the continued wind-down of legacy non-core assets.

Citi's regulatory capital declined slightly during the quarter, as earnings growth was more than offset by the return of approximately $6.4 billion to its common shareholders in the form of common stock repurchases and dividends. Citi repurchased approximately 81 million common shares in the third quarter of 2017, as outstanding common shares declined 3% from the prior quarter and 7% from the prior-year period. Despite this capital return, each of Citigroup's key regulatory capital metrics remained strong as of the end of the third quarter of 2017 (see "Capital" below). Citi utilized approximately $300 million of deferred tax assets (DTAs) during the quarter and $1.2 billion of its DTAs during the first nine months of 2017.

While the macroeconomic environment remains largely positive, there continues to be various economic, political and other risks and uncertainties that could impact Citi's businesses and future results. For a more detailed discussion of these risks and uncertainties, see each respective business's results of operations and "Forward-Looking Statements" below, as well as each respective business's results of operations and the "Managing Global Risk" and "Risk Factors" sections in Citi's 2016 Annual Report on Form 10-K.

Third Quarter of 2017 Summary Results

Citigroup

Citigroup reported net income of $4.1 billion, or $1.42 per share, compared to $3.8 billion, or $1.24 per share, in the prior-year period. The 8% increase in net income included the gain on sale, which contributed $0.13 to earnings per share. Excluding the gain, net income declined 2%, reflecting higher cost of credit, while earnings per share increased 4%, largely due to a 7% reduction in average shares outstanding. (Citi's results of operations excluding the gain on sale are non-GAAP financial measures.)

Citigroup revenues of $18.2 billion in the third quarter of 2017 increased 2%, driven by the gain on sale as well as 3% aggregate growth in ICG and GCB, partially offset by a 55% decrease in Corporate/Other due primarily to the continued wind-down of legacy non-core assets.

Citigroup's end-of-period loans increased 2% to $653 billion versus the prior-year period. Excluding the impact of FX translation, Citigroup's end-of-period loans also grew 2%, as 5% growth in ICG and 3% growth in GCB was partially

offset by the continued wind-down of legacy assets in Corporate/Other. (Citi's results of operations excluding the impact of FX translation are non-GAAP financial measures.) Citigroup's end-of-period deposits increased 3% to $964 billion versus the prior-year period. Excluding the impact of FX translation, Citigroup's deposits were up 2%, driven by a 3% increase in ICG deposits and a 1% increase in GCB deposits, slightly offset by a decline in Corporate/Other deposits.

Expenses

Citigroup's operating expenses decreased 2% to $10.2 billion versus the prior-year period, as the impact of higher volume-related expenses and ongoing investments were more than offset by efficiency savings and the wind-down of legacy assets. Year-over-year, ICG operating expenses were up 5%, while GCB operating expenses were largely unchanged and Corporate/Other operating expenses declined 36%.

Cost of Credit

Citi's total provisions for credit losses and for benefits and claims of $2.0 billion increased 15% from the prior-year period. The increase was driven by an increase in net credit losses of $252 million, primarily in North America GCB, and a net loan loss reserve build of $194 million, compared to a net build of $176 million in the prior-year period. The net loan loss reserve build in the current quarter included roughly $100 million of loan loss reserves related to the potential impact of hurricane and earthquake events, recorded in North America GCB and Latin America GCB, as well as the legacy portfolio in Corporate/Other.

Net credit losses of $1.8 billion increased 17% versus the prior-year period. Consumer net credit losses of $1.7 billion

increased 17%, primarily driven by the Costco portfolio acquisition, episodic charge-offs in the North America GCB commercial portfolio, which were offset by related loan loss reserve releases, and overall volume growth and seasoning in cards. The increase in consumer net credit losses was partially offset by the continued wind-down of legacy assets in Corporate/Other. Corporate net credit losses increased 2% from the prior-year period to $43 million. For additional information on Citi's consumer and corporate credit costs and allowance for loan losses, see "Credit Risk" below.

Capital

Citigroup's Common Equity Tier 1 Capital and Tier 1 Capital ratios, on a fully implemented basis, were 13.0% and 14.6% as of September 30, 2017 (based on Basel III Standardized Approach for determining risk-weighted assets), respectively, compared to 12.6% and 14.2% as of September 30, 2016 (based on the Basel III Advanced Approaches for determining risk-weighted assets). Citigroup's Supplementary Leverage ratio as of September 30, 2017, on a fully implemented basis, was 7.1%, compared to 7.4% as of September 30, 2016. For additional information on Citi's capital ratios and related components, including the impact of Citi's DTAs on its capital ratios, see "Capital Resources" below.

Global Consumer Banking

GCB net income decreased 6% to $1.2 billion, as higher revenues were more than offset by higher cost of credit, while operating expenses were unchanged. Operating expenses were $4.4 billion, down 1% excluding the impact of FX translation, as higher volume-related expenses and continued investments were more than offset by ongoing efficiency savings.

GCB revenues of $8.4 billion increased 3% versus the prior-year period. Excluding the impact of FX translation, GCB revenues increased 2%, driven by growth across all regions. North America GCB revenues increased 1% to $5.2 billion, as higher revenues in Citi retail services and retail banking were partially offset by lower revenues in Citi-branded cards. Citi-branded cards revenues of $2.2 billion decreased 1% versus the prior-year period, as the benefit of growth in full rate revolving balances in the core portfolios was outpaced by the continued run-off of non-core portfolios as well as the higher cost to fund growth in transactor and promotional balances, given higher interest rates. Citi retail services revenues of $1.7 billion increased 2% versus the prior-year period, reflecting continued loan growth. Retail banking revenues of $1.4 billion increased 1% from the prior-year period. Excluding mortgage revenues, retail banking revenues were up 12% from the prior-year period, driven by continued growth in loans and assets under management, as well as a benefit from higher interest rates.

North America GCB average deposits of $184 billion were unchanged versus the prior-year period, average retail loans of $56 billion grew 1% and assets under management of $59 billion grew 10%. Average branded card loans of $85 billion increased 8%, while branded card purchase sales of $80 billion increased 10% versus the prior-year period. Average retail services loans of $46 billion were up 5%, while

retail services purchase sales of $20 billion were up 2%. For additional information on the results of operations of North America GCB for the third quarter of 2017, see "Global Consumer Banking—North America GCB" below.

International GCB revenues (consisting of Latin America GCB and Asia GCB (which includes the results of operations in certain EMEA countries)) increased 8% to $3.2 billion versus the prior-year period. Excluding the impact of FX translation, international GCB revenues increased 5% versus the prior-year period. Latin America GCB revenues increased 4% versus the prior-year period, driven by growth in loans and deposit volumes. Asia GCB revenues increased 5% versus the prior-year period, driven by improvement in wealth management and cards revenues, partially offset by lower retail lending revenues. For additional information on the results of operations of Latin America GCB and Asia GCB for the third quarter of 2017, including the impact of FX translation, see "Global Consumer Banking—Latin America GCB" and "Global Consumer Banking—Asia GCB" below.

Year-over-year, international GCB average deposits of $124 billion increased 4%, average retail loans of $89 billion were roughly flat, assets under management of $100 billion increased 10%, average card loans of $24 billion increased 6% and card purchase sales of $25 billion increased 7%, all excluding the impact of FX translation.

Institutional Clients Group

ICG net income of $3.0 billion increased 15%, driven by higher revenues, including the $580 million ($355 million after-tax) gain on the sale of a fixed income analytics business, and a higher benefit from cost of credit, partially offset by higher operating expenses. ICG operating expenses increased 5% to $4.9 billion, as investments and volume-related expenses were partially offset by efficiency savings.

ICG revenues were $9.2 billion in the third quarter of 2017, up 9% from the prior-year period, driven by a 16% increase in Banking revenues and a 3% increase in Markets and securities services revenues, including the gain on sale. The increase in Banking revenues included the impact of $48 million of losses on loan hedges within corporate lending, compared to losses of $218 million in the prior-year period.

Banking revenues of $4.7 billion (excluding the impact of losses on loan hedges within corporate lending) increased 11% compared to the prior-year period, driven by significant growth in investment banking and the private bank as well as continued solid performance in treasury and trade solutions and corporate lending. Investment banking revenues of $1.2 billion increased 14% versus the prior-year period, reflecting continued wallet share gains across all products. Equity underwriting revenues increased 99% to $290 million, debt underwriting revenues increased 1% to $704 million while advisory revenues decreased 1% to $237 million, all versus the prior-year period.

Private bank revenues increased 15% versus the prior-year period to $785 million, driven by growth in clients, loans, investment activity and deposits, as well as improved spreads. Corporate lending revenues increased $233 million to $454 million. Excluding the impact of losses on loan hedges, corporate lending revenues increased 14% to $502 million

versus the prior-year period, reflecting lower hedging costs and improved loan sale activity. Treasury and trade solutions revenues increased 8% to $2.1 billion versus the prior-year period, reflecting continued volume growth and improved deposit spreads.

Markets and securities services revenues increased 3% to $4.6 billion versus the prior-year period, as a decline in fixed income markets revenues was more than offset by higher revenues in equity markets, securities services as well as the gain on sale. Fixed income markets revenues decreased 16% to $2.9 billion versus the prior-year period, primarily reflecting lower G10 rates and currencies revenues, given low volatility in the current quarter and the comparison to higher Brexit-related activity a year ago, as well as lower activity in spread products. Equity markets revenues increased 16% to $757 million versus the prior-year period, reflecting client-led growth across cash equities, derivatives and prime finance. Securities services revenues increased 12% to $599 million versus the prior-year period, driven by growth in client volumes across the custody business, along with higher interest revenue. For additional information on the results of operations of ICG for the third quarter of 2017, see “Institutional Clients Group” below.

Corporate/Other

Corporate/Other net loss was $87 million in the third quarter of 2017, compared to a net loss of $48 million in the prior-year period, reflecting lower revenues, partially offset by lower operating expenses and lower cost of credit.

Operating expenses of $822 million declined 36% from the prior-year period, reflecting the wind-down of legacy assets and lower legal expenses.

Corporate/Other revenues were $509 million, down 55% from the prior-year period, reflecting the wind-down of legacy assets, divestitures and the impact of hedging activities.

Corporate/Other end-of-period assets decreased 4% to $100 billion from the prior-year period, as Citi continued to wind-down legacy assets. For additional information on the results of operations of Corporate/Other for the third quarter of 2017, see “Corporate/Other” below.

RESULTS OF OPERATIONS
SUMMARY OF SELECTED FINANCIAL DATA—PAGE 1
Citigroup Inc. and Consolidated Subsidiaries

	Third Quarter			Nine Months		
In millions of dollars, except per-share amounts and ratios	2017	2016	% Change	2017	2016	% Change
Net interest revenue	$11,442	$11,479	— %	$33,464	$33,942	(1)%
Non-interest revenue	6,731	6,281	7	20,730	18,921	10
Revenues, net of interest expense	$18,173	$17,760	2 %	$54,194	$52,863	3 %
Operating expenses	10,171	10,404	(2)	31,154	31,296	—
Provisions for credit losses and for benefits and claims	1,999	1,736	15	5,378	5,190	4
Income from continuing operations before income taxes	$6,003	$5,620	7 %	$17,662	$16,377	8 %
Income taxes	1,866	1,733	8	5,524	4,935	12
Income from continuing operations	$4,137	$3,887	6 %	$12,138	$11,442	6 %
Income (loss) from discontinued operations, net of taxes[1]	(5)	(30)	83	(2)	(55)	96
Net income before attribution of noncontrolling interests	$4,132	$3,857	7 %	$12,136	$11,387	7 %
Net income attributable to noncontrolling interests	(1)	17	NM	41	48	(15)
Citigroup’s net income	$4,133	$3,840	8 %	$12,095	$11,339	7 %
Less:						
Preferred dividends—Basic	$272	$225	21 %	$893	$757	18 %
Dividends and undistributed earnings allocated to employee restricted and deferred shares that contain nonforfeitable rights to dividends, applicable to basic EPS	53	53	—	156	145	8
Income allocated to unrestricted common shareholders for basic and diluted EPS	$3,808	$3,562	7 %	$11,046	$10,437	6 %
Earnings per share						
Basic						
Income from continuing operations	1.42	1.25	14	4.05	3.60	13
Net income	1.42	1.24	15	4.05	3.58	13
Diluted						
Income from continuing operations	$1.42	$1.25	14 %	$4.05	$3.60	13 %
Net income	1.42	1.24	15	4.05	3.58	13
Dividends declared per common share	0.32	0.16	100	0.64	0.26	NM

Statement continues on the next page, including notes to the table.

SUMMARY OF SELECTED FINANCIAL DATA—PAGE 2
Citigroup Inc. and Consolidated Subsidiaries

In millions of dollars, except per-share amounts, ratios and direct staff	Third Quarter 2017	Third Quarter 2016	% Change	Nine Months 2017	Nine Months 2016	% Change
At September 30:						
Total assets	$1,889,133	$1,818,117	4 %			
Total deposits	964,038	940,252	3			
Long-term debt	232,673	209,051	11			
Citigroup common stockholders' equity	208,381	212,322	(2)			
Total Citigroup stockholders' equity	227,634	231,575	(2)			
Direct staff (in thousands)	213	220	(3)			
Performance metrics						
Return on average assets	0.87 %	0.83 %		0.87 %	0.84 %	
Return on average common stockholders' equity[2]	7.3	6.8		7.2	6.7	
Return on average total stockholders' equity[2]	7.2	6.6		7.1	6.6	
Efficiency ratio (Total operating expenses/Total revenues)	56	59		57	59	
Basel III ratios—full implementation						
Common Equity Tier 1 Capital[3]	12.98 %	12.63 %				
Tier 1 Capital[3]	14.61	14.23				
Total Capital[3]	16.95	16.34				
Supplementary Leverage ratio[4]	7.11	7.40				
Citigroup common stockholders' equity to assets	11.03 %	11.68 %				
Total Citigroup stockholders' equity to assets	12.05	12.74				
Dividend payout ratio[5]	22.5	12.9		15.8 %	7.3 %	
Total payout ratio[6]	165	83		96	56	
Book value per common share	$78.81	$74.51	6 %			
Tangible book value (TBV) per share[7]	68.55	64.71	6			
Ratio of earnings to fixed charges and preferred stock dividends	2.27x	2.61x		2.34x	2.60x	

(1) See Note 2 to the Consolidated Financial Statements for additional information on Citi's discontinued operations.

(2) The return on average common stockholders' equity is calculated using net income less preferred stock dividends divided by average common stockholders' equity. The return on average total Citigroup stockholders' equity is calculated using net income divided by average Citigroup stockholders' equity.

(3) Citi's reportable Common Equity Tier 1 (CET1) Capital and Tier 1 Capital ratios were the lower derived under the U.S. Basel III Standardized Approach at September 30, 2017, and U.S. Basel III Advanced Approaches at September 30, 2016. Citi's reportable Total Capital ratios were derived under the U.S. Basel III Advanced Approaches for both periods presented. This reflects the U.S. Basel III requirement to report the lower of risk-based capital ratios under both the Standardized Approach and Advanced Approaches in accordance with the Collins Amendment of the Dodd-Frank Act.

(4) Citi's Supplementary Leverage ratio reflects full implementation of the U.S. Basel III rules.

(5) Dividends declared per common share as a percentage of net income per diluted share.

(6) Total common dividends declared plus common stock repurchases as a percentage of net income available to common shareholders. See "Consolidated Statement of Changes in Stockholders' Equity," Note 9 to the Consolidated Financial Statements and "Equity Security Repurchases" below for the component details.

(7) For information on TBV, see "Capital Resources—Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Returns on Equity" below.

NM Not meaningful

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

	Third Quarter			Nine Months		
In millions of dollars	2017	2016	% Change	2017	2016	% Change
Income from continuing operations						
Global Consumer Banking						
North America	$655	$780	(16)%	$1,952	$2,428	(20)%
Latin America	164	160	3	430	479	(10)
Asia[1]	355	310	15	924	822	12
Total	$1,174	$1,250	(6)%	$3,306	$3,729	(11)%
Institutional Clients Group						
North America	$1,322	$1,067	24 %	$3,534	$2,618	35 %
EMEA	746	649	15	2,380	1,718	39
Latin America	380	389	(2)	1,188	1,111	7
Asia	614	555	11	1,751	1,697	3
Total	$3,062	$2,660	15 %	$8,853	$7,144	24 %
Corporate/Other	(99)	(23)	NM	(21)	569	NM
Income from continuing operations	$4,137	$3,887	6 %	$12,138	$11,442	6 %
Discontinued operations	$(5)	$(30)	83 %	$(2)	$(55)	96 %
Net income attributable to noncontrolling interests	(1)	17	NM	41	48	(15)
Citigroup’s net income	$4,133	$3,840	8 %	$12,095	$11,339	7 %

(1) Asia GCB includes the results of operations of GCB activities in certain EMEA countries for all periods presented.
NM Not meaningful

CITIGROUP REVENUES

	Third Quarter			Nine Months		
In millions of dollars	2017	2016	% Change	2017	2016	% Change
Global Consumer Banking						
North America	$5,194	$5,161	1 %	$15,082	$14,700	3 %
Latin America	1,370	1,245	10	3,811	3,710	3
Asia[1]	1,869	1,758	6	5,392	5,142	5
Total	$8,433	$8,164	3 %	$24,285	$23,552	3 %
Institutional Clients Group						
North America	$3,638	$3,191	14 %	$10,661	$9,564	11 %
EMEA	2,655	2,506	6	8,299	7,250	14
Latin America	1,059	999	6	3,228	2,983	8
Asia	1,879	1,763	7	5,382	5,246	3
Total	$9,231	$8,459	9 %	$27,570	$25,043	10 %
Corporate/Other	509	1,137	(55)	2,339	4,268	(45)
Total Citigroup net revenues	$18,173	$17,760	2 %	$54,194	$52,863	3 %

(1) Asia GCB includes the results of operations of GCB activities in certain EMEA countries for all periods presented.

SEGMENT BALANCE SHEET[1]

In millions of dollars	Global Consumer Banking	Institutional Clients Group	Corporate/Other and consolidating eliminations[2]	Citigroup Parent company-issued long-term debt and stockholders' equity[3]	Total Citigroup consolidated
Assets					
Cash and deposits with banks	$9,963	$64,994	$ 111,152	$—	$186,109
Federal funds sold and securities borrowed or purchased under agreements to resell	327	251,787	494	—	252,608
Trading account assets	6,366	250,104	2,437	—	258,907
Investments	10,143	110,627	233,904	—	354,674
Loans, net of unearned income and allowance for loan losses	291,785	325,055	23,977	—	640,817
Other assets	38,306	101,387	56,325	—	196,018
Liquidity assets[4]	62,265	266,523	(328,788)	—	—
Total assets	$419,155	$1,370,477	$ 99,501	$—	$1,889,133
Liabilities and equity					
Total deposits	$310,048	$639,554	$ 14,436	$—	$964,038
Federal funds purchased and securities loaned or sold under agreements to repurchase	4,199	157,076	7	—	161,282
Trading account liabilities	9	138,253	558	—	138,820
Short-term borrowings	798	20,806	16,545	—	38,149
Long-term debt[3]	1,109	35,498	44,152	151,914	232,673
Other liabilities	19,377	86,477	19,695	—	125,549
Net inter-segment funding (lending)[3]	83,615	292,813	3,120	(379,548)	—
Total liabilities	$419,155	$1,370,477	$ 98,513	$(227,634)	$1,660,511
Total equity[5]	—	—	988	227,634	228,622
Total liabilities and equity	$419,155	$1,370,477	$ 99,501	$—	$1,889,133

(1) The supplemental information presented in the table above reflects Citigroup's consolidated GAAP balance sheet by reporting segment as of September 30, 2017. The respective segment information depicts the assets and liabilities managed by each segment as of such date.

(2) Consolidating eliminations for total Citigroup and Citigroup parent company assets and liabilities are recorded within Corporate/Other.

(3) The total stockholders' equity and the majority of long-term debt of Citigroup reside in the Citigroup parent company Balance Sheet. Citigroup allocates stockholders' equity and long-term debt to its businesses through inter-segment allocations as shown above.

(4) Represents the attribution of Citigroup's liquidity assets (primarily consisting of cash and available-for-sale securities) to the various businesses based on Liquidity Coverage Ratio (LCR) assumptions.

(5) Corporate/Other equity represents noncontrolling interests.

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GLOBAL CONSUMER BANKING

Global Consumer Banking (GCB) consists of consumer banking businesses in North America, Latin America (consisting of Citi's consumer banking business in Mexico) and Asia. GCB provides traditional banking services to retail customers through retail banking, including commercial banking, and Citi-branded cards and Citi retail services (for additional information on these businesses, see "Citigroup Segments" above). GCB is focused on its priority markets in the U.S., Mexico and Asia with 2,474 branches in 19 countries and jurisdictions as of September 30, 2017. At September 30, 2017, GCB had approximately $419 billion in assets and $310 billion in deposits.

GCB's overall strategy is to leverage Citi's global footprint and be the preeminent bank for the emerging affluent and affluent consumers in large urban centers. In credit cards and in certain retail markets, Citi serves customers in a somewhat broader set of segments and geographies.

	Third Quarter			Nine Months		
In millions of dollars except as otherwise noted	2017	2016	% Change	2017	2016	% Change
Net interest revenue	$7,010	$6,709	4 %	$20,231	$19,369	4 %
Non-interest revenue	1,423	1,455	(2)%	4,054	4,183	(3)%
Total revenues, net of interest expense	$8,433	$8,164	3 %	$24,285	$23,552	3 %
Total operating expenses	$4,410	$4,429	— %	$13,322	$13,127	1 %
Net credit losses	$1,704	$1,349	26 %	$4,922	$4,094	20 %
Credit reserve build (release)	486	436	11 %	788	544	45 %
Provision (release) for unfunded lending commitments	(5)	(3)	(67)%	—	6	(100)%
Provision for benefits and claims	28	26	8 %	80	74	8 %
Provisions for credit losses and for benefits and claims (LLR & PBC)	$2,213	$1,808	22 %	$5,790	$4,718	23 %
Income from continuing operations before taxes	$1,810	$1,927	(6)%	$5,173	$5,707	(9)%
Income taxes	636	677	(6)	1,867	1,978	(6)
Income from continuing operations	$1,174	$1,250	(6)%	$3,306	$3,729	(11)%
Noncontrolling interests	2	3	(33)%	7	6	17
Net income	$1,172	$1,247	(6)%	$3,299	$3,723	(11)%
Balance Sheet data (in billions of dollars)						
Total EOP assets	$419	$411	2 %			
Average assets	421	409	3	$415	$391	6 %
Return on average assets	1.10 %	1.21 %		1.06 %	1.27 %	
Efficiency ratio	52 %	54 %		55 %	56 %	
Average deposits	$308	$301	2 %	$306	$298	3 %
Net credit losses as a percentage of average loans	2.26 %	1.87 %		2.24 %	1.97 %	
Revenue by business						
Retail banking	$3,493	$3,330	5 %	$9,947	$9,759	2 %
Cards[1]	4,940	4,834	2	14,338	13,793	4
Total	$8,433	$8,164	3 %	$24,285	$23,552	3 %
Income from continuing operations by business						
Retail banking	$550	$461	19 %	$1,309	$1,231	6 %
Cards[1]	624	789	(21)	1,997	2,498	(20)
Total	$1,174	$1,250	(6)%	$3,306	$3,729	(11)%

Table continues on the next page.

Foreign currency (FX) translation impact						
Total revenue—as reported	$8,433	$8,164	3 %	$24,285	$23,552	3 %
Impact of FX translation[2]	—	89	—	(39)		
Total revenues—ex-FX[3]	$8,433	$8,253	2 %	$24,285	$23,513	3 %
Total operating expenses—as reported	$4,410	$4,429	— %	$13,322	$13,127	1 %
Impact of FX translation[2]	—	43	—	(10)		
Total operating expenses—ex-FX[3]	$4,410	$4,472	(1)%	$13,322	$13,117	2 %
Total provisions for LLR & PBC—as reported	$2,213	$1,808	22 %	$5,790	$4,718	23 %
Impact of FX translation[2]	—	20	—	(20)		
Total provisions for LLR & PBC—ex-FX[3]	$2,213	$1,828	21 %	$5,790	$4,698	23 %
Net income—as reported	$1,172	$1,247	(6)%	$3,299	$3,723	(11)%
Impact of FX translation[2]	—	17	—	(10)		
Net income—ex-FX[3]	$1,172	$1,264	(7)%	$3,299	$3,713	(11)%

(1) Includes both Citi-branded cards and Citi retail services.

(2) Reflects the impact of FX translation into U.S. dollars at the third quarter of 2017 and year-to-date 2017 average exchange rates for all periods presented.

(3) Presentation of this metric excluding FX translation is a non-GAAP financial measure.

NORTH AMERICA GCB

North America GCB provides traditional retail banking, including commercial banking, and its Citi-branded cards and Citi retail services card products to retail customers and small- to mid-size businesses, as applicable, in the U.S. North America GCB's U.S. cards product portfolio includes its proprietary portfolio (including the Citi Double Cash, Thank You and Value cards) and co-branded cards (including, among others, American Airlines and Costco) within Citi-branded cards as well as its co-brand and private label relationships (including, among others, Sears, The Home Depot, Macy's and Best Buy) within Citi retail services.

As previously announced, the Hilton Honors co-brand credit card partnership with Citi was scheduled to terminate as of year-end 2017. On October 23, 2017, Citi signed an agreement to sell the Hilton credit card portfolio ($1.2 billion in outstanding loan balances in Citi-branded cards) to American Express. In connection with the sale agreement, the existing partnership was extended through the closing date. The sale is expected to close in the first quarter of 2018 with a pretax gain of approximately $150 million, which approximates one year of revenues from the portfolio.

As of September 30, 2017, North America GCB's 695 retail bank branches are concentrated in the six key metropolitan areas of New York, Chicago, Miami, Washington, D.C., Los Angeles and San Francisco. Also as of September 30, 2017, North America GCB had approximately 9.4 million retail banking customer accounts, $55.7 billion in retail banking loans and $185.1 billion in deposits. In addition, North America GCB had approximately 120 million Citi-branded and Citi retail services credit card accounts with $132.2 billion in outstanding card loan balances.

	Third Quarter			Nine Months		
In millions of dollars, except as otherwise noted	2017	2016	% Change	2017	2016	% Change
Net interest revenue	$4,825	$4,696	3 %	$14,075	$13,425	5 %
Non-interest revenue	369	465	(21)	1,007	1,275	(21)
Total revenues, net of interest expense	$5,194	$5,161	1 %	$15,082	$14,700	3 %
Total operating expenses	$2,460	$2,595	(5)%	$7,613	$7,521	1 %
Net credit losses	$1,239	$927	34 %	$3,610	$2,814	28 %
Credit reserve build (release)	463	408	13 %	716	536	34
Provision for unfunded lending commitments	(3)	—	NM	6	7	(14)
Provisions for benefits and claims	9	8	13 %	23	25	(8)
Provisions for credit losses and for benefits and claims	$1,708	$1,343	27 %	$4,355	$3,382	29 %
Income from continuing operations before taxes	$1,026	$1,223	(16)%	$3,114	$3,797	(18)%
Income taxes	371	443	(16)	1,162	1,369	(15)
Income from continuing operations	$655	$780	(16)%	$1,952	$2,428	(20)%
Noncontrolling interests	—	—	NM	—	(1)	100 %
Net income	$655	$780	(16)%	$1,952	$2,429	(20)%
Balance Sheet data (in billions of dollars)						
Average assets	$249	$239	4 %	$246	$223	10 %
Return on average assets	1.04 %	1.30 %		1.06 %	1.45 %	
Efficiency ratio	47 %	50 %		50 %	51 %	
Average deposits	$184.1	$183.9	—	$184.9	$182.2	1 %
Net credit losses as a percentage of average loans	2.63 %	2.07 %		2.62 %	2.24 %	
Revenue by business						
Retail banking	$1,363	$1,356	1 %	$3,910	$3,959	(1)%
Citi-branded cards	2,178	2,191	(1)	6,353	5,937	7
Citi retail services	1,653	1,614	2	4,819	4,804	—
Total	$5,194	$5,161	1 %	$15,082	$14,700	3 %
Income from continuing operations by business						
Retail banking	$179	$187	(4)%	$402	$448	(10)%

Citi-branded cards	345	322	7	898	995	(10)
Citi retail services	131	271	(52)	652	985	(34)
Total	$655	$780	(16)%	$1,952	$2,428	(20)%

NM Not meaningful

3Q17 vs. 3Q16

Net income decreased 16% due to higher cost of credit, partially offset by lower expenses and higher revenues.

Revenues increased 1%, reflecting higher revenues in Citi retail services and retail banking, partially offset by lower revenues in Citi-branded cards.

Retail banking revenues increased 1%. Excluding mortgage revenues (decline of 39%), retail banking revenues were up 12%, driven by continued growth in average loans (1%), and asset under management (10%), as well as a benefit from higher interest rates. The decline in mortgage revenues was driven by lower origination activity and higher cost of funds, reflecting the higher interest rate environment, as well as the impact of the previously announced sale of a portion of Citi's mortgage servicing rights.

In Citi-branded cards, revenues decreased 1%, as the benefit of growth in full-rate revolving balances in the core portfolios was outpaced by the continued run-off of non-core portfolios as well as the higher cost to fund growth in transactor and promotional balances, given the higher interest rates. Average loans grew 8% and purchase sales grew 10%.

Citi retail services revenues increased 2%, reflecting continued loan growth, partially offset by the continued impact of the previously disclosed renewal and extension of certain partnerships within the portfolio. Average loans grew 5% and purchase sales grew 2%.

Expenses decreased 5%, as higher volume-related expenses and continued investments were more than offset by efficiency savings.

Provisions increased 27% from the prior-year period, driven by higher net credit losses and a higher net loan loss reserve build.

Net credit losses increased 34%, largely driven by higher losses in Citi-branded cards, including the impact of acquiring the Costco portfolio, and Citi retail services. In Citi-branded cards, net credit losses increased 36% to $611 million, primarily due to the Costco portfolio acquisition, organic volume growth and seasoning. In Citi retail services, net credit losses increased 26% to $540 million, primarily due to volume growth and seasoning. The higher net credit losses also reflected episodic charge-offs in the commercial portfolio in retail banking, which were offset by related reserve releases.

The net loan loss reserve build in the third quarter of 2017 was $460 million (compared to a build of $408 million in the prior-year period), driven by a build of approximately $500 million related to the cards businesses, partially offset by a reserve release in the commercial portfolio. The loan loss reserve build included approximately $300 million related to the increase in net flow rates in the later delinquency buckets leading to higher inherent credit loss expectations primarily in Citi retail services, as well as a slight increase in delinquencies for the Citi-branded card portfolio. It also includes approximately $150 million driven by volume growth and seasoning, as well as approximately $50 million for the estimated hurricane-related impacts.

For additional information on North America GCB's retail banking, including commercial banking, and its Citi-branded cards and Citi retail services portfolios, see "Credit Risk—Consumer Credit" below.

2017 YTD vs. 2016 YTD

Year-to-date, North America GCB has experienced similar trends to those described above. Net income decreased 20% due to higher cost of credit and higher expenses, partially offset by higher revenues.

Revenues increased 3%, reflecting higher revenues in cards, partially offset by lower revenues in retail banking. Retail banking revenues decreased 1%, driven by lower mortgage revenues, partially offset by the other factors described above. Cards revenues increased 4%. In Citi-branded cards, revenues increased 7%, driven by the impact of the Costco portfolio acquisition, partially offset by the other factors described above. Citi retail services revenues were largely unchanged, as the continued impact of the renewal and extension of certain partnerships, as well as the absence of gains on sales of two cards portfolios in the first quarter of 2016, were offset by the continued loan growth (average loans up 4%).

Expenses increased 1%, primarily driven by the addition of the Costco portfolio, volume-related expenses and continued investments, partially offset by efficiency savings.

Provisions increased 29%, driven by the same factors described above. Net credit losses increased 28% and the net loan loss reserve build of $722 million increased $179 million.

LATIN AMERICA GCB

Latin America GCB provides traditional retail banking, including commercial banking, and its Citi-branded card products to retail customers and small- to mid-size businesses in Mexico through Citibanamex, one of Mexico's largest banks.

At September 30, 2017, Latin America GCB had 1,497 retail branches in Mexico, with approximately 27.6 million retail banking customer accounts, $21.0 billion in retail banking loans and $28.3 billion in deposits. In addition, the business had approximately 5.7 million Citi-branded card accounts with $5.6 billion in outstanding loan balances.

	Third Quarter			Nine Months		
In millions of dollars, except as otherwise noted	2017	2016	% Change	2017	2016	% Change
Net interest revenue	$985	$877	12 %	$2,702	$2,591	4 %
Non-interest revenue	385	368	5 %	1,109	1,119	(1)%
Total revenues, net of interest expense	$1,370	$1,245	10 %	$3,811	$3,710	3 %
Total operating expenses	$768	$707	9 %	$2,162	$2,150	1 %
Net credit losses	$295	$254	16 %	$825	$792	4 %
Credit reserve build (release)	44	32	38 %	106	47	NM
Provision (release) for unfunded lending commitments	(1)	—	NM	(2)	2	NM
Provision for benefits and claims	19	18	6 %	57	49	16 %
Provisions for credit losses and for benefits and claims (LLR & PBC)	$357	$304	17 %	$986	$890	11 %
Income from continuing operations before taxes	$245	$234	5 %	$663	$670	(1)%
Income taxes	81	74	9	233	191	22
Income from continuing operations	$164	$160	3 %	$430	$479	(10)%
Noncontrolling interests	1	2	(50)	4	4	—
Net income	$163	$158	3 %	$426	$475	(10)%
Balance Sheet data (in billions of dollars)						
Average assets	$47	$49	(4)%	$45	$50	(10)%
Return on average assets	1.38 %	1.28 %		1.27 %	1.27 %	
Efficiency ratio	56 %	57 %		57 %	58 %	
Average deposits	$28.8	$25.7	12 %	$27.3	$25.9	5 %
Net credit losses as a percentage of average loans	4.37 %	4.18 %		4.39 %	4.35 %	
Revenue by business						
Retail banking	$976	$881	11 %	$2,735	$2,590	6 %
Citi-branded cards	394	364	8	1,076	1,120	(4)
Total	$1,370	$1,245	10 %	$3,811	$3,710	3 %
Income from continuing operations by business						
Retail banking	$125	$84	49 %	$298	$270	10 %
Citi-branded cards	39	76	(49)	132	209	(37)
Total	$164	$160	3 %	$430	$479	(10)%

FX translation impact								
Total revenues—as reported	$1,370	$1,245	10	%	$3,811	$3,710	3	%
Impact of FX translation[1]	—	71			—	(92)		
Total revenues—ex-FX[2]	$1,370	$1,316	4	%	$3,811	$3,618	5	%
Total operating expenses—as reported	$768	$707	9	%	$2,162	$2,150	1	%
Impact of FX translation[1]	—	33			—	(43)		
Total operating expenses—ex-FX[2]	$768	$740	4	%	$2,162	$2,107	3	%
Provisions for LLR & PBC—as reported	$357	$304	17	%	$986	$890	11	%
Impact of FX translation[1]	—	18			—	(23)		
Provisions for LLR & PBC—ex-FX[2]	$357	$322	11	%	$986	$867	14	%
Net income—as reported	$163	$158	3	%	$426	$475	(10)	%
Impact of FX translation[1]	—	13			—	(20)		
Net income—ex-FX[2]	$163	$171	(5)	%	$426	$455	(6)	%

(1) Reflects the impact of FX translation into U.S. dollars at the third quarter of 2017 and year-to-date 2017 average exchange rates for all periods presented.

(2) Presentation of this metric excluding FX translation is a non-GAAP financial measure.

NM Not meaningful

The discussion of the results of operations for Latin America GCB below excludes the impact of FX translation for all periods presented. Presentations of the results of operations, excluding the impact of FX translation, are non-GAAP financial measures. For a reconciliation of certain of these metrics to the reported results, see the table above.

3Q17 vs. 3Q16

Net income decreased 5%, primarily driven by higher credit costs and expenses, partially offset by higher revenues.

Revenues increased 4%, driven by higher revenues in retail banking and cards.

Retail banking revenues increased 5%, reflecting continued growth in volumes, including an increase in average loans (6%), largely driven by the commercial and small business portfolios as well as mortgages, an increase in average deposits (7%) and improved deposit spreads, driven by higher interest rates. While deposits continued to increase during the quarter, Latin America GCB was impacted by lower industry-wide deposit growth due to a slowing of growth in the monetary supply. Cards revenues increased 2%, reflecting continued improvement in full rate revolving loan trends, partially offset by continued higher cost to fund non-revolving loans. Purchase sales grew 5% and average card loans also grew 5%.

Expenses increased 4%, as ongoing investment spending and business growth were partially offset by efficiency savings.

Provisions increased 11%, primarily driven by higher net credit losses (9%) and a higher net loan loss reserve build ($10 million), largely reflecting volume growth, seasonality and a Mexico earthquake-related loan loss reserve build (approximately $25 million).

For additional information on Latin America GCB's retail banking, including commercial banking, and its Citi-branded cards portfolios, see "Credit Risk—Consumer Credit" below.

2017 YTD vs. 2016 YTD

Year-to-date, Latin America GCB has experienced similar trends to those described above. Net income decreased 6%, driven by the same factors described above.

Revenues increased 5%, primarily due to higher revenues in retail banking, partially offset by lower revenues in cards. Retail banking revenues increased 8%, driven by the same factors described above as well as the impact of business

divestitures. Cards revenues decreased 1%, driven by the continued higher cost to fund non-revolving loans, partially offset by the continued improvement in full rate revolving loans.
Expenses increased 3%, as ongoing investment spending was partially offset by efficiency savings.
Provisions increased 14%, largely driven by the same factors described above.

ASIA GCB

Asia GCB provides traditional retail banking, including commercial banking, and its Citi-branded card products to retail customers and small- to mid-size businesses, as applicable. During the third quarter of 2017, Citi's most significant revenues in the region were from Singapore, Hong Kong, Korea, Australia, India, Taiwan, Indonesia, Thailand, Philippines and Malaysia. Included within Asia GCB, traditional retail banking and Citi-branded card products are also provided to retail customers in certain EMEA countries, primarily in Poland, Russia and the United Arab Emirates.

At September 30, 2017, on a combined basis, the businesses had 282 retail branches, approximately 16.2 million retail banking customer accounts, $67.5 billion in retail banking loans and $96.6 billion in deposits. In addition, the businesses had approximately 16.6 million Citi-branded card accounts with $18.8 billion in outstanding loan balances.

	Third Quarter			Nine Months		
In millions of dollars, except as otherwise noted [1]	2017	2016	% Change	2017	2016	% Change
Net interest revenue	$1,200	$1,136	6 %	$3,454	$3,353	3 %
Non-interest revenue	669	622	8	1,938	1,789	8
Total revenues, net of interest expense	$1,869	$1,758	6 %	$5,392	$5,142	5 %
Total operating expenses	$1,182	$1,127	5 %	$3,547	$3,456	3 %
Net credit losses	$170	$168	1 %	$487	$488	— %
Credit reserve build (release)	(21)	(4)	NM	(34)	(39)	13
Provision (release) for unfunded lending commitments	(1)	(3)	67	(4)	(3)	(33)
Provisions for credit losses	$148	$161	(8)%	$449	$446	1 %
Income from continuing operations before taxes	$539	$470	15 %	$1,396	$1,240	13 %
Income taxes	184	160	15	472	418	13
Income from continuing operations	$355	$310	15 %	$924	$822	12 %
Noncontrolling interests	1	1	—	3	3	—
Net income	$354	$309	15 %	$921	$819	12 %
Balance Sheet data (in billions of dollars)						
Average assets	$125	$121	3 %	$124	$119	4 %
Return on average assets	1.12 %	1.02 %		0.99 %	0.92 %	
Efficiency ratio	63 %	64 %		66 %	67 %	
Average deposits	$95.2	$91.6	4	$94.1	$89.4	5
Net credit losses as a percentage of average loans	0.78 %	0.78 %		0.77 %	0.77 %	
Revenue by business						
Retail banking	$1,154	$1,093	6 %	$3,302	$3,210	3 %
Citi-branded cards	715	665	8	2,090	1,932	8
Total	$1,869	$1,758	6 %	$5,392	$5,142	5 %
Income from continuing operations by business						
Retail banking	$246	$190	29 %	$609	$513	19 %
Citi-branded cards	109	120	(9)	315	309	2
Total	$355	$310	15 %	$924	$822	12 %

FX translation impact							
Total revenues—as reported	$1,869	$1,758	6 %	$5,392	$5,142	5	%
Impact of FX translation[2]	—	18		—	53		
Total revenues—ex-FX[3]	$1,869	$1,776	5 %	$5,392	$5,195	4	%
Total operating expenses—as reported	$1,182	$1,127	5 %	$3,547	$3,456	3	%
Impact of FX translation[2]	—	10		—	33		
Total operating expenses—ex-FX[3]	$1,182	$1,137	4 %	$3,547	$3,489	2	%
Provisions for loan losses—as reported	$148	$161	(8)%	$449	$446	1	%
Impact of FX translation[2]	—	2		—	3		
Provisions for loan losses—ex-FX[3]	$148	$163	(9)%	$449	$449	—	%
Net income—as reported	$354	$309	15 %	$921	$819	12	%
Impact of FX translation[2]	—	4		—	10		
Net income—ex-FX[3]	$354	$313	13 %	$921	$829	11	%

(1) Asia GCB includes the results of operations of GCB activities in certain EMEA countries for all periods presented.

(2) Reflects the impact of FX translation into U.S. dollars at the third quarter of 2017 and year-to-date 2017 average exchange rates for all periods presented.

(3) Presentation of this metric excluding FX translation is a non-GAAP financial measure.

NM Not meaningful

The discussion of the results of operations for Asia GCB below excludes the impact of FX translation for all periods presented. Presentations of the results of operations, excluding the impact of FX translation, are non-GAAP financial measures. For a reconciliation of certain of these metrics to the reported results, see the table above.

3Q17 vs. 3Q16

Net income increased 13%, reflecting higher revenues and lower cost of credit, partially offset by higher expenses.

Revenues increased 5%, driven by improvement in wealth management and cards revenues, partially offset by continued lower retail lending revenues.

Retail banking revenues increased 4%, primarily due to the continued improvement in wealth management revenues, partially offset by the repositioning of the retail loan portfolio. Wealth management revenues increased due to improvement in investor sentiment, stronger equity markets and increases in assets under management (14%) and investment sales (36%). Average deposits increased 3%. These increases were partially offset by the lower retail lending revenues (down 4%), reflecting continued lower average loans (1%) due to the continued optimization of this portfolio away from lower-yielding mortgage loans to focus on growing higher-return personal loans.

Cards revenues increased 6%, reflecting 6% growth in average loans and 7% growth in purchase sales, both of which benefited from the previously disclosed portfolio acquisition in Australia in the first quarter of 2017.

Expenses increased 4%, resulting from volume growth and ongoing investment spending, partially offset by efficiency savings.

Provisions decreased 9%, primarily driven by an increase in net loan loss reserve releases. Overall credit quality continued to remain stable in the region.

For additional information on Asia GCB’s retail banking, including commercial banking, and its Citi-branded cards portfolios, see “Credit Risk—Consumer Credit” below.

2017 YTD vs. 2016 YTD

Year-to-date, Asia GCB has experienced similar trends to

those described above. Net income increased 11% due to higher revenues, partially offset by higher expenses. Revenues increased 4%, primarily due to an increase in cards revenues and wealth management revenues, partially offset by lower retail lending revenues. Retail banking revenues increased 2%, driven by the same factors described above. Cards revenues increased 7%, driven by the same factors described above as well as a previously disclosed modest gain in the second quarter of 2017 related to the sale of merchant acquiring businesses in certain countries. Expenses increased 2%, driven by the same factors described above.

Provisions were largely unchanged, as lower net credit losses were offset by lower net credit reserve releases, primarily due to a net loan loss reserve build in the first quarter of 2017 related to the card portfolio acquisition in Australia.

INSTITUTIONAL CLIENTS GROUP

Institutional Clients Group (ICG) includes Banking and Markets and securities services (for additional information on these businesses, see “Citigroup Segments” above). ICG provides corporate, institutional, public sector and high-net-worth clients around the world with a full range of wholesale banking products and services, including fixed income and equity sales and trading, foreign exchange, prime brokerage, derivative services, equity and fixed income research, corporate lending, investment banking and advisory services, private banking, cash management, trade finance and securities services. ICG transacts with clients in both cash instruments and derivatives, including fixed income, foreign currency, equity and commodity products.

ICG revenue is generated primarily from fees and spreads associated with these activities. ICG earns fee income for assisting clients in clearing transactions, providing brokerage and investment banking services and other such activities. Revenue generated from these activities is recorded in Commissions and fees and Investment banking. Revenue is also generated from transaction processing and assets under custody and administration. Revenue generated from these activities is primarily recorded in Administration and other fiduciary fees. In addition, as a market maker, ICG facilitates transactions, including holding product inventory to meet client demand, and earns the differential between the price at which it buys and sells the products. These price differentials and the unrealized gains and losses on the inventory are recorded in Principal transactions (for additional information on Principal transactions revenue, see Note 6 to the Consolidated Financial Statements). Other primarily includes mark-to-market gains and losses on certain credit derivatives, gains and losses on available-for-sale (AFS) securities and other non-recurring gains and losses. Interest income earned on assets held less interest paid to customers on deposits and long- and short-term debt is recorded as Net interest revenue.

The amount and types of Markets revenues are impacted by a variety of interrelated factors, including market liquidity; changes in market variables such as interest rates, foreign exchange rates, equity prices, commodity prices and credit spreads, as well as their implied volatilities; investor confidence; and other macroeconomic conditions. Assuming all other market conditions do not change, increases in client activity levels or bid/offer spreads generally result in increases in revenues. However, changes in market conditions can significantly impact client activity levels, bid/offer spreads and the fair value of product inventory. For example, a decrease in market liquidity may increase bid/offer spreads, decrease client activity levels and widen credit spreads on product inventory positions.

ICG’s management of the Markets businesses involves daily monitoring and evaluating of the above factors at the trading desk as well as the country level. ICG does not separately track the impact on total Markets revenues of the volume of transactions, bid/offer spreads, fair value changes of product inventory positions and economic hedges because, as noted above, these components are interrelated and are not deemed useful or necessary individually to manage the Markets businesses at an aggregate level.

In the Markets businesses, client revenues are those revenues directly attributable to client transactions at the time of inception, including commissions, interest or fees earned. Client revenues do not include the results of client facilitation activities (for example, holding product inventory in anticipation of client demand) or the results of certain economic hedging activities.

ICG’s international presence is supported by trading floors in approximately 80 countries and a proprietary network in 98 countries and jurisdictions. At September 30, 2017, ICG had approximately $1.4 trillion of assets and $640 billion of deposits, while two of its businesses—securities services and issuer services—managed approximately $17.1 trillion of assets under custody compared to $15.4 trillion at the end of the prior-year period.

In millions of dollars, except as otherwise noted	Third Quarter 2017	Third Quarter 2016	% Change	Nine Months 2017	Nine Months 2016	% Change
Commissions and fees	$1,036	$929	12 %	$3,041	$2,889	5 %
Administration and other fiduciary fees	710	610	16	2,073	1,845	12
Investment banking	1,099	917	20	3,323	2,686	24
Principal transactions	1,757	2,064	(15)	6,504	5,552	17
Other[1]	704	(125)	NM	939	(86)	NM
Total non-interest revenue	$5,306	$4,395	21 %	$15,880	$12,886	23 %
Net interest revenue (including dividends)	3,925	4,064	(3)	11,690	12,157	(4)
Total revenues, net of interest expense	$9,231	$8,459	9 %	$27,570	$25,043	10 %
Total operating expenses	$4,939	$4,687	5 %	$14,903	$14,322	4 %
Net credit losses	$44	$45	(2)%	$140	$397	(65)%
Credit reserve build (release)	(38)	(93)	59	(229)	(11)	NM
Provision (release) for unfunded lending commitments	(170)	(42)	NM	(193)	(4)	NM
Provisions for credit losses	$(164)	$(90)	(82)%	$(282)	$382	NM
Income from continuing operations before taxes	$4,456	$3,862	15 %	$12,949	$10,339	25 %
Income taxes	1,394	1,202	16	4,096	3,195	28
Income from continuing operations	$3,062	$2,660	15 %	$8,853	$7,144	24 %
Noncontrolling interests	14	19	(26)	47	46	2
Net income	$3,048	$2,641	15 %	$8,806	$7,098	24 %
EOP assets (in billions of dollars)	$1,370	$1,303	5 %			
Average assets (in billions of dollars)	1,369	1,310	5	$1,349	$1,294	4 %
Return on average assets	0.88 %	0.80 %		0.87 %	0.73 %	
Efficiency ratio	54	55		54	57	
Revenues by region						
North America	$3,638	$3,191	14 %	$10,661	$9,564	11 %
EMEA	2,655	2,506	6	8,299	7,250	14
Latin America	1,059	999	6	3,228	2,983	8
Asia	1,879	1,763	7	5,382	5,246	3
Total	$9,231	$8,459	9 %	$27,570	$25,043	10 %
Income from continuing operations by region						
North America	$1,322	$1,067	24 %	$3,534	$2,618	35 %
EMEA	746	649	15	2,380	1,718	39
Latin America	380	389	(2)	1,188	1,111	7
Asia	614	555	11	1,751	1,697	3
Total	$3,062	$2,660	15 %	$8,853	$7,144	24 %
Average loans by region (in billions of dollars)						
North America	$152	$145	5 %	$149	$142	5 %
EMEA	71	68	4	68	66	3
Latin America	34	36	(6)	34	36	(6)
Asia	64	58	10	61	58	5
Total	$321	$307	5 %	$312	$302	3 %
EOP deposits by business (in billions of dollars)						
Treasury and trade solutions	$428	$417	3 %			
All other ICG businesses	212	202	5			
Total	$640	$619	3 %			

(1) Third quarter of 2017 includes the $580 million gain on the sale of a fixed income analytics business. First quarter of 2016 includes a charge of approximately $180 million, primarily reflecting the write-down of Citi's net

investment in Venezuela as a result of changes in the exchange rate during the quarter.
NM Not meaningful

ICG Revenue Details—Excluding Gains (Losses) on Loan Hedges

In millions of dollars	Third Quarter 2017	Third Quarter 2016	% Change	Nine Months 2017	Nine Months 2016	% Change
Investment banking revenue details						
Advisory	$237	$239	(1)%	$797	$704	13 %
Equity underwriting	290	146	99	820	438	87
Debt underwriting	704	698	1	2,314	2,029	14
Total investment banking	$1,231	$1,083	14 %	$3,931	$3,171	24 %
Treasury and trade solutions	2,144	1,986	8	6,284	5,888	7
Corporate lending—excluding gains/(losses) on loan hedges[1]	502	439	14	1,413	1,270	11
Private bank	785	680	15	2,317	2,038	14
Total banking revenues (ex-gains/(losses) on loan hedges)	$4,662	$4,188	11 %	$13,945	$12,367	13 %
Corporate lending—gains/(losses) on loan hedges[1]	$(48)	$(218)	78 %	$(154)	$(487)	68 %
Total banking revenues (including gains/(losses) on loan hedges)	$4,614	$3,970	16 %	$13,791	$11,880	16 %
Fixed income markets	$2,877	$3,413	(16)%	$9,714	$9,896	(2)%
Equity markets	757	654	16	2,217	2,127	4
Securities services	599	533	12	1,726	1,623	6
Other[2]	384	(111)	NM	122	(483)	NM
Total markets and securities services revenues	$4,617	$4,489	3 %	$13,779	$13,163	5 %
Total revenues, net of interest expense	$9,231	$8,459	9 %	$27,570	$25,043	10 %
Commissions and fees	$167	$115	45 %	$461	$352	31 %
Principal transactions[3]	1,546	1,825	(15)	5,754	4,934	17
Other	129	171	(25)	459	600	(24)
Total non-interest revenue	$1,842	$2,111	(13)%	$6,674	$5,886	13 %
Net interest revenue	1,035	1,302	(21)	3,040	4,010	(24)
Total fixed income markets	$2,877	$3,413	(16)%	$9,714	$9,896	(2)%
Rates and currencies	$2,161	$2,362	(9)%	$6,891	$7,059	(2)%
Spread products / other fixed income	716	1,051	(32)	2,823	2,837	—
Total fixed income markets	$2,877	$3,413	(16)%	$9,714	$9,896	(2)%
Commissions and fees	$301	$302	— %	$930	$978	(5)%
Principal transactions[3]	190	45	NM	331	48	NM
Other	(5)	4	NM	(4)	133	NM
Total non-interest revenue	$486	$351	38 %	$1,257	$1,159	8 %
Net interest revenue	271	303	(11)	960	968	(1)
Total equity markets	$757	$654	16 %	$2,217	$2,127	4 %

(1) Credit derivatives are used to economically hedge a portion of the corporate loan portfolio that includes both accrual loans and loans at fair value. Gains/(losses) on loan hedges includes the mark-to-market on the credit derivatives and the mark-to-market on the loans in the portfolio that are at fair value. The fixed premium costs of these hedges are netted against the corporate lending revenues to reflect the cost of credit protection. Citigroup's results of operations excluding the impact of gains/(losses) on loan hedges are non-GAAP financial measures.

(2) Third quarter of 2017 includes the $580 million gain on the sale of a fixed income analytics business. First quarter of 2016 includes the charge of approximately $180 million, primarily reflecting the write-down of Citi's net investment in Venezuela as a result of changes in the exchange rate during the quarter.

(3) Excludes principal transactions revenues of ICG businesses other than Markets, primarily treasury and trade solutions and the private bank.

NM Not meaningful

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3Q17 vs. 3Q16

Net income increased 15%, driven by higher revenues, including the $580 million gain on the sale of a fixed income analytics business, and a higher benefit from cost of credit, partially offset by higher operating expenses.

Revenues increased 9%, reflecting higher revenues in Banking (increase of 16%; increase of 11% excluding losses on loan hedges) and higher revenues in Markets and securities services (increase of 3%), including the gain on sale (decrease of 10% excluding the gain on sale). Banking revenues were driven by continued strong momentum and performance across all businesses. Citi expects revenues in ICG will likely continue to reflect the overall market environment, including a normal seasonal decline in the markets businesses in the fourth quarter of 2017.

Within Banking:

- Investment banking revenues increased 14%, driven by continued wallet share gains across products, partially offset by a decline in overall market wallet from the prior-year period. Advisory revenues declined 1%, largely reflecting the decline in overall market wallet. Equity underwriting revenues increased 99%, reflecting significant wallet share gains and particular strength in North America and EMEA. Debt underwriting revenues increased 1%, reflecting the wallet share gains, partially offset by the decline in overall market wallet.
- Treasury and trade solutions revenues increased 8%. Excluding the impact of FX translation, revenues increased 7%, primarily reflecting strength in EMEA and Asia. The increase in revenues reflects continued growth in loans and deposits along with improvements in deposit spreads, as well as fee growth driven by higher payment, clearing and commercial card volumes and episodic fees in trade. End-of-period deposit balances increased 3% (2% excluding the impact of FX translation). Average trade loans increased 4%, driven by strong loan growth in Asia and EMEA.
- Corporate lending revenues increased $233 million to $454 million. Excluding the impact of losses on loan hedges, revenues increased 14%. The increase in revenues was driven by lower hedging costs and improved loan sale activity. Average loans declined 1%.
- Private bank revenues increased 15%, reflecting strength across all products, largely driven by North America and Asia. The increase in revenues was due to growth in clients, higher loan and deposit volumes, higher deposit spreads, higher managed investments revenues and increased capital markets activity.

Within Markets and securities services:

- Fixed income markets revenues decreased 16%, driven by North America and EMEA, primarily due to lower client activity in the current quarter and the strong trading environment in the prior-year period. The decline in revenues was driven by lower net interest revenue (down 21%), largely due to a change in the mix of trading positions in support of client activity and lower principal transactions revenues (down 15%) reflecting the lower client activity and the prior-year strength in the trading environment. Rates and currencies revenues decreased 9%, driven by lower G10 rates and currencies revenues due to the low volatility in the current quarter and the comparison to higher revenues in the prior-year period following the vote in the U.K. in favor of its withdrawal from the European Union. Local markets rates and currencies revenues increased modestly, reflecting continued corporate client engagement across the global network. Spread products and other fixed income revenues decreased 32%, primarily driven by the prior-year strength in the trading environment in securitized markets in North America, as well as lower credit products and municipals revenues.
- Equity markets revenues increased 16%, driven mainly by client-led growth, reflecting strength across regions. The increase in revenues was primarily due to higher equity derivatives revenues due to higher client activity and a more favorable trading environment compared to the prior-year period. The increase was also driven by continued momentum in cash equities and higher balances in prime finance. Principal transactions revenues increased, reflecting the client-led growth.
- Securities services revenues increased 12%, reflecting particular strength in Asia and EMEA. The increase in revenues was driven by growth in fee revenues due to continued growth in assets under custody and increased client

volumes, as well as growth in net interest revenue driven by higher interest rates.

Expenses increased 5% as investments, volume-related expenses and higher legal and related expenses were partially offset by efficiency savings.

Provisions decreased 82%, driven by a net loan loss reserve release of $208 million (compared to a $135 million release in the prior-year period, largely related to energy and energy-related exposures). The primary driver of the current quarter's release was an improvement in the provision for unfunded lending commitments in the corporate loan portfolio.

2017 YTD vs. 2016 YTD

Net income increased 24%, primarily driven by higher revenues and lower credit costs, partially offset by higher expenses.

- Revenues increased 10%, reflecting higher revenues in Banking (increase of 16%; increase of 13% excluding the impact of losses on loan hedges) and higher revenues in Markets and securities services (increase of 5%), including the gain on sale (unchanged excluding the gain on sale).

Within Banking:

- Investment banking revenues increased 24%, largely reflecting gains in wallet share across products as well as an improvement from the industry-wide slowdown in activity levels during the first half of 2016, particularly in equity underwriting. Advisory revenues increased 13%, reflecting the wallet share gains. Equity underwriting revenues increased 87%, driven by significant wallet share gains as well as the increase in overall market activity. Debt underwriting revenues increased 14%, primarily driven by the wallet share gains.
- Treasury and trade solutions revenues increased 7%, primarily driven by continued growth in deposit and loan volumes, higher spreads and strong fee growth across most cash products, as well as a modest improvement in trade revenues.
- Corporate lending revenues increased 61%. Excluding the impact of losses on loan hedges, revenues increased 11%, driven by lower hedging costs in the current period, improved loan sale activity and the prior-period adjustment to the residual value of a lease financing.
- Private bank revenues increased 14%, reflecting strength across all regions, primarily driven by increased loan and deposit growth, higher deposit spreads and higher

managed investments revenues.

Within Markets and securities services:

- Fixed income markets revenues decreased 2%, due to lower revenues in North America, Latin America, and Asia, partially offset by growth in EMEA. Rates and currencies revenues decreased 2% due to lower G10 rates and currencies revenues reflecting low volatility this year and the comparison to Brexit-led activity in the prior-year period. Spread products and other fixed income revenues remained unchanged. Net interest revenue was lower (down 24%), largely due to a change in the mix of trading positions in support of client activity, partially offset by higher principal transactions revenues (up 17%).
- Equity markets revenues increased 4%, as continued growth in client balances and higher client activity, particularly in EMEA and Asia, were partially offset by the absence of episodic activity in North America in the prior-year period. Equity derivatives revenues increased, driven by stronger trading performance compared to the prior-year period as well as higher investor client activity, partially offset by a modest decline in prime finance revenues due to spread mix. Cash equities revenues were modestly higher, driven by higher client activity in Asia, partially offset by lower activity in North America.
- Securities services revenues increased 6%. Excluding the impact of prior year divestitures, revenues increased 11%, largely due to higher revenues in North America, Latin America and EMEA, driven by the same factors described above.

- Expenses increased 4% from the prior-year period, driven by the same factors described above, partially offset by lower repositioning costs.
- Provisions decreased $664 million, primarily reflecting a decline in net credit losses from $397 million in the prior-year period to $140 million and a net loan loss reserve release of $422 million ($15 million release in the period-year period). This lower cost of credit was driven largely by improvement in the energy sector, as well as the release related to the improvement in the provision for unfunded lending commitments.

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CORPORATE/OTHER

Corporate/Other includes certain unallocated costs of global staff functions (including finance, risk, human resources, legal and compliance), other corporate expenses and unallocated global operations and technology expenses, Corporate Treasury, certain North America and international legacy consumer loan portfolios, other legacy assets and discontinued operations (for additional information on Corporate/Other, see “Citigroup Segments” above). At September 30, 2017, Corporate/Other had $100 billion in assets, a decrease of 4% year-over-year and 3% from December 31, 2016.

	Third Quarter			Nine Months		
In millions of dollars	2017	2016	% Change	2017	2016	% Change
Net interest revenue	$507	$706	(28)%	$1,543	$2,416	(36)%
Non-interest revenue	2	431	(100)	796	1,852	(57)
Total revenues, net of interest expense	$509	$1,137	(55)%	$2,339	$4,268	(45)%
Total operating expenses	$822	$1,288	(36)%	$2,929	$3,847	(24)%
Net credit losses	$29	$131	(78)%	$134	$374	(64)%
Credit reserve build (release)	(79)	(122)	35	(268)	(376)	29
Provision (release) for unfunded lending commitments	—	—	—	3	(6)	NM
Provision for benefits and claims	—	9	(100)	1	98	(99)
Provisions for credit losses and for benefits and claims	$(50)	$18	NM	$(130)	$90	NM
Income (loss) from continuing operations before taxes	$(263)	$(169)	(56)%	$(460)	$331	NM
Income taxes (benefits)	(164)	(146)	(12)%	(439)	(238)	(84)%
Income (loss) from continuing operations	$(99)	$(23)	NM	$(21)	$569	NM
Income (loss) from discontinued operations, net of taxes	(5)	(30)	83%	(2)	(55)	96%
Net income (loss) before attribution of noncontrolling interests	$(104)	$(53)	(96)%	$(23)	$514	NM
Noncontrolling interests	(17)	(5)	NM	(13)	(4)	NM
Net income (loss)	$(87)	$(48)	(81)%	$(10)	$518	NM

3Q17 vs. 3Q16

The net loss was $87 million, compared to a net loss of $48 million in the prior-year period, due to lower revenues, partially offset by lower expenses and lower cost of credit.

Revenues decreased 55%, driven by continued legacy asset run-off, divestitures and lower revenue from treasury hedging activities.

Expenses decreased 36%, primarily driven by the wind-down of legacy assets and lower legal expenses.

Provisions decreased $68 million to a net benefit of $50 million, primarily due to lower net credit losses, partially offset by a lower net loan loss reserve release. Net credit losses declined 78% to $29 million, primarily reflecting the impact of ongoing divestiture activity. The net reserve release declined 35%, mostly reflecting the continued wind-down of the North America mortgage portfolio, partially offset by a hurricane-related loan loss reserve build (of approximately $20 million).

2017 YTD vs. 2016 YTD

Year-to-date, Corporate/Other has experienced similar trends to those described above. The net loss was $10 million, compared to net income of $518 million in the prior-year period, reflecting lower revenues, partially offset by lower

expenses and lower cost of credit.

Revenues decreased 45%, primarily driven by the same factors described above as well as the absence of gains related to debt buybacks in 2016. Revenues included approximately $750 million in gains on asset sales in the first quarter of 2017, which more than offset a roughly $300 million charge related to the exit of Citi's U.S. mortgage servicing operations in the quarter.

Expenses decreased 24%, driven by the same factors described above, partially offset by approximately $100 million in episodic expenses primarily related to the exit of the U.S. mortgage servicing operations.

Provisions decreased $220 million, driven by the same factors described above. Net credit losses declined 64% to $134 million, reflecting the impact of ongoing divestiture activity as well as continued wind-down in the legacy North America mortgage portfolio. The provision for benefits and claims declined $97 million, reflecting continued legacy divestitures. The net reserve release declined 31%, driven by the same factors described above.

OFF-BALANCE SHEET ARRANGEMENTS

The table below shows the location of a discussion of Citi's various off-balance sheet arrangements in this Form 10-Q. For additional information on Citi's off-balance sheet arrangements, see "Off-Balance Sheet Arrangements" and Notes 1, 21 and 26 to the Consolidated Financial Statements in Citigroup's 2016 Annual Report on Form 10-K.

Types of Off-Balance Sheet Arrangements	Disclosures in this Form 10-Q
Variable interests and other obligations, including contingent obligations, arising from variable interests in nonconsolidated VIEs	See Note 18 to the Consolidated Financial Statements.
Letters of credit, and lending and other commitments	See Note 22 to the Consolidated Financial Statements.
Guarantees	See Note 22 to the Consolidated Financial Statements.

CAPITAL RESOURCES

Overview

Capital is used principally to support assets in Citi's businesses and to absorb credit, market and operational losses. Citi primarily generates capital through earnings from its operating businesses. Citi may augment its capital through issuances of common stock, noncumulative perpetual preferred stock and equity issued through awards under employee benefit plans, among other issuances.

Further, Citi's capital levels may also be affected by changes in accounting and regulatory standards, as well as U.S. corporate tax laws and the impact of future events on Citi's business results, such as changes in interest and foreign exchange rates, as well as business and asset dispositions.

During the third quarter of 2017, Citi returned a total of approximately $6.4 billion of capital to common shareholders in the form of share repurchases (approximately 81 million common shares) and dividends.

Capital Management

Citi's capital management framework is designed to ensure that Citigroup and its principal subsidiaries maintain sufficient capital consistent with each entity's respective risk profile, management targets and all applicable regulatory standards and guidelines. For additional information regarding Citi's capital management, see "Capital Resources—Capital Management" in Citigroup's 2016 Annual Report on Form 10-K.

Capital Planning and Stress Testing

Citi is subject to an annual assessment by the Federal Reserve Board as to whether Citigroup has effective capital planning processes as well as sufficient regulatory capital to absorb losses during stressful economic and financial conditions, while also meeting obligations to creditors and counterparties and continuing to serve as a credit intermediary. This annual assessment includes two related programs: the Comprehensive Capital Analysis and Review (CCAR) and Dodd-Frank Act Stress Testing (DFAST). For additional information regarding Citi's capital planning and stress testing, including potential changes in Citi's regulatory capital requirements and future CCAR processes, see "Forward-Looking Statements" below and "Capital Resources—Current Regulatory Capital Standards—Capital Planning and Stress Testing" and "Risk Factors—Strategic Risks" in Citigroup's 2016 Annual Report on Form 10-K.

Current Regulatory Capital Standards

Citi is subject to regulatory capital standards issued by the Federal Reserve Board which constitute the U.S. Basel III rules. These rules establish an integrated capital adequacy framework, encompassing both risk-based capital ratios and leverage ratios. For additional information regarding the risk-based capital ratios, Tier 1 Leverage ratio and Supplementary Leverage ratio, see "Capital Resources—Current Regulatory Capital Standards" in Citigroup's 2016 Annual Report on Form 10-K.

GSIB Surcharge

The Federal Reserve Board also adopted a rule that imposes a risk-based capital surcharge upon U.S. bank holding companies that are identified as global systemically important bank holding companies (GSIBs), including Citi. GSIB surcharges under the rule initially range from 1% to 4.5% of total risk-weighted assets. Citi's initial GSIB surcharge effective January 1, 2016 was 3.5%. However, ongoing efforts in addressing quantitative measures of systemic

importance have resulted in a reduction of Citi's GSIB surcharge to 3%, effective January 1, 2017. For additional information regarding the identification of a GSIB and the methodology for annually determining the GSIB surcharge, see "Capital Resources—Current Regulatory Capital Standards—GSIB Surcharge" in Citigroup's 2016 Annual Report on Form 10-K.

Transition Provisions

The U.S. Basel III rules contain several differing, largely multi-year transition provisions (i.e., "phase-ins" and "phase-outs"). Citi considers all of these transition provisions as being fully implemented on January 1, 2019 (full implementation). For additional information regarding the transition provisions under the U.S. Basel III rules, including with respect to the GSIB surcharge, see "Capital Resources—Current Regulatory Capital Standards—Transition Provisions" in Citigroup's 2016 Annual Report on Form 10-K.

Citigroup's Capital Resources Under Current Regulatory Standards

Citi is required to maintain stated minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios of 4.5%, 6% and 8%, respectively.

Citi's effective minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios during 2017, inclusive of the 50% phase-in of both the 2.5% Capital Conservation Buffer and the 3% GSIB surcharge (all of which is to be composed of Common Equity Tier 1 Capital), are 7.25%, 8.75% and 10.75%, respectively. Citi's effective minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios during 2016, inclusive of the 25% phase-in of both the 2.5% Capital Conservation Buffer and the 3.5% GSIB surcharge (all of which is to be composed of Common Equity Tier 1 Capital), were 6%, 7.5% and 9.5%, respectively.

Furthermore, to be "well capitalized" under current federal bank regulatory agency definitions, a bank holding company must have a Tier 1 Capital ratio of at least 6%, a Total Capital ratio of at least 10%, and not be subject to a Federal Reserve Board directive to maintain higher capital levels.

The following tables set forth the capital tiers, total risk-weighted assets and underlying risk components, risk-based capital ratios, quarterly adjusted average total assets, Total Leverage Exposure and leverage ratios under current regulatory standards (reflecting Basel III Transition Arrangements) for Citi as of September 30, 2017 and December 31, 2016.

Citigroup Capital Components and Ratios Under Current Regulatory Standards (Basel III Transition Arrangements)

In millions of dollars, except ratios	September 30, 2017		December 31, 2016	
	Advanced Approaches	Standardized Approach	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital	$162,008	$162,008	$167,378	$167,378
Tier 1 Capital	177,304	177,304	178,387	178,387
Total Capital (Tier 1 Capital + Tier 2 Capital)	202,643	214,787	202,146	214,938
Total Risk-Weighted Assets	1,143,448	1,158,679	1,166,764	1,126,314
Credit Risk[1]	$756,529	$1,093,468	$773,483	$1,061,786
Market Risk	64,368	65,211	64,006	64,528
Operational Risk	322,551	—	329,275	—
Common Equity Tier 1 Capital ratio[2]	14.17 %	13.98 %	14.35 %	14.86 %
Tier 1 Capital ratio[2]	15.51	15.30	15.29	15.84
Total Capital ratio[2]	17.72	18.54	17.33	19.08

In millions of dollars, except ratios	September 30, 2017	December 31, 2016
Quarterly Adjusted Average Total Assets[3]	$1,838,307	$1,768,415
Total Leverage Exposure[4]	2,433,814	2,351,883
Tier 1 Leverage ratio	9.64 %	10.09 %
Supplementary Leverage ratio	7.29	7.58

(1) Under the U.S. Basel III rules, credit risk-weighted assets during the transition period reflect the effects of transition arrangements related to regulatory capital adjustments and deductions and, as a result, will differ from credit risk-weighted assets derived under full implementation of the rules.

(2) As of September 30, 2017, Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework. As of December 31, 2016, Citi'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.

(3) Tier 1 Leverage ratio denominator.

(4) Supplementary Leverage ratio denominator.

As indicated in the table above, Citigroup's risk-based capital ratios at September 30, 2017 were in excess of the stated and effective minimum requirements under the U.S. Basel III rules. In addition, Citi was also "well capitalized" under current federal bank regulatory agency definitions as of September 30, 2017.

Components of Citigroup Capital Under Current Regulatory Standards (Basel III Transition Arrangements)

In millions of dollars	September 30, 2017	December 31, 2016
Common Equity Tier 1 Capital		
Citigroup common stockholders' equity[1]	$ 208,565	$206,051
Add: Qualifying noncontrolling interests	209	259
Regulatory Capital Adjustments and Deductions:		
Less: Net unrealized losses on securities available-for-sale (AFS), net of tax[2][3]	(34)	(320)
Less: Defined benefit plans liability adjustment, net of tax[3]	(1,068)	(2,066)
Less: Accumulated net unrealized losses on cash flow hedges, net of tax[4]	(437)	(560)
Less: Cumulative unrealized net loss related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax[3][5]	(333)	(37)
Less: Intangible assets:		
Goodwill, net of related deferred tax liabilities (DTLs)[6]	21,532	20,858
Identifiable intangible assets other than mortgage servicing rights (MSRs), net of related DTLs[3]	3,528	2,926
Less: Defined benefit pension plan net assets[3]	576	514
Less: Deferred tax assets (DTAs) arising from net operating loss, foreign tax credit and general business credit carry-forwards[3][7]	16,054	12,802
Less: Excess over 10%/15% limitations for other DTAs, certain common stock investments, and MSRs[3][7][8]	6,948	4,815
Total Common Equity Tier 1 Capital (Standardized Approach and Advanced Approaches)	$ 162,008	$167,378
Additional Tier 1 Capital		
Qualifying noncumulative perpetual preferred stock[1]	$ 19,069	$19,069
Qualifying trust preferred securities[9]	1,374	1,371
Qualifying noncontrolling interests	118	17
Regulatory Capital Adjustment and Deductions:		
Less: Cumulative unrealized net loss related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax[3][5]	(83)	(24)
Less: Defined benefit pension plan net assets[3]	144	343
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[3][7]	4,014	8,535
Less: Permitted ownership interests in covered funds[10]	1,128	533
Less: Minimum regulatory capital requirements of insurance underwriting subsidiaries[11]	62	61
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	$ 15,296	$11,009
Total Tier 1 Capital (Common Equity Tier 1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	$ 177,304	$178,387
Tier 2 Capital		
Qualifying subordinated debt	$ 23,578	$22,818
Qualifying trust preferred securities[12]	329	317
Qualifying noncontrolling interests	39	22
Eligible allowance for credit losses[13]	13,598	13,452
Regulatory Capital Adjustment and Deduction:		
Add: Unrealized gains on AFS equity exposures includable in Tier 2 Capital	1	3
Less: Minimum regulatory capital requirements of insurance underwriting subsidiaries[11]	62	61
Total Tier 2 Capital (Standardized Approach)	$ 37,483	$36,551
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	$ 214,787	$214,938
Adjustment for excess of eligible credit reserves over expected credit losses[13]	$ (12,144)	$(12,792)
Total Tier 2 Capital (Advanced Approaches)	$ 25,339	$23,759

Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	$ 202,643	$202,146

Footnotes are presented on the following page.

(1) Issuance costs of $184 million related to noncumulative perpetual preferred stock outstanding at September 30, 2017 and December 31, 2016 are excluded from common stockholders' equity and netted against such preferred stock in accordance with Federal Reserve Board regulatory reporting requirements, which differ from those under U.S. generally accepted accounting principles (GAAP).

(2) In addition, includes the net amount of unamortized loss on held-to-maturity (HTM) securities. This amount relates to securities that were previously transferred from AFS to HTM, and non-credit-related factors such as changes in interest rates and liquidity spreads for HTM securities with other-than-temporary impairment.

(3) The transition arrangements for significant regulatory capital adjustments and deductions impacting Common Equity Tier 1 Capital and Additional Tier 1 Capital are set forth in the chart entitled "Basel III Transition Arrangements: Significant Regulatory Capital Adjustments and Deductions," as presented in Citigroup's 2016 Annual Report on Form 10-K.

(4) Common Equity Tier 1 Capital is adjusted for accumulated net unrealized gains (losses) on cash flow hedges included in Accumulated other comprehensive income (loss) (AOCI) that relate to the hedging of items not recognized at fair value on the balance sheet.

(5) The cumulative impact of changes in Citigroup's own creditworthiness in valuing liabilities for which the fair value option has been elected, and own-credit valuation adjustments on derivatives, are excluded from Common Equity Tier 1 Capital and Additional Tier 1 Capital, in accordance with the U.S. Basel III rules.

(6) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.

(7) Of Citi's approximately $45.5 billion of net DTAs at September 30, 2017, approximately $19.9 billion were includable in regulatory capital pursuant to the U.S. Basel III rules, while approximately $25.6 billion were excluded. Excluded from Citi's regulatory capital at September 30, 2017 was in total approximately $27.0 billion of net DTAs arising from both net operating loss, foreign tax credit and general business credit carry-forwards as well as temporary differences, of which approximately $23.0 billion were deducted from Common Equity Tier 1 Capital and approximately $4.0 billion were deducted from Additional Tier 1 Capital, which was reduced by approximately $1.4 billion of net DTLs primarily associated with goodwill and certain other intangible assets. Separately, under the U.S. Basel III rules, goodwill and these other intangible assets are deducted net of associated DTLs in arriving at Common Equity Tier 1 Capital. DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards are required to be deducted from both Common Equity Tier 1 Capital and Additional Tier 1 Capital under the transition arrangements of the U.S. Basel III rules; whereas DTAs arising from temporary differences are deducted solely from Common Equity Tier 1 Capital under these rules, if in excess of 10%/15% limitations.

(8) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. At September 30, 2017 and December 31, 2016, this deduction related only to DTAs arising from temporary differences that exceeded the 10% limitation. Accordingly, approximately $6.9 billion of DTAs arising from temporary differences were excluded from Citi's Common Equity Tier 1 Capital at September 30, 2017. Changes to the U.S. corporate tax regime that impact the value of Citi's DTAs arising from temporary differences, which exceed the then current amount deducted from Citi's Common Equity Tier 1 Capital, would further reduce Citi's regulatory capital to the extent of such excess after tax. For additional information regarding potential U.S. corporate tax reform, see "Risk Factors—Strategic Risks" in Citigroup's 2016 Annual Report on Form 10-K.

(9) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.

(10) Banking entities are required to be in compliance with the Volcker Rule of the Dodd-Frank Act that prohibits conducting certain proprietary investment activities and limits their ownership of, and relationships with, covered funds. Accordingly, Citi is required by the Volcker Rule to deduct from Tier 1 Capital all permitted ownership interests in covered funds that were acquired after December 31, 2013.

(11)

50% of the minimum regulatory capital requirements of insurance underwriting subsidiaries must be deducted from each of Tier 1 Capital and Tier 2 Capital.

Effective January 1, 2016, non-grandfathered trust preferred securities are not eligible for inclusion in Tier 1 Capital, but are eligible for inclusion in Tier 2 Capital subject to full phase-out by January 1, 2022.

(12) Non-grandfathered trust preferred securities are eligible for inclusion in Tier 2 Capital in an amount up to 50% and 60% during 2017 and 2016, respectively, of the aggregate outstanding principal amounts of such issuances as of January 1, 2014, in accordance with the transition arrangements for non-qualifying capital instruments under the U.S. Basel III rules.

Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit

(13) reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent the excess reserves do not exceed 0.6% of credit risk-weighted assets. The total amount of eligible credit reserves in excess of expected credit losses that were eligible for inclusion in Tier 2 Capital, subject to limitation, under the Advanced Approaches framework was $1.5 billion and $0.7 billion at September 30, 2017 and December 31, 2016, respectively.

Citigroup Capital Rollforward Under Current Regulatory Standards (Basel III Transition Arrangements)

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Common Equity Tier 1 Capital, beginning of period	$163,786	$167,378
Net income	4,133	12,095
Common and preferred stock dividends declared	(1,137)	(2,648)
Net increase in treasury stock	(5,487)	(9,186)
Net change in common stock and additional paid-in capital	98	(147)
Net decrease in foreign currency translation adjustment net of hedges, net of tax	218	2,179
Net change in unrealized losses on securities AFS, net of tax	(52)	345
Net increase in defined benefit plans liability adjustment, net of tax	(23)	(1,174)
Net change in adjustment related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax	(23)	29
Net change in goodwill, net of related DTLs	57	(674)
Net change in identifiable intangible assets other than MSRs, net of related DTLs	142	(602)
Net change in defined benefit pension plan net assets	61	(62)
Net change in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	612	(3,252)
Net increase in excess over 10%/15% limitations for other DTAs, certain common stock investments and MSRs	(374)	(2,133)
Other	(3)	(140)
Net decrease in Common Equity Tier 1 Capital	$(1,778)	$(5,370)
Common Equity Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	$162,008	$162,008
Additional Tier 1 Capital, beginning of period	$15,758	$11,009
Net increase in qualifying trust preferred securities	—	3
Net change in adjustment related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax	25	59
Net decrease in defined benefit pension plan net assets	15	199
Net decrease in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	152	4,521
Net increase in permitted ownership interests in covered funds	(633)	(595)
Other	(21)	100
Net change in Additional Tier 1 Capital	$(462)	$4,287
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	$177,304	$177,304
Tier 2 Capital, beginning of period (Standardized Approach)	$37,383	$36,551
Net change in qualifying subordinated debt	(64)	760
Net increase in qualifying trust preferred securities	5	12
Net increase in eligible allowance for credit losses	165	146
Other	(6)	14
Net increase in Tier 2 Capital (Standardized Approach)	$100	$932
Tier 2 Capital, end of period (Standardized Approach)	$37,483	$37,483
Total Capital, end of period (Standardized Approach)	$214,787	$214,787

Tier 2 Capital, beginning of period (Advanced Approaches)	$25,246	$23,759
Net change in qualifying subordinated debt	(64)	760
Net increase in qualifying trust preferred securities	5	12
Net increase in excess of eligible credit reserves over expected credit losses	158	794
Other	(6)	14
Net increase in Tier 2 Capital (Advanced Approaches)	$93	$1,580
Tier 2 Capital, end of period (Advanced Approaches)	$25,339	$25,339
Total Capital, end of period (Advanced Approaches)	$202,643	$202,643

Citigroup Risk-Weighted Assets Rollforward Under Current Regulatory Standards
(Basel III Standardized Approach with Transition Arrangements)

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Total Risk-Weighted Assets, beginning of period	$1,163,894	$1,126,314
Changes in Credit Risk-Weighted Assets		
Net increase in general credit risk exposures[1]	1,511	15,154
Net increase in repo-style transactions[2]	8,430	15,417
Net decrease in securitization exposures[3]	(4,129)	(6,183)
Net increase in equity exposures	809	1,556
Net increase in over-the-counter (OTC) derivatives[4]	2,827	1,746
Net change in other exposures[5]	(1,508)	1,401
Net change in off-balance sheet exposures[6]	(731)	2,591
Net increase in Credit Risk-Weighted Assets	$7,209	$31,682
Changes in Market Risk-Weighted Assets		
Net change in risk levels[7]	$(1,727)	$14,163
Net decrease due to model and methodology updates[8]	(10,697)	(13,480)
Net change in Market Risk-Weighted Assets	$(12,424)	$683
Total Risk-Weighted Assets, end of period	$1,158,679	$1,158,679

(1) General credit risk exposures include cash and balances due from depository institutions, securities, and loans and leases. General credit risk exposures increased during the three and nine months ended September 30, 2017 primarily due to corporate loan growth.

(2) Repo-style transactions include repurchase or reverse repurchase transactions and securities borrowing or securities lending transactions.

(3) Securitization exposures decreased during the three and nine months ended September 30, 2017 principally as a result of certain securitization exposures becoming subject to deduction from Tier 1 Capital under the Volcker Rule of the Dodd-Frank Act.

(4) OTC derivatives increased during the three and nine months ended September 30, 2017 primarily due to increased trade volume.

(5) Other exposures include cleared transactions, unsettled transactions, and other assets. Other exposures decreased during the three months ended September 30, 2017, as growth in cleared transactions was more than offset by the impact of supervisory guidance on the regulatory capital treatment of certain centrally cleared derivatives. Other exposures increased during the nine months ended September 30, 2017 primarily due to growth in cleared transactions.

(6) Off-balance sheet exposures increased during the nine months ended September 30, 2017, as the growth in corporate exposures and reduced hedging benefits during the first quarter of 2017 more than offset the decline in off-balance sheet exposures during the second and third quarter of 2017.

(7) Risk levels decreased during the three months ended September 30, 2017 primarily due to a decrease in exposure levels subject to Stressed Value at Risk and Value at Risk. Risk levels increased during the nine months ended September 30, 2017 primarily due to an increase in exposure levels subject to comprehensive risk, as well as an increase in positions subject to securitization charges and standard specific risk charges.

(8) Risk-weighted assets declined during the three and nine months ended September 30, 2017, as Citi received supervisory approval to remove the Comprehensive Risk Measure model surcharge for correlation trading portfolios, commencing with the third quarter of 2017. Further contributing to the decline in risk-weighted assets during the three and nine months ended September 30, 2017, were changes in model inputs regarding volatility and

the correlation between market risk factors.

Citigroup Risk-Weighted Assets Rollforward Under Current Regulatory Standards
(Basel III Advanced Approaches with Transition Arrangements)

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Total Risk-Weighted Assets, beginning of period	$1,157,670	$1,166,764
Changes in Credit Risk-Weighted Assets		
Net change in retail exposures[1]	1,898	(6,757)
Net decrease in wholesale exposures[2]	(6,362)	(5,946)
Net increase in repo-style transactions[3]	4,658	4,660
Net decrease in securitization exposures[4]	(4,362)	(6,477)
Net increase in equity exposures	737	1,336
Net change in over-the-counter (OTC) derivatives[5]	1,088	(5,009)
Net change in derivatives CVA	1,017	(83)
Net increase in other exposures[6]	2,326	2,277
Net decrease in supervisory 6% multiplier[7]	(1)	(955)
Net change in Credit Risk-Weighted Assets	$999	$(16,954)
Changes in Market Risk-Weighted Assets		
Net change in risk levels[8]	$(2,075)	$13,842
Net decrease due to model and methodology updates[9]	(10,697)	(13,480)
Net change in Market Risk-Weighted Assets	$(12,772)	$362
Net decrease in Operational Risk-Weighted Assets[10]	$(2,449)	$(6,724)
Total Risk-Weighted Assets, end of period	$1,143,448	$1,143,448

(1) Retail exposures increased during the three months ended September 30, 2017 primarily due to model enhancements. Retail exposures decreased during the nine months ended September 30, 2017 principally resulting from residential mortgage loan sales and repayments, and divestitures of certain legacy assets.

(2) Wholesale exposures decreased during the three months ended September 30, 2017 as the impact of certain loan syndications more than offset corporate loan growth. Wholesale exposures decreased during the nine months ended September 30, 2017 primarily due to annual updates to model parameters.

(3) Repo-style transactions include repurchase or reverse repurchase transactions and securities borrowing or securities lending transactions.

(4) Securitization exposures decreased during the three and nine months ended September 30, 2017 principally as a result of certain securitization exposures becoming subject to deduction from Tier 1 Capital under the Volcker Rule of the Dodd-Frank Act.

(5) OTC derivatives increased during the three months ended September 30, 2017 primarily due to changes in fair value. OTC derivatives decreased during the nine months ended September 30, 2017 primarily due to changes in fair value and improved portfolio credit quality.

(6) Other exposures include cleared transactions, unsettled transactions, assets other than those reportable in specific exposure categories, and non-material portfolios. Other exposures increased during the three and nine months ended September 30, 2017 primarily due to increases in cleared transactions.

(7) Supervisory 6% multiplier does not apply to derivatives CVA.

(8) Risk levels decreased during the three months ended September 30, 2017 primarily due to a decrease in exposure levels subject to Stressed Value at Risk and Value at Risk. Risk levels increased during the nine months ended September 30, 2017 primarily due to an increase in exposure levels subject to comprehensive risk, as well as an increase in positions subject to securitization charges and standard specific risk charges.

(9)

Risk-weighted assets declined during the three and nine months ended September 30, 2017, as Citi received supervisory approval to remove the Comprehensive Risk Measure model surcharge for correlation trading portfolios, commencing with the third quarter of 2017. Further contributing to the decline in risk-weighted assets during the three and nine months ended September 30, 2017, were changes in model inputs regarding volatility and the correlation between market risk factors.

(10) Operational risk-weighted assets decreased during the three and nine months ended September 30, 2017 primarily due to assessed improvements in the business environment and risk controls. Further contributing to the decline in operational risk-weighted assets during the nine months ended September 30, 2017 were changes in operational loss severity and frequency.

Capital Resources of Citigroup's Subsidiary U.S. Depository Institutions Under Current Regulatory Standards

Citigroup's subsidiary U.S. depository institutions are also subject to regulatory capital standards issued by their respective primary federal bank regulatory agencies, which are similar to the standards of the Federal Reserve Board. During 2017, Citi's primary subsidiary U.S. depository institution, Citibank, N.A. (Citibank), is subject to effective minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios, inclusive of the 50% phase-in of the 2.5% Capital Conservation Buffer, of 5.75%, 7.25% and 9.25%, respectively. Citibank's effective minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios during 2016, inclusive of the 25% phase-in of

the 2.5% Capital Conservation Buffer, were 5.125%, 6.625% and 8.625%, respectively. Citibank is required to maintain stated minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratios of 4.5%, 6% and 8%, respectively.

The following tables set forth the capital tiers, total risk-weighted assets and underlying risk components, risk-based capital ratios, quarterly adjusted average total assets, Total Leverage Exposure and leverage ratios under current regulatory standards (reflecting Basel III Transition Arrangements) for Citibank, Citi's primary subsidiary U.S. depository institution, as of September 30, 2017 and December 31, 2016.

Citibank Capital Components and Ratios Under Current Regulatory Standards (Basel III Transition Arrangements)

In millions of dollars, except ratios	September 30, 2017		December 31, 2016	
	Advanced Approaches	Standardized Approach	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital	$129,170	$129,170	$126,220	$126,220
Tier 1 Capital	130,564	130,564	126,465	126,465
Total Capital (Tier 1 Capital + Tier 2 Capital)[1]	143,608	154,424	138,821	150,291
Total Risk-Weighted Assets	962,968	1,044,808	973,933	1,001,016
Credit Risk	$666,691	$995,230	$669,920	$955,767
Market Risk	48,496	49,578	44,579	45,249
Operational Risk	247,781	—	259,434	—
Common Equity Tier 1 Capital ratio[2][3]	13.41%	12.36%	12.96%	12.61%
Tier 1 Capital ratio[2][3]	13.56	12.50	12.99	12.63
Total Capital ratio[2][3]	14.91	14.78	14.25	15.01

In millions of dollars, except ratios	September 30, 2017	December 31, 2016
Quarterly Adjusted Average Total Assets[4]	$1,396,879	$1,333,161
Total Leverage Exposure[5]	1,929,785	1,859,394
Tier 1 Leverage ratio[3]	9.35%	9.49%
Supplementary Leverage ratio	6.77	6.80

(1) Under the Advanced Approaches framework, eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent the excess reserves do not exceed 0.6% of credit risk-weighted assets, which differs from the Standardized Approach in which the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets.

(2) As of September 30, 2017, 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. As of December 31, 2016, Citibank's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework.

(3) 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" under the revised Prompt Corrective Action (PCA) regulations applicable to insured depository institutions as established by the U.S.

Basel III rules. For additional information, see “Capital Resources—Current Regulatory Capital Standards—Prompt Corrective Action Framework” in Citigroup’s 2016 Annual Report on Form 10-K.

(4) Tier 1 Leverage ratio denominator.

(5) Supplementary Leverage ratio denominator.

As indicated in the table above, Citibank’s risk-based capital ratios at September 30, 2017 were in excess of the stated and effective minimum requirements under the U.S. Basel III rules. In addition, Citibank was also “well

capitalized” as of September 30, 2017 under the revised PCA regulations, which became effective January 1, 2015.

Impact of Changes on Citigroup and Citibank Capital Ratios Under Current Regulatory Capital Standards

The following tables present the estimated sensitivity of Citigroup's and Citibank's capital ratios to changes of $100 million in Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital (numerator), and changes of $1 billion in Advanced Approaches and Standardized Approach risk-weighted assets and quarterly adjusted average total assets, as well as Total Leverage Exposure (denominator), under current regulatory capital standards (reflecting Basel III Transition Arrangements), as of September 30, 2017.

This information is provided for the purpose of analyzing the impact that a change in Citigroup's or Citibank's financial position or results of operations could have on these ratios. These sensitivities only consider a single change to either a component of capital, risk-weighted assets, quarterly adjusted average total assets or Total Leverage Exposure. Accordingly, an event that affects more than one factor may have a larger basis point impact than is reflected in these tables.

Impact of Changes on Citigroup and Citibank Risk-Based Capital Ratios (Basel III Transition Arrangements)

	Common Equity Tier 1 Capital ratio		Tier 1 Capital ratio		Total Capital ratio	
In basis points	Impact of $100 million change in Common Equity Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in risk-weighted assets	Impact of $100 million change in Total Capital	Impact of $1 billion change in risk-weighted assets
Citigroup						
Advanced Approaches	0.9	1.2	0.9	1.4	0.9	1.6
Standardized Approach	0.9	1.2	0.9	1.3	0.9	1.6
Citibank						
Advanced Approaches	1.0	1.4	1.0	1.4	1.0	1.6
Standardized Approach	1.0	1.2	1.0	1.2	1.0	1.4

Impact of Changes on Citigroup and Citibank Leverage Ratios (Basel III Transition Arrangements)

	Tier 1 Leverage ratio		Supplementary Leverage ratio	
In basis points	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in quarterly adjusted average total assets	Impact of $100 million change in Tier 1 Capital	Impact of $1 billion change in Total Leverage Exposure
Citigroup	0.5	0.5	0.4	0.3
Citibank	0.7	0.7	0.5	0.4

Citigroup Broker-Dealer Subsidiaries

At September 30, 2017, Citigroup Global Markets Inc., a U.S. broker-dealer registered with the SEC that is an indirect wholly owned subsidiary of Citigroup, had net capital, computed in accordance with the SEC's net capital rule, of approximately $10.5 billion, which exceeded the minimum requirement by approximately $8.5 billion.

Moreover, Citigroup Global Markets Limited, a broker-dealer registered with the United Kingdom's Prudential Regulation Authority (PRA) that is also an indirect wholly owned subsidiary of Citigroup, had total capital of approximately $17.2 billion at September 30, 2017, which exceeded the PRA's minimum regulatory capital requirements.

In addition, certain of Citi's other broker-dealer
subsidiaries are subject to regulation in the countries in which they do business, including requirements to maintain specified levels of net capital or its equivalent. Citigroup's other broker-dealer subsidiaries were in compliance with their regulatory capital requirements at September 30, 2017.

Basel III (Full Implementation)

Citigroup's Capital Resources Under Basel III
(Full Implementation)

Citi currently estimates that its effective minimum Common Equity Tier 1 Capital, Tier 1 Capital and Total Capital ratio requirements under the U.S. Basel III rules, on a fully implemented basis, inclusive of the 2.5% Capital Conservation Buffer and the Countercyclical Capital Buffer at its current level of 0%, as well as an expected 3% GSIB surcharge, may be 10%, 11.5% and 13.5%, respectively.

Further, under the U.S. Basel III rules, Citi must also comply with a 4% minimum Tier 1 Leverage ratio requirement and an effective 5% minimum Supplementary Leverage ratio requirement.

The following tables set forth the capital tiers, total risk-weighted assets and underlying risk components, risk-based capital ratios, quarterly adjusted average total assets, Total Leverage Exposure and leverage ratios, assuming full implementation under the U.S. Basel III rules, for Citi as of September 30, 2017 and December 31, 2016.

At September 30, 2017, Citi's constraining Common Equity Tier 1 Capital and Tier 1 Capital ratios were those derived under the Basel III Standardized Approach, whereas Citi's binding Total Capital ratio was that resulting from application of the Basel III Advanced Approaches framework. Further, each of Citi's risk-based capital ratios was constrained by the Basel III Advanced Approaches framework for all periods prior to June 30, 2017.

Citigroup Capital Components and Ratios Under Basel III (Full Implementation)

In millions of dollars, except ratios	September 30, 2017		December 31, 2016	
	Advanced Approaches	Standardized Approach	Advanced Approaches	Standardized Approach
Common Equity Tier 1 Capital	$153,534	$153,534	$149,516	$149,516
Tier 1 Capital	172,849	172,849	169,390	169,390
Total Capital (Tier 1 Capital + Tier 2 Capital)	198,195	210,339	193,160	205,975
Total Risk-Weighted Assets	1,169,142	1,182,918	1,189,680	1,147,956
Credit Risk	$782,223	$1,117,707	$796,399	$1,083,428
Market Risk	64,368	65,211	64,006	64,528
Operational Risk	322,551	—	329,275	—
Common Equity Tier 1 Capital ratio[1][2]	13.13 %	12.98 %	12.57 %	13.02 %
Tier 1 Capital ratio[1][2]	14.78	14.61	14.24	14.76
Total Capital ratio[1][2]	16.95	17.78	16.24	17.94

In millions of dollars, except ratios	September 30, 2017	December 31, 2016
Quarterly Adjusted Average Total Assets[3]	$1,835,074	$1,761,923
Total Leverage Exposure[4]	2,430,582	2,345,391
Tier 1 Leverage ratio[2]	9.42 %	9.61 %
Supplementary Leverage ratio[2]	7.11	7.22

(1) As of September 30, 2017, Citi's reportable Common Equity Tier 1 Capital and Tier 1 Capital ratios were the lower derived under the Basel III Standardized Approach, whereas the reportable Total Capital ratio was the lower derived under the Basel III Advanced Approaches framework. As of December 31, 2016, Citi'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.

(2) Citi's Basel III risk-based capital and leverage ratios and related components, on a fully implemented basis, are non-GAAP financial measures.

(3) Tier 1 Leverage ratio denominator.

(4) Supplementary Leverage ratio denominator.

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Common Equity Tier 1 Capital Ratio

Citi's Common Equity Tier 1 Capital ratio was 13.0% at September 30, 2017, compared to 13.1% at June 30, 2017 and 12.6% at December 31, 2016. The ratio declined quarter-over-quarter as the favorable effects associated with quarterly net income of $4.1 billion and a slight decline in total risk-weighted assets were more than offset by the return of $6.4 billion of capital to common shareholders during the period. The growth in Citi's Common Equity Tier 1 Capital ratio from year-end 2016 reflected continued enhancement of Common Equity Tier 1 Capital resulting from year-to-date net income of $12.1 billion and beneficial net movements in AOCI, offset in part by the return of approximately $10.8 billion of capital to common shareholders during the first nine months of 2017.

Components of Citigroup Capital Under Basel III (Full Implementation)

In millions of dollars	September 30, 2017	December 31, 2016
Common Equity Tier 1 Capital		
Citigroup common stockholders' equity[1]	$ 208,565	$206,051
Add: Qualifying noncontrolling interests	144	129
Regulatory Capital Adjustments and Deductions:		
Less: Accumulated net unrealized losses on cash flow hedges, net of tax[2]	(437)	(560)
Less: Cumulative unrealized net loss related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax[3]	(416)	(61)
Less: Intangible assets:		
Goodwill, net of related DTLs[4]	21,532	20,858
Identifiable intangible assets other than MSRs, net of related DTLs	4,410	4,876
Less: Defined benefit pension plan net assets	720	857
Less: DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards[5]	20,068	21,337
Less: Excess over 10%/15% limitations for other DTAs, certain common stock investments, and MSRs[5][6]	9,298	9,357
Total Common Equity Tier 1 Capital (Standardized Approach and Advanced Approaches)	$ 153,534	$149,516
Additional Tier 1 Capital		
Qualifying noncumulative perpetual preferred stock[1]	$ 19,069	$19,069
Qualifying trust preferred securities[7]	1,374	1,371
Qualifying noncontrolling interests	62	28
Regulatory Capital Deductions:		
Less: Permitted ownership interests in covered funds[8]	1,128	533
Less: Minimum regulatory capital requirements of insurance underwriting subsidiaries[9]	62	61
Total Additional Tier 1 Capital (Standardized Approach and Advanced Approaches)	$ 19,315	$19,874
Total Tier 1 Capital (Common Equity Tier 1 Capital + Additional Tier 1 Capital) (Standardized Approach and Advanced Approaches)	$ 172,849	$169,390
Tier 2 Capital		
Qualifying subordinated debt	$ 23,578	$22,818
Qualifying trust preferred securities[10]	329	317
Qualifying noncontrolling interests	47	36
Eligible allowance for credit losses[11]	13,598	13,475
Regulatory Capital Deduction:		
Less: Minimum regulatory capital requirements of insurance underwriting subsidiaries[9]	62	61
Total Tier 2 Capital (Standardized Approach)	$ 37,490	$36,585
Total Capital (Tier 1 Capital + Tier 2 Capital) (Standardized Approach)	$ 210,339	$205,975
Adjustment for excess of eligible credit reserves over expected credit losses[11]	$ (12,144)	$(12,815)
Total Tier 2 Capital (Advanced Approaches)	$ 25,346	$23,770
Total Capital (Tier 1 Capital + Tier 2 Capital) (Advanced Approaches)	$ 198,195	$193,160

(1) Issuance costs of $184 million related to noncumulative perpetual preferred stock outstanding at September 30, 2017 and December 31, 2016 are excluded from common stockholders' equity and netted against such preferred stock in accordance with Federal Reserve Board regulatory reporting requirements, which differ from those under U.S. GAAP.

(2) Common Equity Tier 1 Capital is adjusted for accumulated net unrealized gains (losses) on cash flow hedges included in AOCI that relate to the hedging of items not recognized at fair value on the balance sheet.

(3) The cumulative impact of changes in Citigroup's own creditworthiness in valuing liabilities for which the fair value option has been elected, and own-credit valuation adjustments on derivatives, are excluded from Common Equity Tier 1 Capital, in accordance with the U.S. Basel III rules.

(4) Includes goodwill "embedded" in the valuation of significant common stock investments in unconsolidated financial institutions.

Footnotes continue on the following page.

(5) Of Citi's approximately $45.5 billion of net DTAs at September 30, 2017, approximately $17.6 billion were includable in Common Equity Tier 1 Capital pursuant to the U.S. Basel III rules, while approximately $27.9 billion were excluded. Excluded from Citi's Common Equity Tier 1 Capital at September 30, 2017 was in total approximately $29.3 billion of net DTAs arising from both net operating loss, foreign tax credit and general business credit carry-forwards as well as temporary differences, which was reduced by approximately $1.4 billion of net DTLs primarily associated with goodwill and certain other intangible assets. Separately, under the U.S. Basel III rules, goodwill and these other intangible assets are deducted net of associated DTLs in arriving at Common Equity Tier 1 Capital. DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards are required to be entirely deducted from Common Equity Tier 1 Capital under full implementation of the U.S. Basel III rules; whereas DTAs arising from temporary differences are deducted from Common Equity Tier 1 Capital under these rules, if in excess of 10%/15% limitations.

(6) Assets subject to 10%/15% limitations include MSRs, DTAs arising from temporary differences and significant common stock investments in unconsolidated financial institutions. At September 30, 2017 and December 31, 2016, this deduction related only to DTAs arising from temporary differences that exceeded the 10% limitation. Accordingly, approximately $9.3 billion of DTAs arising from temporary differences were excluded from Citi's Common Equity Tier 1 Capital at September 30, 2017. Changes to the U.S. corporate tax regime that impact the value of Citi's DTAs arising from temporary differences, which exceed the then current amount deducted from Citi's Common Equity Tier 1 Capital, would further reduce Citi's regulatory capital to the extent of such excess after tax. For additional information regarding potential U.S. corporate tax reform, see "Risk Factors—Strategic Risks" in Citigroup's 2016 Annual Report on Form 10-K.

(7) Represents Citigroup Capital XIII trust preferred securities, which are permanently grandfathered as Tier 1 Capital under the U.S. Basel III rules.

(8) Banking entities are required to be in compliance with the Volcker Rule of the Dodd-Frank Act that prohibits conducting certain proprietary investment activities and limits their ownership of, and relationships with, covered funds. Accordingly, Citi is required by the Volcker Rule to deduct from Tier 1 Capital all permitted ownership interests in covered funds that were acquired after December 31, 2013.

(9) 50% of the minimum regulatory capital requirements of insurance underwriting subsidiaries must be deducted from each of Tier 1 Capital and Tier 2 Capital.

(10) Represents the amount of non-grandfathered trust preferred securities eligible for inclusion in Tier 2 Capital under the U.S. Basel III rules, which will be fully phased-out of Tier 2 Capital by January 1, 2022.

(11) Under the Standardized Approach, the allowance for credit losses is eligible for inclusion in Tier 2 Capital up to 1.25% of credit risk-weighted assets, with any excess allowance for credit losses being deducted in arriving at credit risk-weighted assets, which differs from the Advanced Approaches framework, in which eligible credit reserves that exceed expected credit losses are eligible for inclusion in Tier 2 Capital to the extent the excess reserves do not exceed 0.6% of credit risk-weighted assets. The total amount of eligible credit reserves in excess of expected credit losses that were eligible for inclusion in Tier 2 Capital, subject to limitation, under the Advanced Approaches framework was $1.5 billion and $0.7 billion at September 30, 2017 and December 31, 2016, respectively.

Citigroup Capital Rollforward Under Basel III (Full Implementation)

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Common Equity Tier 1 Capital, beginning of period	$155,174	$149,516
Net income	4,133	12,095
Common and preferred stock dividends declared	(1,137)	(2,648)
Net increase in treasury stock	(5,487)	(9,186)
Net change in common stock and additional paid-in capital	98	(147)
Net decrease in foreign currency translation adjustment net of hedges, net of tax	218	2,179
Net change in unrealized losses on securities AFS, net of tax	(66)	631
Net increase in defined benefit plans liability adjustment, net of tax	(29)	(176)
Net change in adjustment related to changes in fair value of financial liabilities attributable to own creditworthiness, net of tax	2	88
Net change in goodwill, net of related DTLs	57	(674)
Net decrease in identifiable intangible assets other than MSRs, net of related DTLs	177	466
Net decrease in defined benefit pension plan net assets	76	137
Net decrease in DTAs arising from net operating loss, foreign tax credit and general business credit carry-forwards	764	1,269
Net change in excess over 10%/15% limitations for other DTAs, certain common stock investments and MSRs	(447)	59
Other	1	(75)
Net change in Common Equity Tier 1 Capital	$(1,640)	$4,018
Common Equity Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	$153,534	$153,534
Additional Tier 1 Capital, beginning of period	$19,955	$19,874
Net increase in qualifying trust preferred securities	—	3
Net increase in permitted ownership interests in covered funds	(633)	(595)
Other	(7)	33
Net decrease in Additional Tier 1 Capital	$(640)	$(559)
Tier 1 Capital, end of period (Standardized Approach and Advanced Approaches)	$172,849	$172,849
Tier 2 Capital, beginning of period (Standardized Approach)	$37,390	$36,585
Net change in qualifying subordinated debt	(64)	760
Net increase in eligible allowance for credit losses	165	123
Other	(1)	22
Net increase in Tier 2 Capital (Standardized Approach)	$100	$905
Tier 2 Capital, end of period (Standardized Approach)	$37,490	$37,490
Total Capital, end of period (Standardized Approach)	$210,339	$210,339
Tier 2 Capital, beginning of period (Advanced Approaches)	$25,253	$23,770
Net change in qualifying subordinated debt	(64)	760
Net increase in excess of eligible credit reserves over expected credit losses	158	794
Other	(1)	22
Net increase in Tier 2 Capital (Advanced Approaches)	$93	$1,576
Tier 2 Capital, end of period (Advanced Approaches)	$25,346	$25,346

Total Capital, end of period (Advanced Approaches)	$198,195	$198,195

Citigroup Risk-Weighted Assets Rollforward (Basel III Standardized Approach with Full Implementation)

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Total Risk-Weighted Assets, beginning of period	$1,188,167	$1,147,956
Changes in Credit Risk-Weighted Assets		
Net increase in general credit risk exposures[1]	1,511	15,154
Net increase in repo-style transactions	8,430	15,417
Net decrease in securitization exposures	(4,129)	(6,183)
Net increase in equity exposures	1,003	1,839
Net increase in over-the-counter (OTC) derivatives	2,827	1,746
Net change in other exposures[2]	(1,736)	3,715
Net change in off-balance sheet exposures	(731)	2,591
Net increase in Credit Risk-Weighted Assets	$7,175	$34,279
Changes in Market Risk-Weighted Assets		
Net change in risk levels	$(1,727)	$14,163
Net decrease due to model and methodology updates	(10,697)	(13,480)
Net change in Market Risk-Weighted Assets	$(12,424)	$683
Total Risk-Weighted Assets, end of period	$1,182,918	$1,182,918

(1) General credit risk exposures include cash and balances due from depository institutions, securities, and loans and leases.

(2) Other exposures include cleared transactions, unsettled transactions, and other assets.

Citigroup Risk-Weighted Assets Rollforward (Basel III Advanced Approaches with Full Implementation)

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Total Risk-Weighted Assets, beginning of period	$1,183,399	$1,189,680
Changes in Credit Risk-Weighted Assets		
Net change in retail exposures	1,898	(6,757)
Net decrease in wholesale exposures	(6,362)	(5,946)
Net increase in repo-style transactions	4,658	4,660
Net decrease in securitization exposures	(4,362)	(6,477)
Net increase in equity exposures	931	1,619
Net change in over-the-counter (OTC) derivatives	1,088	(5,009)
Net change in derivatives CVA	1,017	(83)
Net increase in other exposures[1]	2,099	4,615
Net decrease in supervisory 6% multiplier[2]	(3)	(798)
Net change in Credit Risk-Weighted Assets	$964	$(14,176)
Changes in Market Risk-Weighted Assets		
Net change in risk levels	$(2,075)	$13,842
Net decrease due to model and methodology updates	(10,697)	(13,480)
Net change in Market Risk-Weighted Assets	$(12,772)	$362
Net decrease in Operational Risk-Weighted Assets	$(2,449)	$(6,724)

Total Risk-Weighted Assets, end of period	$1,169,142	$1,169,142

(1) Other exposures include cleared transactions, unsettled transactions, assets other than those reportable in specific exposure categories, and non-material portfolios.
(2) Supervisory 6% multiplier does not apply to derivatives CVA.

Total risk-weighted assets under the Basel III Standardized Approach increased from year-end 2016 substantially due to higher credit risk-weighted assets, primarily resulting from corporate loan growth and increased repo-style transaction activity.

Total risk-weighted assets under the Basel III Advanced Approaches decreased from year-end 2016, driven by substantially lower credit and operational risk-weighted assets. The decrease in credit risk-weighted assets was primarily due to annual updates to model parameters for wholesale exposures, a decline in retail exposures resulting from residential mortgage loan sales and repayments as well as divestitures of certain legacy assets, and, separately, certain securitization exposures becoming subject to deduction from Tier 1 Capital under the Volcker Rule of the Dodd-Frank Act, which was partially offset by an increase in repo-style transaction activity. Operational risk-weighted assets decreased from year-end 2016 primarily due to assessed improvements in the business environment and risk controls, as well as changes in operational loss severity and frequency.

Supplementary Leverage Ratio

Citigroup's Supplementary Leverage ratio was 7.1% for the third quarter of 2017, compared to 7.2% for both the second quarter of 2017 and fourth quarter of 2016. The decline in the ratio quarter-over-quarter was principally driven by the return of $6.4 billion of capital to common shareholders and an increase in Total Leverage Exposure primarily due to growth in average on-balance sheet assets, partially offset by quarterly net income of $4.1 billion. The ratio decreased from the fourth quarter of 2016, as year-to-date net income of $12.1 billion and beneficial net movements

in AOCI were more than offset by the return of $10.8 billion of capital to common shareholders and an increase in Total Leverage Exposure primarily due to growth in average on-balance sheet assets.

The following table sets forth Citi's Supplementary Leverage ratio and related components, assuming full implementation under the U.S. Basel III rules, for the three months ended September 30, 2017 and December 31, 2016.

Citigroup Basel III Supplementary Leverage Ratio and Related Components (Full Implementation)

In millions of dollars, except ratios	September 30, 2017	December 31, 2016
Tier 1 Capital	$172,849	$169,390
Total Leverage Exposure (TLE)		
On-balance sheet assets[1]	$1,892,292	$1,819,802
Certain off-balance sheet exposures:[2]		
Potential future exposure on derivative contracts	216,819	211,009
Effective notional of sold credit derivatives, net[3]	68,569	64,366
Counterparty credit risk for repo-style transactions[4]	25,513	22,002
Unconditionally cancellable commitments	67,945	66,663
Other off-balance sheet exposures	216,662	219,428
Total of certain off-balance sheet exposures	$595,508	$583,468
Less: Tier 1 Capital deductions	57,218	57,879
Total Leverage Exposure	$2,430,582	$2,345,391
Supplementary Leverage ratio	7.11 %	7.22 %

(1) Represents the daily average of on-balance sheet assets for the quarter.

(2) Represents the average of certain off-balance sheet exposures calculated as of the last day of each month in the quarter.

(3) Under the U.S. Basel III rules, banking organizations are required to include in TLE the effective notional amount of sold credit derivatives, with netting of exposures permitted if certain conditions are met.

(4) Repo-style transactions include repurchase or reverse repurchase transactions and securities borrowing or securities lending transactions.

Citibank's Supplementary Leverage ratio, assuming full implementation under the U.S. Basel III rules, was 6.7% for the third quarter of 2017, compared to 6.6% for both the second quarter of 2017 and fourth quarter of 2016. The growth in the ratio quarter-over-quarter and from year-end 2016 was principally driven by an increase in Tier 1 Capital attributable largely to net income, partially offset by cash dividends paid by Citibank to its parent, Citicorp, and which were subsequently remitted to Citigroup.

Tangible Common Equity, Book Value Per Share, Tangible Book Value Per Share and Returns on Equity
Tangible common equity (TCE), as defined by Citi, represents common stockholders' equity less goodwill and identifiable intangible assets (other than MSRs). Other companies may calculate TCE in a different manner. TCE, tangible book value per share and returns on average TCE are non-GAAP financial measures.

In millions of dollars or shares, except per share amounts	September 30, 2017	December 31, 2016
Total Citigroup stockholders' equity	$ 227,634	$ 225,120
Less: Preferred stock	19,253	19,253
Common stockholders' equity	$ 208,381	$ 205,867
Less:		
Goodwill	22,345	21,659
Identifiable intangible assets (other than MSRs)	4,732	5,114
Goodwill and identifiable intangible assets (other than MSRs) related to assets held-for-sale	48	72
Tangible common equity (TCE)	$ 181,256	$ 179,022
Common shares outstanding (CSO)	2,644.0	2,772.4
Book value per share (common equity/CSO)	$ 78.81	$ 74.26
Tangible book value per share (TCE/CSO)	68.55	64.57

In millions of dollars	Three Months Ended September 30, 2017	Three Months Ended September 30, 2016	Nine Months Ended September 30, 2017	Nine Months Ended September 30, 2016
Net income available to common shareholders	$3,861	$3,615	$11,202	$10,582
Average common stockholders' equity	$209,764	$212,321	$208,787	$209,850
Average TCE	$182,333	$184,492	$181,271	$182,914
Less: Average net DTAs excluded from Common Equity Tier 1 Capital[1]	28,085	27,921	28,522	28,954
Average TCE, excluding average net DTAs excluded from Common Equity Tier 1 Capital	$154,248	$156,571	$152,749	$153,960
Return on average common stockholders' equity	7.3 %	6.8 %	7.2 %	6.7 %
Return on average TCE (ROTCE)[2]	8.4	7.8	8.3	7.7
Return on average TCE, excluding average net DTAs excluded from Common Equity Tier 1 Capital	9.9	9.2	9.8	9.2

(1) Represents average net DTAs excluded in arriving at Common Equity Tier 1 Capital under full implementation of the U.S. Basel III rules.
(2) ROTCE represents annualized net income available to common shareholders as a percentage of average TCE.

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(1) For additional information regarding certain credit risk, market risk and other quantitative and qualitative information, refer to Citi's Pillar 3 Basel III Advanced Approaches Disclosures, as required by the rules of the Federal Reserve Board, on Citi's Investor Relations website.

MANAGING GLOBAL RISK

For Citi, effective risk management is of primary importance to its overall operations. Accordingly, Citi’s risk management process has been designed to monitor, evaluate and manage the principal risks it assumes in conducting its activities. Specifically, the activities that Citi engages in, and the risks those activities generate, must be consistent with Citi’s mission and value proposition, the key principles that guide it, and Citi's risk appetite.

For more information on Citi’s management of global risk, including its three lines of defense, see “Managing Global Risk” in Citi’s 2016 Annual Report on Form 10-K.

CREDIT RISK

For additional information on credit risk, including Citi's credit risk management, measurement and stress testing, see "Credit Risk" and "Risk Factors" in Citi's 2016 Annual Report on Form 10-K.

CONSUMER CREDIT

Citi provides traditional retail banking, including commercial banking, and credit card products in 19 countries and jurisdictions through North America GCB, Latin America GCB and Asia GCB. The retail banking products include consumer mortgages, home equity, personal and commercial loans and lines of credit, and similar related products with a focus on lending to prime customers. Citi uses its risk appetite framework to define its lending parameters. In addition, Citi

uses proprietary scoring models for new customer approvals. As stated in "Global Consumer Banking" above, GCB's overall strategy is to leverage Citi's global footprint and be the preeminent bank for the affluent and emerging affluent consumers in large urban centers. In credit cards and in certain retail markets, Citi serves customers in a somewhat broader set of segments and geographies. GCB's commercial banking business focuses on small to mid-sized businesses.

Consumer Credit Portfolio

The following tables show Citi's quarterly end-of-period consumer loans:[1]

In billions of dollars	3Q'17	2Q'17	1Q'17	4Q'16	3Q'16
Retail banking:					
Mortgages	$81.4	$81.4	$81.2	$79.4	$81.4
Commercial banking	35.5	34.8	33.9	32.0	33.2
Personal and other	27.3	27.2	26.3	24.9	27.0
Total retail banking	$144.2	$143.4	$141.4	$136.3	$141.6
Cards:					
Citi-branded cards	$110.7	$109.9	$105.7	$108.3	$103.9
Citi retail services	45.9	45.2	44.2	47.3	43.9
Total cards	$156.6	$155.1	$149.9	$155.6	$147.8
Total GCB	$300.8	$298.5	$291.3	$291.9	$289.4
GCB regional distribution:					
North America	62 %	62 %	62 %	64 %	62 %
Latin America	9	9	9	8	8
Asia[2]	29	29	29	28	30
Total GCB	100 %	100 %	100 %	100 %	100 %
Corporate/Other[3]	$24.8	$26.8	$29.3	$33.2	$39.0
Total consumer loans	$325.6	$325.3	$320.6	$325.1	$328.4

(1) End-of-period loans include interest and fees on credit cards.
(2) Asia includes loans and leases in certain EMEA countries for all periods presented.
(3) Primarily consists of legacy assets, principally North America consumer mortgages.

For information on changes to Citi's end-of-period consumer loans, see "Liquidity Risk—Loans" below.

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Overall Consumer Credit Trends

The following charts show the quarterly trends in delinquencies and net credit losses across both retail banking, including commercial banking, and cards for total GCB and by region.

Global Consumer Banking
North America
Latin America
Asia[1]

(1) Asia includes GCB activities in certain EMEA countries for all periods presented.

North America GCB provides mortgages, home equity loans, personal loans and commercial banking products through Citi's retail banking network and card products through Citi-branded cards and Citi retail services businesses. The retail bank is concentrated in six major metropolitan cities in the United States (for additional information on the U.S. retail bank, see "North America GCB" above).

As of September 30, 2017, approximately 70% of North America GCB consumer loans consisted of Citi-branded and Citi retail services cards, which generally drives the overall credit performance of North America GCB, including the credit performance year-over-year as of the third quarter of 2017 (for additional information on North America GCB's cards portfolios, including delinquency and net credit loss rates, see "Credit Card Trends" below). Quarter-over-quarter, 90+ days past due delinquencies increased slightly, primarily due to seasonality in the cards portfolios. The net credit loss rate increased quarter-over-quarter, primarily due to episodic charge-offs in the commercial portfolio, which were offset by related loan loss reserve releases.

Latin America GCB operates in Mexico through Citibanamex, one of Mexico's largest banks, and provides credit cards, consumer mortgages, personal loans and commercial banking products. Latin America GCB serves a more mass market segment in Mexico and focuses on developing multi-product relationships with customers.

As set forth in the chart above, 90+ days past due
delinquencies modestly improved and the net credit loss rate increased in Latin America GCB year-over-year as of the third quarter of 2017. The increase in the net credit loss rate primarily reflected seasoning. The delinquency and net credit loss rates remained stable quarter-over-quarter.

Asia GCB operates in 17 countries in Asia and EMEA and provides credit cards, consumer mortgages, personal loans and commercial banking products.

As shown in the chart above, 90+ days past due delinquency and net credit loss rates were largely stable in Asia GCB year-over-year and quarter-over-quarter as of the third quarter of 2017. This stability reflects the strong credit profiles in Asia GCB's target customer segments. In addition, regulatory changes in many markets in Asia over the past few years have resulted in stable or improved portfolio credit quality, despite weaker macroeconomic conditions in several countries.

For additional information on cost of credit, loan delinquency and other information for Citi's consumer loan portfolios, see each respective business's results of operations above and Note 13 to the Consolidated Financial Statements.

Credit Card Trends

The following charts show the quarterly trends in delinquencies and net credit losses for total GCB cards, Citi's North America Citi-branded cards and Citi retail services portfolios as well as for Citi's Latin America and Asia Citi-branded cards portfolios.

Total Cards

North America Citi-Branded Cards

North America GCB's Citi-branded cards portfolio issues proprietary and co-branded cards. As shown in the chart above, the 90+ days past due delinquency rate in Citi-branded cards was stable year-over-year and quarter-over-quarter. The net credit loss rate increased year-over-year primarily due to the impact of the Costco portfolio acquisition and seasoning, and decreased quarter-over-quarter mostly due to seasonality.

North America Citi Retail Services

Citi retail services partners directly with more than 20 retailers and dealers to offer private-label and co-branded consumer and commercial cards. Citi retail services' target market is focused on select industry segments such as home improvement, specialty retail, consumer electronics and fuel. Citi retail services continually evaluates opportunities to add partners within target industries that have strong loyalty, lending or payment programs and growth potential. Citi retail services' delinquency and net credit loss rates increased year-over-year, primarily due to seasoning and softness in the collections rates experienced once an account reaches mid-stage delinquency. The net credit loss rate decreased quarter-over-quarter due to seasonality, while the delinquency rate increase quarter-over-quarter was driven by seasonality and softening in collections.

Latin America Citi-Branded Cards

Latin America GCB issues proprietary and co-branded cards. As set forth in the chart above, the net credit loss rate increased year-over-year and quarter-over-quarter primarily due to seasoning. The 90+ days past due delinquency rate increased year-over-year also driven by seasoning, while the decrease quarter-over-quarter was due to seasonality.

Asia Citi-Branded Cards[1]

(1) Asia includes loans and leases in certain EMEA countries for all periods presented.

Asia GCB issues proprietary and co-branded cards. As set forth in the chart above, 90+ days past due delinquency and net credit loss rates have remained broadly stable, driven by the mature and well-diversified cards portfolios.
For additional information on cost of credit, delinquency and other information for Citi's cards portfolios, see each respective business's results of operations above and Note 13 to the Consolidated Financial Statements.

North America Cards FICO Distribution
The following tables show the current FICO score distributions for Citi's North America Citi-branded cards and Citi retail services portfolios based on end-of-period receivables. FICO scores are updated monthly for substantially all of the portfolio and on a quarterly basis for the remaining portfolio.

Citi-Branded

FICO distribution	September 30, 2017		December 31, 2016	
> 720	62	%	64	%
660 - 720	27		26	
620 - 660	7		6	
< 620	4		4	
Total	100	%	100	%

Citi Retail Services

FICO distribution	September 30, 2017		December 31, 2016	
> 720	41	%	42	%
660 - 720	35		35	
620 - 660	13		13	
< 620	11		10	
Total	100	%	100	%

As indicated by the tables above, the FICO distributions for Citi-branded cards and Citi retail services cards portfolios were largely unchanged versus year-end 2016. For additional information on FICO scores, see Note 13 to the Consolidated Financial Statements.

North America Consumer Mortgage Lending

Citi's North America consumer mortgage portfolio consists of both residential first mortgages and home equity loans. The following table shows the outstanding quarterly end-of-period loans for Citi's North America residential first mortgage and home equity loan portfolios:

In billions of dollars	3Q'17	2Q'17	1Q'17	4Q'16	3Q'16
GCB:					
Residential firsts	$40.1	$40.2	$40.3	$40.2	$40.1
Home equity	4.1	4.1	4.0	4.0	3.9
Total GCB	$44.2	$44.3	$44.3	$44.2	$44.0
Corporate/Other:					
Residential firsts	$10.1	$11.0	$12.3	$13.4	$14.8
Home equity	11.5	12.4	13.4	15.0	16.1
Total Corporate/ Other	$21.6	$23.4	$25.7	$28.4	$30.9
Total Citigroup—North America	$65.8	$67.7	$70.0	$72.6	$74.9

For additional information on delinquency and net credit loss trends in Citi's consumer mortgage portfolio, see "Additional Consumer Credit Details" below.

Home Equity Loans—Revolving HELOCs

As set forth in the table above, Citi had $15.6 billion of home equity loans as of September 30, 2017, of which $3.6 billion were fixed-rate home equity loans and $12.0 billion were extended under home equity lines of credit (Revolving HELOCs). Fixed-rate home equity loans are fully amortizing. Revolving HELOCs allow for amounts to be drawn for a period of time with the payment of interest only until the end of the draw period, when the outstanding amount is converted to an amortizing loan, or "reset" (the interest-only payment feature during the revolving period is standard for this product across the industry). Upon reset, these borrowers will be required to pay both interest, usually at a variable rate, and principal that amortizes typically over 20 years, rather than the standard 30-year amortization. Of the Revolving HELOCs at September 30, 2017, $6.8 billion had reset (compared to $6.6 billion at June 30, 2017) and $5.2 billion were still within their revolving period that had not reset (compared to $6.0 billion at June 30, 2017). The following chart indicates the FICO and combined loan-to-value (CLTV) characteristics of Citi's Revolving HELOCs portfolio and the year in which they reset:

North America Home Equity Lines of Credit Amortization – Citigroup
Total ENR by Reset Year
In billions of dollars as of September 30, 2017
Note: Totals may not sum due to rounding.

Approximately 57% of Citi's total Revolving HELOCs portfolio had reset as of September 30, 2017 (compared to 53% as of June 30, 2017). Of the remaining Revolving HELOCs portfolio, approximately 11% will commence amortization during the remainder of 2017. Citi's customers with Revolving HELOCs that reset could experience "payment shock" due to the higher required payments on the loans. Citi currently estimates that the monthly loan payment for its Revolving HELOCs that reset during the remainder of 2017 could increase on average by approximately $355, or 101%. Increases in interest rates could further increase these payments given the variable nature of the interest rates on these loans post-reset. Borrowers' high loan-to-value positions, as well as the cost and availability of refinancing options, could limit borrowers' ability to refinance their Revolving HELOCs as these loans begin to reset.

Approximately 5.9% of the Revolving HELOCs that have reset as of September 30, 2017 were 30+ days past due, compared to 3.9% of the total outstanding home equity loan portfolio (amortizing and non-amortizing). This

compared to 5.9% and 3.7%, respectively, as of June 30, 2017. As newly amortizing loans continue to season, the delinquency rate of Citi's total home equity loan portfolio could increase. In addition, resets to date have generally occurred during a period of historically low interest rates, which Citi believes has likely reduced the overall "payment shock" to the borrower.

Citi monitors this reset risk closely and will continue to consider any potential impact in determining its allowance for loan loss reserves. In addition, management continues to review and take additional actions to offset potential reset risk, such as a borrower outreach program to provide reset risk education and proactively working with high-risk borrowers through a specialized single point of contact unit.

Additional Consumer Credit Details

Consumer Loan Delinquency Amounts and Ratios

In millions of dollars, except EOP loan amounts in billions	EOP loans[1] September 30, 2017	90+ days past due[2] September 30, 2017	June 30, 2017	September 30, 2016	30–89 days past due[2] September 30, 2017	June 30, 2017	September 30, 2016
Global Consumer Banking[3][4]							
Total	$ 300.8	$2,279	$2,183	$ 2,166	$2,763	$2,498	$ 2,553
Ratio		0.76 %	0.73 %	0.75 %	0.92 %	0.84 %	0.88 %
Retail banking							
Total	$ 144.2	$489	$477	$ 579	$805	$747	$ 722
Ratio		0.34 %	0.33 %	0.41 %	0.56 %	0.52 %	0.51 %
North America	55.7	167	155	256	270	191	198
Ratio		0.30 %	0.28 %	0.47 %	0.49 %	0.35 %	0.37 %
Latin America	21.0	151	150	160	244	216	196
Ratio		0.72 %	0.71 %	0.86 %	1.16 %	1.03 %	1.05 %
Asia[5]	67.5	171	172	163	291	340	328
Ratio		0.25 %	0.26 %	0.24 %	0.43 %	0.51 %	0.48 %
Cards							
Total	$ 156.6	$1,790	$1,706	$ 1,587	$1,958	$1,751	$ 1,831
Ratio		1.14 %	1.10 %	1.07 %	1.25 %	1.13 %	1.24 %
North America—Citi-branded	86.3	668	659	607	705	619	710
Ratio		0.77 %	0.77 %	0.75 %	0.82 %	0.72 %	0.87 %
North America—Citi retail services	45.9	772	693	664	836	730	750
Ratio		1.68 %	1.53 %	1.51 %	1.82 %	1.62 %	1.71 %
Latin America	5.6	159	161	131	163	151	131
Ratio		2.84 %	2.93 %	2.67 %	2.91 %	2.75 %	2.67 %
Asia[5]	18.8	191	193	185	254	251	240
Ratio		1.02 %	1.03 %	1.05 %	1.35 %	1.34 %	1.36 %
Corporate/Other—Consumer[6][7]							
Total	$ 24.8	$605	$601	$ 857	$643	$554	$ 849
Ratio		2.57 %	2.37 %	2.29 %	2.74 %	2.18 %	2.27 %
International	1.7	57	63	164	47	44	135
Ratio		3.35 %	3.50 %	2.98 %	2.76 %	2.44 %	2.45 %
North America	23.1	548	538	693	596	510	714
Ratio		2.51 %	2.28 %	2.17 %	2.73 %	2.16 %	2.24 %
Total Citigroup	$ 325.6	$2,884	$2,784	$ 3,023	$3,406	$3,052	$ 3,402
Ratio		0.89 %	0.86 %	0.93 %	1.05 %	0.94 %	1.04 %

(1) End-of-period (EOP) loans include interest and fees on credit cards.

(2) The ratios of 90+ days past due and 30–89 days past due are calculated based on EOP loans, net of unearned income.

(3) The 90+ days past due balances for North America—Citi-branded and North America—Citi retail services are generally still accruing interest. Citigroup's policy is generally to accrue interest on credit card loans until 180 days past due, unless notification of bankruptcy filing has been received earlier.

(4) The 90+ days past due and 30–89 days past due and related ratios for GCB North America exclude U.S. mortgage loans that are guaranteed by U.S. government-sponsored entities since the potential loss predominantly resides within the U.S. government-sponsored entities. The amounts excluded for loans 90+ days past due and (EOP loans) were $289 million ($0.7 billion), $295 million ($0.8 billion) and $305 million ($0.7 billion) at September 30, 2017,

June 30, 2017, and September 30, 2016, respectively. The amounts excluded for loans 30–89 days past due (EOP loans have the same adjustment as above) were $79 million, $84 million and $58 million at September 30, 2017, June 30, 2017 and September 30, 2016, respectively.

(5) Asia includes delinquencies and loans in certain EMEA countries for all periods presented.

(6) The 90+ days past due and 30–89 days past due and related ratios for Corporate/Other—North America consumer exclude U.S. mortgage loans that are guaranteed by U.S. government-sponsored entities since the potential loss predominantly resides within the U.S. government-sponsored entities. The amounts excluded for loans 90+ days past due (and EOP loans) were $0.7 billion ($1.2 billion), $0.7 billion ($1.3 billion) and $1.0 billion ($1.5 billion) at September 30, 2017, June 30, 2017 and September 30, 2016, respectively. The amounts excluded for loans 30–89 days past due (EOP loans have the same adjustment as above) for each period were $0.1 billion, $0.2 billion and $0.1 billion at September 30, 2017, June 30, 2017 and September 30, 2016, respectively.

(7) The September 30, 2017, June 30, 2017 and September 30, 2016 loans 90+ days past due and 30–89 days past due and related ratios for North America exclude $6 million, $6 million and $9 million, respectively, of loans that are carried at fair value.

Consumer Loan Net Credit Losses and Ratios

	Average loans[1]	Net credit losses[2][3]		
In millions of dollars, except average loan amounts in billions	3Q17	3Q17	2Q17	3Q16
Global Consumer Banking				
Total	$ 299.7	$1,704	$1,615	$1,349
Ratio		2.26 %	2.20 %	1.87 %
Retail banking				
Total	$ 144.3	$300	$244	$257
Ratio		0.82 %	0.69 %	0.72 %
North America	55.7	88	39	52
Ratio		0.63 %	0.28 %	0.38 %
Latin America	21.2	143	151	132
Ratio		2.68 %	3.00 %	2.75 %
Asia[4]	67.4	69	54	73
Ratio		0.41 %	0.33 %	0.43 %
Cards				
Total	$ 155.4	$1,404	$1,371	$1,092
Ratio		3.58 %	3.63 %	2.99 %
North America—Citi-branded	85.4	611	611	448
Ratio		2.84 %	2.94 %	2.25 %
North America—Retail services	45.6	540	531	427
Ratio		4.70 %	4.79 %	3.90 %
Latin America	5.6	152	126	122
Ratio		10.77 %	9.54 %	9.52 %
Asia[4]	18.8	101	103	95
Ratio		2.13 %	2.25 %	2.15 %
Corporate/Other—Consumer[3]				
Total	$ 25.8	$52	$18	$134
Ratio		0.80 %	0.26 %	1.31 %
International	1.9	25	24	82
Ratio		5.22 %	5.07 %	6.04 %
North America	23.9	27	(6)	52
Ratio		0.45 %	(0.09)%	0.58 %
Other[5]	0.1	(22)	—	—
Total Citigroup	$ 325.6	$1,734	$1,633	$1,483
Ratio		2.11 %	2.04 %	1.80 %

(1) Average loans include interest and fees on credit cards.

(2) The ratios of net credit losses are calculated based on average loans, net of unearned income.

(3) In October 2016, Citi entered into agreements to sell Citi's Brazil and Argentina consumer banking businesses and classified these businesses as held-for-sale (HFS). The sale of the Argentina consumer banking business was completed at the end of the first quarter 2017. As a result of HFS accounting treatment, approximately $38 million and $37 million of net credit losses (NCLs) were recorded as a reduction in revenue (Other revenue) during the second quarter of 2017 and the third quarter of 2017, respectively. Accordingly, these NCLs are not included in this table. Loans classified as HFS are excluded from this table as they are recorded in Other assets.

(4) Asia includes NCLs and average loans in certain EMEA countries for all periods presented.
(5) The third quarter of 2017 NCLs represent a recovery related to legacy assets.

CORPORATE CREDIT

Consistent with its overall strategy, Citi's corporate clients are typically large, multi-national corporations that value Citi's global network. Citi aims to establish relationships with these clients that encompass multiple products, consistent with client needs, including cash management and trade services, foreign exchange, lending, capital markets and M&A advisory.

Corporate Credit Portfolio

The following table sets forth Citi's corporate credit portfolio within ICG (excluding private bank), before consideration of collateral or hedges, by remaining tenor for the periods indicated:

	At September 30, 2017				At June 30, 2017				At December 31, 2016			
In billions of dollars	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure	Due within 1 year	Greater than 1 year but within 5 years	Greater than 5 years	Total exposure
Direct outstandings (on-balance sheet)[1]	$124	$ 96	$ 23	$ 243	$122	$ 94	$ 23	$ 239	$109	$ 94	$ 22	$ 225
Unfunded lending commitments (off-balance sheet)[2]	104	219	20	$ 343	103	222	22	347	103	218	23	344
Total exposure	$228	$ 315	$ 43	$ 586	$225	$ 316	$ 45	$ 586	$212	$ 312	$ 45	$ 569

(1) Includes drawn loans, overdrafts, bankers' acceptances and leases.
(2) Includes unused commitments to lend, letters of credit and financial guarantees.

Portfolio Mix—Geography, Counterparty and Industry

Citi's corporate credit portfolio is diverse across geography and counterparty. The following table shows the percentage by region based on Citi's internal management geography:

	September 30, 2017	June 30, 2017	December 31, 2016
North America	55 %	55 %	55 %
EMEA	26	26	26
Asia	12	12	12
Latin America	7	7	7
Total	100 %	100 %	100 %

The maintenance of accurate and consistent risk ratings across the corporate credit portfolio facilitates the comparison of credit exposure across all lines of business, geographic regions and products. Counterparty risk ratings reflect an estimated probability of default for a counterparty and are derived primarily through the use of validated statistical models, scorecard models and external agency ratings (under defined circumstances), in combination with consideration of factors specific to the obligor or market, such as management experience, competitive position, regulatory environment and commodity prices. Facility risk ratings are assigned that reflect the probability of default of
the obligor and factors that affect the loss-given-default of the facility, such as support or collateral. Internal obligor ratings that generally correspond to BBB and above are

considered investment grade, while those below are considered non-investment grade.

Citigroup also has incorporated climate risk assessment and reporting criteria for certain obligors, as necessary. Factors evaluated include consideration of climate risk to an obligor's business and physical assets and, when relevant, consideration of cost-effective options to reduce greenhouse gas emissions.

The following table presents the corporate credit portfolio by facility risk rating as a percentage of the total corporate credit portfolio:

	Total exposure					
	September 30, 2017		June 30, 2017		December 31, 2016	
AAA/AA/A	49	%	49	%	48	%
BBB	34		34		34	
BB/B	16		16		16	
CCC or below	1		1		2	
Total	100	%	100	%	100	%

Note: Total exposure includes direct outstandings and unfunded lending commitments.

Citi’s corporate credit portfolio is also diversified by industry. The following table shows the allocation of Citi’s total corporate credit portfolio by industry:

	Total exposure					
	September 30, 2017		June 30, 2017		December 31, 2016	
Transportation and industrial	22	%	21	%	22	%
Consumer retail and health	16		17		16	
Technology, media and telecom	11		11		12	
Power, chemicals, metals and mining	10		10		11	
Energy and commodities[(1)]	8		9		9	
Banks/broker-dealers/finance companies	8		7		6	
Real estate	7		8		7	
Insurance and special purpose entities	5		5		5	
Public sector	5		5		5	
Hedge funds	4		5		5	
Other industries	4		2		2	
Total	100	%	100	%	100	%

Note: Total exposure includes direct outstandings and unfunded lending commitments.

(1) In addition to this exposure, Citi has energy-related exposure within the “Public sector” (e.g., energy-related state-owned entities) and “Transportation and industrial” sector (e.g., off-shore drilling entities) included in the table above. As of September 30, 2017, Citi’s total exposure to these energy-related entities remained largely consistent with the prior quarter, at approximately $6 billion, of which approximately $3 billion consisted of direct outstanding funded loans.

Credit Risk Mitigation

As part of its overall risk management activities, Citigroup uses credit derivatives and other risk mitigants to hedge portions of the credit risk in its corporate credit portfolio, in addition to outright asset sales. The results of the mark-to-market and any realized gains or losses on credit derivatives are reflected primarily in Other revenue on the Consolidated Statement of Income.

At September 30, 2017, June 30, 2017 and December 31, 2016, $22.2 billion, $23.7 billion and $29.5 billion, respectively, of the corporate credit portfolio was economically hedged. Citigroup’s expected loss model used in the calculation of its loan loss reserve does not include the favorable impact of credit derivatives and other mitigants that are marked-to-market. In addition, the reported amounts of direct outstandings and unfunded lending commitments in the tables above do not reflect the impact of these hedging transactions. The credit protection was economically hedging underlying corporate credit portfolio exposures with the following risk rating distribution:

Rating of Hedged Exposure

	September 30, 2017		June 30, 2017		December 31, 2016	
AAA/AA/A	16	%	16	%	16	%
BBB	48		47		49	
BB/B	33		34		31	

CCC or below	3		3		4	
Total	100	%	100	%	100	%

The credit protection was economically hedging underlying corporate credit portfolio exposures with the following industry distribution:

Industry of Hedged Exposure

	September 30, 2017		June 30, 2017		December 31, 2016	
Transportation and industrial	27	%	27	%	29	%
Energy and commodities	17		20		20	
Consumer retail and health	12		11		10	
Technology, media and telecom	14		13		13	
Power, chemicals, metals and mining	12		13		12	
Public sector	8		6		5	
Banks/broker-dealers	5		5		4	
Insurance and special purpose entities	2		2		3	
Other industries	3		3		4	
Total	100	%	100	%	100	%

ADDITIONAL CONSUMER AND CORPORATE CREDIT DETAILS

Loans Outstanding

In millions of dollars	3rd Qtr. 2017	2nd Qtr. 2017	1st Qtr. 2017	4th Qtr. 2016	3rd Qtr. 2016
Consumer loans					
In U.S. offices					
Mortgage and real estate[1]	$67,131	$69,022	$71,170	$72,957	$75,057
Installment, revolving credit and other	3,191	3,190	3,252	3,395	3,465
Cards	131,476	130,181	125,799	132,654	124,637
Commercial and industrial	7,619	7,404	7,434	7,159	6,989
Total	$209,417	$209,797	$207,655	$216,165	$210,148
In offices outside the U.S.					
Mortgage and real estate[1]	$43,723	$43,821	$43,822	$42,803	$45,751
Installment, revolving credit and other	26,153	26,480	26,014	24,887	28,217
Cards	25,443	25,376	24,497	23,783	25,833
Commercial and industrial	20,015	18,956	17,728	16,568	17,498
Lease financing	77	81	83	81	113
Total	$115,411	$114,714	$112,144	$108,122	$117,412
Total consumer loans	$324,828	$324,511	$319,799	$324,287	$327,560
Unearned income[2]	748	750	757	776	812
Consumer loans, net of unearned income	$325,576	$325,261	$320,556	$325,063	$328,372
Corporate loans					
In U.S. offices					
Commercial and industrial	$51,679	$50,341	$49,845	$49,586	$50,156
Loans to financial institutions	37,203	36,953	35,734	35,517	35,801
Mortgage and real estate[1]	43,274	42,041	40,052	38,691	41,078
Installment, revolving credit and other	32,464	31,611	32,212	34,501	32,571
Lease financing	1,493	1,467	1,511	1,518	1,532
Total	$166,113	$162,413	$159,354	$159,813	$161,138
In offices outside the U.S.					
Commercial and industrial	$93,107	$91,131	$87,258	$81,882	$84,492
Loans to financial institutions	33,050	34,844	33,763	26,886	27,305
Mortgage and real estate[1]	6,383	6,783	5,527	5,363	5,595
Installment, revolving credit and other	23,830	19,200	16,576	19,965	25,462
Lease financing	216	234	253	251	243
Governments and official institutions	5,628	5,518	5,970	5,850	6,506
Total	$162,214	$157,710	$149,347	$140,197	$149,603
Total corporate loans	$328,327	$320,123	$308,701	$300,010	$310,741
Unearned income[3]	(720)	(689)	(662)	(704)	(678)
Corporate loans, net of unearned income	$327,607	$319,434	$308,039	$299,306	$310,063
Total loans—net of unearned income	$653,183	$644,695	$628,595	$624,369	$638,435
Allowance for loan losses—on drawn exposures	(12,366)	(12,025)	(12,030)	(12,060)	(12,439)
Total loans—net of unearned income and allowance for credit losses	$640,817	$632,670	$616,565	$612,309	$625,996
Allowance for loan losses as a percentage of total loans—net of unearned income[4]	1.91%	1.88%	1.93%	1.94%	1.97%
Allowance for consumer loan losses as a percentage of total consumer loans—net of unearned income[4]	3.04%	2.93%	2.96%	2.88%	2.95%

Allowance for corporate loan losses as a percentage of total corporate loans—net of unearned income[4]	0.77 %	0.80 %	0.83 %	0.91 %	0.90 %	%

(1) Loans secured primarily by real estate.

(2) Unearned income on consumer loans primarily represents unamortized origination fees, costs, premiums and discounts.

(3) Unearned income on corporate loans primarily represents interest received in advance but not yet earned on loans originated on a discounted basis.

(4) All periods exclude loans that are carried at fair value.

Details of Credit Loss Experience

In millions of dollars	3rd Qtr. 2017	2nd Qtr. 2017	1st Qtr. 2016	4th Qtr. 2016	3rd Qtr. 2016
Allowance for loan losses at beginning of period	$12,025	$12,030	$12,060	$12,439	$12,304
Provision for loan losses					
Consumer	$2,142	$1,620	$1,816	$1,659	$1,815
Corporate	4	46	(141)	68	(69)
Total	$2,146	$1,666	$1,675	$1,727	$1,746
Gross credit losses					
Consumer					
In U.S. offices	$1,429	$1,437	$1,444	$1,343	$1,181
In offices outside the U.S.	642	597	597	605	702
Corporate					
In U.S. offices	15	72	48	32	29
In offices outside the U.S.	34	24	55	103	36
Total	$2,120	$2,130	$2,144	$2,083	$1,948
Credit recoveries[1]					
Consumer					
In U.S. offices	$167	$266	$242	$235	$227
In offices outside the U.S.	170	135	127	137	173
Corporate					
In U.S. offices	2	15	2	2	16
In offices outside the U.S.	4	4	64	13	7
Total	$343	$420	$435	$387	$423
Net credit losses					
In U.S. offices	$1,275	$1,228	$1,248	$1,138	$967
In offices outside the U.S.	502	482	461	558	558
Total	$1,777	$1,710	$1,709	$1,696	$1,525
Other—net[2][3][4][5][6][7]	$(28)	$39	$4	$(410)	$(86)
Allowance for loan losses at end of period	$12,366	$12,025	$12,030	$12,060	$12,439
Allowance for loan losses as a percentage of total loans[8]	1.91%	1.88%	1.93%	1.94%	1.97%
Allowance for unfunded lending commitments[9]	$1,232	$1,406	$1,377	$1,418	$1,388
Total allowance for loan losses and unfunded lending commitments	$13,598	$13,431	$13,407	$13,478	$13,827
Net consumer credit losses	$1,734	$1,633	$1,672	$1,576	$1,483
As a percentage of average consumer loans	2.11%	2.04%	2.11%	1.95%	1.80%
Net corporate credit losses	$43	$77	$37	$120	$42
As a percentage of average corporate loans	0.05%	0.10%	0.05%	0.16%	0.05%
Allowance by type at end of period[10]					
Consumer	$9,892	$9,515	$9,495	$9,358	$9,673
Corporate	2,474	2,510	2,535	2,702	2,766
Total	$12,366	$12,025	$12,030	$12,060	$12,439

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

(2) Includes all adjustments to the allowance for credit losses, such as changes in the allowance from acquisitions, dispositions, securitizations, FX translation, purchase accounting adjustments, etc.

(3) The third quarter of 2017 includes a reduction of approximately $34 million related to the sale or transfer to held-for-sale (HFS) of various loan portfolios, including a reduction of $28 million related to the transfer of a real estate loan portfolio to HFS. Additionally, the third quarter includes an increase of approximately $7 million related to FX translation.

(4) The second quarter of 2017 includes a reduction of approximately $19 million related to the sale or transfer to HFS of various loan portfolios, including a reduction of $19 million related to the transfer of a real estate loan portfolio to HFS. Additionally, the second quarter includes an increase of approximately $50 million related to FX translation.

(5) The first quarter of 2017 includes a reduction of approximately $161 million related to the sale or transfer to HFS of various loan portfolios, including a reduction of $37 million related to the transfer of a real estate loan portfolio to HFS. Additionally, the first quarter includes an increase of approximately $164 million related to FX translation.

(6) The fourth quarter of 2016 includes a reduction of approximately $267 million related to the sale or transfer to HFS of various loan portfolios, including a reduction of $3 million related to the transfer of a real estate loan portfolio to HFS. Additionally, the fourth quarter includes a reduction of approximately $141 million related to FX translation.

(7) The third quarter of 2016 includes a reduction of approximately $58 million related to the sale or transfer to HFS of various loan portfolios, including a reduction of $50 million related to the transfer of a real estate loan portfolio to HFS. Additionally, the third quarter includes a reduction of approximately $46 million related to FX translation.

(8) September 30, 2017, June 30, 2017, March 31, 2017, December 31, 2016 and September 30, 2016 exclude $4.3 billion, $4.2 billion, $4.0 billion, $3.5 billion and $4.0 billion, respectively, of loans which are carried at fair value.

(9) Represents additional credit reserves recorded as Other liabilities on the Consolidated Balance Sheet.

(10) Allowance for loan losses represents management's best estimate of probable losses inherent in the portfolio, as well as probable losses related to large individually evaluated impaired loans and troubled debt restructurings. See "Significant Accounting Policies and Significant Estimates" and Note 1 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K. Attribution of the allowance is made for analytical purposes only and the entire allowance is available to absorb probable credit losses inherent in the overall portfolio.

Allowance for Loan Losses

The following tables detail information on Citi's allowance for loan losses, loans and coverage ratios:

	September 30, 2017			
In billions of dollars	Allowance for loan losses	Loans, net of unearned income	Allowance as a percentage of loans[1]	
North America cards[2]	$6.0	$ 132.2	4.5	%
North America mortgages[3]	0.8	65.8	1.2	
North America other	0.2	13.0	1.5	
International cards	1.4	24.9	5.6	
International other[4]	1.5	89.7	1.7	
Total consumer	$9.9	$ 325.6	3.0	%
Total corporate	2.5	327.6	0.8	
Total Citigroup	$12.4	$ 653.2	1.9	%

(1) Allowance as a percentage of loans excludes loans that are carried at fair value.

(2) Includes both Citi-branded cards and Citi retail services. The $6.0 billion of loan loss reserves represented approximately 16 months of coincident net credit loss coverage.

(3) Of the $0.8 billion, approximately $0.7 billion was allocated to North America mortgages in Corporate/Other. Of the $0.8 billion, approximately $0.3 billion and $0.5 billion are determined in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. Of the $65.8 billion in loans, approximately $61.9 billion and $3.8 billion of the loans are evaluated in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. For additional information, see Note 14 to the Consolidated Financial Statements.

(4) Includes mortgages and other retail loans.

	December 31, 2016			
In billions of dollars	Allowance for loan losses	Loans, net of unearned income	Allowance as a percentage of loans[1]	
North America cards[2]	$5.2	$ 133.3	3.9	%

North America mortgages[3]	1.1	72.6	1.5	
North America other	0.5	13.6	3.7	
International cards	1.2	23.1	5.2	
International other[4]	1.4	82.8	1.7	
Total consumer	$9.4	$ 325.4	2.9	%
Total corporate	2.7	299.0	0.9	
Total Citigroup	$12.1	$ 624.4	1.9	%

(1) Allowance as a percentage of loans excludes loans that are carried at fair value.

(2) Includes both Citi-branded cards and Citi retail services. The $5.2 billion of loan loss reserves represented approximately 15 months of coincident net credit loss coverage.

(3) Of the $1.1 billion, approximately $1.0 billion was allocated to North America mortgages in Corporate/Other. Of the $1.1 billion, approximately $0.4 billion and $0.7 billion are determined in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. Of the $72.6 billion in loans, approximately $67.7 billion and $4.8 billion of the loans are evaluated in accordance with ASC 450-20 and ASC 310-10-35 (troubled debt restructurings), respectively. For additional information, see Note 14 to the Consolidated Financial Statements.

(4) Includes mortgages and other retail loans.

Non-Accrual Loans and Assets and Renegotiated Loans

There is a certain amount of overlap among non-accrual loans and assets and renegotiated loans. The following summary provides a general description of each category:

Non-Accrual Loans and Assets:

- Corporate and consumer (commercial banking) non-accrual status is based on the determination that payment of interest or principal is doubtful.
- A corporate loan may be classified as non-accrual and still be performing under the terms of the loan structure. Payments received on corporate non-accrual loans are generally applied to loan principal and not reflected as interest income. Approximately 69% and 67% of Citi's corporate non-accrual loans were performing at September 30, 2017 and June 30, 2017, respectively.
- Consumer non-accrual status is generally based on aging, i.e., the borrower has fallen behind on payments. Consumer mortgage loans, other than Federal Housing Administration (FHA) insured loans, are classified as non-accrual within 60 days of notification that the borrower has filed for bankruptcy. In addition, home equity loans are classified as non-accrual if the related residential first mortgage loan is 90 days or more past due.
- North America Citi-branded cards and Citi retail services are not included because, under industry standards, credit card loans accrue interest until such loans are charged off, which typically occurs at 180 days contractual delinquency.

Renegotiated Loans:

- Includes both corporate and consumer loans whose terms have been modified in a troubled debt restructuring (TDR).
- Includes both accrual and non-accrual TDRs.

Non-Accrual Loans and Assets

The table below summarizes Citigroup's non-accrual loans as of the periods indicated. Non-accrual loans may still be current on interest payments. In situations where Citi reasonably expects that only a portion of the principal owed will ultimately be collected, all payments received are reflected as a reduction of principal and not as interest income. For all other non-accrual loans, cash interest receipts are generally recorded as revenue.

In millions of dollars	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2016	Dec. 31, 2016	Sept. 30, 2016
Corporate non-accrual loans[1]					
North America	$915	$944	$993	$984	$1,057
EMEA	681	727	828	904	857
Latin America	312	281	342	379	380
Asia	146	146	176	154	121
Total corporate non-accrual loans	$2,054	$2,098	$2,339	$2,421	$2,415
Consumer non-accrual loans[1]					
North America	$1,721	$1,754	$1,926	$2,160	$2,429
Latin America	791	793	737	711	841
Asia[2]	271	301	292	287	282
Total consumer non-accrual loans	$2,783	$2,848	$2,955	$3,158	$3,552
Total non-accrual loans	$4,837	$4,946	$5,294	$5,579	$5,967

(1) Excludes purchased distressed loans, as they are generally accreting interest. The carrying value of these loans was $177 million at September 30, 2017, $183 million at June 30, 2017, $194 million at March 31, 2017, $187 million at December 31, 2016 and $194 million at September 30, 2016.

(2) Asia GCB includes balances in certain EMEA countries for all periods presented.

The changes in Citigroup's non-accrual loans were as follows:

	Three Months Ended September 30, 2017			Three Months Ended September 30, 2016		
In millions of dollars	Corporate	Consumer	Total	Corporate	Consumer	Total
Non-accrual loans at beginning of period	$2,098	$ 2,848	$4,946	$2,460	$ 3,705	$6,165
Additions	190	1,042	1,232	469	1,131	1,600
Sales and transfers to held-for-sale	(1)	(69)	(70)	(4)	(102)	(106)
Returned to performing	(2)	(133)	(135)	(58)	(149)	(207)
Paydowns/settlements	(196)	(291)	(487)	(433)	(562)	(995)
Charge-offs	(33)	(611)	(644)	(24)	(455)	(479)
Other	(2)	(3)	(5)	5	(16)	(11)
Ending balance	$2,054	$ 2,783	$4,837	$2,415	$ 3,552	$5,967

In millions of dollars	Nine Months Ended September 30, 2017 Corporate	Consumer	Total	Nine Months Ended September 30, 2016 Corporate	Consumer	Total
Non-accrual loans at beginning of period	$2,421	$ 3,158	$5,579	$1,596	$ 3,658	$5,254
Additions	754	2,563	3,317	2,346	3,371	5,717
Sales and transfers to held-for-sale	(83)	(286)	(369)	(13)	(473)	(486)
Returned to performing	(42)	(462)	(504)	(141)	(434)	(575)
Paydowns/settlements	(843)	(856)	(1,699)	(1,022)	(1,203)	(2,225)
Charge-offs	(102)	(1,452)	(1,554)	(277)	(1,353)	(1,630)
Other	(51)	118	67	(74)	(14)	(88)
Ending balance	$2,054	$ 2,783	$4,837	$2,415	$ 3,552	$5,967

The tables below summarize Citigroup's other real estate owned (OREO) assets as of the periods indicated. This represents the carrying value of all real estate property acquired by foreclosure or other legal proceedings when Citi has taken possession of the collateral:

In millions of dollars	Sept. 30, 2017	Jun. 30, 2017	Mar. 31, 2016	Dec. 31, 2016	Sept. 30, 2016
OREO					
North America	$97	$128	$136	$161	$132
EMEA	1	1	1	—	1
Latin America	30	31	31	18	18
Asia	15	8	5	7	10
Total OREO	$143	$168	$173	$186	$161
Non-accrual assets					
Corporate non-accrual loans	$2,054	$2,098	$2,339	$2,421	$2,415
Consumer non-accrual loans	2,783	2,848	2,955	3,158	3,552
Non-accrual loans (NAL)	$4,837	$4,946	$5,294	$5,579	$5,967
OREO	$143	$168	$173	$186	$161
Non-accrual assets (NAA)	$4,980	$5,114	$5,467	$5,765	$6,128
NAL as a percentage of total loans	0.74 %	0.77 %	0.84 %	0.89 %	0.93 %
NAA as a percentage of total assets	0.26	0.27	0.30	0.32	0.34
Allowance for loan losses as a percentage of NAL(1)	256	243	227	216	208

(1) The allowance for loan losses includes the allowance for Citi's credit card portfolios and purchased distressed loans, while the non-accrual loans exclude credit card balances (with the exception of certain international portfolios) and purchased distressed loans as these continue to accrue interest until charge-off.

Renegotiated Loans

The following table presents Citi's loans modified in TDRs:

In millions of dollars	Sept. 30, 2017	Dec. 31, 2016
Corporate renegotiated loans[1]		
In U.S. offices		
Commercial and industrial[2]	$285	$89
Mortgage and real estate	78	84
Loans to financial institutions	8	9
Other	155	228
	$526	$410
In offices outside the U.S.		
Commercial and industrial[2]	$401	$319
Mortgage and real estate	7	3
Loans to financial institutions	15	—
	$423	$322
Total corporate renegotiated loans	$949	$732
Consumer renegotiated loans[3][4][5]		
In U.S. offices		
Mortgage and real estate[6]	$3,812	$4,695
Cards	1,295	1,313
Installment and other	176	117
	$5,283	$6,125
In offices outside the U.S.		
Mortgage and real estate	$337	$447
Cards	525	435
Installment and other	414	443
	$1,276	$1,325
Total consumer renegotiated loans	$6,559	$7,450

(1) Includes $769 million and $445 million of non-accrual loans included in the non-accrual loans table above at September 30, 2017 and December 31, 2016, respectively. The remaining loans are accruing interest.

(2) In addition to modifications reflected as TDRs at September 30, 2017, Citi also modified $86 million of commercial loans risk rated "Substandard Non-Performing" or worse (asset category defined by banking regulators), all within offices in the U.S. These modifications were not considered TDRs because the modifications did not involve a concession.

(3) Includes $1,368 million and $1,502 million of non-accrual loans included in the non-accrual loans table above at September 30, 2017 and December 31, 2016, respectively. The remaining loans are accruing interest.

(4) Includes $42 million and $58 million of commercial real estate loans at September 30, 2017 and December 31, 2016, respectively.

(5) Includes $162 million and $105 million of other commercial loans at September 30, 2017 and December 31, 2016, respectively.

(6) Reduction in the nine months ended September 30, 2017 includes $778 million related to TDRs sold or transferred to held-for-sale.

LIQUIDITY RISK

For additional information on funding and liquidity at Citigroup, including its objectives, management and measurement, see “Liquidity Risk” and “Risk Factors” in Citi’s 2016 Annual Report on Form 10-K.

High-Quality Liquid Assets (HQLA)

	Citibank			Non-Bank and Other[1]			Total		
In billions of dollars	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016
Available cash	$89.8	$78.5	$71.1	$25.7	$35.0	$19.2	$115.5	$113.5	$90.2
U.S. sovereign	114.5	110.6	122.3	28.6	23.2	21.8	143.1	133.8	144.1
U.S. agency/agency MBS	80.4	63.2	62.6	0.3	1.1	0.2	80.7	64.3	62.8
Foreign government debt[2]	82.2	102.4	89.2	17.3	17.7	15.5	99.6	120.1	104.7
Other investment grade	0.7	0.4	1.0	1.2	1.2	1.5	1.9	1.6	2.5
Total HQLA (EOP)	$367.6	$355.1	$346.2	$73.1	$78.1	$58.2	$440.8	$433.2	$404.3
Total HQLA (AVG)	$371.0	$354.0	$344.0	$77.6	$70.4	$59.8	$448.6	$424.4	$403.8

Note: Except as indicated, amounts set forth in the table above are as of period end and may increase or decrease intra-period in the ordinary course of business. For securities, the amounts represent the liquidity value that potentially could be realized, and therefore exclude any securities that are encumbered, and incorporate any haircuts that would be required for secured funding transactions.

(1) Citibanamex and Citibank (Switzerland) AG account for approximately $6 billion of the “Non-Bank and Other” HQLA balance as of September 30, 2017.

(2) Foreign government debt includes securities issued or guaranteed by foreign sovereigns, agencies and multilateral development banks. Foreign government debt securities are held largely to support local liquidity requirements and Citi’s local franchises, and principally include government bonds from Hong Kong, Korea, Taiwan, Singapore, India, Brazil and Mexico.

As set forth in the table above, sequentially, Citi’s total HQLA increased on both an average and end-of-period basis, predominantly driven by changes in eligibility assumptions relating to certain assets. On an average basis, the sequential increase in Citi’s total HQLA was also impacted by an increase in average cash.

Citi’s HQLA as set forth above does not include Citi’s available borrowing capacity from the Federal Home Loan Banks (FHLBs) of which Citi is a member, which was approximately $16 billion as of September 30, 2017 (compared to $18 billion as of June 30, 2017 and $24 billion as of September 30, 2016) and maintained by eligible collateral pledged to such banks. The HQLA also does not include Citi’s borrowing capacity at the U.S. Federal Reserve Bank discount window or other central banks, which would be in addition to the resources noted above.

In general, Citi’s liquidity is fungible across legal entities within its bank group. Citi’s bank subsidiaries, including Citibank, can lend to the Citi parent and broker-dealer entities in accordance with Section 23A of the Federal Reserve Act. As of September 30, 2017, the capacity available for lending to these entities under Section 23A was approximately $15 billion, unchanged from both June 30, 2017 and September 30, 2016, subject to certain eligible non-cash collateral requirements.

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Loans

The table below sets forth the average loans, by business and/or segment, and the total end-of-period loans for each of the periods indicated:

In billions of dollars	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016
Global Consumer Banking			
North America	$186.7	$183.4	$177.8
Latin America	26.8	25.5	24.2
Asia[(1)]	86.2	84.9	85.5
Total	$299.7	$293.8	$287.5
Institutional Clients Group			
Corporate lending	123.3	121.5	124.0
Treasury and trade solutions (TTS)	74.9	73.7	71.1
Private Bank	82.6	79.0	74.2
Markets and securities services and other	40.1	38.2	37.2
Total	$320.9	$312.4	$306.6
Total Corporate/Other	25.8	28.2	40.9
Total Citigroup loans (AVG)	$646.3	$634.3	$634.9
Total Citigroup loans (EOP)	$653.2	$644.7	$638.4

(1) Includes loans in certain EMEA countries for all periods presented.

As set forth in the table above, end-of-period loans increased 2% year-over-year and 1% quarter-over-quarter. On an average basis, loans increased 2% both year-over-year and quarter-over-quarter.

Excluding the impact of FX translation, average loans increased 1% both year-over-year and quarter-over-quarter. On this basis, average GCB loans grew 4% year-over-year, driven by 5% growth in North America. International GCB loans increased 1%, driven by 6% growth in Mexico, while Asia loans were unchanged, reflecting Citi's optimization of its portfolio in this region.

Average ICG loans increased 4% year-over-year, driven mostly by client-led growth in the private bank. Corporate lending decreased 1%, primarily driven by a lower level of episodic funding compared to the prior-year period. Treasury and trade solutions loans increased 5%, driven by growth in EMEA and Asia.

Average Corporate/Other loans decreased 37% year-over-year, driven by the continued wind down of legacy assets.

Deposits

The table below sets forth the average deposits, by business and/or segment, and the total end-of-period deposits for each of the periods indicated:

In billions of dollars	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016
Global Consumer Banking			
North America	$184.1	$185.1	$183.9
Latin America	28.8	27.8	25.7
Asia[(1)]	95.2	94.3	91.6
Total	$308.1	$307.2	$301.2
Institutional Clients Group			
Treasury and trade solutions (TTS)	427.8	423.9	414.6
Banking ex-TTS	122.4	122.1	119.6

Markets and securities services	84.7	84.3	84.1
Total	$634.9	$630.3	$618.4
Corporate/Other	22.9	22.5	24.7
Total Citigroup deposits (AVG)	$965.9	$960.0	$944.2
Total Citigroup deposits (EOP)	$964.0	$958.7	$940.3

(1) Includes deposits in certain EMEA countries for all periods presented.

End-of-period deposits increased 3% year-over-year and 1% quarter-over-quarter. On an average basis, deposits increased 2% year-over-year and 1% sequentially.

Excluding the impact of FX translation, average deposits grew 2% from the prior-year period, driven primarily by 3% growth in treasury and trade solutions, as well as 4% aggregate growth in Asia and Latin America GCB. North America GCB deposits were largely unchanged as a net inflow of deposits was offset by transfers from deposit to investment accounts.

Long-Term Debt

The weighted-average maturities of unsecured long-term debt issued by Citigroup and its affiliates (including Citibank) with a remaining life greater than one year (excluding remaining trust preferred securities outstanding) was approximately 6.8 years as of September 30, 2017, a modest decline from both the prior-year period and the prior quarter.

Citi's long-term debt outstanding at the parent includes senior and subordinated debt and a portion of what Citi refers to as customer-related debt, consisting of structured notes, such as equity- and credit-linked notes, as well as non-structured notes. Citi's issuance of customer-related debt is generally driven by customer demand and supplements benchmark debt issuance as a source of funding for Citi's parent and non-bank entities. Citi's long-term debt at the bank also includes FHLB advances and securitizations.

Long-Term Debt Outstanding

The following table sets forth Citi's end-of-period total long-term debt outstanding for each of the periods indicated:

In billions of dollars	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016
Parent and other[1]			
Benchmark debt:			
Senior debt	$109.8	$105.9	$97.1
Subordinated debt	27.0	26.8	28.8
Trust preferred	1.7	1.7	1.7
Customer-related debt:			
Structured debt	27.0	25.3	23.6
Non-structured debt	3.3	3.1	3.5
Local country and other[2]	1.8	2.1	2.7
Total parent and other	$170.6	$164.9	$157.4
Bank			
FHLB borrowings	$19.8	$20.3	$21.6
Securitizations[3]	28.6	28.2	24.4
CBNA benchmark senior debt	9.5	7.2	—
Local country and other[2]	4.2	4.5	5.7
Total bank	$62.1	$60.2	$51.7
Total long-term debt	$232.7	$225.2	$209.1

Note: Amounts represent the current value of long-term debt on Citi's Consolidated Balance Sheet which, for certain debt instruments, includes consideration of fair value, hedging impacts and unamortized discounts and premiums.

(1) "Parent and other" includes long-term debt issued to third parties by the parent holding company (Citigroup) and Citi's non-bank subsidiaries (including broker-dealer subsidiaries) that are consolidated into Citigroup. As of September 30, 2017, "parent and other" included $18.7 billion of long-term debt issued by Citi's broker-dealer and other non-bank subsidiaries.

(2) Local country debt includes debt issued by Citi's affiliates in support of their local operations.

(3) Predominantly credit card securitizations, primarily backed by Citi-branded credit card receivables.

Citi's total long-term debt outstanding increased both year-over-year and sequentially, primarily driven by the issuance of senior debt at the parent, as well as the issuance of benchmark senior debt at the bank.

As part of its liability management, Citi has considered, and may continue to consider, opportunities to repurchase its long-term debt pursuant to open market purchases, tender offers/redemptions or other means. Such repurchases help reduce Citi's overall funding costs (and assist it in meeting regulatory requirements). During the third quarter of 2017, Citi repurchased an aggregate of approximately $0.3 billion of its outstanding long-term debt.

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Long-Term Debt Issuances and Maturities

The table below details Citi's long-term debt issuances and maturities (including repurchases and redemptions) during the periods presented:

	3Q17		2Q17		3Q16	
In billions of dollars	Maturities	Issuances	Maturities	Issuances	Maturities	Issuances
Parent and other						
Benchmark debt:						
Senior debt	$2.5	$ 5.7	$2.0	$ 6.3	$3.3	$ 4.5
Subordinated debt	—	—	—	0.2	1.3	1.5
Trust preferred	—	—	—	—	—	—
Customer-related debt:						
Structured debt	1.7	2.9	2.0	3.6	2.2	3.0
Non-structured debt	0.1	0.1	0.3	—	0.1	0.2
Local country and other	0.4	—	0.1	—	0.1	0.4
Total parent and other	$4.7	$ 8.7	$4.3	$ 10.2	$6.9	$ 9.6
Bank						
FHLB borrowings	$1.5	$ 1.0	$1.5	$ 1.5	$2.8	$ 5.8
Securitizations	1.8	2.2	0.9	5.1	3.0	—
CBNA benchmark senior debt	—	2.2	—	4.7	—	—
Local country and other	0.5	0.5	0.7	0.3	0.9	0.9
Total bank	$3.8	$ 5.9	$3.0	$ 11.6	$6.7	$ 6.7
Total	$8.5	$ 14.6	$7.4	$ 21.8	$13.6	$ 16.3

The table below shows Citi's aggregate long-term debt maturities (including repurchases and redemptions) year-to-date in 2017, as well as its aggregate expected annual long-term debt maturities as of September 30, 2017:

	Maturities	Maturities						
In billions of dollars	2017 YTD	2017	2018	2019	2020	2021	2022	Thereafter	Total
Parent and other									
Benchmark debt:									
Senior debt	$ 9.8	$4.3	$18.4	$14.7	$8.9	$14.4	$6.0	$ 43.1	$109.8
Subordinated debt	1.2	0.4	1.0	1.4	—	—	0.8	23.4	27.0
Trust preferred	—	—	—	—	—	—	—	1.7	1.7
Customer-related debt:									
Structured debt	5.5	0.3	3.6	2.3	3.2	2.3	1.4	13.9	27.0
Non-structured debt	0.5	—	0.6	0.2	0.3	0.1	0.2	1.9	3.3
Local country and other	1.0	—	0.7	0.1	0.1	0.1	—	0.8	1.8
Total parent and other	$ 18.0	$5.0	$24.3	$18.7	$12.5	$16.9	$8.4	$ 84.8	$170.6
Bank									
FHLB borrowings	$ 4.8	$3.0	$15.3	$1.6	$—	$—	$—	$ —	$19.8
Securitizations	4.7	0.6	9.4	6.5	4.4	3.8	1.2	2.7	28.6
CBNA benchmark debt	—	—	2.2	4.7	2.5	—	—	—	9.5
Local country and other	2.4	0.7	1.8	0.7	0.5	0.2	0.1	0.3	4.2
Total bank	$ 11.8	$4.2	$28.7	$13.5	$7.4	$4.0	$1.3	$ 3.1	$62.1
Total long-term debt	$ 29.8	$9.3	$53.0	$32.2	$19.8	$20.9	$9.7	$ 87.9	$232.7

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Secured Funding Transactions and Short-Term Borrowings

Citi supplements its primary sources of funding with short-term borrowings. Short-term borrowings generally include (i) secured funding transactions (securities loaned or sold under agreements to repurchase, or repos) and (ii) to a lesser extent, short-term borrowings consisting of commercial paper and borrowings from the FHLB and other market participants (see Note 16 to the Consolidated Financial Statements for further information on Citigroup's and its affiliates' outstanding short-term borrowings).

Outside of secured funding transactions, Citi's short-term borrowings increased 29% year-over-year and 4% sequentially. The increase both year-over-year and sequentially was driven primarily by an increase in FHLB borrowings, as Citi continued to optimize liquidity across its legal entities.

Secured Funding

Secured funding is primarily accessed through Citi's broker-dealer subsidiaries to fund efficiently both secured lending activity and a portion of the securities inventory held in the context of market making and customer activities. Citi also executes a smaller portion of its secured funding transactions through its bank entities, which is typically collateralized by foreign government debt securities. Generally, daily changes in the level of Citi's secured funding are primarily due to fluctuations in secured lending activity in the matched book (as described below) and securities inventory.

Secured funding of $161 billion as of September 30, 2017 increased 5% from the prior-year period and 4% sequentially. Excluding the impact of FX translation, secured funding increased 3% from both the prior-year period and sequentially, both driven by normal business activity. Average balances for secured funding were approximately $158 billion for the quarter ended September 30, 2017.

The portion of secured funding in the broker-dealer subsidiaries that funds secured lending is commonly referred to as "matched book" activity. The majority of this activity is secured by high-quality liquid securities such as U.S. Treasury securities, U.S. agency securities and foreign government debt securities. Other secured funding is secured by less liquid securities, including equity securities, corporate bonds and asset-backed securities. The tenor of Citi's matched book liabilities is generally equal to or longer than the tenor of the corresponding matched book assets.

The remainder of the secured funding activity in the broker-dealer subsidiaries serves to fund securities inventory held in the context of market making and customer activities. 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. The weighted average maturity of Citi's secured funding of less liquid securities inventory was greater than 110 days as of September 30, 2017.

Citi manages the risks in its secured funding 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. Citi generally sources secured funding from more than 150 counterparties.

Liquidity Coverage Ratio (LCR)

In addition to internal measures that Citi has developed for a 30-day stress scenario, Citi also monitors its liquidity by reference to the LCR, as calculated pursuant to the U.S. LCR rules (for additional information, see "Liquidity Risk" in Citi's 2016 Annual Report on Form 10-K). The table below sets forth the components of Citi's LCR calculation and HQLA in excess of net outflows as of the periods indicated:

In billions of dollars	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016
HQLA	$448.6	$424.4	$403.8
Net outflows	365.1	338.2	335.3
LCR	123 %	125 %	120 %
HQLA in excess of net outflows	$83.5	$86.2	$68.5

Note: The amounts set forth in the table above are presented on an average basis.

As set forth in the table above, Citi's average LCR increased year-over-year, as an increase in average HQLA more than offset an increase in modeled net outflows. Sequentially, Citi's average LCR decreased modestly, as an increase in modeled net outflows was largely offset by an increase in average HQLA. Both the increase in modeled net outflows and the increase in average HQLA were predominantly driven by changes in assumptions, including changes in methodology to better align Citi's outflow assumptions with those embedded in its resolution planning.

Credit Ratings

The table below sets forth the ratings for Citigroup and Citibank as of September 30, 2017. While not included in the table below, the long-term and short-term ratings of Citigroup Global Markets Holdings Inc. (CGMHI) were BBB+/A-2 at Standard & Poor's and A/F1 at Fitch as of September 30, 2017.

	Citigroup Inc.			Citibank, N.A.		
	Senior debt	Commercial paper	Outlook	Long-term	Short-term	Outlook
Fitch Ratings (Fitch)	A	F1	Stable	A+	F1	Stable
Moody's Investors Service (Moody's)	Baa1	P-2	Stable	A1	P-1	Stable
Standard & Poor's (S&P)	BBB+	A-2	Stable	A+	A-1	Stable

Potential Impacts of Ratings Downgrades

Ratings downgrades by Moody's, Fitch or S&P could negatively impact Citigroup's and/or Citibank's funding and liquidity due to reduced funding capacity, including derivative triggers, which could take the form of cash obligations and collateral requirements.

The following information is provided for the purpose of analyzing the potential funding and liquidity impact to Citigroup and Citibank of a hypothetical, simultaneous

ratings downgrade across all three major rating agencies. This analysis is subject to certain estimates, estimation methodologies, judgments and uncertainties. Uncertainties include potential ratings limitations that certain entities may have with respect to permissible counterparties, as well as general subjective counterparty behavior. For example, certain corporate customers and markets counterparties could re-evaluate their business relationships with Citi and limit transactions in certain contracts or market instruments with Citi. Changes in counterparty behavior could impact Citi's funding and liquidity, as well as the results of operations of certain of its businesses. The actual impact to Citigroup or Citibank is unpredictable and may differ materially from the potential funding and liquidity impacts described below. For additional information on the impact of credit rating changes on Citi and its applicable subsidiaries, see "Risk Factors— Liquidity Risks" in Citi's 2016 Annual Report on Form 10-K.

Citigroup Inc. and Citibank—Potential Derivative Triggers

As of September 30, 2017, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citigroup Inc. across all three major rating agencies could impact Citigroup's funding and liquidity due to derivative triggers by approximately $1.0 billion, compared to $0.7 billion as of June 30, 2017. Other funding sources, such as secured funding and other margin requirements, for which there are no explicit triggers, could also be adversely affected.

As of September 30, 2017, Citi estimates that a hypothetical one-notch downgrade of the senior debt/long-term rating of Citibank across all three major rating agencies could impact Citibank's funding and liquidity by approximately $0.5 billion, compared to $0.3 billion as of June 30, 2017, due to derivative triggers.

In total, Citi estimates that a one-notch downgrade of Citigroup and Citibank, across all three major rating agencies, could result in increased aggregate cash obligations and collateral requirements of approximately $1.5 billion, compared to $1.0 billion as of June 30, 2017 (see also Note 19 to the Consolidated Financial Statements). As set forth under "High-Quality Liquid Assets" above, the liquidity resources of Citibank were approximately $371 billion and the liquidity resources of Citi's non-bank and other entities were approximately $78 billion, for a total of approximately $449 billion as of September 30, 2017. These liquidity resources are available in part as a contingency for the potential events described above.

In addition, a broad range of mitigating actions are currently included in Citigroup's and Citibank's contingency funding plans. For Citigroup, these mitigating factors include, but are not limited to, accessing surplus funding capacity from existing clients, tailoring levels of secured lending, and adjusting the size of select trading books and collateralized borrowings from certain Citibank subsidiaries. Mitigating actions available to Citibank include, but are not limited to, selling or financing highly liquid government securities, tailoring levels of secured lending, adjusting the size of select trading assets, reducing loan originations and renewals, raising additional deposits, or borrowing from the FHLB or central banks. Citi believes these mitigating actions could

substantially reduce the funding and liquidity risk, if any, of the potential downgrades described above.

Citibank—Additional Potential Impacts

In addition to the above derivative triggers, Citi believes that a potential one-notch downgrade of Citibank's senior debt/long-term rating by S&P could also have an adverse impact on the commercial paper/short-term rating of Citibank. Citibank had liquidity commitments of approximately $10.0 billion to consolidated asset-backed commercial paper conduits, as of September 30, 2017 and June 30, 2017 (as referenced in Note 18 to the Consolidated Financial Statements).

In addition to the above-referenced liquidity resources of certain Citibank and Citibanamex entities, Citibank could reduce the funding and liquidity risk, if any, of the potential downgrades described above through mitigating actions, including repricing or reducing certain commitments to commercial paper conduits. In the event of the potential downgrades described above, Citi believes that certain corporate customers could re-evaluate their deposit relationships with Citibank. This re-evaluation could result in clients adjusting their discretionary deposit levels or changing their depository institution, which could potentially reduce certain deposit levels at Citibank. However, Citi could choose to adjust pricing, offer alternative deposit products to its existing customers or seek to attract deposits from new customers, in addition to the mitigating actions referenced above.

MARKET RISK

Market risk emanates from both Citi's trading and non-trading portfolios. Trading portfolios comprise all assets and liabilities marked-to-market, with results reflected in earnings. Non-trading portfolios include all other assets and liabilities.

For additional information on market risk and market risk management at Citi, see "Market Risk" and "Risk Factors" in Citi's 2016 Annual Report on Form 10-K.

Market Risk of Non-Trading Portfolios

For additional information on Citi's net interest revenue (for interest rate exposure purposes), interest rate risk and interest rate risk measurement, see "Market Risk of Non-Trading Portfolios" in Citi's 2016 Annual Report on Form 10-K.

The following table sets forth the estimated impact to Citi's net interest revenue, AOCI and the Common Equity Tier 1 Capital ratio (on a fully implemented basis), each assuming an unanticipated parallel instantaneous 100 basis point increase in interest rates:

In millions of dollars (unless otherwise noted)	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016
Estimated annualized impact to net interest revenue			
U.S. dollar[1]	$1,449	$1,435	$1,405
All other currencies	610	589	574
Total	$2,059	$2,024	$1,979
As a percentage of average interest-earning assets	0.12 %	0.12 %	0.12 %
Estimated initial impact to AOCI (after-tax)[2]	$(4,206)	$(4,258)	$(4,868)
Estimated initial impact on Common Equity Tier 1 Capital ratio (bps)[3]	(48)	(49)	(53)

(1) Certain trading-oriented businesses within Citi have accrual-accounted positions that are excluded from the estimated impact to net interest revenue in the table, since these exposures are managed economically in combination with mark-to-market positions. The U.S. dollar interest rate exposure associated with these businesses was $(204) million for a 100 basis point instantaneous increase in interest rates as of September 30, 2017.

(2) Includes the effect of changes in interest rates on AOCI related to investment securities, cash flow hedges and pension liability adjustments.

(3) The estimated initial impact to the Common Equity Tier 1 Capital ratio considers the effect of Citi's DTA position and is based on only the estimated initial AOCI impact above.

The estimated impact to net interest revenue increased slightly on a sequential basis, reflecting changes in balance sheet composition. The sequential decrease in the estimated impact to AOCI primarily reflected changes to the positioning of Citi Treasury's investment securities and related interest rate derivatives portfolio.

In the event of an unanticipated parallel instantaneous 100 basis point increase in interest rates, Citi expects the negative impact to AOCI would be offset in stockholders' equity through the combination of expected incremental net interest revenue and the expected recovery of the impact on AOCI through accretion of Citi's investment portfolio over a period of time. As of September 30, 2017, Citi expects that the negative $4.2 billion impact to AOCI in such a scenario could potentially be offset over approximately 23 months.

The following table sets forth the estimated impact to Citi's net interest revenue, AOCI and the Common Equity Tier 1 Capital ratio (on a fully implemented basis) under four different changes in interest rate scenarios for the U.S. dollar and Citi's other currencies. While Citi also monitors the impact of a parallel decrease in interest rates, a 100 basis point decrease in short-term rates is not meaningful, as it would imply negative interest rates in many of Citi's markets.

In millions of dollars (unless otherwise noted)	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Overnight rate change (bps)	100	100	—	—
10-year rate change (bps)	100	—	100	(100)
Estimated annualized impact to net interest revenue				
U.S. dollar	$1,449	$1,369	$89	$(130)
All other currencies	610	554	34	(34)
Total	$2,059	$1,923	$123	$(164)
Estimated initial impact to AOCI (after-tax)[(1)]	$(4,206)	$(2,542)	$(1,632)	$1,077
Estimated initial impact to Common Equity Tier 1 Capital ratio (bps)[(2)]	(48)	(29)	(19)	12

Note: Each scenario in the table above assumes that the rate change will occur instantaneously. Changes in interest rates for maturities between the overnight rate and the 10-year rate are interpolated.

(1) Includes the effect of changes in interest rates on AOCI related to investment securities, cash flow hedges and pension liability adjustments.

(2) The estimated initial impact to the Common Equity Tier 1 Capital ratio considers the effect of Citi's deferred tax asset position and is based on only the estimated AOCI impact above.

As shown in the table above, the magnitude of the impact to Citi's net interest revenue and AOCI is greater under scenario 2 as compared to scenario 3. This is because the combination of changes to Citi's investment portfolio, partially offset by changes related to Citi's pension liabilities, results in a net position that is more sensitive to rates at shorter- and intermediate-term maturities.

In recent years, a number of central banks, including the European Central Bank, the Bank of Japan and the Swiss National Bank, have implemented negative interest rates, and additional governmental entities could do so in the future. While negative interest rates can adversely impact net interest revenue (as well as net interest margin), Citi has, to date, been able to partially offset the impact of negative rates in these jurisdictions through a combination of business and Citi Treasury interest rate risk mitigation activities, including applying negative rates to client accounts (for additional information on Citi Treasury's ongoing interest rate mitigation activities, see "Market Risk—Market Risk of Non-Trading Portfolios" in Citi's 2016 Annual Reporting on Form 10-K).

Changes in Foreign Exchange Rates—Impacts on AOCI and Capital

As of September 30, 2017, Citi estimates that an unanticipated parallel instantaneous 5% appreciation of the U.S. dollar against all of the other currencies in which Citi has invested capital could reduce Citi's tangible common equity (TCE) by approximately $1.6 billion, or 0.9%, as a result of changes to Citi's foreign currency translation adjustment in AOCI, net of hedges. This impact would be primarily due to changes in the value of the Mexican peso, the Euro and the Australian dollar.

This impact is also before any mitigating actions Citi may take, including ongoing management of its foreign currency translation exposure. Specifically, as currency movements change the value of Citi's net investments in foreign-currency-denominated capital, these movements also change the value of Citi's risk-weighted assets denominated in those currencies. This, coupled with Citi's foreign currency hedging strategies, such as foreign currency borrowings, foreign currency forwards and other currency hedging instruments, lessens the impact of foreign currency movements on Citi's Common Equity Tier 1 Capital ratio. Changes in these hedging strategies, as well as hedging costs, divestitures and tax impacts, can further impact the actual impact of changes in foreign exchange rates on Citi's capital as compared to an unanticipated parallel shock, as described above.

The effect of Citi's ongoing management strategies with respect to changes in foreign exchange rates and the impact of these changes on Citi's TCE and Common Equity Tier 1 Capital ratio are shown in the table below. For additional information on the changes in AOCI, see Note 17 to the Consolidated Financial Statements.

In millions of dollars (unless otherwise noted)	For the quarter ended		
	Sept. 30, 2017	Jun. 30, 2017	Sept. 30, 2016

Change in FX spot rate[1]	1.1 %	1.9 %	(0.2)%
Change in TCE due to FX translation, net of hedges	$222	$478	$(412)
As a percentage of TCE	0.1 %	0.3 %	(0.2)%
Estimated impact to Common Equity Tier 1 Capital ratio (on a fully implemented basis) due to changes in FX translation, net of hedges (bps)	(3)	(3)	(2)

(1) FX spot rate change is a weighted average based upon Citi's quarterly average GAAP capital exposure to foreign countries.

Interest Revenue/Expense and Net Interest Margin

In millions of dollars, except as otherwise noted	3rd Qtr. 2017	2nd Qtr. 2017	3rd Qtr. 2016	Change 3Q17 vs. 3Q16
Interest revenue[1]	$15,944	$15,323	$14,767	8 %
Interest expense[2]	4,379	4,036	3,174	38
Net interest revenue	$11,565	$11,287	$11,593	— %
Interest revenue—average rate	3.75 %	3.70 %	3.65 %	10 bps
Interest expense—average rate	1.33	1.26	1.03	30 bps
Net interest margin[3]	2.72	2.72	2.86	(14) bps
Interest-rate benchmarks				
Two-year U.S. Treasury note—average rate	1.36 %	1.30 %	0.73 %	63 bps
10-year U.S. Treasury note—average rate	2.24	2.26	1.56	68 bps
10-year vs. two-year spread	88 bps	96 bps	83 bps	

Note: All interest expense amounts include FDIC deposit insurance assessments.

(1) Net interest revenue includes the taxable equivalent adjustments related to the tax-exempt bond portfolio (based on the U.S. federal statutory tax rate of 35%) of $123 million, $122 million, and $114 million for the three months ended September 30, 2017, June 30, 2017 and September 30, 2016, respectively.

(2) Interest expense associated with certain hybrid financial instruments, which are classified as Long-term debt and accounted for at fair value, is reported together with any changes in fair value as part of Principal transactions in the Consolidated Statements of Income and is therefore not reflected in Interest expense in the table above.

(3) Citi's net interest margin (NIM) is calculated by dividing gross interest revenue less gross interest expense by average interest-earning assets.

Citi's net interest revenue remained largely unchanged at $11.4 billion ($11.6 billion on a taxable equivalent basis) versus the prior-year period. Excluding the impact of FX translation, Citi's net interest revenue was down slightly versus the prior-year period (down $110 million), as higher core accrual net interest revenue ($10.4 billion, up 5% or $0.5 billion) was offset by lower trading-related net interest revenue ($0.7 billion, down 34% or $0.4 billion), and lower net interest revenue associated with legacy assets in Corporate/Other ($0.3 billion, down approximately 38% or $0.2 billion). The increase in core accrual net interest revenue was driven by the impact of the December 2016, March 2017 and June 2017 interest rate increases and volume growth,

partially offset by higher long-term debt.

Citi's NIM was 2.72% on a taxable equivalent basis in the third quarter of 2017, a decrease of 14 bps from the prior-year period. Citi's core accrual NIM was 3.45%, a decline of 7 bps, as the higher core accrual net interest revenue was more than offset by balance sheet growth, particularly in cash balances. (Citi's core accrual net interest revenue and core accrual NIM are non-GAAP financial measures. Citi believes these measures provide a more meaningful depiction for investors of the underlying fundamentals of its business results.)

Additional Interest Rate Details

Average Balances and Interest Rates—Assets[1][2][3]

Taxable Equivalent Basis

	Average volume			Interest revenue			% Average rate		
	3rd Qtr.	2nd Qtr.	3rd Qtr.	3rd Qtr.	2nd Qtr.	3rd Qtr.	3rd Qtr.	2nd Qtr.	3rd Qtr.
In millions of dollars, except rates	2017	2017	2016	2017	2017	2016	2017	2017	2016
Assets									
Deposits with banks[4]	$176,942	$166,023	$131,571	$486	$375	$247	1.09%	0.91%	0.75%
Federal funds sold and securities borrowed or purchased under agreements to resell[5]									
In U.S. offices	$136,681	$144,483	$146,581	$524	$472	$387	1.52%	1.31%	1.05%
In offices outside the U.S.[4]	108,770	104,780	88,415	334	356	249	1.22	1.36	1.12
Total	$245,451	$249,263	$234,996	$858	$828	$636	1.39%	1.33%	1.08%
Trading account assets[6][7]									
In U.S. offices	$98,725	$100,080	$100,381	$918	$877	$912	3.69%	3.51%	3.61%
In offices outside the U.S.[4]	105,882	103,581	100,825	555	646	559	2.08	2.50	2.21
Total	$204,607	$203,661	$201,206	$1,473	$1,523	$1,471	2.86%	3.00%	2.91%
Investments									
In U.S. offices									
Taxable	$227,680	$224,021	$228,337	$1,138	$1,086	$990	1.98%	1.94%	1.72%
Exempt from U.S. income tax	17,890	18,466	19,102	181	197	162	4.01	4.28	3.37
In offices outside the U.S.[4]	106,456	106,758	107,350	835	830	794	3.11	3.12	2.94
Total	$352,026	$349,245	$354,789	$2,154	$2,113	$1,946	2.43%	2.43%	2.18%
Loans (net of unearned income)[8]									
In U.S. offices	$372,067	$369,342	$368,372	$6,650	$6,392	$6,272	7.09%	6.94%	6.77%
In offices outside the U.S.[4]	274,254	264,986	267,399	4,031	3,832	3,974	5.83	5.80	5.91
Total	$646,321	$634,328	$635,771	$10,681	$10,224	$10,246	6.56%	6.46%	6.41%
Other interest-earning assets[9]	$61,677	$60,107	$52,668	$292	$260	$221	1.88%	1.74%	1.67%
Total interest-earning assets	$1,687,024	$1,662,627	$1,611,001	$15,944	$15,323	$14,767	3.75%	3.70%	3.65%
Non-interest-earning assets[6]	$205,268	$206,581	$219,213						
Total assets	$1,892,292	$1,869,208	$1,830,214						

(1) Net interest revenue includes the taxable equivalent adjustments related to the tax-exempt bond portfolio (based on the U.S. federal statutory tax rate of 35%) of $123 million, $122 million, and $114 million for the three months ended September 30, 2017, June 30, 2017 and September 30, 2016, respectively.

(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset categories.

(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.

(4) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(5) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to ASC 210-20-45. However, Interest revenue excludes the impact of ASC 210-20-45.

(6) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in Non-interest-earning assets and Other non-interest-bearing liabilities.

(7) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in interest on Trading account assets and Trading account liabilities, respectively.

(8) Includes cash-basis loans.

(9) Includes brokerage receivables.

Average Balances and Interest Rates—Liabilities and Equity, and Net Interest Revenue[1][2][3]
Taxable Equivalent Basis

	Average volume			Interest expense			% Average rate		
	3rd Qtr.	2nd Qtr.	3rd Qtr.	3rd Qtr.	2nd Qtr.	3rd Qtr.	3rd Qtr.	2nd Qtr.	3rd Qtr.
In millions of dollars, except rates	2017	2017	2016	2017	2017	2016	2017	2017	2016
Liabilities									
Deposits									
In U.S. offices[4]	$318,881	$311,758	$296,999	$695	$593	$470	0.86%	0.76%	0.63%
In offices outside the U.S.[5]	438,561	439,807	434,232	1,080	1,010	973	0.98	0.92	0.89
Total	$757,442	$751,565	$731,231	$1,775	$1,603	$1,443	0.93%	0.86%	0.79%
Federal funds purchased and securities loaned or sold under agreements to repurchase[6]									
In U.S. offices	$93,167	$101,623	$99,924	$423	$396	$267	1.80%	1.56%	1.06%
In offices outside the U.S.[5]	64,897	59,354	58,060	289	280	192	1.77	1.89	1.32
Total	$158,064	$160,977	$157,984	$712	$676	$459	1.79%	1.68%	1.16
Trading account liabilities[7][8]									
In U.S. offices	$32,622	$34,287	$33,600	$104	$81	$65	1.26%	0.95%	0.77%
In offices outside the U.S.[5]	57,187	56,731	42,637	65	65	37	0.45	0.46	0.35
Total	$89,809	$91,018	$76,237	$169	$146	$102	0.75%	0.64%	0.53%
Short-term borrowings[9]									
In U.S. offices	$77,211	$68,486	$61,019	$234	$103	$51	1.20%	0.60%	0.33%
In offices outside the U.S.[5]	20,928	23,070	20,285	84	99	39	1.59	1.72	0.76
Total	$98,139	$91,556	$81,304	$318	$202	$90	1.29%	0.88%	0.44%
Long-term debt[10]									
In U.S. offices	$198,766	$187,610	$175,427	$1,377	$1,361	$1,028	2.75%	2.91%	2.33%
In offices outside the U.S.[5]	4,298	4,534	6,506	28	48	52	2.58%	4.25	3.18
Total	$203,064	$192,144	$181,933	$1,405	$1,409	$1,080	2.75%	2.94%	2.36%
Total interest-bearing liabilities	$1,306,518	$1,287,260	$1,228,689	$4,379	$4,036	$3,174	1.33%	1.26%	1.03%
Demand deposits in U.S. offices	$37,673	$38,772	$40,466						
Other non-interest-bearing liabilities[7]	318,060	313,227	328,405						
Total liabilities	$1,662,251	$1,639,259	$1,597,560						
Citigroup stockholders' equity[11]	$229,017	$228,946	$231,574						
Noncontrolling interest	1,024	1,003	1,080						
Total equity[11]	$230,041	$229,949	$232,654						
Total liabilities and stockholders' equity	$1,892,292	$1,869,208	$1,830,214						
Net interest revenue as a percentage of average interest-earning assets[12]									
In U.S. offices	$975,283	$956,968	$953,877	$7,046	$6,777	$7,092	2.87%	2.84%	2.96%
In offices outside the U.S.[6]	711,741	705,659	657,124	4,519	4,510	4,501	2.52	2.56	2.72%
Total	$1,687,024	$1,662,627	$1,611,001	$11,565	$11,287	$11,593	2.72%	2.72%	2.86%

(1) Net interest revenue includes the taxable equivalent adjustments related to the tax-exempt bond portfolio (based on the U.S. federal statutory tax rate of 35%) of $123 million, $122 million, and $114 million for the three months ended September 30, 2017, June 30, 2017 and September 30, 2016, respectively.

(2) Interest rates and amounts include the effects of risk management activities associated with the respective liability categories.

(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.

(4) Consists of other time deposits and savings deposits. Savings deposits are made up of insured money market accounts, NOW accounts and other savings deposits. The interest expense on savings deposits includes FDIC deposit insurance assessments.

(5) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(6) Average volumes of securities sold under agreements to repurchase are reported net pursuant to ASC 210-20-45. However, Interest expense excludes the impact of ASC 210-20-45.

(7) The fair value carrying amounts of derivative contracts are reported net, pursuant to ASC 815-10-45, in Non-interest-earning assets and Other non-interest-bearing liabilities.

(8) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in interest on Trading account assets and Trading account liabilities, respectively.

(9) Includes brokerage payables.

(10) Excludes hybrid financial instruments and beneficial interests in consolidated VIEs that are classified as Long-term debt, as these obligations are accounted for in changes in fair value recorded in Principal transactions.

(11) Includes stockholders' equity from discontinued operations.

(12) Includes allocations for capital and funding costs based on the location of the asset.

Average Balances and Interest Rates—Assets[1][2][3][4]
Taxable Equivalent Basis

	Average volume		Interest revenue		% Average rate	
In millions of dollars, except rates	Nine Months 2017	Nine Months 2016	Nine Months 2017	Nine Months 2016	Nine Months 2017	Nine Months 2016
Assets						
Deposits with banks[5]	$165,910	$128,194	$1,156	$703	0.93%	0.73 %
Federal funds sold and securities borrowed or purchased under agreements to resell[6]						
In U.S. offices	$141,723	$148,379	$1,364	$1,123	1.29%	1.01 %
In offices outside the U.S.[5]	105,527	83,668	983	824	1.25%	1.32 %
Total	$247,250	$232,047	$2,347	$1,947	1.27%	1.12 %
Trading account assets[7][8]						
In U.S. offices	$100,214	$104,655	$2,679	$2,835	3.57%	3.62 %
In offices outside the U.S.[5]	101,159	94,701	1,624	1,680	2.15%	2.37 %
Total	$201,373	$199,356	$4,303	$4,515	2.86%	3.03 %
Investments						
In U.S. offices						
Taxable	$224,384	$227,532	$3,258	$2,981	1.94%	1.75 %
Exempt from U.S. income tax	18,345	19,171	574	501	4.18%	3.49 %
In offices outside the U.S.[5]	106,813	106,116	2,454	2,385	3.07%	3.00 %
Total	$349,542	$352,819	$6,286	$5,867	2.40%	2.22 %
Loans (net of unearned income)[9]						
In U.S. offices	$369,602	$357,300	$19,315	$17,938	6.99%	6.71 %
In offices outside the U.S.[5]	265,060	265,586	11,560	11,847	5.83%	5.96 %
Total	$634,662	$622,886	$30,875	$29,785	6.50%	6.39 %
Other interest-earning assets[10]	$59,506	$54,329	$846	$709	1.90%	1.74 %
Total interest-earning assets	$1,658,243	$1,589,631	$45,813	$43,526	3.69%	3.66 %
Non-interest-earning assets[7]	$205,775	$215,402				
Total assets	$1,864,018	$1,805,033				

(1) Net interest revenue includes the taxable equivalent adjustments (based on the U.S. federal statutory tax rate of 35%) of $368 million and $350 million for the nine months ended September 30, 2017 and 2016, respectively.

(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset and liability categories.

(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.

(4) Detailed average volume, Interest revenue and Interest expense exclude Discontinued operations. See Note 2 to the Consolidated Financial Statements.

(5)

Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(6) Average volumes of securities borrowed or purchased under agreements to resell are reported net pursuant to FIN 41 (ASC 210-20-45). However, Interest revenue excludes the impact of FIN 41 (ASC 210-20-45).

(7) The fair value carrying amounts of derivative contracts are reported in Non-interest-earning assets and Other non-interest-bearing liabilities.

(8) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in interest on Trading account assets and Trading account liabilities, respectively.

(9) Includes cash-basis loans.

(10) Includes brokerage receivables.

Average Balances and Interest Rates—Liabilities and Equity, and Net Interest Revenue[1][2][3][4]
Taxable Equivalent Basis

	Average volume		Interest expense		% Average rate	
In millions of dollars, except rates	Nine Months 2017	Nine Months 2016	Nine Months 2017	Nine Months 2016	Nine Months 2017	Nine Months 2016
Liabilities						
Deposits						
In U.S. offices[5]	$310,977	$287,100	$1,795	$1,157	0.77%	0.54 %
In offices outside the U.S.[6]	435,704	431,176	2,998	2,796	0.92%	0.87 %
Total	$746,681	$718,276	$4,793	$3,953	0.86%	0.74 %
Federal funds purchased and securities loaned or sold under agreements to repurchase[7]						
In U.S. offices	$96,417	$102,321	$1,101	$787	1.53%	1.03 %
In offices outside the U.S.[6]	59,559	58,379	780	701	1.75%	1.60 %
Total	$155,976	$160,700	$1,881	$1,488	1.61%	1.24 %
Trading account liabilities[8][9]						
In U.S. offices	$33,041	$28,219	$269	$181	1.09%	0.86 %
In offices outside the U.S.[6]	57,862	43,424	193	105	0.45%	0.32 %
Total	$90,903	$71,643	$462	$286	0.68%	0.53 %
Short-term borrowings[10]						
In U.S. offices	$72,435	$57,559	$422	$123	0.78%	0.29 %
In offices outside the U.S.[6]	22,668	17,727	297	177	1.75%	1.33 %
Total	$95,103	$75,286	$719	$300	1.01%	0.53 %
Long-term debt[11]						
In U.S. offices	$188,344	$174,454	$3,993	$3,031	2.83%	2.32 %
In offices outside the U.S.[6]	4,715	6,691	133	176	3.77%	3.51 %
Total	$193,059	$181,145	$4,126	$3,207	2.86%	2.36 %
Total interest-bearing liabilities	$1,281,722	$1,207,050	$11,981	$9,234	1.25%	1.02 %
Demand deposits in U.S. offices	$38,064	$36,927				
Other non-interest-bearing liabilities[8]	313,939	331,906				
Total liabilities	$1,633,725	$1,575,883				
Citigroup stockholders' equity[12]	$229,284	$228,014				
Noncontrolling interest	1,009	1,136				
Total equity[12]	$230,293	$229,150				
Total liabilities and stockholders' equity	$1,864,018	$1,805,033				
Net interest revenue as a percentage of average interest-earning assets						
In U.S. offices	$960,206	$941,990	$20,586	$20,894	2.87%	2.96 %
In offices outside the U.S.[6]	698,037	647,641	13,246	13,398	2.54	2.76
Total	$1,658,243	$1,589,631	$33,832	$34,292	2.73%	2.88 %

(1) Net interest revenue includes the taxable equivalent adjustments (based on the U.S. federal statutory tax rate of 35%) of $368 million and $350 million for the nine months ended September 30, 2017 and 2016, respectively.

(2) Interest rates and amounts include the effects of risk management activities associated with the respective asset and liability categories.

(3) Monthly or quarterly averages have been used by certain subsidiaries where daily averages are unavailable.

(4) Detailed average volume, Interest revenue and Interest expense exclude Discontinued operations. See Note 2 to the Consolidated Financial Statements.

(5) Consists of other time deposits and savings deposits. Savings deposits are made up of insured money market accounts, NOW accounts and other savings deposits. The interest expense on savings deposits includes FDIC deposit insurance fees and charges.

(6) Average rates reflect prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(7) Average volumes of securities loaned or sold under agreements to repurchase are reported net pursuant to FIN 41 (ASC 210-20-45). However, Interest expense excludes the impact of FIN 41 (ASC 210-20-45).

(8) The fair value carrying amounts of derivative contracts are reported in Non-interest-earning assets and Other non-interest-bearing liabilities.

(9) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in interest on Trading account assets and Trading account liabilities, respectively.

(10) Excludes hybrid financial instruments and beneficial interests in consolidated VIEs that are classified as Long-term debt, as these obligations are accounted for in changes in fair value recorded in Principal transactions.

(11) Includes stockholders' equity from discontinued operations.

(12) Includes allocations for capital and funding costs based on the location of the asset.

Analysis of Changes in Interest Revenue[1][2][3]

In millions of dollars	3rd Qtr. 2017 vs. 2nd Qtr. 2017 Increase (decrease) due to change in: Average volume	Average rate	Net change	3rd Qtr. 2017 vs. 3rd Qtr. 2016 Increase (decrease) due to change in: Average volume	Average rate	Net change
Deposits with banks[4]	$26	$ 85	$ 111	$102	$ 137	$239
Federal funds sold and securities borrowed or purchased under agreements to resell						
In U.S. offices	$(27)	$ 79	$ 52	$(28)	$ 165	$137
In offices outside the U.S.[4]	13	(35)	(22)	61	24	85
Total	$(14)	$ 44	$ 30	$33	$ 189	$222
Trading account assets[5]						
In U.S. offices	$(12)	$ 53	$ 41	$(15)	$ 21	$6
In offices outside the U.S.[4]	14	(105)	(91)	27	(31)	(4)
Total	$2	$ (52)	$ (50)	$12	$ (10)	$2
Investments[1]						
In U.S. offices	$16	$ 20	$ 36	$(9)	$ 176	$167
In offices outside the U.S.[4]	(2)	7	5	(7)	48	41
Total	$14	$ 27	$ 41	$(16)	$ 224	$208
Loans (net of unearned income)[6]						
In U.S. offices	$47	$ 211	$ 258	$63	$ 315	$378
In offices outside the U.S.[4]	136	63	199	101	(44)	57
Total	$183	$ 274	$ 457	$164	$ 271	$435
Other interest-earning assets[7]	$7	$ 25	$ 32	$41	$ 30	$71
Total interest revenue	$218	$ 403	$ 621	$336	$ 841	$1,177

(1) The taxable equivalent adjustment is related to the tax-exempt bond portfolio based on the U.S. federal statutory tax rate of 35% and is included in this presentation.

(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.

(3) Detailed average volume, Interest revenue and Interest expense exclude Discontinued operations. See Note 2 to the Consolidated Financial Statements.

(4) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(5) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in interest on Trading account assets and Trading account liabilities, respectively.

(6) Includes cash-basis loans.

(7) Includes brokerage receivables.

Analysis of Changes in Interest Expense and Net Interest Revenue[1][2][3]

In millions of dollars	3rd Qtr. 2017 vs. 2nd Qtr. 2017 Increase (decrease) due to change in: Average volume	Average rate	Net change	3rd Qtr. 2017 vs. 3rd Qtr. 2016 Increase (decrease) due to change in: Average volume	Average rate	Net change
Deposits						
In U.S. offices	$14	$ 88	$ 102	$37	$ 188	$225
In offices outside the U.S.[4]	(3)	73	70	10	97	107
Total	$11	$ 161	$ 172	$47	$ 285	$332
Federal funds purchased and securities loaned or sold under agreements to repurchase						
In U.S. offices	$(35)	$ 62	$ 27	$(19)	$ 175	$156
In offices outside the U.S.[4]	25	(16)	9	25	72	97
Total	$(10)	$ 46	$ 36	$6	$ 247	$253
Trading account liabilities[5]						
In U.S. offices	$(4)	$ 27	$ 23	$(2)	$ 41	$39
In offices outside the U.S.[4]	1	(1)	—	15	13	28
Total	$(3)	$ 26	$ 23	$13	$ 54	$67
Short-term borrowings[6]						
In U.S. offices	$15	$ 116	$ 131	$17	$ 166	$183
In offices outside the U.S.[4]	(9)	(6)	(15)	1	44	45
Total	$6	$ 110	$ 116	$18	$ 210	$228
Long-term debt						
In U.S. offices	$79	$ (63)	$ 16	$147	$ 202	$349
In offices outside the U.S.[4]	(2)	(18)	(20)	(16)	(8)	(24)
Total	$77	$ (81)	$ (4)	$131	$ 194	$325
Total interest expense	$81	$ 262	$ 343	$215	$ 990	$1,205
Net interest revenue	$137	$ 141	$ 278	$121	$ (149)	$(28)

(1) The taxable equivalent adjustment is related to the tax-exempt bond portfolio based on the U.S. federal statutory tax rate of 35% and is included in this presentation.

(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.

(3) Detailed average volume, Interest revenue and Interest expense exclude Discontinued operations. See Note 2 to the Consolidated Financial Statements.

(4) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(5) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in interest on Trading account assets and Trading account liabilities, respectively.

(6) Includes brokerage payables.

Analysis of Changes in Interest Revenue, Interest Expense and Net Interest Revenue[1][2][3]

In millions of dollars	Nine Months 2017 vs. Nine Months 2016 Increase (decrease) due to change in: Average volume	Average rate	Net change[2]
Deposits with banks[4]	$236	$217	$453
Federal funds sold and securities borrowed or purchased under agreements to resell			
In U.S. offices	$(52)	$293	$241
In offices outside the U.S.[4]	206	(47)	159
Total	$154	$246	$400
Trading account assets[5]			
In U.S. offices	$(119)	$(37)	$(156)
In offices outside the U.S.[4]	110	(166)	(56)
Total	$(9)	$(203)	$(212)
Investments[1]			
In U.S. offices	$(57)	$407	$350
In offices outside the U.S.[4]	16	53	69
Total	$(41)	$460	$419
Loans (net of unearned income)[6]			
In U.S. offices	$629	$748	$1,377
In offices outside the U.S.[4]	(23)	(264)	(287)
Total	$606	$484	$1,090
Other interest-earning assets	$71	$66	$137
Total interest revenue	$1,017	$1,270	$2,287
Deposits[7]			
In U.S. offices	$103	$535	$638
In offices outside the U.S.[4]	30	172	202
Total	$133	$707	$840
Federal funds purchased and securities loaned or sold under agreements to repurchase			
In U.S. offices	$(48)	$362	$314
In offices outside the U.S.[4]	14	65	79
Total	$(34)	$427	$393
Trading account liabilities[5]			
In U.S. offices	$34	$54	$88
In offices outside the U.S.[4]	41	47	88
Total	$75	$101	$176
Short-term borrowings			
In U.S. offices	$39	$260	$299
In offices outside the U.S.[4]	57	63	120
Total	$96	$323	$419
Long-term debt			
In U.S. offices	$255	$707	$962
In offices outside the U.S.[4]	(55)	12	(43)
Total	$200	$719	$919
Total interest expense	$470	$2,277	$2,747
Net interest revenue	$547	$(1,007)	$(460)

(1)

The taxable equivalent adjustment is based on the U.S. Federal statutory tax rate of 35% and is included in this presentation.

(2) Rate/volume variance is allocated based on the percentage relationship of changes in volume and changes in rate to the total net change.

(3) Detailed average volume, Interest revenue and Interest expense exclude Discontinued operations.

(4) Changes in average rates reflect changes in prevailing local interest rates, including inflationary effects and monetary corrections in certain countries.

(5) Interest expense on Trading account liabilities of ICG is reported as a reduction of Interest revenue. Interest revenue and Interest expense on cash collateral positions are reported in Trading account assets and Trading account liabilities, respectively.

(6) Includes cash-basis loans.

(7) The interest expense on deposits includes the FDIC assessment and deposit insurance fees and charges of $936 million and $838 million for the nine months ended September 30, 2017 and 2016, respectively.

Market Risk of Trading Portfolios

For additional information on Citi's market risk of trading portfolios, see "Market Risk—Market Risk of Trading Portfolios" in Citi's 2016 Annual Report on Form 10-K.

Value at Risk

As of September 30, 2017, Citi estimates that the conservative features of its VAR calibration contribute an approximate 22% add-on (unchanged from June 30, 2017) to what would be a VAR estimated under the assumption of stable and perfectly normal distributed markets.

As set forth in the table below, Citi's average trading VAR as of September 30, 2017 decreased compared to June 30, 2017. The change was mainly due to lower credit spread exposures and volatilities in the markets businesses within ICG, partially offset by higher interest rate risk from increased mark-to-market hedging activity against non-trading positions.

Quarter-end and Average Trading VAR and Trading and Credit Portfolio VAR

In millions of dollars	Third Quarter 2017		Second Quarter 2017		Third Quarter 2016	
	September 30, 2017	Average	June 30, 2017	Average	September 30, 2016	Average
Interest rate	$ 63	$ 63	$ 48	$ 52	$ 30	$ 34
Credit spread	43	44	52	49	73	$ 62
Covariance adjustment[1]	(28)	(23)	(15)	(15)	(28)	(31)
Fully diversified interest rate and credit spread[2]	$ 78	$ 84	$ 85	$ 86	$ 75	$ 65
Foreign exchange	26	26	23	23	16	26
Equity	15	13	15	15	9	12
Commodity	20	23	20	21	22	23
Covariance adjustment[1]	(64)	(65)	(53)	(59)	(53)	(62)
Total trading VAR—all market risk factors, including general and specific risk (excluding credit portfolios)[2]	$ 75	$ 81	$ 90	$ 86	$ 69	$ 64
Specific risk-only component[3]	$ 3	$ 2	$ 1	$ 1	$ 7	$ 6
Total trading VAR—general market risk factors only (excluding credit portfolios)	$ 72	$ 79	$ 89	$ 85	$ 62	$ 58
Incremental impact of the credit portfolio[4][5]	$ 8	$ 8	$ 5	$ 10	$ 21	$ 21
Total trading and credit portfolio VAR	$ 83	$ 89	$ 95	$ 96	$ 90	$ 85

(1) Covariance adjustment (also known as diversification benefit) equals the difference between the total VAR and the sum of the VARs tied to each individual risk type. The benefit reflects the fact that the risks within each and across risk types are not perfectly correlated and, consequently, the total VAR on a given day will be lower than the sum of the VARs relating to each individual risk type. The determination of the primary drivers of changes to the covariance adjustment is made by an examination of the impact of both model parameter and position changes.

(2) The total trading VAR includes mark-to-market and certain fair value option trading positions in ICG, with the exception of hedges to the loan portfolio, fair value option loans and all CVA exposures. Available-for-sale and accrual exposures are not included.

(3) The specific risk-only component represents the level of equity and fixed income issuer-specific risk embedded in VAR.

(4) The credit portfolio is composed of mark-to-market positions associated with non-trading business units including Citi Treasury, the CVA relating to derivative counterparties and all associated CVA hedges. FVA and DVA are not

included. The credit portfolio also includes hedges to the loan portfolio, fair value option loans and hedges to the leveraged finance pipeline within capital markets origination in ICG.

(5) The decrease in the third quarter of 2017 end-of-period and average VAR attributable to the incremental impact of the credit portfolio year-over-year was primarily related to a reduction in the use of credit default swaps used to hedge the corporate loan portfolio.

The table below provides the range of market factor VARs associated with Citi's total trading VAR, inclusive of specific risk:

	Third Quarter 2017		Second Quarter 2017		Third Quarter 2016	
In millions of dollars	Low	High	Low	High	Low	High
Interest rate	$33	$97	$33	$72	$27	$ 47
Credit spread	38	52	47	53	55	73
Fully diversified interest rate and credit spread	$59	$108	$67	$107	$59	$ 75
Foreign exchange	19	38	17	28	15	46
Equity	8	18	10	24	6	22
Commodity	14	31	14	30	19	31
Total trading	$58	$106	$67	$116	$53	$ 72
Total trading and credit portfolio	67	112	78	123	72	97

Note: No covariance adjustment can be inferred from the above table as the high and low for each market factor will be from different close-of-business dates.

The following table provides the VAR for ICG, excluding the CVA relating to derivative counterparties, hedges of CVA, fair value option loans and hedges to the loan portfolio:

In millions of dollars	Sept. 30, 2017
Total—all market risk factors, including general and specific risk	$ 73
Average—during quarter	$ 80
High—during quarter	107
Low—during quarter	57

Regulatory VAR Back-testing

In accordance with Basel III, Citi is required to perform back-testing to evaluate the effectiveness of its Regulatory VAR model. Regulatory VAR back-testing is the process in which the daily one-day VAR, at a 99% confidence interval, is compared to the buy-and-hold profit and loss (i.e., the profit and loss impact if the portfolio is held constant at the end of the day and re-priced the following day). Buy-and-hold profit and loss represents the daily mark-to-market profit and loss attributable to price movements in covered positions from the close of the previous business day. Buy-and-hold profit and loss excludes realized trading revenue, net interest, fees and commissions, intra-day trading profit and loss and changes in reserves.

Based on a 99% confidence level, Citi would expect two to three days in any one year where buy-and-hold losses exceeded the Regulatory VAR. Given the conservative calibration of Citi's VAR model (as a result of taking the greater of short- and long-term volatilities and fat-tail scaling of volatilities), Citi would expect fewer exceptions under normal and stable market conditions. Periods of unstable market conditions could increase the number of back-testing exceptions.

As of September 30, 2017, there was one back-testing exception observed for Citi's Regulatory VAR for the prior 12 months. As previously disclosed, trading losses on November 14, 2016 exceeded the VAR estimate at the Citigroup level, driven by the widening of municipal bond yields following the election results in the United States.

COUNTRY RISK

For additional information on country risk at Citi, see “Country Risk” in Citi’s 2016 Annual Report on Form 10-K.

Top 25 Country Exposures

The following table presents Citi’s top 25 exposures by country (excluding the U.S.) as of September 30, 2017. For purposes of the table, loan amounts are reflected in the country where the loan is booked, which is generally based on the domicile of the borrower. For example, a loan to a Chinese subsidiary of a Switzerland-based corporation will generally be categorized as a loan in China. In addition, Citi has developed regional booking centers in certain countries, most significantly in the United Kingdom (U.K.) and Ireland, in order to more efficiently serve its corporate customers. As an example, with respect to the U.K., only 24% of corporate loans presented in the table below are to U.K. domiciled entities (24% for unfunded commitments), with the balance of the loans predominately to European domiciled counterparties. Approximately 80% of the total U.K. funded loans and 90% of the total U.K. unfunded commitments were investment grade as of September 30, 2017. Trading account assets and investment securities are generally categorized based on the domicile of the issuer of the security of the underlying reference entity. For additional information on the assets included in the table, see the footnotes to the table below.

For a discussion of uncertainties arising as a result of the vote in the U.K. to withdraw from the EU, see “Risk Factors—Strategic Risks” in Citigroup’s 2016 Annual Report on Form 10-K.

In billions of dollars	ICG loans[1]	GCB loans[2]	Other funded[3]	Unfunded[4]	Net MTM on derivatives/repos	Total hedges (on loans and CVA)[5]	Investment securities[6]	Trading account assets[7]	Total as of 3Q17	Total as of 2Q17	Total as of 4Q16
United Kingdom	$ 35.0	$ —	$ 3.5	$ 55.2	$ 10.6	$ (2.5)	$ 7.3	$ 1.1	$110.2	$111.8	$107.5
Mexico	8.9	26.6	0.4	6.8	0.7	(0.7)	13.7	6.4	62.8	61.3	52.4
Singapore	14.9	12.0	0.2	5.9	0.9	(0.3)	9.7	0.5	43.8	41.2	36.4
Hong Kong	15.4	10.8	1.2	6.1	1.1	(0.5)	5.4	1.3	40.8	39.7	35.9
Korea	2.3	18.8	0.3	3.2	2.3	(0.9)	6.7	1.5	34.2	35.1	34.0
Ireland	11.5	—	0.7	15.3	0.5	—	—	0.8	28.8	28.9	24.8
India	7.0	6.6	0.6	4.7	1.5	(1.1)	8.3	1.1	28.7	33.4	30.9
Brazil[2]	12.6	1.8	—	3.7	5.4	(2.0)	3.3	3.2	28.0	27.3	28.5
Australia	4.6	10.9	—	5.7	2.2	(0.8)	4.0	0.4	27.0	23.7	22.4
China	7.7	4.6	0.3	1.7	2.6	(1.0)	4.0	0.9	20.8	19.4	17.2
Japan	2.4	0.1	0.1	2.7	5.4	(1.2)	4.6	4.7	18.8	18.6	18.3
Germany	0.1	—	—	4.2	4.7	(2.1)	9.5	2.2	18.6	19.5	16.0
Taiwan	5.0	8.8	0.1	1.1	0.9	(0.2)	1.4	1.4	18.5	18.4	16.6
Canada	2.0	0.7	0.6	6.8	1.9	(0.7)	4.7	—	16.0	16.3	17.0

Poland	3.3	1.9	—	3.1	0.1	(0.3)	5.2	0.3	13.6	13.1	11.8
Malaysia	1.4	4.6	0.3	1.6	0.1	(0.1)	0.9	0.3	9.1	9.0	9.3
Thailand	0.9	2.1	0.1	2.1	0.1	—	1.1	0.6	7.0	7.0	5.8
United Arab Emirates	3.1	1.5	0.1	2.2	0.3	(0.3)	—	(0.2)	6.7	6.2	6.0
Indonesia	1.9	1.1	0.2	1.3	0.2	(0.2)	1.3	0.4	6.2	5.7	5.2
Luxembourg	0.1	—	—	—	0.6	(0.3)	5.2	0.5	6.1	5.8	5.4
Russia	2.1	1.0	—	1.0	0.2	(0.2)	0.8	0.1	5.0	4.7	5.3
Colombia[2]	1.9	1.6	—	1.0	0.3	(0.1)	0.3	(0.1)	4.9	5.3	5.6
Jersey	2.9	—	—	1.6	—	—	—	—	4.5	4.1	3.7
Argentina	1.9	—	—	0.1	1.2	(0.4)	0.4	1.1	4.3	3.0	2.2
South Africa	1.5	—	—	1.0	0.7	(0.3)	1.4	—	4.3	3.9	3.9

(1) ICG loans reflect funded corporate loans and private bank loans, net of unearned income. As of September 30, 2017, private bank loans in the table above totaled $23.3 billion, concentrated in Singapore ($7.2 billion), Hong Kong ($6.5 billion) and the U.K. ($5.4 billion).

(2) GCB loans include funded loans in Brazil and Colombia related to businesses that were transferred to Corporate/Other as of January 1, 2016 (Brazil GCB loans are recorded as HFS in Other assets on the Consolidated Balance Sheet).

(3) Other funded includes other direct exposure such as accounts receivable, loans held-for-sale, other loans in Corporate/Other and investments accounted for under the equity method.

(4) Unfunded exposure includes unfunded corporate lending commitments, letters of credit and other contingencies.

(5) Net mark-to-market (MTM) counterparty risk on OTC derivatives and securities lending / borrowing transactions (repos). Exposures are shown net of collateral and inclusive of CVA. Includes margin loans.

(6) Investment securities include securities available-for-sale, recorded at fair market value, and securities held-to-maturity, recorded at historical cost.

(7) Trading account assets are shown on a net basis and include issuer risk on cash products and derivative exposure where the underlying reference entity/issuer is located in that country.

INCOME TAXES

Deferred Tax Assets

For additional information on Citi's deferred tax assets (DTAs), see "Risk Factors—Strategic Risks," "Significant Accounting Policies and Significant Estimates—Income Taxes" and Note 9 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

At September 30, 2017, Citigroup had recorded net DTAs of approximately $45.5 billion, a decrease of $0.3 billion from June 30, 2017 and $1.2 billion from December 31, 2016. The DTA reductions for the three and nine months ended September 30, 2017 were primarily driven by earnings.

The following table summarizes Citi's net DTAs balance. Of Citi's net DTAs as of September 30, 2017, those arising from net operating losses, foreign tax credit and general business credit carry-forwards are 100% deducted in calculating Citi's regulatory capital, while DTAs arising from temporary differences are deducted from regulatory capital if in excess of the 10%/15% limitations (see "Capital Resources" above). Approximately $17.6 billion of the net DTA was not deducted in calculating regulatory capital pursuant to full Basel III implementation standards as of September 30, 2017.

Jurisdiction/Component	DTAs balance	
In billions of dollars	Sept. 30, 2017	Dec. 31, 2016
Total U.S.	$43.2	$44.6
Total foreign	2.3	2.1
Total	$45.5	$46.7

Effective Tax Rate

Citi's effective tax rate for the third quarter of 2017 was 31.1%, as compared with 30.8% in the third quarter of 2016.

DISCLOSURE CONTROLS AND PROCEDURES

Citi's disclosure controls and procedures are designed to ensure that information required to be disclosed under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, including without limitation that information required to be disclosed by Citi in its SEC filings is accumulated and communicated to management, including the Chief Executive Officer (CEO) and Chief Financial Officer (CFO), as appropriate, to allow for timely decisions regarding required disclosure.

Citi's Disclosure Committee assists the CEO and CFO in their responsibilities to design, establish, maintain and evaluate the effectiveness of Citi's disclosure controls and procedures. The Disclosure Committee is responsible for, among other things, the oversight, maintenance and implementation of the disclosure controls and procedures, subject to the supervision and oversight of the CEO and CFO.

Citi's management, with the participation of its CEO and CFO, has evaluated the effectiveness of Citigroup's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934) as of September 30, 2017 and, based on that evaluation, the CEO and CFO have concluded that at that date, Citigroup's disclosure controls and procedures were effective.

DISCLOSURE PURSUANT TO SECTION 219 OF THE IRAN THREAT REDUCTION AND SYRIA HUMAN RIGHTS ACT

Pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act of 2012, which added Section 13(r) to the Securities Exchange Act of 1934, as amended, Citi is required to disclose in its annual or quarterly reports, as applicable, whether it or any of its affiliates knowingly engaged in certain activities, transactions or dealings relating to Iran or with individuals or entities that are subject to sanctions under U.S. law. Disclosure is generally required even where the activities, transactions or dealings were conducted in compliance with applicable law. Citi disclosed reportable activities pursuant to Section 219 in the first and second quarters of 2017 in the First Quarter of 2017 Form 10-Q and Second Quarter Form 10-Q, respectively.

During the third quarter of 2017, Bank Handlowy w Warszawie S.A., a Citibank subsidiary located in Poland, processed three funds transfers involving the Iranian Embassy in Poland. The value of the funds transfers was EUR 50, EUR 50, and EU 100 (approximately $60.00, $60.00 and $117.00), respectively. In addition, a branch of Citibank N.A., located in India, processed a funds transfer involving the Iran Consulate General in India. The total value of this payment was INR 1,368 (approximately $21.00). These payments were for visa-related fees and Iran-related travel respectively, both of which are permissible under the travel exemption in the Iranian Transactions and Sanctions Regulations.

FORWARD-LOOKING STATEMENTS

Certain statements in this Form 10-Q, including but not limited to statements included within the Management's Discussion and Analysis of Financial Condition and Results of Operations, are "forward-looking statements" within the meaning of the rules and regulations of the SEC. In addition, Citigroup also may make forward-looking statements in its other documents filed or furnished with the SEC, and its management may make forward-looking statements orally to analysts, investors, representatives of the media and others.

Generally, forward-looking statements are not based on historical facts but instead represent Citigroup's and its management's beliefs regarding future events. Such statements may be identified by words such as believe, expect, anticipate, intend, estimate, may increase, may fluctuate, target, illustrative, and similar expressions or future or conditional verbs such as will, should, would and could.

Such statements are based on management's current expectations and are subject to risks, uncertainties and changes in circumstances. Actual results and capital and other financial conditions may differ materially from those included in these statements due to a variety of factors, including without limitation (i) the precautionary statements included within each individual business's discussion and analysis of its results of operations above and in Citi's 2016 Annual Report on Form 10-K, First Quarter of 2017 Form 10-Q and Second Quarter of 2017 Form 10-Q; (ii) the factors listed and described under "Risk Factors" in Citi's 2016 Annual Report on Form 10-K; and (iii) the risks and uncertainties summarized below:

- Citi's ability to address (i) the shortcomings identified by the Federal Reserve Board and FDIC as a result of their review of Citi's 2015 annual resolution plan submission as well as (ii) the 2017 resolution plan guidance in Citi's 2017 resolution plan submission;
- the potential impact on Citi's ability to return capital to shareholders due to any changes to the stress testing and CCAR requirements or process, such as the introduction of a firm-specific "stress capital buffer" or incorporation of Citi's then-effective GSIB surcharge into its post-stress test minimum capital requirements or the introduction of additional macroprudential considerations such as funding and liquidity shocks in the stress testing process;
- the ongoing regulatory uncertainties and changes faced by financial institutions, including Citi, in the U.S. and globally, including, among others, uncertainties and potential changes arising from the U.S. presidential administration and Congress, potential changes to various aspects of the regulatory capital framework and the terms of and other uncertainties resulting from the U.K.'s process to withdraw from the European Union, and the potential impact these uncertainties and changes could have on Citi's businesses, results of operations, financial condition, strategy or organizational structure and compliance risks and costs;
- the numerous uncertainties arising as a result of the process in the U.K. to withdraw from the European Union, including the terms of the withdrawal, and the potential impact to macroeconomic conditions as well as

- Citi's legal entity structure and overall results of operations or financial condition;
- the potential impact to financial institutions, including Citi, as a result of the uncertainties associated with the level and pace of any changes in interest rates or any balance sheet normalization program implemented by the Federal Reserve Board or other central banks;
- the impact on the value of Citi's DTAs and on Citi's net income or regulatory capital if corporate tax rates in the U.S. or certain state, local or foreign jurisdictions are reduced, or if other changes are made to the U.S. corporate tax system (whether as a result of current efforts by the U.S. presidential administration and Congress or otherwise), including a potential change to a territorial system or a one-time mandatory deemed repatriation of all untaxed non-U.S. earnings at a significantly lower rate;
- Citi's ability to continue to utilize its DTAs (including the foreign tax credit component of its DTAs) and thus reduce the negative impact of the DTAs on Citi's regulatory capital, including as a result of movements in Citi's AOCI, which can be impacted by changes in interest rates and foreign exchange rates;
- the potential impact to Citi if its interpretation or application of the extensive tax laws to which it is subject, such as withholding tax obligations and stamp and other transactional taxes, differs from those of the relevant governmental authorities;

- Citi's ability to achieve the expected returns on its ongoing investments in its businesses or meet its operational or financial objectives or targets, including as a result of factors that Citi cannot control;
- the potential negative impact to Citi's co-branding and private label credit card relationships as well as Citi's results of operations or financial condition, including as a result of loss of revenues, impairment of purchased credit card relationships and contract related intangibles or other losses, due to, among other things, operational difficulties of a particular retailer or merchant or early termination of a particular relationship, or external factors, including bankruptcies, liquidations, consolidations and other similar events;
- the potential impact to Citi's businesses, credit costs, deposits and overall results of operations and financial condition as a result of macroeconomic and geopolitical challenges and uncertainties, including those relating to geopolitical tensions in Asia and Latin America, economic growth rates in the U.S. and non-U.S. jurisdictions, potential fiscal or other monetary actions or the pursuit of protectionist trade and other policies by the U.S.;
- the various risks faced by Citi as a result of its presence in the emerging markets, including, among others, sanctions or asset freezes, fraud, foreign exchange controls, sociopolitical instability (including from hyper-inflation), nationalization or loss of licenses, business restrictions, potential criminal charges, closure of branches or subsidiaries and confiscation of assets as well as the increased compliance, regulatory and legal risks and costs;

- the uncertainties regarding the consequences of noncompliance and the potential impact on Citi's estimates of its eligible debt arising from the Federal Reserve Board's final total loss-absorbing capacity (TLAC) rules;
- the potential impact of concentrations of risk, such as market risk arising from Citi's volume of transactions with counterparties in the financial services industry, on Citi's hedging strategies and results of operations;
- the potential impacts on Citi's liquidity and/or costs of funding as a result of external factors, including, among others, market disruptions and governmental fiscal and monetary policies as well as regulatory changes or negative investor perceptions of Citi's creditworthiness;
- the impact of ratings downgrades of Citi or one or more of its more significant subsidiaries or issuing entities on Citi's funding and liquidity as well as the results of operations of certain of its businesses;
- the potential impact to Citi from a disruption of its operational systems, including as a result of, among other things, human error, fraud or malice, accidental technological failure, electrical or telecommunication outages or failure of computer servers;
- the increasing risk of continually evolving cybersecurity risks faced by financial institutions, including Citi, and others (such as theft of funds or theft, loss, misuse or disclosure of confidential client, customer, corporate or network information or assets and other attempts by unauthorized parties to disrupt computer and network systems), and the potential impact from such risks, including, among others, reputational damage with clients, customers and others, lost revenues, additional costs (including credit costs), regulatory penalties, legal exposure and other financial losses;
- the potential impact of incorrect assumptions or estimates in Citi's financial statements or the impact of ongoing changes to financial accounting and reporting standards or interpretations, such as the FASB's new accounting standard on credit losses, on how Citi records and reports its financial condition and results of operations;
- the potential impact to Citi of ongoing implementation and interpretation of regulatory changes and requirements in the U.S. and globally, such as on Citi's compliance risks and costs, including reputational and legal risks as well as remediation and other financial costs, such as penalties and fines;
- the potential outcomes of the extensive legal and regulatory proceedings, investigations and other inquiries to which Citi is or may be subject at any given time, particularly given the increased focus on conduct risk and the severity of the remedies sought and potential collateral consequences to Citi arising from such outcomes;
- the potential impact to Citi's results of operations and/or regulatory capital and capital ratios if Citi's risk models, including its Basel III risk-weighted asset models, are ineffective, require refinement, modification or enhancement or approval is withdrawn by Citi's U.S. banking regulators;

- the potential impact on Citi's performance, including its competitive position and ability to effectively manage its businesses and continue to execute its strategy, if Citi is unable to hire and retain highly qualified employees for any reason; and
- the potential impact to Citi's businesses, credit costs and overall results of operations and financial condition as a result of natural disasters.

Any forward-looking statements made by or on behalf of Citigroup speak only as to the date they are made, and Citi does not undertake to update forward-looking statements to reflect the impact of circumstances or events that arise after the date the forward-looking statements were made.

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CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED STATEMENT OF INCOME (UNAUDITED) Citigroup Inc. and Subsidiaries

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars, except per share amounts	2017	2016	2017	2016
Revenues				
Interest revenue	$15,821	$14,653	$45,445	$43,176
Interest expense	4,379	3,174	11,981	9,234
Net interest revenue	$11,442	$11,479	$33,464	$33,942
Commissions and fees	$2,931	$2,644	$8,627	$7,832
Principal transactions	2,170	2,238	7,754	5,894
Administration and other fiduciary fees	1,010	862	2,906	2,551
Realized gains on sales of investments, net	213	287	626	673
Other-than-temporary impairment losses on investments				
Gross impairment losses	(15)	(32)	(47)	(615)
Less: Impairments recognized in AOCI	—	—	—	—
Net impairment losses recognized in earnings	$(15)	$(32)	$(47)	$(615)
Insurance premiums	$166	$184	$491	$665
Other revenue	256	98	373	1,921
Total non-interest revenues	$6,731	$6,281	$20,730	$18,921
Total revenues, net of interest expense	$18,173	$17,760	$54,194	$52,863
Provisions for credit losses and for benefits and claims				
Provision for loan losses	$2,146	$1,746	$5,487	$5,022
Policyholder benefits and claims	28	35	81	172
Release for unfunded lending commitments	(175)	(45)	(190)	(4)
Total provisions for credit losses and for benefits and claims	$1,999	$1,736	$5,378	$5,190
Operating expenses				
Compensation and benefits	$5,304	$5,203	$16,301	$15,988
Premises and equipment	608	624	1,832	1,917
Technology/communication	1,759	1,694	5,108	5,000
Advertising and marketing	417	403	1,222	1,226
Other operating	2,083	2,480	6,691	7,165
Total operating expenses	$10,171	$10,404	$31,154	$31,296
Income from continuing operations before income taxes	$6,003	$5,620	$17,662	$16,377
Provision for income taxes	1,866	1,733	5,524	4,935
Income from continuing operations	$4,137	$3,887	$12,138	$11,442
Discontinued operations				
Loss from discontinued operations	$(9)	$(37)	$(4)	$(76)
Benefit for income taxes	(4)	(7)	(2)	(21)
Loss from discontinued operations, net of taxes	$(5)	$(30)	$(2)	$(55)
Net income before attribution of noncontrolling interests	$4,132	$3,857	$12,136	$11,387
Noncontrolling interests	(1)	17	41	48
Citigroup’s net income	$4,133	$3,840	$12,095	$11,339
Basic earnings per share[1]				
Income from continuing operations	$1.42	$1.25	$4.05	$3.60
Income (loss) from discontinued operations, net of taxes	—	(0.01)	—	(0.02)
Net income	$1.42	$1.24	$4.05	$3.58
Weighted average common shares outstanding	2,683.6	2,879.9	2,729.3	2,912.9

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Diluted earnings per share[1]				
Income from continuing operations	$ 1.42	$ 1.25	$ 4.05	$ 3.60
Income (loss) from discontinued operations, net of taxes	—	(0.01)	—	(0.02)
Net income	$ 1.42	$ 1.24	$ 4.05	$ 3.58
Adjusted weighted average common shares outstanding	2,683.7	2,880.1	2,729.5	2,913.0

(1) 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
(UNAUDITED)

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Citigroup’s net income	$4,133	$3,840	$12,095	$11,339
Add: Citigroup's other comprehensive income				
Net change in unrealized gains and losses on investment securities, net of taxes[1]	$(66)	$(432)	$127	$2,529
Net change in debt valuation adjustment (DVA), net of taxes[1]	(123)	(200)	(267)	5
Net change in cash flow hedges, net of taxes	8	(83)	123	385
Benefit plans liability adjustment, net of taxes	(29)	12	(176)	(480)
Net change in foreign currency translation adjustment, net of taxes and hedges	218	(375)	2,179	(273)
Citigroup’s total other comprehensive income	$8	$(1,078)	$1,986	$2,166
Citigroup’s total comprehensive income	$4,141	$2,762	$14,081	$13,505
Add: Other comprehensive income attributable to noncontrolling interests	$12	$10	$82	$(13)
Add: Net income attributable to noncontrolling interests	(1)	17	41	48
Total comprehensive income	$4,152	$2,789	$14,204	$13,540

(1) See Note 1 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

In millions of dollars	September 30, 2017 (Unaudited)	December 31, 2016
Assets		
Cash and due from banks (including segregated cash and other deposits)	$22,604	$23,043
Deposits with banks	163,505	137,451
Federal funds sold and securities borrowed or purchased under agreements to resell (including $156,332 and $133,204 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	252,608	236,813
Brokerage receivables	38,076	28,887
Trading account assets (including $99,225 and $80,986 pledged to creditors at September 30, 2017 and December 31, 2016, respectively)	258,907	243,925
Investments:		
Available for sale (including $9,599 and $8,239 pledged to creditors as of September 30, 2017 and December 31, 2016, respectively)	295,315	299,424
Held to maturity (including $301 and $843 pledged to creditors as of September 30, 2017 and December 31, 2016, respectively)	51,527	45,667
Non-marketable equity securities (including $1,300 and $1,774 at fair value as of September 30, 2017 and December 31, 2016, respectively)	7,832	8,213
Total investments	$354,674	$353,304
Loans:		
Consumer (including $27 and $29 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	325,576	325,063
Corporate (including $4,281 and $3,457 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	327,607	299,306
Loans, net of unearned income	$653,183	$624,369
Allowance for loan losses	(12,366)	(12,060)
Total loans, net	$640,817	$612,309
Goodwill	22,345	21,659
Intangible assets (other than MSRs)	4,732	5,114
Mortgage servicing rights (MSRs)	553	1,564
Other assets (including $20,424 and $15,729 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	130,312	128,008
Total assets	$1,889,133	$1,792,077

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.

In millions of dollars	September 30, 2017 (Unaudited)	December 31, 2016
Assets of consolidated VIEs to be used to settle obligations of consolidated VIEs		

Cash and due from banks	$ 107	$ 142
Trading account assets	1,437	602
Investments	2,584	3,636
Loans, net of unearned income		
Consumer	52,521	53,401
Corporate	19,908	20,121
Loans, net of unearned income	$ 72,429	$ 73,522
Allowance for loan losses	(1,943)	(1,769)
Total loans, net	$ 70,486	$ 71,753
Other assets	142	158
Total assets of consolidated VIEs to be used to settle obligations of consolidated VIEs	$ 74,756	$ 76,291

Statement continues on the next page.

CONSOLIDATED BALANCE SHEET Citigroup Inc. and Subsidiaries
(Continued)

In millions of dollars, except shares and per share amounts	September 30, 2017 (Unaudited)	December 31, 2016
Liabilities		
Non-interest-bearing deposits in U.S. offices	$127,220	$136,698
Interest-bearing deposits in U.S. offices (including $314 and $434 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	315,556	300,972
Non-interest-bearing deposits in offices outside the U.S.	84,178	77,616
Interest-bearing deposits in offices outside the U.S. (including $1,183 and $778 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	437,084	414,120
Total deposits	$964,038	$929,406
Federal funds purchased and securities loaned or sold under agreements to repurchase (including $45,325 and $33,663 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	161,282	141,821
Brokerage payables	63,205	57,152
Trading account liabilities	138,820	139,045
Short-term borrowings (including $4,827 and $2,700 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	38,149	30,701
Long-term debt (including $30,826 and $26,254 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	232,673	206,178
Other liabilities (including $15,144 and $10,796 as of September 30, 2017 and December 31, 2016, respectively, at fair value)	62,344	61,631
Total liabilities	$1,660,511	$1,565,934
Stockholders' equity		
Preferred stock ($1.00 par value; authorized shares: 30 million), issued shares: 770,120 as of September 30, 2017 and as of December 31, 2016, at aggregate liquidation value	$19,253	$19,253
Common stock ($0.01 par value; authorized shares: 6 billion), issued shares: 3,099,523,273 and 3,099,482,042 as of September 30, 2017 and December 31, 2016	31	31
Additional paid-in capital	107,896	108,042
Retained earnings	155,174	146,477
Treasury stock, at cost: September 30, 2017—455,521,274 shares and December 31, 2016—327,090,192 shares	(24,829)	(16,302)
Accumulated other comprehensive income (loss) (AOCI)	(29,891)	(32,381)
Total Citigroup stockholders' equity	$227,634	$225,120
Noncontrolling interest	988	1,023
Total equity	$228,622	$226,143
Total liabilities and equity	$1,889,133	$1,792,077

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.

	September 30, 2017

In millions of dollars	(Unaudited)	December 31, 2016
Liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup		
Short-term borrowings	$ 10,166	$ 10,697
Long-term debt	28,666	23,919
Other liabilities	396	1,275
Total liabilities of consolidated VIEs for which creditors or beneficial interest holders do not have recourse to the general credit of Citigroup	$ 39,228	$ 35,891

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
(UNAUDITED)

	Nine Months Ended September 30,	
In millions of dollars, except shares in thousands	2017	2016
Preferred stock at aggregate liquidation value		
Balance, beginning of period	$19,253	$16,718
Issuance of new preferred stock	—	2,535
Balance, end of period	$19,253	$19,253
Common stock and additional paid-in capital		
Balance, beginning of period	$108,073	$108,319
Employee benefit plans	(137)	(371)
Preferred stock issuance expense	—	(37)
Other	(9)	(5)
Balance, end of period	$107,927	$107,906
Retained earnings		
Balance, beginning of period	$146,477	$133,841
Adjustment to opening balance, net of taxes[1]	(660)	15
Adjusted balance, beginning of period	$145,817	$133,856
Citigroup's net income	12,095	11,339
Common dividends[2]	(1,755)	(760)
Preferred dividends	(893)	(757)
Other[3]	(90)	—
Balance, end of period	$155,174	$143,678
Treasury stock, at cost		
Balance, beginning of period	$(16,302)	$(7,677)
Employee benefit plans[4]	526	775
Treasury stock acquired[5]	(9,053)	(5,167)
Balance, end of period	$(24,829)	$(12,069)
Citigroup's accumulated other comprehensive income (loss)		
Balance, beginning of period	$(32,381)	$(29,344)
Adjustment to opening balance, net of taxes[1]	504	(15)
Adjusted balance, beginning of period	$(31,877)	$(29,359)
Citigroup's total other comprehensive income (loss)	1,986	2,166
Balance, end of period	$(29,891)	$(27,193)
Total Citigroup common stockholders' equity	$208,381	$212,322
Total Citigroup stockholders' equity	$227,634	$231,575
Noncontrolling interests		
Balance, beginning of period	$1,023	$1,235
Transactions between noncontrolling-interest shareholders and the related consolidated subsidiary	(3)	(11)
Transactions between Citigroup and the noncontrolling-interest shareholders	(50)	(69)
Net income attributable to noncontrolling-interest shareholders	41	48
Dividends paid to noncontrolling-interest shareholders	(44)	(42)
Other comprehensive income (loss) attributable to noncontrolling-interest shareholders	82	(13)
Other	(61)	(33)
Net change in noncontrolling interests	$(35)	$(120)
Balance, end of period	$988	$1,115
Total equity	$228,622	$232,690

(1) See Note 1 to the Consolidated Financial Statements for additional details.

(2) Common dividends declared were $0.16 per share in the first and second quarters and $0.32 per share in the third quarter of 2017. Common dividends declared were $0.05 per share in the first and second quarters and $0.16 per share in the third quarter of 2016.

(3) Includes the impact of ASU 2016-09, Compensation—Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. See Note 1 to the Consolidated Financial Statements.

(4) 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.

(5) For the nine months ended September 30, 2017 and 2016, 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
(UNAUDITED)

	Nine Months Ended September 30,	
In millions of dollars	2017	2016
Cash flows from operating activities of continuing operations		
Net income before attribution of noncontrolling interests	$12,136	$11,387
Net income attributable to noncontrolling interests	41	48
Citigroup's net income	$12,095	$11,339
Loss from discontinued operations, net of taxes	(2)	(55)
Income from continuing operations—excluding noncontrolling interests	$12,097	$11,394
Adjustments to reconcile net income to net cash provided by operating activities of continuing operations		
Net gains on significant disposals[1]	(602)	(422)
Depreciation and amortization	2,717	2,714
Provision for loan losses	5,487	5,022
Realized gains from sales of investments	(626)	(673)
Net impairment losses on investments, goodwill and intangible assets	75	616
Change in trading account assets	(15,077)	(13,396)
Change in trading account liabilities	(225)	14,137
Change in brokerage receivables net of brokerage payables	(3,136)	(230)
Change in loans held-for-sale (HFS)	1,969	3,958
Change in other assets	(4,501)	(2,009)
Change in other liabilities	779	1,398
Other, net	(2,262)	5,825
Total adjustments	$(15,402)	$16,940
Net cash provided by (used in) operating activities of continuing operations	$(3,305)	$28,334
Cash flows from investing activities of continuing operations		
Change in deposits with banks	$(26,054)	$(20,374)
Change in federal funds sold and securities borrowed or purchased under agreements to resell	(15,795)	(16,370)
Change in loans	(41,569)	(42,163)
Proceeds from sales and securitizations of loans	7,019	12,676
Purchases of investments	(151,362)	(155,804)
Proceeds from sales of investments	89,724	99,172
Proceeds from maturities of investments	67,166	52,607
Proceeds from significant disposals[1]	3,411	265
Capital expenditures on premises and equipment and capitalized software	(2,502)	(2,092)
Proceeds from sales of premises and equipment, subsidiaries and affiliates, and repossessed assets	292	467
Net cash used in investing activities of continuing operations	$(69,670)	$(71,616)
Cash flows from financing activities of continuing operations		
Dividends paid	$(2,639)	$(1,517)
Issuance of preferred stock	—	2,498
Treasury stock acquired	(9,071)	(5,167)
Stock tendered for payment of withholding taxes	(402)	(313)
Change in federal funds purchased and securities loaned or sold under agreements to repurchase	19,461	6,628
Issuance of long-term debt	52,293	43,464
Payments and redemptions of long-term debt	(29,785)	(40,461)

Change in deposits	34,632	32,365
Change in short-term borrowings	7,448	8,448

CONSOLIDATED STATEMENT OF CASH FLOWS (UNAUDITED) (Continued)	Citigroup Inc. and Subsidiaries Nine Months Ended September 30,	
In millions of dollars	2017	2016
Net cash provided by financing activities of continuing operations	$71,937	$45,945
Effect of exchange rate changes on cash and cash equivalents	$599	$(144)
Change in cash and due from banks	$(439)	$2,519
Cash and due from banks at beginning of period	23,043	20,900
Cash and due from banks at end of period	$22,604	$23,419
Supplemental disclosure of cash flow information for continuing operations		
Cash paid during the period for income taxes	$2,714	$2,855
Cash paid during the period for interest	11,604	9,760
Non-cash investing activities		
Transfers to loans HFS from loans	$3,800	$8,600
Transfers to OREO and other repossessed assets	85	138

(1) See Note 2 to the Consolidated Financial Statements for further information on significant disposals.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)
1. BASIS OF PRESENTATION AND ACCOUNTING CHANGES

Basis of Presentation
The accompanying unaudited Consolidated Financial Statements as of September 30, 2017 and for the three- and nine-month periods ended September 30, 2017 and 2016 include the accounts of Citigroup Inc. and its consolidated subsidiaries.
In the opinion of management, all adjustments, consisting of normal recurring adjustments, necessary for a fair presentation have been reflected. The accompanying unaudited Consolidated Financial Statements should be read in conjunction with the Consolidated Financial Statements and related notes included in Citigroup's Annual Report on Form 10-K for the fiscal year ended December 31, 2016, including the historical audited consolidated financial statements of Citigroup reflecting the certain realignments and reclassifications set forth in Citigroup's Current Report on Form 8-K filed with the SEC on June 16, 2017 (2016 Annual Report on Form 10-K), and Citigroup's Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017 (First Quarter of 2017 Form 10-Q) and June 30, 2017 (Second Quarter of 2017 Form 10-Q).
Certain financial information that is normally included in annual financial statements prepared in accordance with U.S. generally accepted accounting principles (GAAP), but is not required for interim reporting purposes, has been condensed or omitted.
Management must make estimates and assumptions that affect the Consolidated Financial Statements and the related footnote disclosures. While management uses its best judgment, actual results could differ from those estimates.
As noted above, the Notes to Consolidated Financial Statements are unaudited.
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.

ACCOUNTING CHANGES

Premium Amortization on Purchased Callable Debt Securities
In March 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-08, Receivables—Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities, which amends the amortization period for certain purchased callable debt securities held at a premium. The ASU requires entities to amortize premiums on debt securities by the first call date when the securities have fixed and determinable call dates and prices. The scope of the ASU includes all accounting premiums, such as purchase premiums and cumulative fair value hedge

adjustments. The ASU does not change the accounting for discounts, which continue to be recognized over the contractual life of a security.
For calendar-year-end entities, the ASU is effective as of January 1, 2019, but it may be early adopted in any interim or year-end period after issuance. Adoption of the ASU is on a modified retrospective basis through a cumulative effect adjustment to retained earnings as of the beginning of the year of adoption. Citi has early adopted the ASU in the second quarter of 2017, with an effective date of January 1, 2017. Adoption of the ASU primarily affected Citi's available-for-sale (AFS) and held-to-maturity (HTM) portfolios of callable state and municipal securities. The ASU adoption resulted in a net reduction to total stockholders' equity of $156 million (after tax), effective as of January 1, 2017. This amount is composed of a reduction of approximately $660 million to retained earnings for the incremental amortization of purchase premiums and cumulative hedge adjustments generated under fair value hedges of these callable debt securities. This amount was partially offset by an increase to Accumulated other comprehensive income (loss) (AOCI) of $504 million related to the cumulative fair value hedge adjustments reclassified to retained earnings for AFS securities.

Financial statements for periods prior to 2017 were not subject to restatement under the provisions of this ASU. The amortization recorded in the third quarter and for the first nine months of 2017 under the provisions of the ASU is not materially different than the amounts that would have been recorded if the ASU had not been early adopted.

Recognition and Measurement of Financial Assets and Financial Liabilities

In January 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (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 requires entities to present separately in AOCI the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the entity has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. It also requires 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 certain exchange seats will continue to be presented at cost.

Citi early adopted only the provisions of this ASU related to presentation of the change in fair value of liabilities for which the fair value option was elected, related to changes in Citigroup’s own credit spreads in AOCI

effective January 1, 2016. Accordingly, as of the first quarter of 2016, these amounts are reflected as a component of AOCI, whereas these amounts were previously recognized in Citigroup's revenues and net income. The impact of adopting this amendment resulted in a cumulative catch-up reclassification from retained earnings to AOCI of an accumulated after-tax loss of approximately $15 million at January 1, 2016. Financial statements for periods prior to 2016 were not subject to restatement under the provisions of this ASU. For additional information, see Note 17, Note 20 and Note 21 to the Consolidated Financial Statements. The Company is evaluating the effects that the other provisions of ASU 2016-01, which are effective January 1, 2018, will have on its Consolidated Financial Statements and related disclosures.

FUTURE APPLICATION OF ACCOUNTING STANDARDS

Accounting for Financial Instruments—Credit Losses

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326). The ASU introduces a new credit loss model, the Current Expected Credit Losses model (CECL), which requires earlier recognition of credit losses, while also providing additional transparency about credit risk.

The CECL model utilizes a lifetime "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. The expected credit losses are adjusted each period for changes in expected lifetime credit losses. For available-for-sale securities where fair value is less than cost, credit-related impairment, if any, will be recognized in an allowance for credit losses and adjusted each period for changes in expected credit risk. This model replaces the multiple existing impairment models in current GAAP, which generally require that a loss be incurred before it is recognized.

The CECL model represents a significant change from existing GAAP and may result in material changes to the Company's accounting for financial instruments. The Company is evaluating the effect that ASU 2016-13 will have on its Consolidated Financial Statements and related disclosures. The impact of the ASU will depend upon the state of the economy and the nature of Citi's portfolios at the date of adoption. Based on a preliminary analysis performed earlier in 2017 and the environment at that time, the overall impact is estimated to be an approximate 10-20% increase in credit reserves. Moreover, there are still some implementation questions that will need to be resolved that could affect the estimated impact. The ASU will be effective for Citi as of January 1, 2020. Early application is permitted for annual periods beginning January 1, 2019.

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 Company will adopt the guidance as of January 1, 2018 using a modified retrospective method with a cumulative-effect adjustment to opening retained earnings. While the guidance will replace most existing revenue recognition guidance in GAAP, the ASU is not applicable to financial instruments and, therefore, will not impact a majority of the Company's revenues, including net interest income. Based on the Company's current interpretations of the new guidance, the Company does not expect a material change in the timing or measurement of revenues and the overall impact to net income is expected to be immaterial.

The new standard clarified the guidance related to reporting revenue gross as a principal versus net as an agent. The Company has identified transactions, including underwriting activity where Citi is deemed the principal, rather than the agent, which require a gross up of annual revenues and expenses of approximately $0.8 billion. This change in presentation will not have an impact on Income from continuing operations; however, this standard would have impacted Citi's efficiency ratio by approximately 50 basis points for the nine months ended September 30, 2017. The Company continues to evaluate the effect that the guidance will have on other revenue streams within its scope, including the presentation of certain contract costs, as well as changes in disclosures required by the new guidance.

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 lessees to recognize leases 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 does not plan to early adopt the ASU. The Company estimates that upon adoption, its Consolidated Balance Sheet will have an approximate $5 billion increase in assets and liabilities. Additionally, the Company estimates an approximate $200 million increase in retained earnings due to the cumulative effect of recognizing previously deferred gains on sale/leaseback transactions.

Income Tax Impact of Intra-Entity Transfers of Assets

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes—Intra-Entity Transfers of Assets Other Than Inventory, which will require an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. The ASU is effective January 1, 2018. The Company continues to evaluate the impact of this standard, which is expected to increase DTAs, with an associated decrease in prepaid taxes of approximately $500 million.

Subsequent Measurement of Goodwill

In January 2017, the FASB issued ASU No. 2017-04, Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment. The ASU simplifies the subsequent measurement of goodwill impairment by eliminating the requirement to calculate the implied fair value of goodwill (i.e., the current Step 2 of the goodwill impairment test) to measure a goodwill impairment charge. Under the ASU, the impairment test is simply the comparison of the fair value of a reporting unit with its carrying amount (the current Step 1), with the impairment charge being the deficit in fair value but not exceeding the total amount of goodwill allocated to that reporting unit. The simplified one-step impairment test applies to all reporting units (including those with zero or negative carrying amounts).

The ASU is effective for Citi as of January 1, 2020. Early adoption is permitted for interim and annual goodwill impairment testing dates after January 1, 2017. The impact of the ASU will depend upon the performance of the reporting units and the market conditions impacting the fair value of each reporting unit going forward.

Clarifying the Definition of a Business

In January 2017, the FASB issued ASU No. 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business. The definition of a business directly and indirectly affects many areas of accounting (e.g., acquisitions, disposals, goodwill and consolidation). The ASU narrows the definition of a business by introducing a quantitative screen as the first step, such that if substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or a group of similar identifiable assets, the set of transferred assets and activities is not a business. If the set is not scoped out from the quantitative screen, the entity then evaluates whether the set meets the requirement that a business include, at a minimum, an input and a substantive process that together significantly contribute to the ability to create outputs.

The ASU is effective for Citi as of January 1, 2018. The ASU will be applied prospectively, with early adoption permitted. The impact of the ASU will depend upon the acquisition and disposal activities of Citi. If fewer transactions qualify as a business, there could be less initial recognition of goodwill, but also less goodwill allocated to disposals.

Changes in Accounting for Pension and Postretirement (Benefit) Expense

In March 2017, the FASB issued ASU 2017-07, Compensation—Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, which changes the income statement presentation of net benefit expense and requires restating the Company's financial statements for each of the earlier periods presented in Citi's annual and interim financial statements. The change in presentation is effective for annual and interim periods starting January 1, 2018. The ASU requires that only the service cost component of net benefit expense be included in the Compensation and benefits line on the income statement. The other components of net benefit expense will be required to be presented outside of the Compensation and benefits line and will be presented in Other operating expense. Since both of these income statement line items are part of Operating expenses, total Operating expenses will not change, nor will there be any change in Net income. This change in presentation is not expected to have a material effect on the Compensation and benefits and on Other operating lines in the income statement. The components of the net benefit expense are currently disclosed in Note 7 to the Consolidated Financial Statements.

The new standard also changes the components of net benefit expense that are eligible for capitalization when employee costs are capitalized in connection with various activities, such as internally developed software, construction-in-progress, and loan origination costs. Prospectively from January 1, 2018, only the service cost component of net benefit expense may be capitalized. Existing capitalized balances are not affected. The Company is currently evaluating the portion of net benefits cost that continues to be eligible for capitalization and the portion that is not eligible.

Hedging

In August 2017, the FASB issued ASU No. 2017-12, Targeted Improvements to Accounting for Hedging Activities, which will better align an entity's risk management activities and financial reporting for hedging relationships through changes to the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results. The mandatory effective date for calendar year-end public companies is January 1, 2019 but the amendments may be early adopted in any interim or annual period after issuance. The targeted improvements in the ASU will allow Citi increased flexibility to structure hedges of fixed rate instruments and floating rate instruments. Application of the ASU is expected to reduce the amount of ineffectiveness as the revised accounting guidance will better reflect the economics of our risk management activities and will also reduce the volatility associated with foreign currency hedging. The ASU requires the hedging instrument to be presented in the same line item as the hedged item and also requires expanded disclosures. Citi is in the process of evaluating whether to early adopt the standard before the mandatory effective date.

2. DISCONTINUED OPERATIONS AND SIGNIFICANT DISPOSALS

Discontinued Operations
The following sales are reported as Discontinued operations within Corporate/Other.

Sale of Egg Banking plc Credit Card Business
Citi sold the Egg Banking plc credit card business in 2011. Residual items from the disposal resulted in losses from Discontinued operations, net of taxes, of $5 million and $24 million for the three months ended September 30, 2017 and 2016, respectively, and $2 million and $46 million for the nine months ended September 30, 2017 and 2016, respectively.

Combined Results for Discontinued Operations
The following summarizes financial information for all Discontinued operations for which Citi continues to have minimal residual impact associated with the sold operations:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Total revenues, net of interest expense	$—	$—	$—	$—
Loss from discontinued operations	$(9)	$(37)	$(4)	$(76)
Benefit for income taxes	(4)	(7)	(2)	(21)
Loss from discontinued operations, net of taxes	$(5)	$(30)	$(2)	$(55)

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

Significant Disposals
The transactions during 2017 and 2016 described below were identified as significant disposals. The major classes of assets and liabilities that are derecognized from the Consolidated Balance Sheet at closing and the income related to each business until the disposal date are presented below.

Novation of the 80% Primerica Coinsurance Agreement
Effective January 1, 2016, Citi completed a novation (an arrangement that extinguishes Citi’s rights and obligations under a contract) of the Primerica 80% coinsurance agreement, which was part of Corporate/Other, to a third-party re-insurer. The novation resulted in revenues of $404 million recorded in Other revenue ($263 million after-tax) during the first quarter of 2016. Furthermore, the novation resulted in derecognition of $1.5 billion of available-for-sale securities and cash, $0.95 billion of deferred acquisition costs and $2.7 billion of insurance liabilities.

Exit of U.S. Mortgage Service Operations
As previously disclosed, Citigroup signed agreements during the first quarter of 2017 to effectively exit its direct U.S. mortgage servicing operations by the end of 2018 to intensify focus on originations. The exit of the mortgage servicing operations included the sale of mortgage servicing rights and execution of a subservicing agreement for the remaining Citi-owned loans and certain other mortgage servicing rights. As part of this transaction, Citi is also transferring certain employees.

This transaction, which was part of Corporate/Other, resulted in a pretax loss of $331 million ($207 million after-tax) recorded in Other revenue during the first quarter of 2017. The loss on sale did not include certain other costs and charges related to the disposed operation recorded primarily in Operating expenses in the first quarter of 2017, resulting in a total pretax loss of $382 million. As part of the completed sale, during the first quarter of 2017, Citi derecognized a total of $1,162 million of servicing-related assets, including $1,046 million of mortgage servicing rights, related to approximately 750,000 Fannie Mae and Freddie Mac held loans with outstanding balances of approximately $93 billion. Excluding the loss on sale and the additional charges, income before taxes for the disposed operation was immaterial for the three and nine months ended September 30, 2017 and 2016.

Sale of CitiFinancial Canada Consumer Finance Business

On March 31, 2017, Citi completed the sale of CitiFinancial Canada (CitiFinancial), which was part of Corporate/Other and included 220 retail branches and approximately 1,400 employees. As part of the sale, Citi derecognized total assets of approximately $1.9 billion, including $1.7 billion in consumer loans (net of allowance), and total liabilities of approximately $1.5 billion related to intercompany borrowings, which were settled at closing of the transaction. Separately, during the first quarter of 2017, CitiFinancial settled $0.4 billion of debt issued through loan securitizations. The sale of CitiFinancial generated a pretax gain on sale of $350 million recorded in Other revenue ($178 million after-tax) during the first quarter of 2017.

Income before taxes, excluding the pretax gain on sale, was as follows:

In millions of dollars	Three Months Ended September 30, 2017	2016	Nine Months Ended September 30, 2017	2016
Income before taxes	$ —	$ 43	$ 41	$ 121

Sale of a Fixed Income Analytics Business and an Index Business

On August 31, 2017, Citi completed the sale of a fixed income analytics (Yield Book) and a fixed income index business that were part of Markets and Securities Services within Institutional Clients Group (ICG). As part of the sale, Citi derecognized total assets of approximately $112 million, including goodwill of $72 million, while the derecognized liabilities were approximately $18 million. The transaction generated a pretax gain on sale of $580 million ($355 million after-tax) recorded in Other revenue during the third quarter of 2017.

Income before taxes for the divested businesses is as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Income before taxes	$ 13	$ 12	$ 31	$ 43

3. BUSINESS SEGMENTS

Citigroup's activities are conducted through the Global Consumer Banking (GCB) and ICG business segments. In addition, Corporate/Other includes activities not assigned to a specific business segment, as well as certain North America and international loan portfolios, discontinued operations and other legacy assets.

The prior-period balances reflect reclassifications to conform the presentation for all periods to the current period's presentation. Effective January 1, 2017, financial data was reclassified to reflect:

- the reporting of the remaining businesses and portfolios of assets of Citi Holdings as part of Corporate/Other which, prior to the first quarter of 2017, was a separately reported business segment;
- the re-attribution of certain treasury-related costs between Corporate/Other, GCB and ICG;
- the re-attribution of regional revenues within ICG; and
- certain other immaterial reclassifications.

Citi's consolidated results remain unchanged for all periods presented as a result of the changes and reclassifications discussed above.

For additional information regarding Citigroup's business segments, see Note 3 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

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

	Three Months Ended September 30,							
	Revenues, net of interest expense[1]		Provision (benefits) for income taxes		Income (loss) from continuing operations		Identifiable assets[2]	
In millions of dollars, except identifiable assets in billions	2017	2016	2017	2016	2017	2016	September 30, 2017	December 31, 2016
Global Consumer Banking	$8,433	$8,164	$636	$677	$1,174	$1,250	$419	$412
Institutional Clients Group	9,231	8,459	1,394	1,202	3,062	2,660	1,370	1,277
Corporate/Other	509	1,137	(164)	(146)	(99)	(23)	100	103
Total	$18,173	$17,760	$1,866	$1,733	$4,137	$3,887	$1,889	$1,792

(1) Includes total revenues, net of interest expense (excluding Corporate/Other), in North America of $8.9 billion and $8.4 billion; in EMEA of $2.7 billion and $2.5 billion; in Latin America of $2.4 billion and $2.2 billion; and in Asia of $3.7 billion and $3.5 billion for the three months ended September 30, 2017 and 2016, respectively. These regional numbers exclude Corporate/Other, which largely operates within the U.S.

(2) Includes pretax provisions for credit losses and for benefits and claims in the GCB results of $2.2 billion and $1.8 billion; in the ICG results of $(164) million and $(90) million; and in the Corporate/Other results of $(50) million

and $18 million for the three months ended September 30, 2017 and 2016, respectively.

	Nine Months Ended September 30, 2017					
	Revenues, net of interest expense[1]		Provision (benefits) for income taxes		Income (loss) from continuing operations[2]	
In millions of dollars	2017	2016	2017	2016	2017	2016
Global Consumer Banking	$24,285	$23,552	$ 1,867	$ 1,978	$ 3,306	$ 3,729
Institutional Clients Group	27,570	25,043	4,096	3,195	8,853	7,144
Corporate/Other	2,339	4,268	(439)	(238)	(21)	569
Total	$54,194	$52,863	$ 5,524	$ 4,935	$ 12,138	$ 11,442

(1) Includes total revenues, net of interest expense, in North America of $25.8 billion and $24.2 billion; in EMEA of $8.3 billion and $7.3 billion; in Latin America of $7.0 billion and $6.7 billion; and in Asia of $10.8 billion and $10.4 billion for the nine months ended September 30, 2017 and 2016, respectively. Regional numbers exclude Corporate/Other, which largely operates within the U.S.

(2) Includes pretax provisions for credit losses and for benefits and claims in the GCB results of $5.8 billion and $4.7 billion; in the ICG results of $(282) million and $382 million; and in Corporate/Other results of $(130) million and $90 million for the nine months ended September 30, 2017 and 2016, respectively.

4. INTEREST REVENUE AND EXPENSE

Interest revenue and Interest expense consisted of the following:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Interest revenue				
Loan interest, including fees	$10,652	$10,229	$30,798	$29,739
Deposits with banks	486	247	1,156	703
Federal funds sold and securities borrowed or purchased under agreements to resell	858	636	2,347	1,947
Investments, including dividends	2,104	1,887	6,122	5,679
Trading account assets[1]	1,429	1,433	4,176	4,399
Other interest	292	221	846	709
Total interest revenue	$15,821	$14,653	$45,445	$43,176
Interest expense				
Deposits[2]	$1,775	$1,443	$4,793	$3,953
Federal funds purchased and securities loaned or sold under agreements to repurchase	712	459	1,881	1,488
Trading account liabilities[1]	169	102	462	286
Short-term borrowings	318	90	719	300
Long-term debt	1,405	1,080	4,126	3,207
Total interest expense	$4,379	$3,174	$11,981	$9,234
Net interest revenue	$11,442	$11,479	$33,464	$33,942
Provision for loan losses	2,146	1,746	5,487	5,022
Net interest revenue after provision for loan losses	$9,296	$9,733	$27,977	$28,920

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

(2) Includes deposit insurance fees and charges of $301 million and $336 million for the three months ended September 30, 2017 and 2016, respectively, and $936 million and $838 million for the nine months ended September 30, 2017 and 2016, respectively.

5. COMMISSIONS AND FEES

The primary components of Citi's Commissions and fees revenue are investment banking fees, trading-related fees, fees related to trade and securities services in ICG and credit card and bank card fees. For additional information regarding

certain components of Commissions and fees revenue, see Note 5 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

The following table presents Commissions and fees revenue:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Investment banking	$911	$726	$2,689	$2,053
Trading-related	556	519	1,670	1,664
Trade and securities services	412	384	1,224	1,176
Credit cards and bank cards	406	372	1,081	987
Corporate finance[1]	171	164	578	528
Other consumer[2]	188	173	521	497
Checking-related	121	140	363	360
Loan servicing	80	71	254	235
Other	86	95	247	332
Total commissions and fees	$2,931	$2,644	$8,627	$7,832

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

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

6. PRINCIPAL TRANSACTIONS

Citi's Principal transactions revenue consists of realized and unrealized gains and losses from trading activities. For additional information regarding Principal transactions revenue, see Note 6 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

The following table presents Principal transactions revenue:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Global Consumer Banking[1]	$149	$162	$440	$469
Institutional Clients Group	1,757	2,064	6,504	5,552
Corporate/Other [1]	264	12	810	(127)
Total Citigroup	$2,170	$2,238	$7,754	$5,894
Interest rate risks[2]	$1,120	$1,282	$4,297	$3,229
Foreign exchange risks[3]	610	466	2,000	1,481

Equity risks[4]	158	81	404	76
Commodity and other risks[5]	92	171	330	436
Credit products and risks[6]	190	238	723	672
Total	$2,170	$2,238	$7,754	$5,894

(1) Primarily relates to foreign exchange risks.

(2) 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.

(3) Includes revenues from foreign exchange spot, forward, option and swap contracts, as well as foreign currency translation (FX translation) gains and losses.

(4) Includes revenues from common, preferred and convertible preferred stock, convertible corporate debt, equity-linked notes and exchange-traded and OTC equity options and warrants.

(5) Primarily includes revenues from crude oil, refined oil products, natural gas and other commodities trades.

(6) Includes revenues from structured credit products.

7. INCENTIVE PLANS

For additional information on Citi's incentive plans, see Note 7 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

8. RETIREMENT BENEFITS

For additional information on Citi's retirement benefits, see Note 8 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

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:

	Three Months Ended September 30,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	2017	2016	2017	2016	2017	2016	2017	2016
Qualified plans								
Benefits earned during the period	$—	$1	$ 38	$ 39	$ —	$ —	$ 3	$ 1
Interest cost on benefit obligation	124	126	76	70	9	6	27	24
Expected return on plan assets	(217)	(224)	(77)	(71)	(2)	(2)	(24)	(22)
Amortization of unrecognized								
Prior service benefit	—	—	(1)	—	—	—	(2)	(1)
Net actuarial loss	43	43	15	19	—	—	8	8
Curtailment loss [1]	1	10	—	—	—	—	—	—
Settlement loss (gain) [1]	—	—	4	(2)	—	—	—	—
Net qualified plans (benefit) expense	$(49)	$(44)	$ 55	$ 55	$ 7	$ 4	$ 12	$ 10
Nonqualified plans expense	$10	$12	$ —	$ —	$ —	$ —	$ —	$ —
Total net (benefit) expense	$(39)	$(32)	$ 55	$ 55	$ 7	$ 4	$ 12	$ 10

(1) Losses (gains) due to curtailment and settlement relate to repositioning and divestiture activities.

	Nine Months Ended September 30,							
	Pension plans				Postretirement benefit plans			
	U.S. plans		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	2017	2016	2017	2016	2017	2016	2017	2016
Qualified plans								
Benefits earned during the period	$1	$2	$ 112	$ 116	$ —	$ —	$ 7	$ 7
Interest cost on benefit obligation	384	399	221	216	20	19	76	72
Expected return on plan assets	(650)	(660)	(223)	(217)	(5)	(7)	(67)	(65)
Amortization of unrecognized								
Prior service benefit	—	—	(3)	(1)	—	—	(7)	(7)
Net actuarial loss (gain)	122	118	46	58	—	(1)	25	24
Curtailment loss (gain) [1]	4	10	—	(3)	—	—	—	—
Settlement loss[1]	—	—	8	2	—	—	—	—
Net qualified plans (benefit) expense	$(139)	$(131)	$ 161	$ 171	$ 15	$ 11	$ 34	$ 31
Nonqualified plans expense	$31	$31	$ —	$ —	$ —	$ —	$ —	$ —
Total net (benefit) expense	$(108)	$(100)	$ 161	$ 171	$ 15	$ 11	$ 34	$ 31

(1) Losses (gains) due to curtailment and settlement relate to repositioning and divestiture activities.

Funded Status and Accumulated Other Comprehensive Income (AOCI)

The following tables summarize the funded status and amounts recognized in the Consolidated Balance Sheet for the Company's Significant Plans.

	Nine Months Ended September 30, 2017			
	Pension plans		Postretirement benefit plans	
In millions of dollars	U.S. plans	Non-U.S. plans	U.S. plans	Non-U.S. plans
Change in projected benefit obligation				
Projected benefit obligation at beginning of year	$14,000	$ 6,522	$686	$ 1,141
Plans measured annually	(28)	(1,784)	—	(303)
Projected benefit obligation at beginning of year—Significant Plans	$13,972	$ 4,738	$686	$ 838
First quarter activity	25	802	(7)	134
Second quarter activity	161	9	63	72
Projected benefit obligation at June 30, 2017—Significant Plans	$14,158	$ 5,549	$742	$ 1,044
Benefits earned during the period	1	22	—	2
Interest cost on benefit obligation	131	64	6	23
Actuarial loss	95	104	2	12
Benefits paid, net of participants' contributions	(191)	(108)	(14)	(15)
Curtailment loss (gain)[1]	1	(2)	—	—
Foreign exchange impact and other	(269)	36	—	(6)
Projected benefit obligation at September 30, 2017—Significant Plans	$13,926	$ 5,665	$736	$ 1,060

(1) Loss (gain) due to curtailment relates to repositioning activities.

	Nine Months Ended September 30, 2017			
	Pension plans		Postretirement benefit plans	
In millions of dollars	U.S. plans	Non-U.S. plans	U.S. plans	Non-U.S. plans
Change in plan assets				
Plan assets at fair value at beginning of year	$12,363	$ 6,149	$129	$ 1,015
Plans measured annually	—	(1,167)	—	(11)
Plan assets at fair value at beginning of year—Significant Plans	$12,363	$ 4,982	$129	$ 1,004
First quarter activity	159	903	$—	124
Second quarter activity	186	(39)	$(3)	55
Plan assets at fair value at June 30, 2017—Significant Plans	$12,708	$ 5,846	$126	$ 1,183
Actual return on plan assets	310	95	3	24
Company contributions, net of reimbursements	63	11	10	—
Plan participants' contributions	—	1	—	—
Benefits paid, net of government subsidy	(191)	(109)	(14)	(15)
Foreign exchange impact and other	(269)	45	—	(6)
Plan assets at fair value at September 30, 2017—Significant Plans	$12,621	$ 5,889	$125	$ 1,186
Funded status of the Significant Plans				
Qualified plans[1]	$(575)	$ 224	$(611)	$ 126
Nonqualified plans	(730)	—	—	—
Funded status of the plans at September 30, 2017—Significant Plans	$(1,305)	$ 224	$(611)	$ 126
Net amount recognized				
Benefit asset	$—	$ 683	$—	$ 126
Benefit liability	(1,305)	(459)	(611)	—
Net amount recognized on the balance sheet—Significant Plans	$(1,305)	$ 224	$(611)	$ 126
Amounts recognized in AOCI				
Prior service benefit	$—	$ 30	$—	$ 91
Net actuarial (loss) gain	(6,779)	(1,051)	39	(406)
Net amount recognized in equity (pretax)—Significant Plans	$(6,779)	$ (1,021)	$39	$ (315)
Accumulated benefit obligation				
Qualified plans	$13,193	$ 5,047	$736	$ 1,060
Nonqualified plans	727	—	—	—
Accumulated benefit obligation at September 30, 2017—Significant Plans	$13,920	$ 5,047	$736	$ 1,060

(1) The U.S. qualified pension plan is fully funded under specified Employee Retirement Income Security Act of 1974, as amended (ERISA), funding rules as of January 1, 2017 and no minimum required funding is expected for 2017.

The following table shows the change in AOCI related to the Company's pension, postretirement and post employment plans:

In millions of dollars	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Beginning of period balance, net of tax[1][2]	$ (5,311)	$ (5,164)
Actuarial assumptions changes and plan experience	(213)	(721)
Net asset gain due to difference between actual and expected returns	123	419
Net amortization	59	171
Prior service cost	—	(5)
Curtailment/settlement gain[3]	5	12
Foreign exchange impact and other	(19)	(141)
Change in deferred taxes, net	16	89
Change, net of tax	$ (29)	$ (176)
End of period balance, net of tax[1][2]	$ (5,340)	$ (5,340)

(1) See Note 17 to the Consolidated Financial Statements for further discussion of net AOCI balance.
(2) Includes net-of-tax amounts for certain profit sharing plans outside the U.S.
(3) Gains due to curtailment and settlement relate to repositioning and divestiture activities.

Plan Assumptions

The discount rates utilized during the period in determining the pension and postretirement net (benefit) expense for the Significant Plans are as follows:

Net benefit (expense) assumed discount rates during the period	Three Months Ended Sept. 30, 2017	Jun. 30, 2017
U.S. plans		
Qualified pension	3.80%	4.05%
Nonqualified pension	3.75	3.95
Postretirement	3.60	3.85
Non-U.S. plans		
Pension	0.65-10.90	0.55-10.45
Weighted average	4.87	4.83
Postretirement	9.05	9.25

The discount rates utilized at period-end in determining the pension and postretirement benefit obligations for the Significant Plans are as follows:

Plan obligations assumed discount rates at period ended	Sept. 30, 2017	June 30, 2017	Mar. 31, 2017
U.S. plans			
Qualified pension	3.75%	3.80%	4.05%
Nonqualified pension	3.65	3.75	3.95
Postretirement	3.55	3.60	3.85
Non-U.S. plans			
Pension	0.65-10.35	0.65-10.90	0.55-10.45
Weighted average	4.86	4.87	4.83
Postretirement	8.95	9.05	9.25

Sensitivities of Certain Key Assumptions

The following table summarizes the estimated effect on the Company's Significant Plans quarterly expense of a one-percentage-point change in the discount rate:

	Three Months Ended September 30, 2017	
In millions of dollars	One-percentage-point increase	One-percentage-point decrease
Pension		
U.S. plans	$ 7	$ (10)
Non-U.S. plans	(5)	7
Postretirement		
U.S. plans	1	(1)
Non-U.S. plans	(3)	3

Contributions

For the U.S. pension plans, there were no required minimum cash contributions during the first nine months of 2017.

The following table summarizes the Company's actual contributions for the nine months ended September 30, 2017 and 2016, as well as estimated expected Company contributions for the remainder of 2017 and the actual contributions made in the fourth quarter of 2016.

	Pension plans				Postretirement plans			
	U.S. plans[1]		Non-U.S. plans		U.S. plans		Non-U.S. plans	
In millions of dollars	2017	2016	2017	2016	2017	2016	2017	2016
Company contributions[2] for the nine months ended September 30	$90	$541	$ 103	$ 58	$ 30	$ 6	$ 7	$ 4
Company contributions made or expected to be made during the remainder of the year	16	15	35	68	—	—	2	5

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

(2) Company contributions are composed of cash contributions made to the plans and benefits paid directly by the Company.

Defined Contribution Plans

The following table summarizes the Company's contributions for the defined contribution plans:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
U.S. plans	$ 95	$ 89	$293	$281
Non-U.S. plans	68	67	203	207

Post Employment Plans

The following table summarizes the components of net expense recognized in the Consolidated Statement of Income for the Company's U.S. post employment plans:

	Three Months Ended September 30,	Nine Months Ended September 30,

In millions of dollars	2017	2016	2017	2016
Service-related expense	$—	$—	$—	$—
Interest cost on benefit obligation	—	—	1	2
Amortization of unrecognized				
Prior service benefit	(8)	(7)	(23)	(23)
Net actuarial loss	1	1	2	3
Total service-related benefit	$(7)	$(6)	$(20)	$(18)
Non-service-related expense	$9	$10	$21	$23
Total net expense	$2	$4	$1	$5

9. EARNINGS PER SHARE

The following table reconciles the income and share data used in the basic and diluted earnings per share (EPS) computations:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions, except per-share amounts	2017	2016	2017	2016
Income from continuing operations before attribution of noncontrolling interests	$4,137	$3,887	$12,138	$11,442
Less: Noncontrolling interests from continuing operations	(1)	17	41	48
Net income from continuing operations (for EPS purposes)	$4,138	$3,870	$12,097	$11,394
Income (loss) from discontinued operations, net of taxes	(5)	(30)	(2)	(55)
Citigroup's net income	$4,133	$3,840	$12,095	$11,339
Less: Preferred dividends[1]	272	225	893	757
Net income available to common shareholders	$3,861	$3,615	$11,202	$10,582
Less: Dividends and undistributed earnings allocated to employee restricted and deferred shares with nonforfeitable rights to dividends, applicable to basic EPS	53	53	156	145
Net income allocated to common shareholders for basic EPS	$3,808	$3,562	$11,046	$10,437
Net income allocated to common shareholders for diluted EPS	3,808	3,562	$11,046	$10,437
Weighted-average common shares outstanding applicable to basic EPS	2,683.6	2,879.9	2,729.3	2,912.9
Effect of dilutive securities[2]				
Options[3]	0.1	0.1	0.1	0.1
Other employee plans	—	0.1	—	0.1
Adjusted weighted-average common shares outstanding applicable to diluted EPS[4]	2,683.7	2,880.1	2,729.5	2,913.0
Basic earnings per share[5]				
Income from continuing operations	$1.42	$1.25	$4.05	$3.60
Discontinued operations	—	(0.01)	—	(0.02)
Net income	$1.42	$1.24	$4.05	$3.58
Diluted earnings per share[5]				
Income from continuing operations	$1.42	$1.25	$4.05	$3.60
Discontinued operations	—	(0.01)	—	(0.02)
Net income	$1.42	$1.24	$4.05	$3.58

(1) As of September 30, 2017, Citi estimates it will distribute preferred dividends of approximately $320 million during the remainder of 2017, assuming such dividends are declared by the Citi Board of Directors.

(2) 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 $105.27 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 the three and nine months ended September 30, 2017 and 2016 because they were anti-dilutive.

(3) During the third quarters of 2017 and 2016, weighted-average options to purchase 0.8 million and 3.6 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 $206.70 and $85.92 per share, respectively, were anti-dilutive.

(4) Due to rounding, common shares outstanding applicable to basic EPS and the effect of dilutive securities may not sum to common shares outstanding applicable to diluted EPS.

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

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

For additional information on the Company's resale and repurchase agreements and securities borrowing and lending agreements, see Note 11 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

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

In millions of dollars	September 30, 2017	December 31, 2016
Federal funds sold	$ 20	$ —
Securities purchased under agreements to resell	139,203	131,473
Deposits paid for securities borrowed	113,385	105,340
Total[1]	$ 252,608	$ 236,813

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

In millions of dollars	September 30, 2017	December 31, 2016
Federal funds purchased	$ 388	$ 178
Securities sold under agreements to repurchase	145,280	125,685
Deposits received for securities loaned	15,614	15,958
Total[1]	$ 161,282	$ 141,821

(1) The above tables do not include securities-for-securities lending transactions of $14.4 billion and $9.3 billion at September 30, 2017 and December 31, 2016, respectively, where the Company acts as lender and receives securities that can be sold or pledged as collateral. In these transactions, the Company recognizes the securities received at fair value within Other assets and the obligation to return those securities as a liability within Brokerage payables.

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.

A substantial portion of the resale and repurchase agreements is recorded at fair value, as described in Notes 20 and 21 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.

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 21 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 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 September 30, 2017

In millions of dollars

	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet[1]	Net amounts of assets included on the Consolidated Balance Sheet[2]	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[3]	Net amounts[4]
Securities purchased under agreements to resell	$207,485	$ 68,282	$ 139,203	$ 105,439	$ 33,764
Deposits paid for securities borrowed	113,385	—	113,385	23,136	90,249
Total	$320,870	$ 68,282	$ 252,588	$ 128,575	$ 124,013

In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet[1]	Net amounts of liabilities included on the Consolidated Balance Sheet[2]	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[3]	Net amounts[4]
Securities sold under agreements to repurchase	$ 213,562	$ 68,282	$ 145,280	$ 67,974	$ 77,306
Deposits received for securities loaned	15,614	—	15,614	4,359	11,255
Total	$ 229,176	$ 68,282	$ 160,894	$ 72,333	$ 88,561

	As of December 31, 2016				
In millions of dollars	Gross amounts of recognized assets	Gross amounts offset on the Consolidated Balance Sheet[1]	Net amounts of assets included on the Consolidated Balance Sheet[2]	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[3]	Net amounts[4]
Securities purchased under agreements to resell	$176,284	$ 44,811	$ 131,473	$ 102,874	$ 28,599
Deposits paid for securities borrowed	105,340	—	105,340	16,200	89,140
Total	$281,624	$ 44,811	$ 236,813	$ 119,074	$ 117,739

In millions of dollars	Gross amounts of recognized liabilities	Gross amounts offset on the Consolidated Balance Sheet[1]	Net amounts of liabilities included on the Consolidated Balance Sheet[2]	Amounts not offset on the Consolidated Balance Sheet but eligible for offsetting upon counterparty default[3]	Net amounts[4]
Securities sold under agreements to repurchase	$ 170,496	$ 44,811	$ 125,685	$ 63,517	$ 62,168
Deposits received for securities loaned	15,958	—	15,958	3,529	12,429
Total	$ 186,454	$ 44,811	$ 141,643	$ 67,046	$ 74,597

(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 tables present the gross amount of liabilities associated with repurchase agreements and securities lending agreements, by remaining contractual maturity:

	As of September 30, 2017				
In millions of dollars	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
Securities sold under agreements to repurchase	$97,624	$54,810	$23,997	$37,131	$213,562
Deposits received for securities loaned	11,980	342	2,070	1,222	15,614
Total	$109,604	$55,152	$26,067	$38,353	$229,176

	As of December 31, 2016				
In millions of dollars	Open and overnight	Up to 30 days	31–90 days	Greater than 90 days	Total
Securities sold under agreements to repurchase	$79,740	$50,399	$19,396	$20,961	$170,496
Deposits received for securities loaned	10,813	2,169	2,044	932	15,958
Total	$90,553	$52,568	$21,440	$21,893	$186,454

The following tables present the gross amount of liabilities associated with repurchase agreements and securities lending agreements, by class of underlying collateral:

	As of September 30, 2017		
In millions of dollars	Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$67,622	$ —	$67,622
State and municipal securities	1,031	5	1,036
Foreign government securities	92,113	221	92,334
Corporate bonds	19,731	472	20,203
Equity securities	11,910	14,301	26,211
Mortgage-backed securities	12,590	—	12,590
Asset-backed securities	5,373	—	5,373
Other	3,192	615	3,807
Total	$213,562	$ 15,614	$229,176

	As of December 31, 2016		
In millions of dollars	Repurchase agreements	Securities lending agreements	Total
U.S. Treasury and federal agency securities	$66,263	$ —	$66,263
State and municipal securities	334	—	334
Foreign government securities	52,988	1,390	54,378
Corporate bonds	17,164	630	17,794
Equity securities	12,206	13,913	26,119
Mortgage-backed securities	11,421	—	11,421
Asset-backed securities	5,428	—	5,428
Other	4,692	25	4,717
Total	$170,496	$ 15,958	$186,454

11. 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.

For additional information on these receivables and payables, see Note 12 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Brokerage receivables and Brokerage payables consisted of the following:

In millions of dollars	September 30, 2017	December 31, 2016
Receivables from customers	$ 14,717	$ 10,374
Receivables from brokers, dealers, and clearing organizations	23,359	18,513
Total brokerage receivables[(1)]	$ 38,076	$ 28,887
Payables to customers	$ 37,935	$ 37,237
Payables to brokers, dealers, and clearing organizations	25,270	19,915
Total brokerage payables[(1)]	$ 63,205	$ 57,152

(1) Includes brokerage receivables and payables recorded by Citi broker-dealer entities that are accounted for in accordance with the AICPA Accounting Guide for Brokers and Dealers in Securities as codified in ASC 940-320.

12. INVESTMENTS

For additional information regarding Citi's investment portfolios, including evaluating investments for other-than-temporary impairment (OTTI), see Note 13 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Overview

The following table presents Citi's investments by category:

In millions of dollars	September 30, 2017	December 31, 2016
Securities available-for-sale (AFS)	$ 295,315	$ 299,424
Debt securities held-to-maturity (HTM)[1]	51,527	45,667
Non-marketable equity securities carried at fair value[2]	1,300	1,774
Non-marketable equity securities carried at cost[3]	6,532	6,439
Total investments	$ 354,674	$ 353,304

(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 and various clearing houses of which Citigroup is a member.

The following table presents interest and dividend income on investments:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Taxable interest	$1,922	$1,717	$5,545	$5,153
Interest exempt from U.S. federal income tax	129	135	412	411
Dividend income	53	35	165	115
Total interest and dividend income	$2,104	$1,887	$6,122	$5,679

The following table presents realized gains and losses on the sales of investments, which excludes OTTI losses:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Gross realized investment gains	$293	$483	$840	$1,105
Gross realized investment losses	(80)	(196)	(214)	(432)
Net realized gains on sale of investments	$213	$287	$626	$673

Securities Available-for-Sale

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

In millions of dollars	September 30, 2017 Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value	December 31, 2016 Amortized cost	Gross unrealized gains	Gross unrealized losses	Fair value
Securities AFS								
Mortgage-backed securities[1]								
U.S. government-sponsored agency guaranteed	$42,422	$ 223	$ 331	$42,314	$38,663	$ 248	$ 506	$38,405
Prime	1	—	—	1	2	—	—	2
Alt-A	—	—	—	—	43	7	—	50
Non-U.S. residential	2,984	16	9	2,991	3,852	13	7	3,858
Commercial	345	1	2	344	357	2	1	358
Total mortgage-backed securities	$45,752	$ 240	$ 342	$45,650	$42,917	$ 270	$ 514	$42,673
U.S. Treasury and federal agency securities								
U.S. Treasury	$107,696	$ 283	$ 408	$107,571	$113,606	$ 629	$ 452	$113,783
Agency obligations	10,803	17	65	10,755	9,952	21	85	9,888
Total U.S. Treasury and federal agency securities	$118,499	$ 300	$ 473	$118,326	$123,558	$ 650	$ 537	$123,671
State and municipal[2]	$9,335	$ 146	$ 291	$9,190	$10,797	$ 80	$ 757	$10,120
Foreign government	100,625	526	404	100,747	98,112	590	554	98,148
Corporate	15,459	82	82	15,459	17,195	105	176	17,124
Asset-backed securities[1]	5,279	15	3	5,291	6,810	6	22	6,794
Other debt securities	348	—	—	348	503	—	—	503
Total debt securities AFS	$295,297	$ 1,309	$ 1,595	$295,011	$299,892	$ 1,701	$ 2,560	$299,033
Marketable equity securities AFS	$284	$ 23	$ 3	$304	$377	$ 20	$ 6	$391
Total securities AFS	$295,581	$ 1,332	$ 1,598	$295,315	$300,269	$ 1,721	$ 2,566	$299,424

(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 18 to the Consolidated Financial Statements.

(2) In the second quarter of 2017, Citi early adopted ASU 2017-08, Receivables-Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities. Upon adoption, a cumulative effect adjustment was recorded to reduce retained earnings, effective January 1, 2017, for the incremental amortization of purchase premiums and cumulative fair value hedge adjustments on callable state and municipal debt securities. For additional information, see Note 1 to the Consolidated Financial Statements.

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The following shows the fair value of AFS securities that have been in an unrealized loss position:

	Less than 12 months		12 months or longer		Total	
In millions of dollars	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses	Fair value	Gross unrealized losses
September 30, 2017						
Securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$24,545	$ 275	$2,631	$ 56	$27,176	$ 331
Non-U.S. residential	1,267	8	28	1	1,295	9
Commercial	111	1	42	1	153	2
Total mortgage-backed securities	$25,923	$ 284	$2,701	$ 58	$28,624	$ 342
U.S. Treasury and federal agency securities						
U.S. Treasury	$50,362	$ 367	$4,392	$ 41	$54,754	$ 408
Agency obligations	6,884	46	1,231	19	8,115	65
Total U.S. Treasury and federal agency securities	$57,246	$ 413	$5,623	$ 60	$62,869	$ 473
State and municipal	$430	$ 13	$1,669	$ 278	$2,099	$ 291
Foreign government	40,112	202	9,462	202	49,574	404
Corporate	6,330	65	696	17	7,026	82
Asset-backed securities	1,148	3	207	—	1,355	3
Other debt securities	—	—	—	—	—	—
Marketable equity securities AFS	13	2	11	1	24	3
Total securities AFS	$131,202	$ 982	$20,369	$ 616	$151,571	$ 1,598
December 31, 2016						
Securities AFS						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$23,534	$ 436	$2,236	$ 70	$25,770	$ 506
Prime	1	—	—	—	1	—
Non-U.S. residential	486	—	1,276	7	1,762	7
Commercial	75	1	58	—	133	1
Total mortgage-backed securities	$24,096	$ 437	$3,570	$ 77	$27,666	$ 514
U.S. Treasury and federal agency securities						
U.S. Treasury	$44,342	$ 445	$1,335	$ 7	$45,677	$ 452
Agency obligations	6,552	83	250	2	6,802	85
Total U.S. Treasury and federal agency securities	$50,894	$ 528	$1,585	$ 9	$52,479	$ 537
State and municipal	$1,616	$ 55	$3,116	$ 702	$4,732	$ 757
Foreign government	38,226	243	8,973	311	47,199	554
Corporate	7,011	129	1,877	47	8,888	176
Asset-backed securities	411	—	3,213	22	3,624	22
Other debt securities	5	—	—	—	5	—
Marketable equity securities AFS	19	2	24	4	43	6
Total securities AFS	$122,278	$ 1,394	$22,358	$ 1,172	$144,636	$ 2,566

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

In millions of dollars	September 30, 2017		December 31, 2016	
	Amortized cost	Fair value	Amortized cost	Fair value
Mortgage-backed securities[1]				
Due within 1 year	$61	$61	$132	$132
After 1 but within 5 years	1,340	1,340	736	738
After 5 but within 10 years	1,469	1,466	2,279	2,265
After 10 years[2]	42,882	42,783	39,770	39,538
Total	$45,752	$45,650	$42,917	$42,673
U.S. Treasury and federal agency securities				
Due within 1 year	$3,549	$3,539	$4,945	$4,945
After 1 but within 5 years	109,477	109,286	101,369	101,323
After 5 but within 10 years	5,473	5,501	17,153	17,314
After 10 years[2]	—	—	91	89
Total	$118,499	$118,326	$123,558	$123,671
State and municipal				
Due within 1 year	$2,036	$2,036	$2,093	$2,092
After 1 but within 5 years	2,412	2,416	2,668	2,662
After 5 but within 10 years	493	508	335	334
After 10 years[2]	4,394	4,230	5,701	5,032
Total	$9,335	$9,190	$10,797	$10,120
Foreign government				
Due within 1 year	$32,095	$32,097	$32,540	$32,547
After 1 but within 5 years	52,519	52,362	51,008	50,881
After 5 but within 10 years	13,531	13,690	12,388	12,440
After 10 years[2]	2,480	2,598	2,176	2,280
Total	$100,625	$100,747	$98,112	$98,148
All other[3]				
Due within 1 year	$3,585	$3,583	$2,629	$2,628
After 1 but within 5 years	9,799	9,818	12,339	12,334
After 5 but within 10 years	5,581	5,585	6,566	6,528
After 10 years[2]	2,121	2,112	2,974	2,931
Total	$21,086	$21,098	$24,508	$24,421
Total debt securities AFS	$295,297	$295,011	$299,892	$299,033

(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:

In millions of dollars	Amortized cost basis[1]	Net unrealized gains (losses) recognized in AOCI	Carrying value[2]	Gross unrealized gains	Gross unrealized (losses)	Fair value
September 30, 2017						
Debt securities held-to-maturity						
Mortgage-backed securities[3]						
U.S. government agency guaranteed	$ 23,683	$ 26	$ 23,709	$ 104	$ (78)	$ 23,735
Prime	13	—	13	4	—	17
Alt-A	256	(11)	245	97	—	342
Non-U.S. residential	1,932	(47)	1,885	58	—	1,943
Commercial	217	—	217	—	—	217
Total mortgage-backed securities	$ 26,101	$ (32)	$ 26,069	$ 263	$ (78)	$ 26,254
State and municipal[4]	$ 8,588	$ (30)	$ 8,558	$ 338	$ (90)	$ 8,806
Foreign government	584	—	584	—	(14)	570
Asset-backed securities[3]	16,286	(5)	16,281	94	(10)	16,365
Other debt securities	35	—	35	—	—	35
Total debt securities held-to-maturity	$ 51,594	$ (67)	$ 51,527	$ 695	$ (192)	$ 52,030
December 31, 2016						
Debt securities held-to-maturity						
Mortgage-backed securities[3]						
U.S. government agency guaranteed	$ 22,462	$ 33	$ 22,495	$ 47	$ (186)	$ 22,356
Prime	31	(7)	24	10	(1)	33
Alt-A	314	(27)	287	69	(1)	355
Non-U.S. residential	1,871	(47)	1,824	49	—	1,873
Commercial	14	—	14	—	—	14
Total mortgage-backed securities	$ 24,692	$ (48)	$ 24,644	$ 175	$ (188)	$ 24,631
State and municipal	$ 9,025	$ (442)	$ 8,583	$ 129	$ (238)	$ 8,474
Foreign government	1,339	—	1,339	—	(26)	1,313
Asset-backed securities[3]	11,107	(6)	11,101	41	(5)	11,137
Total debt securities held-to-maturity[5]	$ 46,163	$ (496)	$ 45,667	$ 345	$ (457)	$ 45,555

(1) 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.

(2) 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.

(3) 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 18 to the Consolidated Financial Statements.

(4) In the second quarter of 2017, Citi early adopted ASU 2017-08, Receivables-Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities. Upon adoption, a cumulative effect adjustment was recorded to reduce retained earnings, effective January 1, 2017, for the incremental amortization of purchase premiums and cumulative fair value hedge adjustments on callable state and municipal debt securities. For additional information, see Note 1 to the Consolidated Financial Statements.

(5) During the fourth quarter of 2016, securities with a total fair value of approximately $5.8 billion were transferred from AFS to HTM, composed of $5 billion of U.S. government agency mortgage-backed securities and $830 million of municipal securities. The transfer reflects the Company's intent to hold these securities to maturity or to issuer call, in part, 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 table below shows the fair value of debt securities HTM that have been in an unrecognized loss position:

	Less than 12 months		12 months or longer		Total	
In millions of dollars	Fair value	Gross unrecognized losses	Fair value	Gross unrecognized losses	Fair value	Gross unrecognized losses
September 30, 2017						
Debt securities held-to-maturity						
Mortgage-backed securities	$47	$ —	$10,147	$ 78	$10,194	$ 78
State and municipal	242	6	832	84	1,074	90
Foreign government	570	14	—	—	570	14
Asset-backed securities	55	2	2,563	8	2,618	10
Total debt securities held-to-maturity	$914	$ 22	$13,542	$ 170	$14,456	$ 192
December 31, 2016						
Debt securities held-to-maturity						
Mortgage-backed securities	$17	$ —	$17,176	$ 188	$17,193	$ 188
State and municipal	2,200	58	1,210	180	3,410	238
Foreign government	1,313	26	—	—	1,313	26
Asset-backed securities	2	—	2,503	5	2,505	5
Total debt securities held-to-maturity	$3,532	$ 84	$20,889	$ 373	$24,421	$ 457

Note: Excluded from the gross unrecognized losses presented in the table above are $(67) million and $(496) million of net unrealized losses recorded in AOCI as of September 30, 2017 and December 31, 2016, 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 September 30, 2017 and December 31, 2016.

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

In millions of dollars	September 30, 2017 Carrying value	September 30, 2017 Fair value	December 31, 2016 Carrying value	December 31, 2016 Fair value
Mortgage-backed securities				
Due within 1 year	$—	$—	$—	$—
After 1 but within 5 years	737	743	760	766
After 5 but within 10 years	123	124	54	55
After 10 years[1]	25,209	25,387	23,830	23,810
Total	$26,069	$26,254	$24,644	$24,631
State and municipal				
Due within 1 year	$227	$228	$406	$406
After 1 but within 5 years	166	176	112	110
After 5 but within 10 years	458	474	363	367
After 10 years[1]	7,707	7,928	7,702	7,591
Total	$8,558	$8,806	$8,583	$8,474
Foreign government				
Due within 1 year	$413	$413	$824	$818
After 1 but within 5 years	171	157	515	495
After 5 but within 10 years	—	—	—	—
After 10 years[1]	—	—	—	—
Total	$584	$570	$1,339	$1,313
All other[2]				
Due within 1 year	$—	$—	$—	$—
After 1 but within 5 years	35	35	—	—
After 5 but within 10 years	1,146	1,148	513	514
After 10 years[1]	15,135	15,217	10,588	10,623
Total	$16,316	$16,400	$11,101	$11,137
Total debt securities held-to-maturity	$51,527	$52,030	$45,667	$45,555

(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 impairment, 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 Securities

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 Securities

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 22 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 September 30, 2017.

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, or would be more-likely-than-not required to sell, the full impairment is recognized in earnings.

Recognition and Measurement of OTTI

The following tables present total OTTI recognized in earnings:

OTTI on Investments and Other assets	Three Months Ended September 30, 2017				Nine Months Ended September 30, 2017			
In millions of dollars	AFS	HTM	Other assets	Total	AFS	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	$2	$ —	$ —	$2	$2	$ —	$ —	$2
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	$2	$ —	$	$ 2	$2	$ —	$	$ 2
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	12	1	—	13	43	2	—	45
Total impairment losses recognized in earnings	$14	$ 1	$	$ 15	$45	$ 2	$	$ 47

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

OTTI on Investments and Other assets	Three months ended September 30, 2016				Nine Months Ended September 30, 2016			
In millions of dollars	AFS[1]	HTM	Other assets	Total	AFS[1][2]	HTM	Other assets[3]	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	$—	$ —	$ —	$ —	$3	$ 1	$ —	$4
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	$—	$ —	$ —	$ —	$3	$ 1	$ —	$4
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 and FX losses	20	12	—	32	243	36	332	611
Total impairment losses recognized in earnings	$20	$ 12	$ —	$ 32	$246	$ 37	$ 332	$615

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

(2) Includes a $160 million impairment related to AFS securities affected by changes in the Venezuela exchange rate during the nine months ended September 30, 2016.

(3) The impairment charge is related to the carrying value of an equity investment.

The following are three-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				
In millions of dollars	Jun. 30, 2017 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	September 30, 2017 balance
AFS debt securities					
Mortgage-backed securities	$—	$ —	$ —	$ —	$ —
State and municipal	4	—	—	—	4
Foreign government securities	—	—	—	—	—
Corporate	4	—	—	—	4
All other debt securities	—	—	2	—	2
Total OTTI credit losses recognized for AFS debt securities	$8	$ —	$ 2	$ —	$ 10
HTM debt securities					
Mortgage-backed securities[1]	$97	$ —	$ —	$ —	$ 97
State and municipal	3	—	—	—	3
Total OTTI credit losses recognized for HTM debt securities	$100	$ —	$ —	$ —	$ 100

(1) Primarily consists of Alt-A securities.

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In millions of dollars	Cumulative OTTI credit losses recognized in earnings on securities still held				
	Jun. 30, 2016 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	September 30, 2016 balance
AFS debt securities					
Mortgage-backed securities	$—	$—	$—	$—	$—
State and municipal	4	—	—	—	4
Foreign government securities	5	—	—	(5)	—
Corporate	7	—	—	(1)	6
All other debt securities	43	—	—	(20)	23
Total OTTI credit losses recognized for AFS debt securities	$59	$—	$—	$(26)	$33
HTM debt securities					
Mortgage-backed securities[1]	$108	$—	$—	$(2)	$106
State and municipal	4	—	—	—	4
Total OTTI credit losses recognized for HTM debt securities	$112	$—	$—	$(2)	$110

(1) Primarily consists of Alt-A securities.

The following tables are nine-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:

In millions of dollars	Cumulative OTTI credit losses recognized in earnings on securities still held				
	Dec. 31, 2016 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	September 30, 2017 balance
AFS debt securities					
Mortgage-backed securities	$—	$—	$—	$—	$—
State and municipal	4	—	—	—	4
Foreign government securities	—	—	—	—	—
Corporate	5	—	—	(1)	4
All other debt securities	22	—	2	(22)	2
Total OTTI credit losses recognized for AFS debt securities	$31	$—	$2	$(23)	$10
HTM debt securities					
Mortgage-backed securities[1]	$101	$—	$—	$(4)	$97
State and municipal	3	—	—	—	3

Total OTTI credit losses recognized for HTM debt securities	$104	$ —	$ (4)	$ 100

(1) Primarily consists of Alt-A securities.

In millions of dollars	Cumulative OTTI credit losses recognized in earnings on securities still held				
	Dec. 31, 2015 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	September 30, 2016 balance
AFS debt securities					
Mortgage-backed securities	$—	$ 1	$ —	$ (1)	$ —
State and municipal	12	—	—	(8)	4
Foreign government securities	5	—	—	(5)	—
Corporate	9	1	2	(6)	6
All other debt securities	47	—	—	(24)	23
Total OTTI credit losses recognized for AFS debt securities	$73	$ 2	$ 2	$ (44)	$ 33
HTM debt securities					
Mortgage-backed securities[1]	$132	$ —	$ —	$ (26)	$ 106
State and municipal	4	1	—	(1)	4
Total OTTI credit losses recognized for HTM debt securities	$136	$ 1	$ —	$ (27)	$ 110

(1) Primarily consists of Alt-A securities.

Investments in Alternative Investment Funds That Calculate Net Asset Value

The Company holds investments in certain alternative investment funds that calculate net asset value (NAV), or its equivalent, including hedge funds, private equity funds, funds of funds and real estate funds, as provided by third-party asset managers. Investments in such funds are generally classified as non-marketable equity securities carried at fair value. The fair values of these investments are estimated using the NAV of the Company's ownership interest in the funds. Some of these investments are in "covered funds" for purposes of the Volcker

Rule, which prohibits certain proprietary investment activities and limits the ownership of, and relationships with, covered funds. On April 21, 2017, Citi's request for extension of the permitted holding period under the Volcker Rule for certain of its investments in illiquid funds was approved, allowing the Company to hold such investments until the earlier of 5 years from the July 21, 2017 expiration date of the general conformance period, or the date such investments mature or are otherwise conformed with the Volcker Rule.

In millions of dollars	Fair value		Unfunded commitments		Redemption frequency (if currently eligible) monthly, quarterly, annually	Redemption notice period
	September 30, 2017	December 31, 2016	September 30, 2017	December 31, 2016		
Hedge funds	$ 2	$ 4	$ —	$ —	Generally quarterly	10–95 days
Private equity funds[1][2]	369	348	82	82	—	—
Real estate funds [2][3]	34	56	23	20	—	—
Total	$ 405	$ 408	$ 105	$ 102	—	—

(1) Private equity funds include funds that invest in infrastructure, 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.

13. 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. For additional information regarding Citi's consumer and corporate loans, including related accounting policies, see Note 14 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Consumer Loans

Consumer loans represent loans and leases managed primarily by GCB and Corporate/Other. The following table provides Citi's consumer loans by loan type:

In millions of dollars	September 30, 2017	December 31, 2016
In U.S. offices		
Mortgage and real estate[1]	$ 67,131	$ 72,957
Installment, revolving credit and other	3,191	3,395
Cards	131,476	132,654
Commercial and industrial	7,619	7,159
	$ 209,417	$ 216,165
In offices outside the U.S.		
Mortgage and real estate[1]	$ 43,723	$ 42,803
Installment, revolving credit and other	26,153	24,887
Cards	25,443	23,783
Commercial and industrial	20,015	16,568
Lease financing	77	81
	$ 115,411	$ 108,122
Total consumer loans	$ 324,828	$ 324,287
Net unearned income	$ 748	776
Consumer loans, net of unearned income	$ 325,576	$ 325,063

(1) Loans secured primarily by real estate.

The Company sold and/or reclassified to held-for-sale $0.4 billion and $3.2 billion, $1.3 billion and $6.0 billion of consumer loans during the three and nine months ended September 30, 2017 and 2016, respectively.

Consumer Loan Delinquency and Non-Accrual Details at September 30, 2017

In millions of dollars	Total current[1][2]	30–89 days past due[3]	≥ 90 days past due[3]	Past due government guaranteed[4]	Total loans[2]	Total non-accrual	90 days past due and accruing
In North America offices							
Residential first mortgages[5]	$ 48,090	$ 563	$ 286	$ 1,279	$ 50,218	$ 724	$ 985
Home equity loans[6][7]	15,004	223	362	—	15,589	766	—
Credit cards	129,261	1,541	1,440	—	132,242	—	1,440
Installment and other	3,456	42	15	—	3,513	21	—
Commercial banking	9,294	38	52	—	9,384	210	11
Total	$ 205,105	$ 2,407	$ 2,155	$ 1,279	$ 210,946	$ 1,721	$ 2,436
In offices outside North America							
Residential first mortgages[5]	$ 36,796	$ 225	$ 153	$ —	$ 37,174	$ 400	$ —
Credit cards	24,109	433	366	—	24,908	322	251
Installment and other	25,207	283	124	—	25,614	164	—
Commercial banking	26,788	58	86	—	26,932	176	—
Total	$ 112,900	$ 999	$ 729	$ —	$ 114,628	$ 1,062	$ 251
Total GCB and Corporate/Other consumer	$ 318,005	$ 3,406	$ 2,884	$ 1,279	$ 325,574	$ 2,783	$ 2,687
Other[8]	2	—	—	—	2	—	—
Total Citigroup	$ 318,007	$ 3,406	$ 2,884	$ 1,279	$ 325,576	$ 2,783	$ 2,687

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

(2) Includes $27 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 $1.0 billion.

(5) Includes approximately $0.1 billion of residential first mortgage loans in process of foreclosure.

(6) Includes approximately $0.1 billion of home equity loans in process of foreclosure.

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

(8) Represents loans classified as consumer loans on the Consolidated Balance Sheet that are not included in the Corporate/Other consumer credit metrics.

Consumer Loan Delinquency and Non-Accrual Details at December 31, 2016

In millions of dollars	Total current[1][2]	30–89 days past due[3]	≥ 90 days past due[3]	Past due government guaranteed[4]	Total loans[2]	Total non-accrual	90 days past due and accruing
In North America offices							
Residential first mortgages[5]	$ 50,766	$ 522	$ 371	$ 1,474	$53,133	$ 848	$ 1,227
Home equity loans[6][7]	18,767	249	438	—	19,454	914	—
Credit cards	130,327	1,465	1,509	—	133,301	—	1,509
Installment and other	4,486	106	38	—	4,630	70	2
Commercial banking	8,876	23	74	—	8,973	328	14
Total	$ 213,222	$ 2,365	$ 2,430	$ 1,474	$219,491	$ 2,160	$ 2,752
In offices outside North America							
Residential first mortgages[5]	$ 35,862	$ 206	$ 135	$ —	$36,203	$ 360	$ —
Credit cards	22,363	368	324	—	23,055	258	239
Installment and other	22,683	264	126	—	23,073	163	—
Commercial banking	23,054	72	112	—	23,238	217	—
Total	$ 103,962	$ 910	$ 697	$ —	$105,569	$ 998	$ 239
Total GCB and Corporate/Other consumer	$ 317,184	$ 3,275	$ 3,127	$ 1,474	$325,060	$ 3,158	$ 2,991
Other[8]	3	—	—	—	3	—	—
Total Citigroup	$ 317,187	$ 3,275	$ 3,127	$ 1,474	$325,063	$ 3,158	$ 2,991

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

(2) Includes $29 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 $0.2 billion and 90 days or more past due of $1.3 billion.

(5) Includes approximately $0.1 billion of residential first mortgage loans in process of foreclosure.

(6) Includes approximately $0.1 billion of home equity loans in process of foreclosure.

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

(8) Represents loans classified as consumer loans on the Consolidated Balance Sheet that are not included in the Corporate/Other consumer credit metrics.

Consumer Credit Scores (FICO)

The following tables provide details on the FICO scores for Citi's U.S. consumer loan portfolio based on end-of-period receivables (commercial banking loans are excluded from 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.

FICO score distribution in U.S. portfolio[1][2]	September 30, 2017		
In millions of dollars	Less than 620	≥ 620 but less than 660	Equal to or greater than 660
Residential first mortgages	$2,275	$2,053	$42,682
Home equity loans	1,432	1,166	12,622
Credit cards	8,699	11,325	108,809
Installment and other	270	252	2,414
Total	$12,676	$14,796	$166,527

FICO score distribution in U.S. portfolio[1][2]	December 31, 2016		
In millions of dollars	Less than 620	≥ 620 but less than 660	Equal to or greater than 660
Residential first mortgages	$2,744	$2,422	$44,279
Home equity loans	1,750	1,418	14,743
Credit cards	8,310	11,320	110,522
Installment and other	284	271	2,601
Total	$13,088	$15,431	$172,145

(1) Excludes loans guaranteed by U.S. government entities, loans subject to long-term standby commitments (LTSC) 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

The following tables provide details on the LTV ratios for 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.

LTV distribution in U.S. portfolio[1][2]	September 30, 2017		
In millions of dollars	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%
Residential first mortgages	$44,253	$2,658	$262
Home equity loans	11,808	2,397	928
Total	$56,061	$5,055	$1,190

LTV distribution in U.S. portfolio[1][2]	December 31, 2016		
In millions of dollars	Less than or equal to 80%	> 80% but less than or equal to 100%	Greater than 100%
Residential first mortgages	$45,849	$3,467	$324
Home equity loans	12,869	3,653	1,305
Total	$58,718	$7,120	$1,629

(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

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

	Balance at September 30, 2017				Three Months Ended September 30,		Nine Months Ended September 30,	
					2017	2016	2017	2016
In millions of dollars	Recorded investment[1][2]	Unpaid principal balance	Related specific allowance[3]	Average carrying value[4]	Interest income recognized[5]	Interest income recognized[5]	Interest income recognized[5]	Interest income recognized[5]
Mortgage and real estate								
Residential first mortgages	$2,938	$ 3,161	$ 289	$ 3,383	$ 29	$ 31	$ 97	$ 135
Home equity loans	1,169	1,636	219	1,217	7	8	21	26
Credit cards	1,819	1,852	603	1,793	37	42	110	122
Installment and other								
Individual installment and other	429	456	177	421	5	8	18	22
Commercial banking	402	657	49	474	4	7	18	11
Total	$6,757	$ 7,762	$ 1,337	$ 7,288	$ 82	$ 96	$ 264	$ 316

(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) $622 million of residential first mortgages, $376 million of home equity loans and $88 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.

	Balance, December 31, 2016			
In millions of dollars	Recorded investment[1][2]	Unpaid principal balance	Related specific allowance[3]	Average carrying value[4]
Mortgage and real estate				
Residential first mortgages	$3,786	$ 4,157	$ 540	$ 4,632
Home equity loans	1,298	1,824	189	1,326
Credit cards	1,747	1,781	566	1,831
Installment and other				
Individual installment and other	455	481	215	475
Commercial banking	513	744	98	538
Total	$7,799	$ 8,987	$ 1,608	$ 8,802

(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) $740 million of residential first mortgages, $406 million of home equity loans and $97 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.

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Consumer Troubled Debt Restructurings

In millions of dollars except number of loans modified	At and for the three months ended September 30, 2017 Number of loans modified	Post-modification recorded investment[1][2]	Deferred principal[3]	Contingent principal forgiveness[4]	Principal forgiveness[5]	Average interest rate reduction
North America						
Residential first mortgages	1,400	$ 199	$ 1	$ —	$ —	— %
Home equity loans	830	70	5	—	—	1
Credit cards	59,285	225	—	—	—	17
Installment and other revolving	299	2	—	—	—	6
Commercial banking[6]	33	59	—	—	—	—
Total[8]	61,847	$ 555	$ 6	$ —	$ —	
International						
Residential first mortgages	703	$ 25	$ —	$ —	$ —	— %
Credit cards	28,254	103	—	—	2	11
Installment and other revolving	11,725	70	—	—	3	11
Commercial banking[6]	97	11	—	—	—	—
Total[8]	40,779	$ 209	$ —	$ —	$ 5	

In millions of dollars except number of loans modified	At and for the three months ended September 30, 2016 Number of loans modified	Post-modification recorded investment[1][7]	Deferred principal[3]	Contingent principal forgiveness[4]	Principal forgiveness[5]	Average interest rate reduction
North America						
Residential first mortgages	1,165	$ 165	$ 1	$ —	$ 1	1 %
Home equity loans	1,117	61	—	—	—	2
Credit cards	51,260	199	—	—	—	18
Installment and other revolving	1,421	12	—	—	—	14
Commercial banking[6]	30	36	—	—	—	—
Total[8]	54,993	$ 473	$ 1	$ —	$ 1	
International						
Residential first mortgages	973	$ 24	$ —	$ —	$ —	— %
Credit cards	28,530	94	—	—	2	12
Installment and other revolving	12,283	69	—	—	2	8
Commercial banking[6]	44	39	—	—	—	—
Total[8]	41,830	$ 226	$ —	$ —	$ 4	

(1) Post-modification balances include past due amounts that are capitalized at the modification date.

(2) Post-modification balances in North America include $12 million of residential first mortgages and $5 million of home equity loans to borrowers who have gone through Chapter 7 bankruptcy in the three months ended September 30, 2017. These amounts include $7 million of residential first mortgages and $5 million of home equity loans that were newly classified as TDRs in the three months ended September 30, 2017, 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 banking 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 $17 million of residential first mortgages and $5 million of home equity loans to borrowers who have gone through Chapter 7 bankruptcy in the three months ended September 30, 2016. These amounts include $11 million of residential first mortgages and $5 million of home equity loans that were newly classified as TDRs in the three months ended September 30, 2016, 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.

In millions of dollars except number of loans modified	At and for the nine months ended September 30, 2017 Number of loans modified	Post-modification recorded investment[1][2]	Deferred principal[3]	Contingent principal forgiveness[4]	Principal forgiveness[5]	Average interest rate reduction
North America						
Residential first mortgages	3,172	$ 445	$ 5	$ —	$ 2	1 %
Home equity loans	2,186	185	13	—	—	1
Credit cards	171,702	659	—	—	—	17
Installment and other revolving	770	6	—	—	—	5
Commercial banking[6]	89	107	—	—	—	—
Total[8]	177,919	$ 1,402	$ 18	$ —	$ 2	
International						
Residential first mortgages	2,071	$ 80	$ —	$ —	$ —	— %
Credit cards	82,042	286	—	—	6	12
Installment and other revolving	34,654	194	—	—	9	9
Commercial banking[6]	182	30	—	—	—	—
Total[8]	118,949	$ 590	$ —	$ —	$ 15	

In millions of dollars except number of loans modified	At and for the nine months ended September 30, 2016 Number of loans modified	Post-modification recorded investment[1][7]	Deferred principal[3]	Contingent principal forgiveness[4]	Principal forgiveness[5]	Average interest rate reduction
North America						
Residential first mortgages	3,979	$ 582	$ 4	$ —	$ 3	1 %
Home equity loans	2,789	121	1	—	—	2
Credit cards	143,161	552	—	—	—	17
Installment and other revolving	4,187	35	—	—	—	14
Commercial banking[6]	94	47	—	—	—	—
Total[8]	154,210	$ 1,337	$ 5	$ —	$ 3	
International						
Residential first mortgages	2,005	$ 62	$ —	$ —	$ —	— %
Credit cards	109,365	307	—	—	7	12
Installment and other revolving	45,125	208	—	—	6	7
Commercial banking[6]	117	90	—	—	—	—
Total[8]	156,612	$ 667	$ —	$ —	$ 13	

(1) Post-modification balances include past due amounts that are capitalized at the modification date.

(2) Post-modification balances in North America include $42 million of residential first mortgages and $16 million of home equity loans to borrowers who have gone through Chapter 7 bankruptcy in the nine months ended September 30, 2017. These amounts include $28 million of residential first mortgages and $14 million of home equity loans that were newly classified as TDRs in the nine months ended September 30, 2017, 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 banking 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 $58 million of residential first mortgages and $15 million of home equity loans to borrowers who have gone through Chapter 7 bankruptcy in the nine months ended September 30, 2016. These amounts include $38 million of residential first mortgages and $14 million of home equity loans that were newly classified as TDRs in the nine months ended September 30, 2016, 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 banking loans, where default is defined as 90 days past due.

In millions of dollars	Three Months Ended September 30, 2017	2016	Nine Months Ended September 30, 2017	2016
North America				
Residential first mortgages	$57	$49	$156	$188
Home equity loans	8	6	25	20
Credit cards	54	43	163	139
Installment and other revolving	1	3	2	7
Commercial banking	—	12	2	14
Total	$120	$113	$348	$368
International				
Residential first mortgages	$3	$3	$8	$9
Credit cards	48	41	136	115
Installment and other revolving	25	24	71	70
Commercial banking	—	21	—	36
Total	$76	$89	$215	$230

Corporate Loans

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

In millions of dollars	September 30, 2017	December 31, 2016
In U.S. offices		
Commercial and industrial	$ 51,679	$ 49,586
Financial institutions	37,203	35,517
Mortgage and real estate[1]	43,274	38,691
Installment, revolving credit and other	32,464	34,501
Lease financing	1,493	1,518
	$ 166,113	$ 159,813
In offices outside the U.S.		
Commercial and industrial	$ 93,107	$ 81,882
Financial institutions	33,050	26,886
Mortgage and real estate[1]	6,383	5,363
Installment, revolving credit and other	23,830	19,965
Lease financing	216	251
Governments and official institutions	5,628	5,850
	$ 162,214	$ 140,197
Total corporate loans	$ 328,327	$ 300,010
Net unearned income	$ (720)	$ (704)
Corporate loans, net of unearned income	$ 327,607	$ 299,306

(1) Loans secured primarily by real estate.

The Company sold and/or reclassified to held-for-sale $0.1 billion and $0.6 billion of corporate loans during the three and nine months ended September 30, 2017, respectively, and $1.3 billion and $2.6 billion during the three and nine months ended September 30, 2016, respectively. The Company did not have significant purchases of corporate loans classified as held-for-investment for the three and nine months ended September 30, 2017 or 2016.

Corporate Loan Delinquency and Non-Accrual Details at September 30, 2017

In millions of dollars	30–89 days past due and accruing[1]	≥ 90 days past due and accruing[1]	Total past due and accruing	Total non-accrual[2]	Total current[3]	Total loans [4]
Commercial and industrial	$ 208	$ 58	$ 266	$ 1,468	$139,508	$141,242
Financial institutions	348	1	349	224	69,232	69,805
Mortgage and real estate	280	9	289	169	49,176	49,634
Leases	31	18	49	60	1,590	1,699
Other	402	30	432	133	60,381	60,946
Loans at fair value						4,281
Purchased distressed loans						—
Total	$ 1,269	$ 116	$ 1,385	$ 2,054	$319,887	$327,607

Corporate Loan Delinquency and Non-Accrual Details at December 31, 2016

In millions of dollars	30–89 days past due and accruing[1]	≥ 90 days past due and accruing[1]	Total past due and accruing	Total non-accrual[2]	Total current[3]	Total loans [4]
Commercial and industrial	$ 143	$ 52	$ 195	$ 1,909	$127,012	$129,116
Financial institutions	119	2	121	185	61,254	61,560
Mortgage and real estate	148	137	285	139	43,607	44,031
Leases	27	8	35	56	1,678	1,769
Other	349	12	361	132	58,880	59,373
Loans at fair value						3,457
Purchased distressed loans						—
Total	$ 786	$ 211	$ 997	$ 2,421	$292,431	$299,306

(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) 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.

Corporate Loans Credit Quality Indicators

In millions of dollars	Recorded investment in loans[1] September 30, 2017	December 31, 2016
Investment grade[2]		
Commercial and industrial	$100,024	$ 87,201
Financial institutions	58,666	50,597
Mortgage and real estate	22,102	18,718
Leases	1,117	1,303
Other	55,231	52,828
Total investment grade	$237,140	$ 210,647
Non-investment grade[2]		
Accrual		
Commercial and industrial	$39,750	$ 39,874
Financial institutions	10,916	10,873
Mortgage and real estate	2,256	1,821
Leases	522	410
Other	5,580	6,450
Non-accrual		
Commercial and industrial	1,468	1,909
Financial institutions	224	185
Mortgage and real estate	169	139
Leases	60	56
Other	133	132
Total non-investment grade	$61,078	$ 61,849
Non-rated private bank loans managed on a delinquency basis[2]	$25,108	$ 23,353
Loans at fair value	4,281	3,457
Corporate loans, net of unearned income	$327,607	$ 299,306

(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.

Non-Accrual Corporate Loans

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

	September 30, 2017				Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
In millions of dollars	Recorded investment[1]	Unpaid principal balance	Related specific allowance	Average carrying value[2]	Interest income recognized[3]	Interest income recognized[3]
Non-accrual corporate loans						
Commercial and industrial	$1,468	$ 1,682	$ 336	$ 1,648	$ 10	$ 20
Financial institutions	224	340	27	236	—	—
Mortgage and real estate	169	293	9	169	—	9
Lease financing	60	60	4	62	—	—
Other	133	240	1	115	1	1
Total non-accrual corporate loans	$2,054	$ 2,615	$ 377	$ 2,230	$ 11	$ 30

	December 31, 2016			
In millions of dollars	Recorded investment[1]	Unpaid principal balance	Related specific allowance	Average carrying value[2]
Non-accrual corporate loans				
Commercial and industrial	$1,909	$ 2,259	$ 362	$ 1,919
Financial institutions	185	192	16	183
Mortgage and real estate	139	250	10	174
Lease financing	56	56	4	44
Other	132	197	—	87
Total non-accrual corporate loans	$2,421	$ 2,954	$ 392	$ 2,407

	September 30, 2017		December 31, 2016	
In millions of dollars	Recorded investment[1]	Related specific allowance	Recorded investment[1]	Related specific allowance
Non-accrual corporate loans with valuation allowances				
Commercial and industrial	$919	$ 336	$1,343	$ 362
Financial institutions	58	27	45	16
Mortgage and real estate	34	9	41	10
Lease financing	48	4	55	4
Other	3	1	1	—
Total non-accrual corporate loans with specific allowance	$1,062	$ 377	$1,485	$ 392
Non-accrual corporate loans without specific allowance				
Commercial and industrial	$549		$566	
Financial institutions	166		140	
Mortgage and real estate	135		98	
Lease financing	12		1	
Other	130		131	
Total non-accrual corporate loans without specific allowance	$992	N/A	$936	N/A

(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 three- and nine-month periods ended September 30, 2016 was $10 million and $36 million.

Corporate Troubled Debt Restructurings

At and for the three months ended September 30, 2017:

In millions of dollars	Carrying Value	TDRs involving changes in the amount and/or timing of principal payments[1]	TDRs involving changes in the amount and/or timing of interest payments[2]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$ 175	$ 99	$ —	$ 76
Mortgage and real estate	14	—	—	14
Total	$ 189	$ 99	$ —	$ 90

At and for the three months ended September 30, 2016:

In millions of dollars	Carrying Value	TDRs involving changes in the amount and/or timing of principal payments[1]	TDRs involving changes in the amount and/or timing of interest payments[2]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$ 112	$ 103	$ 2	$ 7
Financial institutions	10	10	—	—
Mortgage and real estate	2	1	—	1
Total	$ 124	$ 114	$ 2	$ 8

At and for the nine months ended September 30, 2017:

In millions of dollars	Carrying Value	TDRs involving changes in the amount and/or timing of principal payments[1]	TDRs involving changes in the amount and/or timing of interest payments[2]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$ 463	$ 131	$ —	$ 332

Financial institutions	15	—	—	15
Mortgage and real estate	18	—	—	18
Total	$ 496	$ 131	$ —	$ 365

At and for the nine months ended September 30, 2016:

In millions of dollars	Carrying Value	TDRs involving changes in the amount and/or timing of principal payments[1]	TDRs involving changes in the amount and/or timing of interest payments[2]	TDRs involving changes in the amount and/or timing of both principal and interest payments
Commercial and industrial	$ 316	$ 176	$ 34	$ 106
Financial institutions	10	10	—	—
Mortgage and real estate	7	1	—	6
Other	142	—	142	—
Total	$ 475	$ 187	$ 176	$ 112

(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 corporate 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 banking loans, where default is defined as 90 days past due.

In millions of dollars	TDR balances at September 30, 2017	TDR loans in payment default during the three months ended September 30, 2017	TDR loans in payment default nine months ended September 30, 2017	TDR balances at September 30, 2016	TDR loans in payment default during the three months ended September 30, 2016	TDR loans in payment default during the nine months ended September 30, 2016
Commercial and industrial	$ 686	$ —	$ 12	$ 394	$ —	$ 7
Loans to financial institutions	24	—	3	10	—	—
Mortgage and real estate	84	—	—	80	—	—
Other	155	—	—	291	—	—
Total[(1)]	$ 949	$ —	$ 15	$ 775	$ —	$ 7

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

14. ALLOWANCE FOR CREDIT LOSSES

In millions of dollars	Three Months Ended September 30, 2017	2016	Nine Months Ended September 30, 2017	2016
Allowance for loan losses at beginning of period	$12,025	$12,304	$12,060	$12,626
Gross credit losses	(2,120)	(1,948)	(6,394)	(6,139)
Gross recoveries[1]	343	423	1,198	1,274
Net credit losses (NCLs)	$(1,777)	$(1,525)	$(5,196)	$(4,865)
NCLs	$1,777	$1,525	$5,196	$4,865
Net reserve builds	419	258	466	210
Net specific reserve releases	(50)	(37)	(175)	(53)
Total provision for loan losses	$2,146	$1,746	$5,487	$5,022
Other, net (see table below)	(28)	(86)	15	(344)
Allowance for loan losses at end of period	$12,366	$12,439	$12,366	$12,439
Allowance for credit losses on unfunded lending commitments at beginning of period	$1,406	$1,432	$1,418	$1,402
Release for unfunded lending commitments	(175)	(45)	(190)	(4)
Other, net	1	1	4	(10)
Allowance for credit losses on unfunded lending commitments at end of period[2]	$1,232	$1,388	$1,232	$1,388
Total allowance for loans, leases and unfunded lending commitments	$13,598	$13,827	$13,598	$13,827

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

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

Other, net details	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Sales or transfers of various consumer loan portfolios to held-for-sale				
Transfer of real estate loan portfolios	$(28)	$(50)	$(84)	$(103)
Transfer of other loan portfolios	(6)	(8)	(130)	(204)
Sales or transfers of various consumer loan portfolios to held-for-sale	$(34)	$(58)	$(214)	$(307)
FX translation, consumer	7	(46)	221	(58)
Other	(1)	18	8	21
Other, net	$(28)	$(86)	$15	$(344)

Allowance for Credit Losses and Investment in Loans

In millions of dollars	Three Months Ended September 30, 2017 Corporate	Consumer	Total	September 30, 2016 Corporate	Consumer	Total
Allowance for loan losses at beginning of period	$2,510	$ 9,515	$12,025	$2,872	$ 9,432	$12,304
Charge-offs	(49)	(2,071)	(2,120)	(63)	(1,885)	(1,948)

Recoveries	6	337	343	23	400	423
Replenishment of net charge-offs	43	1,734	1,777	40	1,485	1,525
Net reserve builds (releases)	(60)	479	419	(110)	368	258
Net specific reserve builds (releases)	21	(71)	(50)	(1)	(36)	(37)
Other	3	(31)	(28)	5	(91)	(86)
Ending balance	$2,474	$ 9,892	$12,366	$2,766	$ 9,673	$12,439

	Nine Months Ended					
	September 30, 2017			September 30, 2016		
In millions of dollars	Corporate	Consumer	Total	Corporate	Consumer	Total
Allowance for loan losses at beginning of period	$2,702	$ 9,358	$12,060	$2,791	$ 9,835	$12,626
Charge-offs	(248)	(6,146)	(6,394)	(445)	(5,694)	(6,139)
Recoveries	91	1,107	1,198	52	1,222	1,274
Replenishment of net charge-offs	157	5,039	5,196	393	4,472	4,865
Net reserve builds (releases)	(230)	696	466	(122)	332	210
Net specific reserve builds (releases)	(18)	(157)	(175)	89	(142)	(53)
Other	20	(5)	15	8	(352)	(344)
Ending balance	$2,474	$ 9,892	$12,366	$2,766	$ 9,673	$12,439

	September 30, 2017			December 31, 2016		
In millions of dollars	Corporate	Consumer	Total	Corporate	Consumer	Total
Allowance for loan losses						
Collectively evaluated in accordance with ASC 450	$2,098	$8,550	$10,648	$2,310	$7,744	$10,054
Individually evaluated in accordance with ASC 310-10-35	376	1,337	1,713	392	1,608	2,000
Purchased credit-impaired in accordance with ASC 310-30	—	5	5	—	6	6
Total allowance for loan losses	$2,474	$9,892	$12,366	$2,702	$9,358	$12,060
Loans, net of unearned income						
Collectively evaluated in accordance with ASC 450	$321,239	$318,615	$639,854	$293,294	$317,048	$610,342
Individually evaluated in accordance with ASC 310-10-35	2,087	6,757	8,844	2,555	7,799	10,354
Purchased credit-impaired in accordance with ASC 310-30	—	177	177	—	187	187
Held at fair value	4,281	27	4,308	3,457	29	3,486
Total loans, net of unearned income	$327,607	$325,576	$653,183	$299,306	$325,063	$624,369

15. GOODWILL AND INTANGIBLE ASSETS

For additional information regarding Citi's goodwill impairment testing process, see Notes 1 and 16 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Goodwill

The changes in Goodwill were as follows:

In millions of dollars	
Balance, December 31, 2016	$21,659
Foreign exchange translation and other	$634
Impairment of goodwill [1]	(28)
Balance at March 31, 2017	$22,265
Foreign exchange translation and other	$156
Impairment of goodwill	—
Divestitures [2]	(72)
Balance at June 30, 2017	$22,349
Foreign exchange translation and other	$(4)
Balance at September 30, 2017	$22,345

(1) Full impairment of the allocated goodwill related to the transferred mortgage servicing business upon transfer from North America GCB to Citi Holdings—REL effective January 1, 2017.

(2) Goodwill allocated to the sale of the Fixed Income Analytics and Index businesses classified as held-for-sale during the second quarter of 2017. The sale was completed during the third quarter of 2017. See Note 2 to the Consolidated Financial Statements.

For additional information on transfer of goodwill and results of interim testing performed during the first half of 2017, see Note 15 in Citi's Second Quarter of 2017 Form 10-Q.

The Company performed its annual goodwill impairment test as of July 1, 2017. The fair values of the Company's reporting units exceeded their carrying values and did not indicate a risk of impairment, except for Citi Holdings—Consumer Latin America reporting unit.

Citi Holdings—Consumer Latin America reporting unit only marginally exceeded its carrying value. While there was no indication of impairment, the $16 million of goodwill present in Citi Holdings—Consumer Latin America may be particularly sensitive to further deterioration in economic conditions. The fair value as a percentage of allocated book value as of September 30, 2017 was 103%. There were no other triggering events identified during the third quarter of 2017.

The following table shows reporting units with goodwill balances as of September 30, 2017 and the fair value as a percentage of allocated book value as of the 2017 annual goodwill impairment test:

In millions of dollars

Reporting unit	Goodwill	Fair value as a % of allocated book value
North America Global Consumer Banking	$6,732	157 %
Asia Global Consumer Banking	4,893	143
Latin America Global Consumer Banking	1,174	191

ICG—Banking	2,986	268
ICG—Markets and Securities Services	6,544	132
Citi Holdings—Consumer Latin America[1]	16	103
Total as of September 30, 2017	$ 22,345	

(1) All Citi Holdings reporting units are presented in the Corporate/Other segment beginning in the first quarter of 2017.

Intangible Assets

The components of intangible assets were as follows:

	September 30, 2017			December 31, 2016		
In millions of dollars	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Purchased credit card relationships	$5,377	$ 3,798	$ 1,579	$8,215	$ 6,549	$ 1,666
Credit card contract related intangibles[1]	5,045	2,357	2,688	5,149	2,177	2,972
Core deposit intangibles	670	656	14	801	771	30
Other customer relationships	462	269	193	474	272	202
Present value of future profits	35	31	4	31	27	4
Indefinite-lived intangible assets	232	—	232	210	—	210
Other	113	91	22	504	474	30
Intangible assets (excluding MSRs)	$11,934	$ 7,202	$ 4,732	$15,384	$ 10,270	$ 5,114
Mortgage servicing rights (MSRs)[2]	553	—	553	1,564	—	1,564
Total intangible assets	$12,487	$ 7,202	$ 5,285	$16,948	$ 10,270	$ 6,678

The changes in intangible assets were as follows:

In millions of dollars	Net carrying amount at December 31, 2016	Acquisitions/ divestitures	Amortization	FX translation and other	Net carrying amount at September 30, 2017
Purchased credit card relationships	$ 1,666	$ 20	$ (109)	$ 2	$ 1,579
Credit card contract related intangibles[1]	2,972	9	(295)	2	2,688
Core deposit intangibles	30	—	(18)	2	14
Other customer relationships	202	—	(17)	8	193
Present value of future profits	4	—	—	—	4
Indefinite-lived intangible assets	210	—	—	22	232
Other	30	(14)	(11)	17	22
Intangible assets (excluding MSRs)	$ 5,114	$ 15	$ (450)	$ 53	$ 4,732
Mortgage servicing rights (MSRs)[2]	1,564				553
Total intangible assets	$ 6,678				$ 5,285

(1) Primarily reflects contract-related intangibles associated with the American Airlines, Sears, The Home Depot, Costco and AT&T credit card program agreements, which represented 97% of the aggregate net carrying amount at September 30, 2017 and December 31, 2016.

(2) For additional information on Citi's MSRs, including the rollforward for the nine months ended September 30, 2017, see Note 18 to the Consolidated Financial Statements.

16. DEBT

For additional information regarding Citi's short-term borrowings and long-term debt, see Note 17 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Short-Term Borrowings

In millions of dollars	September 30, 2017	December 31, 2016
Commercial paper	$ 10,033	$ 9,989
Other borrowings[1]	28,116	20,712
Total	$ 38,149	$ 30,701

(1) Includes borrowings from Federal Home Loan Banks and other market participants. At September 30, 2017 and December 31, 2016, collateralized short-term advances from the Federal Home Loan Banks were $16.6 billion and $12.0 billion, respectively.

Long-Term Debt

In millions of dollars	September 30, 2017	December 31, 2016
Citigroup Inc.[1]	$ 151,914	$147,333
Bank[2]	62,078	49,454
Broker-dealer and other[3]	18,681	9,391
Total	$ 232,673	$206,178

(1) Represents the parent holding company.

(2) Represents Citibank entities as well as other bank entities. At September 30, 2017 and December 31, 2016, collateralized long-term advances from the Federal Home Loan Banks were $19.8 billion and $21.6 billion, respectively.

(3) Represents broker-dealer and other non-bank subsidiaries that are consolidated into Citigroup Inc., the parent holding company.

Long-term debt outstanding includes trust preferred securities with a balance sheet carrying value of $1.7 billion at both September 30, 2017 and December 31, 2016.

The following table summarizes Citi's outstanding trust preferred securities at September 30, 2017:

					Junior subordinated debentures owned by trust			
Trust	Issuance date	Securities issued	Liquidation value[1]	Coupon rate[2]	Common shares issued to parent	Amount	Maturity	Redeemable by issuer beginning
In millions of dollars, except share amounts								
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	3 mo LIBOR + 637 bps	1,000	2,246	Oct. 30, 2040	Oct. 30, 2015

Citigroup Capital XVIII	June 200799,901	134	3 mo LIBOR + 88.75 bps	50	134	June 28, 2067	June 28, 2017
Total obligated		$ 2,574			$2,580		

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.

17. CHANGES IN ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS) (AOCI)

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

Three Months Ended September 30, 2017

In millions of dollars	Net unrealized gains (losses) on investment securities	Debt valuation adjustment (DVA)	Cash flow hedges[1]	Benefit plans[2]	Foreign currency translation adjustment (CTA), net of hedges[3]	Accumulated other comprehensive income (loss)
Balance, June 30, 2017	$ (102)	$ (496)	$ (445)	$(5,311)	$(23,545)	$ (29,899)
Other comprehensive income before reclassifications	60	(125)	(27)	(71)	218	55
Increase (decrease) due to amounts reclassified from AOCI	(126)	2	35	42	—	(47)
Change, net of taxes	$ (66)	$ (123)	$ 8	$(29)	$218	$ 8
Balance at September 30, 2017	$ (168)	$ (619)	$ (437)	$(5,340)	$(23,327)	$ (29,891)

Nine Months Ended September 30, 2017

In millions of dollars	Net unrealized gains (losses) on investment securities	Debt valuation adjustment (DVA)	Cash flow hedges[1]	Benefit plans[2]	Foreign currency translation adjustment (CTA), net of hedges[3]	Accumulated other comprehensive income (loss)
Balance, December 31, 2016	$ (799)	$ (352)	$ (560)	$(5,164)	$(25,506)	$ (32,381)
Adjustment to opening balance, net of taxes[4]	504	—	—	—	—	504
Adjusted balance, beginning of period	$ (295)	$ (352)	$ (560)	$(5,164)	$(25,506)	$ (31,877)
Other comprehensive income before reclassifications	495	(259)	59	(293)	2,326	2,328
Increase (decrease) due to amounts reclassified from AOCI	(368)	(8)	64	117	(147)	(342)
Change, net of taxes	$ 127	$ (267)	$ 123	$(176)	$2,179	$ 1,986
Balance at September 30, 2017	$ (168)	$ (619)	$ (437)	$(5,340)	$(23,327)	$ (29,891)

Three Months Ended September 30, 2016

In millions of dollars	Net unrealized gains (losses) on investment securities	Debt valuation adjustment (DVA)	Cash flow hedges[1]	Benefit plans[2]	Foreign currency translation adjustment (CTA), net of hedges[3]	Accumulated other comprehensive income (loss)
Balance, June 30, 2016	$ 2,054	$ 190	$ (149)	$(5,608)	$(22,602)	$ (26,115)
Other comprehensive income before reclassifications	(270)	(197)	(136)	(28)	(375)	(1,006)
Increase (decrease) due to amounts reclassified from AOCI	(162)	(3)	53	40	—	(72)
Change, net of taxes	$ (432)	$ (200)	$ (83)	$12	$(375)	$ (1,078)
Balance, September 30, 2016	$ 1,622	$ (10)	$ (232)	$(5,596)	$(22,977)	$ (27,193)

Nine Months Ended September 30, 2016

In millions of dollars	Net unrealized gains (losses) on investment securities	Debt valuation adjustment (DVA)	Cash flow hedges[1]	Benefit plans[2]	Foreign currency translation adjustment (CTA), net of hedges[3]	Accumulated other comprehensive income (loss)
Balance, December 31, 2015	$ (907)	$ —	$ (617)	$(5,116)	$(22,704)	$ (29,344)
Adjustment to opening balance, net of taxes [5]	—	(15)	—	—	—	(15)
Adjusted balance, beginning of period	$ (907)	$ (15)	$ (617)	$(5,116)	$(22,704)	$ (29,359)
Other comprehensive income before reclassifications	2,781	11	270	(594)	(273)	2,195
Increase (decrease) due to amounts reclassified from AOCI	(252)	(6)	115	114	—	(29)
Change, net of taxes	$ 2,529	$ 5	$ 385	$(480)	$(273)	$ 2,166
Balance, September 30, 2016	$ 1,622	$ (10)	$ (232)	$(5,596)	$(22,977)	$ (27,193)

(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 Euro, British pound, Chilean peso, and Brazilian real against the U.S. dollar, and changes in related tax effects and hedges for the quarter ended September 30, 2017. Primarily reflects the movements in (by order of impact) the Mexican peso, Euro, Korean won, and Polish zloty against the U.S. dollar, and changes in related tax effects and hedges for the quarter nine months ended September 30, 2017. Primarily reflects the movements in (by order of impact) the Mexican peso, Korean won, Japanese yen, and Australian dollar for the quarter ended September 30, 2016. Primarily reflects the movements in (by order of impact) the Mexican peso, Japanese yen, Brazilian real and Korean won against the U.S. dollar, and changes in related tax effects and hedges for the quarter and nine months ended September 30, 2016.

(4) In the second quarter of 2017, Citi early adopted ASU 2017-08, Receivables-Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities. Upon adoption, a cumulative effect adjustment was recorded to reduce retained earnings, effective January 1, 2017, for the incremental amortization of cumulative fair value hedge adjustments on callable state and municipal debt securities. For

additional information, see Note 1 to the Consolidated Financial Statements.

(5) Beginning in the first quarter of 2016, changes in DVA are reflected as a component of AOCI, pursuant to the early adoption of only the provisions of ASU 2016-01 relating to the presentation of DVA on fair value option liabilities. See Note 1 to the Consolidated Financial Statements for further information regarding this change.

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

Three Months Ended September 30, 2017

In millions of dollars	Pretax	Tax effect	After-tax
Balance, June 30, 2017	$(39,106)	$9,207	$(29,899)
Change in net unrealized gains (losses) on investment securities	(107)	41	(66)
Debt valuation adjustment (DVA)	(195)	72	(123)
Cash flow hedges	12	(4)	8
Benefit plans	(45)	16	(29)
Foreign currency translation adjustment	285	(67)	218
Change	$(50)	$58	$8
Balance, September 30, 2017	$(39,156)	$9,265	$(29,891)

Nine Months Ended September 30, 2017

In millions of dollars	Pretax	Tax effect	After-tax
Balance, December 31, 2016	$(42,035)	$9,654	$(32,381)
Adjustment to opening balance [1]	803	(299)	504
Adjusted balance, beginning of period	$(41,232)	$9,355	$(31,877)
Change in net unrealized gains (losses) on investment securities	194	(67)	127
Debt valuation adjustment (DVA)	(422)	155	(267)
Cash flow hedges	198	(75)	123
Benefit plans	(266)	90	(176)
Foreign currency translation adjustment	2,372	(193)	2,179
Change	$2,076	$(90)	$1,986
Balance, September 30, 2017	$(39,156)	$9,265	$(29,891)

(1) In the second quarter of 2017, Citi early adopted ASU 2017-08, Receivables-Nonrefundable Fees and Other Costs (Subtopic 310-20): Premium Amortization on Purchased Callable Debt Securities. Upon adoption, a cumulative effect adjustment was recorded to reduce retained earnings, effective January 1, 2017, for the incremental amortization of cumulative fair value hedge adjustments on callable state and municipal debt securities. For additional information, see Note 1 to the Consolidated Financial Statements.

Three Months Ended September 30, 2016

In millions of dollars	Pretax	Tax effect	After-tax
Balance, June 30, 2016	$(33,714)	$7,599	$(26,115)
Change in net unrealized gains (losses) on investment securities	(686)	254	(432)
Debt valuation adjustment (DVA)	(319)	119	(200)
Cash flow hedges	(131)	48	(83)
Benefit plans	11	1	12
Foreign currency translation adjustment	(313)	(62)	(375)
Change	$(1,438)	$360	$(1,078)
Balance, September 30, 2016	$(35,152)	$7,959	$(27,193)

Nine Months Ended September 30, 2016

In millions of dollars	Pretax	Tax effect	After-tax
Balance, December 31, 2015	$(38,440)	$9,096	$(29,344)
Adjustment to opening balance [1]	(26)	11	(15)
Adjusted balance, beginning of period	$(38,466)	$9,107	$(29,359)
Change in net unrealized gains (losses) on investment securities	4,020	(1,491)	2,529
Debt valuation adjustment (DVA)	8	(3)	5
Cash flow hedges	607	(222)	385
Benefit plans	(747)	267	(480)
Foreign currency translation adjustment	(574)	301	(273)
Change	$3,314	$(1,148)	$2,166
Balance, September 30, 2016	$(35,152)	$7,959	$(27,193)

(1) Represents the ($15) million adjustment related to the initial adoption of ASU 2016-01. See Note 1 to the Consolidated Financial Statements.

The Company recognized pretax gain (loss) related to amounts in AOCI reclassified to the Consolidated Statement of Income as follows:

	Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income	
	Three Months Ended September 30,	Nine Months Ended September 30,
In millions of dollars	2017	2017
Realized (gains) losses on sales of investments	$(213)	$ (626)
OTTI gross impairment losses	15	47
Subtotal, pretax	$(198)	$ (579)
Tax effect	72	211
Net realized (gains) losses on investment securities, after-tax[1]	$(126)	$ (368)
Realized DVA (gains) losses on fair value option liabilities	$3	$ (13)
Subtotal, pretax	$3	$ (13)
Tax effect	(1)	5
Net realized debt valuation adjustment, after-tax	$2	$ (8)
Interest rate contracts	$48	$ 94
Foreign exchange contracts	7	8
Subtotal, pretax	$55	$ 102
Tax effect	(20)	(38)
Amortization of cash flow hedges, after-tax[2]	$35	$ 64
Amortization of unrecognized		
Prior service cost (benefit)	$(10)	$ (32)
Net actuarial loss	70	203
Curtailment/settlement impact[3]	5	12
Subtotal, pretax	$65	$ 183
Tax effect	(23)	(66)
Amortization of benefit plans, after-tax[3]	$42	$ 117
Foreign currency translation adjustment	$—	$ (232)
Tax effect	—	85
Foreign currency translation adjustment	$—	$ (147)
Total amounts reclassified out of AOCI, pretax	$(75)	$ (539)
Total tax effect	28	197
Total amounts reclassified out of AOCI, after-tax	$(47)	$ (342)

(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 12 to the Consolidated Financial Statements for additional details.

(2) See Note 19 to the Consolidated Financial Statements for additional details.

(3) See Note 8 to the Consolidated Financial Statements for additional details.

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The Company recognized pretax gain (loss) related to amounts in AOCI reclassified to the Consolidated Statement of Income as follows:

	Increase (decrease) in AOCI due to amounts reclassified to Consolidated Statement of Income	
In millions of dollars	Three Months Ended September 30, 2016	Nine Months Ended September 30, 2016
Realized (gains) losses on sales of investments	$(287)	$ (673)
OTTI gross impairment losses	32	283
Subtotal, pretax	$(255)	$ (390)
Tax effect	93	138
Net realized (gains) losses on investment securities, after-tax[1]	$(162)	$ (252)
Realized DVA (gains) losses on fair value option liabilities	$(5)	$ (10)
Subtotal, pretax	$(5)	$ (10)
Tax effect	$2	$ 4
Net realized debt valuation adjustment, after-tax	$(3)	$ (6)
Interest rate contracts	$39	$ 96
Foreign exchange contracts	46	89
Subtotal, pretax	$85	$ 185
Tax effect	(32)	(70)
Amortization of cash flow hedges, after-tax[2]	$53	$ 115
Amortization of unrecognized		
Prior service cost (benefit)	$(10)	$ (31)
Net actuarial loss	73	208
Curtailment/settlement impact[3]	8	9
Subtotal, pretax	$71	$ 186
Tax effect	(31)	(72)
Amortization of benefit plans, after-tax[3]	$40	$ 114
Foreign currency translation adjustment	$—	$ —
Total amounts reclassified out of AOCI, pretax	$(104)	$ (29)
Total tax effect	32	—
Total amounts reclassified out of AOCI, after-tax	$(72)	$ (29)

(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 12 to the Consolidated Financial Statements for additional details.

(2) See Note 19 to the Consolidated Financial Statements for additional details.

(3) See Note 8 to the Consolidated Financial Statements for additional details.

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18. SECURITIZATIONS AND VARIABLE INTEREST ENTITIES

For additional information regarding Citi's use of special purpose entities (SPEs) and variable interest entities (VIEs), see Note 21 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

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 September 30, 2017							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE / SPE assets	Significant unconsolidated VIE assets[3]	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$49,739	$ 49,739	$ —	$—	$ —	$—	$ —	$—
Mortgage securitizations[4]								
U.S. agency-sponsored[5]	116,257	—	116,257	2,528	—	—	63	2,591
Non-agency-sponsored	21,123	932	20,191	280	36	—	1	317
Citi-administered asset-backed commercial paper conduits (ABCP)	19,298	19,298	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	19,182	—	19,182	5,690	—	—	9	5,699
Asset-based financing	51,393	672	50,721	15,412	599	5,016	—	21,027
Municipal securities tender option bond trusts (TOBs)	6,777	2,178	4,599	13	—	3,063	—	3,076
Municipal investments	17,830	11	17,819	2,627	3,855	2,345	—	8,827
Client intermediation	2,664	1,131	1,533	782	—	491	6	1,279
Investment funds	2,058	762	1,296	28	8	15	2	53
Other	943	33	910	133	9	38	47	227
Total	$307,264	$ 74,756	$ 232,508	$27,493	$ 4,507	$10,968	$ 128	$43,096

	As of December 31, 2016							
				Maximum exposure to loss in significant unconsolidated VIEs[1]				
				Funded exposures[2]		Unfunded exposures		
In millions of dollars	Total involvement with SPE assets	Consolidated VIE / SPE assets	Significant unconsolidated VIE assets[3]	Debt investments	Equity investments	Funding commitments	Guarantees and derivatives	Total
Credit card securitizations	$50,171	$ 50,171	$ —	$—	$ —	$—	$ —	$—
Mortgage securitizations[4]								
U.S. agency-sponsored	214,458	—	214,458	3,852	—	—	78	3,930
Non-agency-sponsored	15,965	1,092	14,873	312	35	—	1	348
Citi-administered asset-backed commercial paper conduits (ABCP)	19,693	19,693	—	—	—	—	—	—
Collateralized loan obligations (CLOs)	18,886	—	18,886	5,128	—	—	62	5,190
Asset-based financing	53,168	733	52,435	16,553	475	4,915	—	21,943
	7,070	2,843	4,227	40	—	2,842	—	2,882

Municipal securities tender option bond trusts (TOBs)								
Municipal investments	17,679	14	17,665	2,441	3,578	2,580	—	8,599
Client intermediation	515	371	144	49	—	—	3	52
Investment funds	2,788	767	2,021	32	120	27	3	182
Other	1,429	607	822	116	11	58	43	228
Total	$401,822	$ 76,291	$ 325,531	$28,523	$ 4,219	$10,422	$ 190	$43,354

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

(2) Included on Citigroup's September 30, 2017 and December 31, 2016 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.

(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) See Note 2 to the Consolidated Financial Statements for more information on the exit of the U.S. mortgage servicing operations and sale of MSRs.

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 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;
- certain 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 12 and 20 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 $9 billion and $10 billion at September 30, 2017 and December 31, 2016, 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., loan or security) 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, unless fair value information is readily available to the Company.

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:

In millions of dollars	September 30, 2017		December 31, 2016	
	Liquidity facilities	Loan/equity commitments	Liquidity facilities	Loan/equity commitments
Asset-based financing	$—	$ 5,016	$5	$ 4,910
Municipal securities tender option bond trusts (TOBs)	3,063	—	2,842	—
Municipal investments	—	2,345	—	2,580
Client intermediation	—	491	—	—
Investment funds	—	15	—	27
Other	—	38	—	58
Total funding commitments	$3,063	$ 7,905	$2,847	$ 7,575

Significant Interests in Unconsolidated VIEs—Balance Sheet Classification

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

In billions of dollars	September 30, 2017	December 31, 2016
Cash	$ 0.1	$ 0.1
Trading account assets	8.6	8.0
Investments	4.7	4.4
Total loans, net of allowance	18.2	18.8
Other	0.5	1.5
Total assets	$ 32.1	$ 32.8

Credit Card Securitizations

Substantially all of the Company’s credit card securitization activity is through two trusts—Citibank Credit Card Master Trust (Master Trust) and Citibank Omni Master Trust (Omni

Trust), with the substantial majority through the Master Trust. These trusts are consolidated entities.

The following table reflects amounts related to the Company’s securitized credit card receivables:

In billions of dollars	September 30, 2017	December 31, 2016
Ownership interests in principal amount of trust credit card receivables		
Sold to investors via trust-issued securities	$ 28.0	$ 22.7
Retained by Citigroup as trust-issued securities	9.2	7.4
Retained by Citigroup via non-certificated interests	12.5	20.6
Total	$ 49.7	$ 50.7

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

In billions of dollars	Three Months Ended September 30, 2017	2016
Proceeds from new securitizations	$ 2.2	$ —
Pay down of maturing notes	(1.8)	(2.8)

Nine Months

In billions of dollars	Ended September 30, 2017	2016
Proceeds from new securitizations	$ 9.8	$ —
Pay down of maturing notes	(4.6)	(6.3)

Master Trust Liabilities (at Par Value)

The weighted average maturity of the third-party term notes issued by the Master Trust was 2.8 years as of September 30, 2017 and 2.6 years as of December 31, 2016.

In billions of dollars	Sept. 30, 2017	Dec. 31, 2016
Term notes issued to third parties	$ 27.0	$ 21.7
Term notes retained by Citigroup affiliates	7.3	5.5
Total Master Trust liabilities	$ 34.3	$ 27.2

Omni Trust Liabilities (at Par Value)

The weighted average maturity of the third-party term notes issued by the Omni Trust was 1.1 years as of September 30, 2017 and 1.9 years as of December 31, 2016.

In billions of dollars	Sept. 30, 2017	Dec. 31, 2016
Term notes issued to third parties	$ 1.0	$ 1.0
Term notes retained by Citigroup affiliates	1.9	1.9
Total Omni Trust liabilities	$ 2.9	$ 2.9

Mortgage Securitizations

The following table summarizes selected cash flow information related to Citigroup mortgage securitizations:

	Three Months Ended September 30,			
	2017		2016	
In billions of dollars	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages[1]
Proceeds from new securitizations	$11.7	$ 4.1	$11.7	$ 1.4
Contractual servicing fees received	0.1	—	0.1	—

	Nine Months Ended September 30,			
	2017		2016	
In billions of dollars	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages	U.S. agency-sponsored mortgages	Non-agency-sponsored mortgages[1]
Proceeds from new securitizations	$25.9	$ 6.9	$32.5	$ 8.0
Contractual servicing fees received	0.2	—	0.3	—

(1) The proceeds from new securitizations in 2016 include $0.5 billion related to personal loan securitizations.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $14 million and $61 million for the three and nine months ended September 30, 2017, respectively. For the three and nine months ended September 30, 2017, gains recognized on the securitization of non-agency sponsored mortgages were $29 million and $75 million, respectively.

Gains recognized on the securitization of U.S. agency-sponsored mortgages were $36 million and $81 million for the three and nine months ended September 30, 2016, respectively. For the three and nine months ended September 30, 2016, gains recognized on the securitization of non-agency sponsored mortgages were $37 million and $65 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:

	Three Months Ended September 30, 2017		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Discount rate	2.0% to 13.2%	—	—
Weighted average discount rate	8.5 %	—	—
Constant prepayment rate	6.6% to 31.6%	—	—
Weighted average constant prepayment rate	10.6 %	—	—
Anticipated net credit losses[2]	NM	—	—
Weighted average anticipated net credit losses	NM	—	—
Weighted average life	2.5 to 10.5 years	—	—

	Three Months Ended September 30, 2016		
			Non-agency-sponsored mortgages[1]
	U.S. agency-sponsored mortgages		Senior interests	Subordinated interests
Discount rate	1.5% to 13.0%		—	
Weighted average discount rate	10.0	%	—	
Constant prepayment rate	7.7% to 30.9%		—	
Weighted average constant prepayment rate	13.7	%	—	
Anticipated net credit losses[2]	NM		—	
Weighted average anticipated net credit losses	NM		—	
Weighted average life	2.0 to 9.8 years		—	

	Nine Months Ended September 30, 2017			
			Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages		Senior interests	Subordinated interests
Discount rate	2.0% to 19.9%		—	—
Weighted average discount rate	9.1	%	—	—
Constant prepayment rate	3.8% to 31.6%		—	—
Weighted average constant prepayment rate	9.6	%	—	—
Anticipated net credit losses[2]	NM		—	—
Weighted average anticipated net credit losses	NM		—	—
Weighted average life	2.5 to 14.5 years		—	—

	Nine Months Ended September 30, 2016			
			Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages		Senior interests	Subordinated interests
Discount rate	0.8% to 13.0%		—	
Weighted average discount rate	9.1	%	—	
Constant prepayment rate	7.7% to 30.9%		—	
Weighted average constant prepayment rate	12.8	%	—	
Anticipated net credit losses[2]	NM		—	
Weighted average anticipated net credit losses	NM		—	
Weighted average life	0.5 to 17.5 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.

	September 30, 2017		
		Non-agency-sponsored mortgages[1]	
	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests

Discount rate	0.0% to 82.4%		0.0% to 5.1%		4.8% to 33.9%	
Weighted average discount rate	7.9	%	1.0	%	9.7	%
Constant prepayment rate	7.4% to 31.6%		8.9% to 13.9%		0.5% to 13.1%	
Weighted average constant prepayment rate	12.3	%	12.9	%	7.0	%
Anticipated net credit losses[(2)]	NM		0.3% to 50.2%		35.1% to 52.1%	
Weighted average anticipated net credit losses	NM		12.2	%	43.2	%
Weighted average life	0.4 to 28.0 years		5.2 to 15.1 years		0.4 to 18.8 years	

	December 31, 2016					
		Non-agency-sponsored mortgages[1]				
	U.S. agency-sponsored mortgages		Senior interests		Subordinated interests	
Discount rate	0.7% to 28.2%		0.0% to 8.1%		5.1% to 26.4%	
Weighted average discount rate	9.0	%	2.1	%	13.1	%
Constant prepayment rate	6.8% to 22.8%		4.2% to 14.7%		0.5% to 37.5%	
Weighted average constant prepayment rate	10.2	%	11.0	%	10.8	%
Anticipated net credit losses[2]	NM		0.5% to 85.6%		8.0% to 63.7%	
Weighted average anticipated net credit losses	NM		31.4	%	48.3	%
Weighted average life	0.2 to 28.8 years		5.0 to 8.5 years		1.2 to 12.1 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.

	September 30, 2017		
		Non-agency-sponsored mortgages[1]	
In millions of dollars	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Carrying value of retained interests	$1,529	$ 156	$ 189
Discount rates			
Adverse change of 10%	$(45)	$ (3)	$ (4)
Adverse change of 20%	(87)	(6)	(8)
Constant prepayment rate			
Adverse change of 10%	(42)	(1)	(1)
Adverse change of 20%	(87)	(2)	(3)
Anticipated net credit losses			
Adverse change of 10%	NM	(4)	(1)
Adverse change of 20%	NM	(8)	(1)

	December 31, 2016		
		Non-agency-sponsored mortgages[1]	
In millions of dollars	U.S. agency-sponsored mortgages	Senior interests	Subordinated interests
Carrying value of retained interests	$2,258	$ 26	$ 161
Discount rates			
Adverse change of 10%	$(71)	$ (7)	$ (8)
Adverse change of 20%	(138)	(14)	(16)

Constant prepayment rate			
Adverse change of 10%	(80)	(2)	(4)
Adverse change of 20%	(160)	(3)	(8)
Anticipated net credit losses			
Adverse change of 10%	NM	(7)	(1)
Adverse change of 20%	NM	(14)	(2)

(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 (MSRs)

The fair value of Citi's capitalized MSRs was $553 million and $1.3 billion at September 30, 2017 and 2016, respectively. The MSRs correspond to principal loan balances of $68 billion and $173 billion as of September 30, 2017 and 2016, respectively. The following table summarizes the changes in capitalized MSRs:

	Three Months Ended September 30,	
In millions of dollars	2017	2016
Balance, as of June 30	$560	$1,324
Originations	19	43
Changes in fair value of MSRs due to changes in inputs and assumptions	(6)	13
Other changes[1]	(20)	(78)
Sale of MSRs[2]	—	(32)
Balance, as of September 30	$553	$1,270

	Nine Months Ended September 30,	
In millions of dollars	2017	2016
Balance, beginning of year	$1,564	$1,781
Originations	75	111
Changes in fair value of MSRs due to changes in inputs and assumptions	50	(349)
Other changes[1]	(90)	(255)
Sale of MSRs[2]	(1,046)	(18)
Balance, as of September 30	$553	$1,270

(1) Represents changes due to customer payments and passage of time.

(2) See Note 2 to the Consolidated Financial Statements for more information on the exit of the U.S. mortgage servicing operations and sale of MSRs. 2016 amount includes sales of credit challenged MSRs for which Citi paid the new servicer.

The Company receives fees during the course of servicing previously securitized mortgages. The amounts of these fees were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Servicing fees	$ 65	$ 117	$236	$371
Late fees	2	3	8	11
Ancillary fees	3	4	11	13
Total MSR fees	$ 70	$ 124	$255	$395

In the Consolidated Statement of Income these fees are primarily classified as Commissions and fees and changes in MSR fair values are classified 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. Citi did not transfer non-agency (private-label) securities to re-securitization entities during the three and nine months ended September 30, 2017 and 2016. These securities are backed by either residential or commercial mortgages and are often structured on behalf of clients.

As of September 30, 2017, the fair value of Citi-retained interests in private-label re-securitization transactions structured by Citi totaled approximately $75 million (all related to re-securitization transactions executed prior to 2017), which has been recorded in Trading account assets. Of this amount, substantially all was related to subordinated beneficial interests. As of December 31, 2016, the fair value of Citi-retained interests in private-label re-securitization transactions structured by Citi totaled approximately $126 million (all related to re-securitization transactions executed prior to 2016). Of this amount, substantially all 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 September 30, 2017 and December 31, 2016 was approximately $954 million and $1.3 billion, respectively.

The Company also re-securitizes U.S. government-agency guaranteed mortgage-backed (agency) securities. During the three and nine months ended September 30, 2017, Citi transferred agency securities with a fair value of approximately $9.9 billion and $20.0 billion, respectively, to re-securitization entities compared to approximately $7.1 billion and $21.3 billion for the three and nine months ended September 30, 2016.

As of September 30, 2017, the fair value of Citi-retained interests in agency re-securitization transactions structured by Citi totaled approximately $2.0 billion (including $713 million related to re-securitization transactions executed in 2017) compared to $2.3 billion as of December 31, 2016 (including $741 million related to re-securitization transactions executed in 2016), 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 September 30, 2017 and December 31, 2016 was approximately $67.6 billion and $71.8 billion, respectively.

As of September 30, 2017 and December 31, 2016, the Company did not consolidate any private-label or agency re-securitization entities.

Citi-Administered Asset-Backed Commercial Paper Conduits

At September 30, 2017 and December 31, 2016, the commercial paper conduits administered by Citi had approximately $19.3 billion and $19.7 billion of purchased assets outstanding, respectively, and had incremental funding commitments with clients of approximately $14.3 billion and $12.8 billion, respectively.

Substantially all of the funding of the conduits is in the form of short-term commercial paper. At September 30, 2017 and December 31, 2016, the weighted average remaining lives of the commercial paper issued by the conduits were approximately 53 and 55 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 $1.8 billion as of September 30, 2017 and December 31, 2016. The net result across multi-seller conduits administered by the Company 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.

At September 30, 2017 and December 31, 2016, the Company owned $9.3 billion and $9.7 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.

Collateralized Loan Obligations

The following table summarizes selected cash flow information related to Citigroup CLOs:

In billions of dollars	Three Months Ended September 30, 2017	2016
Proceeds from new securitizations	$ 1.1	$ 1.8

In billions of dollars	Nine Months Ended September 30, 2017	2016
Proceeds from new securitizations	$ 2.5	$ 3.8

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:

	Sept. 30, 2017	Dec. 31, 2016
Discount rate	1.1% to 1.6%	1.3% to 1.7%

In millions of dollars	Sept. 30, 2017	Dec. 31, 2016
Carrying value of retained interests	$3,883	$4,261
Discount rates		
Adverse change of 10%	$(25)	$(30)
Adverse change of 20%	(51)	(62)

Asset-Based Financing

The primary types of Citi's asset-based financings, total assets of the unconsolidated VIEs with significant involvement, and Citi's maximum exposure to loss are shown below. For Citi to realize the maximum loss, the VIE (borrower) would have to default with no recovery from the assets held by the VIE.

In millions of dollars	September 30, 2017 Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type		
Commercial and other real estate	$8,971	$ 3,068
Corporate loans	2,763	1,706
Hedge funds and equities	499	59
Airplanes, ships and other assets	38,488	16,194
Total	$50,721	$ 21,027

In millions of dollars	December 31, 2016 Total unconsolidated VIE assets	Maximum exposure to unconsolidated VIEs
Type		
Commercial and other real estate	$8,784	$ 2,368
Corporate loans	4,051	2,684
Hedge funds and equities	370	54
Airplanes, ships and other assets	39,230	16,837
Total	$52,435	$ 21,943

Municipal Securities Tender Option Bond (TOB) Trusts

At September 30, 2017 and December 31, 2016, approximately $56 million and $82 million, respectively, of the municipal bonds owned by non-customer TOB trusts were subject to a credit guarantee provided by the Company.

At September 30, 2017 and December 31, 2016, liquidity agreements provided with respect to customer TOB trusts totaled $3.1 billion and $2.9 billion, respectively, of which $2.0 billion and $2.1 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 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 $6.1 billion and $7.4 billion as of September 30, 2017 and December 31, 2016, respectively. These liquidity agreements and letters of credit are offset by reimbursement agreements with various term-out provisions.

Client Intermediation

The proceeds from new securitizations related to the Company's client intermediation transactions for the three and nine months ended September 30, 2017 totaled approximately $0.2 billion and $0.9 billion, respectively, compared to $0.5 billion and $1.9 billion for the three and nine months ended September 30, 2016.

19. DERIVATIVES ACTIVITIES

In the ordinary course of business, Citigroup enters into various types of derivative transactions. For additional information regarding Citi's use of and accounting for derivatives, see Note 22 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

Information pertaining to Citigroup's derivative activities, 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, 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. For example, if Citi enters into a receive-fixed interest rate swap with $100 million notional, and offsets this risk with an identical but opposite pay-fixed 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

In millions of dollars	Hedging instruments under ASC 815[1][2]		Other derivative instruments			
			Trading derivatives		Management hedges[3]	
	September 30, 2017	December 31, 2016	September 30, 2017	December 31, 2016	September 30, 2017	December 31, 2016
Interest rate contracts						
Swaps	$186,553	$ 151,331	$20,878,378	$19,145,250	$38,964	$ 47,324
Futures and forwards	—	97	6,926,108	6,864,276	13,504	30,834
Written options	—		3,446,771	2,921,070	2,659	4,759
Purchased options	—	—	3,195,655	2,768,528	3,580	7,320
Total interest rate contract notionals	$186,553	$ 151,428	$34,446,912	$31,699,124	$58,707	$ 90,237
Foreign exchange contracts						
Swaps	$35,431	$ 19,042	$6,870,504	$5,492,145	$27,052	$ 22,676
Futures, forwards and spot	38,100	56,964	4,658,973	3,251,132	5,153	3,419
Written options	4,027	—	1,466,308	1,194,325	—	—
Purchased options	6,697	—	1,507,896	1,215,961	—	—
Total foreign exchange contract notionals	$84,255	$ 76,006	$14,503,681	$11,153,563	$32,205	$ 26,095
Equity contracts						
Swaps	$—	$ —	$219,056	$192,366	$—	$ —
Futures and forwards	—	—	57,541	37,557	—	—
Written options	—	—	410,746	304,579	—	—
Purchased options	—	—	336,586	266,070	—	—
Total equity contract notionals	$—	$ —	$1,023,929	$800,572	$—	$ —
Commodity and other contracts						
Swaps	$—	$ —	$81,208	$70,774	$—	$ —
Futures and forwards	139	182	158,757	142,530	—	—
Written options	—	—	76,663	74,627	—	—
Purchased options	—	—	74,620	69,629	—	—
Total commodity and other contract notionals	$139	$ 182	$391,248	$357,560	$—	$ —
Credit derivatives[4]						
Protection sold	$—	$ —	$872,476	$859,420	$98	$ —
Protection purchased	—	—	900,866	883,003	13,201	19,470
Total credit derivatives	$—	$ —	$1,773,342	$1,742,423	$13,299	$ 19,470
Total derivative notionals	$270,947	$ 227,616	$52,139,112	$45,753,242	$104,211	$ 135,802

(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 $63 million and $1,825 million at September 30, 2017 and December 31, 2016, 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) 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 as of September 30, 2017 and December 31, 2016. 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 the enforceability of netting and collateral rights has been obtained. GAAP does not permit similar offsetting for security collateral.
In addition, the table for September 30, 2017 reflects rule changes adopted by clearing organizations that require or allow entities to elect to treat derivative assets, liabilities and the related variation margin as settlement of the related derivative fair values for legal and accounting purposes, as

opposed to presenting gross derivative assets and liabilities that are subject to collateral, whereby the counterparties would record a related collateral payable or receivable. As a result, the table for September 30, 2017 reflects a reduction of approximately $100 billion of derivative assets and derivative liabilities that previously would have been reported on a gross basis, but are now settled and not subject to collateral. The table for December 31, 2016 presents derivative assets and liabilities as gross amounts subject to variation margin collateral that were netted under enforceable master netting agreements. Therefore the net presentation of the affected items on the consolidated balance sheet is consistent for all periods. The tables also present amounts that are not permitted to be offset, such as security collateral 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

In millions of dollars at September 30, 2017	Derivatives classified in Trading account assets / liabilities[1][2][3]		Derivatives classified in Other assets / liabilities[2][3]	
Derivatives instruments designated as ASC 815 hedges	Assets	Liabilities	Assets	Liabilities
Over-the-counter	$440	$107	$1,291	$ 30
Cleared	29	29	35	69
Interest rate contracts	$469	$136	$1,326	$ 99
Over-the-counter	$936	$676	$771	$ 147
Foreign exchange contracts	$936	$676	$771	$ 147
Total derivatives instruments designated as ASC 815 hedges	$1,405	$812	$2,097	$ 246
Derivatives instruments not designated as ASC 815 hedges				
Over-the-counter	$200,554	$179,000	$35	$ 1
Cleared	6,843	8,520	73	105
Exchange traded	116	93	—	—
Interest rate contracts	$207,513	$187,613	$108	$ 106
Over-the-counter	$130,399	$129,096	$—	$ —
Cleared	3,180	3,312	—	—
Exchange traded	58	52	—	—
Foreign exchange contracts	$133,637	$132,460	$—	$ —
Over-the-counter	$18,736	$24,317	$—	$ —
Cleared	16	20	—	—
Exchange traded	8,532	8,179	—	—
Equity contracts	$27,284	$32,516	$—	$ —
Over-the-counter	$11,444	$14,541	$—	$ —
Exchange traded	745	703	—	—
Commodity and other contracts	$12,189	$15,244	$—	$ —
Over-the-counter	$15,169	$15,592	$23	$ 68
Cleared	8,042	9,593	22	297
Credit derivatives[4]	$23,211	$25,185	$45	$ 365
Total derivatives instruments not designated as ASC 815 hedges	$403,834	$393,018	$153	$ 471
Total derivatives	$405,239	$393,830	$2,250	$ 717
Cash collateral paid/received[5][6]	$13,991	$15,848	$—	$ 9
Less: Netting agreements[7]	(325,424)	(325,424)	—	—
Less: Netting cash collateral received/paid[8]	(37,876)	(32,390)	(1,005)	(17)
Net receivables/payables included on the Consolidated Balance Sheet[9]	$55,930	$51,864	$1,245	$ 709
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet				
Less: Cash collateral received/paid	$(861)	$(61)	$—	$ —
Less: Non-cash collateral received/paid	(11,864)	(9,798)	(294)	—
Total net receivables/payables[9]	$43,205	$42,005	$951	$ 709

(1) The trading derivatives fair values are presented in Note 20 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 assets comprise $5,076 million related to protection purchased and $18,180 million related to protection sold as of September 30, 2017. The credit derivatives liabilities comprise $20,616 million related to protection purchased and $4,934 million related to protection sold as of September 30, 2017.

(5) For the trading account assets/liabilities, reflects the net amount of the $46,381 million and $53,724 million of gross cash collateral paid and received, respectively. Of the gross cash collateral paid, $32,390 million was used to offset trading derivative liabilities and, of the gross cash collateral received, $37,876 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 $17 million of gross cash collateral paid, of which $17 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 $1,014 million of gross cash collateral received, of which $1,005 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 $301 billion, $15 billion and $9 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 $5 billion of derivative asset and $6 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

In millions of dollars at December 31, 2016	Derivatives classified in Trading account assets / liabilities[1][2][3]		Derivatives classified in Other assets / liabilities[2][3]	
Derivatives instruments designated as ASC 815 hedges	Assets	Liabilities	Assets	Liabilities
Over-the-counter	$716	$171	$1,927	$ 22
Cleared	3,530	2,154	47	82
Interest rate contracts	$4,246	$2,325	$1,974	$ 104
Over-the-counter	$2,494	$393	$747	$ 645
Foreign exchange contracts	$2,494	$393	$747	$ 645
Total derivatives instruments designated as ASC 815 hedges	$6,740	$2,718	$2,721	$ 749
Derivatives instruments not designated as ASC 815 hedges				
Over-the-counter	$244,072	$221,534	$225	$ 5
Cleared	120,920	130,855	240	349
Exchange traded	87	47	—	—
Interest rate contracts	$365,079	$352,436	$465	$ 354
Over-the-counter	$182,659	$186,867	$—	$ 60
Cleared	482	470	—	—
Exchange traded	27	31	—	—
Foreign exchange contracts	$183,168	$187,368	$—	$ 60
Over-the-counter	$15,625	$19,119	$—	$ —
Cleared	1	21	—	—
Exchange traded	8,484	7,376	—	—
Equity contracts	$24,110	$26,516	$—	$ —
Over-the-counter	$13,046	$14,234	$—	$ —
Exchange traded	719	798	—	—
Commodity and other contracts	$13,765	$15,032	$—	$ —
Over-the-counter	$19,033	$19,563	$159	$ 78
Cleared	5,582	5,874	47	310
Credit derivatives[4]	$24,615	$25,437	$206	$ 388
Total derivatives instruments not designated as ASC 815 hedges	$610,737	$606,789	$671	$ 802
Total derivatives	$617,477	$609,507	$3,392	$ 1,551
Cash collateral paid/received[5][6]	$11,188	$15,731	$8	$ 1
Less: Netting agreements[7]	(519,000)	(519,000)	—	—
Less: Netting cash collateral received/paid[8]	(45,912)	(49,811)	(1,345)	(53)

Net receivables/payables included on the Consolidated Balance Sheet[9]	$63,753	$56,427	$2,055	$ 1,499
Additional amounts subject to an enforceable master netting agreement, but not offset on the Consolidated Balance Sheet				
Less: Cash collateral received/paid	$(819)	$(19)	$—	$ —
Less: Non-cash collateral received/paid	(11,767)	(5,883)	(530)	—
Total net receivables/payables[9]	$51,167	$50,525	$1,525	$ 1,499

(1) The trading derivatives fair values are presented in Note 20 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 $8,871 million related to protection purchased and $15,744 million related to protection sold as of December 31, 2016. The credit derivatives trading liabilities comprise $16,722 million related to protection purchased and $8,715 million related to protection sold as of December 31, 2016.

(5) For the trading account assets/liabilities, reflects the net amount of the $60,999 million and $61,643 million of gross cash collateral paid and received, respectively. Of the gross cash collateral paid, $49,811 million was used to offset trading derivative liabilities and, of the gross cash collateral received, $45,912 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 $1,346 million of gross cash collateral received, of which $1,345 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 $383 billion, $128 billion and $8 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 $7 billion of derivative asset and $9 billion of derivative liability fair values not subject to enforceable master netting agreements, respectively.

For the three and nine months ended September 30, 2017 and 2016, 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 how 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			
	Three Months Ended		Nine Months Ended	
	September 30,		September 30,	
In millions of dollars	2017	2016	2017	2016
Interest rate contracts	$(9)	$(28)	$(44)	$(2)
Foreign exchange	—	11	26	26
Credit derivatives	(109)	(399)	(452)	(960)
Total Citigroup	$(118)	$(416)	$(470)	$(936)

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Fair Value Hedges

The following table summarizes the gains (losses) on the Company's fair value hedges:

	Gains (losses) on fair value hedges[1]			
	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Gain (loss) on the derivatives in designated and qualifying fair value hedges				
Interest rate contracts	$(194)	$(450)	$(570)	$2,747
Foreign exchange contracts	(166)	(602)	(803)	(2,360)
Commodity contracts	(11)	(57)	(20)	381
Total gain (loss) on the derivatives in designated and qualifying fair value hedges	$(371)	$(1,109)	$(1,393)	$768
Gain (loss) on the hedged item in designated and qualifying fair value hedges				
Interest rate hedges	$189	$442	$532	$(2,701)
Foreign exchange hedges	144	664	910	2,425
Commodity hedges	12	59	22	(374)
Total gain (loss) on the hedged item in designated and qualifying fair value hedges	$345	$1,165	$1,464	$(650)
Hedge ineffectiveness recognized in earnings on designated and qualifying fair value hedges				
Interest rate hedges	$(5)	$(11)	$(31)	$48
Foreign exchange hedges	(17)	(3)	32	(53)
Total hedge ineffectiveness recognized in earnings on designated and qualifying fair value hedges	$(22)	$(14)	$1	$(5)
Net gain (loss) excluded from assessment of the effectiveness of fair value hedges				
Interest rate contracts	$—	$3	$(7)	$(2)
Foreign exchange contracts[2]	(5)	65	75	118
Commodity hedges	1	2	2	7
Total net gain (loss) excluded from assessment of the effectiveness of fair value hedges	$(4)	$70	$70	$123

(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

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Effective portion of cash flow hedges included in AOCI				
Interest rate contracts	$ (36)	$ (187)	$ 103	$ 448
Foreign exchange contracts	(7)	(29)	(7)	(26)
Total effective portion of cash flow hedges included in AOCI	$ (43)	$ (216)	$ 96	$ 422
Effective portion of cash flow hedges reclassified from AOCI to earnings				
Interest rate contracts	$ (48)	$ (39)	$ (94)	$ (96)
Foreign exchange contracts	(7)	(46)	(8)	(89)
Total effective portion of cash flow hedges reclassified from AOCI to earnings[(1)]	$ (55)	$ (85)	$ (102)	$ (185)

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

For cash flow hedges, the changes in the fair value of the hedging derivative remain in AOCI on the Consolidated Balance Sheet and will be included in the earnings of future periods to offset the variability of the hedged cash flows when such cash flows affect earnings. The net gain (loss) associated with cash flow hedges expected to be reclassified from AOCI within 12 months of September 30, 2017 is approximately $(277) million. The maximum length of time over which forecasted cash flows are hedged is 10 years.

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

Net Investment Hedges

The pretax gain (loss) recorded in the Foreign currency translation adjustment account within AOCI, related to the effective portion of the net investment hedges, is $(245) million and $(1,993) million for the three and nine months ended September 30, 2017 and $(371) million and $(1,791) million for the three and nine months ended September 30, 2016, respectively.

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

	Fair values		Notionals	
In millions of dollars at September 30, 2017	Receivable[1]	Payable[2]	Protection purchased	Protection sold
By industry/counterparty				
Banks	$9,114	$ 8,454	$320,482	$338,723
Broker-dealers	2,882	2,805	89,352	100,408
Non-financial	28	93	2,154	1,501
Insurance and other financial institutions	11,232	14,198	502,079	431,942
Total by industry/counterparty	$23,256	$ 25,550	$914,067	$872,574
By instrument				
Credit default swaps and options	$23,013	$ 24,365	$890,913	$862,753
Total return swaps and other	243	1,185	23,154	9,821
Total by instrument	$23,256	$ 25,550	$914,067	$872,574
By rating				
Investment grade	$13,045	$ 13,758	$696,474	$665,764
Non-investment grade	10,211	11,792	217,593	206,810
Total by rating	$23,256	$ 25,550	$914,067	$872,574
By maturity				
Within 1 year	$2,520	$ 3,225	$279,201	$267,863
From 1 to 5 years	17,459	18,823	547,675	522,437
After 5 years	3,277	3,502	87,191	82,274
Total by maturity	$23,256	$ 25,550	$914,067	$872,574

(1) The fair value amount receivable is composed of $5,076 million under protection purchased and $18,180 million under protection sold.

(2) The fair value amount payable is composed of $20,616 million under protection purchased and $4,934 million under protection sold.

	Fair values		Notionals	
In millions of dollars at December 31, 2016	Receivable[1]	Payable[2]	Protection purchased	Protection sold
By industry/counterparty				
Banks	$11,895	$ 10,930	$407,992	$414,720
Broker-dealers	3,536	3,952	115,013	119,810
Non-financial	82	99	4,014	2,061
Insurance and other financial institutions	9,308	10,844	375,454	322,829
Total by industry/counterparty	$24,821	$ 25,825	$902,473	$859,420
By instrument				
Credit default swaps and options	$24,502	$ 24,631	$883,719	$852,900
Total return swaps and other	319	1,194	18,754	6,520
Total by instrument	$24,821	$ 25,825	$902,473	$859,420
By rating				
Investment grade	$9,605	$ 9,995	$675,138	$648,247
Non-investment grade	15,216	15,830	227,335	211,173
Total by rating	$24,821	$ 25,825	$902,473	$859,420
By maturity				
Within 1 year	$4,113	$ 4,841	$293,059	$287,262
From 1 to 5 years	17,735	17,986	551,155	523,371

After 5 years	2,973	2,998	58,259	48,787
Total by maturity	$24,821	$25,825	$902,473	$859,420

(1) The fair value amount receivable is composed of $9,077 million under protection purchased and $15,744 million under protection sold.

(2) The fair value amount payable is composed of $17,110 million under protection purchased and $8,715 million under protection sold.

Credit-Risk-Related Contingent Features in Derivatives

Certain derivative instruments contain provisions that require the Company to either post additional collateral or immediately settle any outstanding liability balances upon the occurrence of a specified event related to the credit risk of the Company. These events, which are defined by the existing derivative contracts, are primarily downgrades in the credit ratings of the Company and its affiliates. The fair value (excluding CVA) of all derivative instruments with credit-risk-related contingent features that were in a net liability position at both September 30, 2017 and December 31, 2016 was $28 billion and $26 billion, respectively. The Company posted $25 billion and $26 billion as collateral for this exposure in the normal course of business as of September 30, 2017 and December 31, 2016, respectively.

A downgrade could trigger additional collateral or cash settlement requirements for the Company and certain affiliates. In the event that Citigroup and Citibank were downgraded a single notch by all three major rating agencies as of September 30, 2017, the Company could be required to post an additional $1.2 billion as either collateral or settlement of the derivative transactions. Additionally, the Company could be required to segregate with third-party custodians collateral previously received from existing derivative counterparties in the amount of $0.3 billion upon the single notch downgrade, resulting in aggregate cash obligations and collateral requirements of approximately $1.5 billion.

Derivatives Accompanied by Financial Asset Transfers

For transfers of financial assets accounted for as a sale by the Company, where the Company has retained substantially all of the economic exposure to the transferred asset through a total return swap executed in contemplation of the initial sale with the same counterparty and still outstanding as of September 30, 2017, both the asset carrying amounts derecognized and gross cash proceeds received as of the date of derecognition were $2.4 billion. At September 30, 2017, the fair value of these previously derecognized assets was $2.4 billion. The fair value of the total return swaps was $28 million, recorded as gross derivative assets, and $47 million, recorded as gross derivative liabilities. The balances for the total return swaps are on a gross basis, before the application of counterparty and cash collateral netting, and are included primarily as equity derivatives in the tabular disclosures in this Note.

20. FAIR VALUE MEASUREMENT

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

Market Valuation Adjustments

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

	Credit and funding valuation adjustments contra-liability (contra-asset)	
In millions of dollars	September 30, 2017	December 31, 2016
Counterparty CVA	$(1,114)	$ (1,488)
Asset FVA	(462)	(536)
Citigroup (own-credit) CVA	318	459
Liability FVA	51	62
Total CVA—derivative instruments[1]	$(1,207)	$ (1,503)

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

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

	Credit/funding/debt valuation adjustments gain (loss)			
	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Counterparty CVA	$27	$112	$197	$19
Asset FVA	(5)	37	74	(59)
Own-credit CVA	(2)	(60)	(127)	65
Liability FVA	(16)	(59)	(10)	(11)
Total CVA—derivative instruments	$4	$30	$134	$14
DVA related to own FVO liabilities[1]	$(195)	$(319)	$(422)	$8
Total CVA and DVA[2]	$(191)	$(289)	$(288)	$22

(1) See Note 1 and Note 17 to the Consolidated Financial Statements.
(2) FVA is included with CVA for presentation purposes.

Items Measured at Fair Value on a Recurring Basis

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

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

Fair Value Levels

In millions of dollars at September 30, 2017	Level 1[1]	Level 2[1]	Level 3	Gross inventory	Netting[2]	Net balance
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	$—	$205,951	$664	$206,615	$(50,283)	$156,332
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	21,991	309	22,300	—	22,300
Residential	—	529	351	880	—	880
Commercial	—	1,061	112	1,173	—	1,173
Total trading mortgage-backed securities	$—	$23,581	$772	$24,353	$—	$24,353
U.S. Treasury and federal agency securities	$22,398	$2,999	$—	$25,397	$—	$25,397
State and municipal	—	2,429	270	2,699	—	2,699
Foreign government	45,503	18,525	95	64,123	—	64,123
Corporate	247	14,924	391	15,562	—	15,562
Equity securities	47,941	7,427	236	55,604	—	55,604
Asset-backed securities	—	1,347	1,704	3,051	—	3,051
Other trading assets[3]	3	10,034	2,151	12,188	—	12,188
Total trading non-derivative assets	$116,092	$81,266	$5,619	$202,977	$—	$202,977
Trading derivatives						
Interest rate contracts	$147	$206,086	$1,749	$207,982		
Foreign exchange contracts	42	133,963	568	134,573		
Equity contracts	2,110	24,606	568	27,284		
Commodity contracts	280	11,598	311	12,189		
Credit derivatives	—	22,113	1,098	23,211		
Total trading derivatives	$2,579	$398,366	$4,294	$405,239		
Cash collateral paid[4]				$13,991		
Netting agreements					$(325,424)	
Netting of cash collateral received					(37,876)	
Total trading derivatives	$2,579	$398,366	$4,294	$419,230	$(363,300)	$55,930
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$—	$42,257	$57	$42,314	$—	$42,314
Residential	—	2,992	—	2,992	—	2,992
Commercial	—	341	3	344	—	344
Total investment mortgage-backed securities	$—	$45,590	$60	$45,650	$—	$45,650
U.S. Treasury and federal agency securities	$107,085	$11,241	$—	$118,326	$—	$118,326
State and municipal	—	7,918	1,272	9,190	—	9,190

Foreign government	58,869	41,577	301	100,747	—	100,747
Corporate	2,342	12,997	120	15,459	—	15,459
Equity securities	287	14	3	304	—	304
Asset-backed securities	—	4,461	830	5,291	—	5,291
Other debt securities	—	338	10	348	—	348
Non-marketable equity securities[5]	—	66	829	895	—	895
Total investments	$168,583	$124,202	$3,425	$296,210	$—	$296,210

Table continues on the next page.

In millions of dollars at September 30, 2017	Level 1[1]	Level 2[1]	Level 3	Gross inventory	Netting[2]	Net balance
Loans	$—	$3,764	$544	$4,308	$—	$4,308
Mortgage servicing rights	—	—	553	553	—	553
Non-trading derivatives and other financial assets measured on a recurring basis, gross	$14,434	$6,981	$14	$21,429		
Cash collateral paid[6]				—		
Netting of cash collateral received					$(1,005)	
Non-trading derivatives and other financial assets measured on a recurring basis	$14,434	$6,981	$14	$21,429	$(1,005)	$20,424
Total assets	$301,688	$820,530	$15,113	$1,151,322	$(414,588)	$736,734
Total as a percentage of gross assets[7]	26.5 %	72.1 %	1.3 %			
Liabilities						
Interest-bearing deposits	$—	$1,197	$300	$1,497	$—	$1,497
Federal funds purchased and securities loaned or sold under agreements to repurchase	—	94,843	765	95,608	(50,283)	45,325
Trading account liabilities						
Securities sold, not yet purchased	73,549	9,688	684	83,921	—	83,921
Other trading liabilities	—	3,035	—	3,035	—	3,035
Total trading liabilities	$73,549	$12,723	$684	$86,956	$—	$86,956
Trading derivatives						
Interest rate contracts	$118	$185,681	$1,950	$187,749		
Foreign exchange contracts	50	132,666	420	133,136		
Equity contracts	2,116	27,984	2,416	32,516		
Commodity contracts	166	12,428	2,650	15,244		
Credit derivatives	—	23,146	2,039	25,185		
Total trading derivatives	$2,450	$381,905	$9,475	$393,830		
Cash collateral received[8]				$15,848		
Netting agreements					$(325,424)	
Netting of cash collateral paid					(32,390)	
Total trading derivatives	$2,450	$381,905	$9,475	$409,678	$(357,814)	$51,864
Short-term borrowings	$—	$4,771	$56	$4,827	$—	$4,827
Long-term debt	—	19,505	11,321	30,826	—	30,826
Non-trading derivatives and other financial liabilities measured on a recurring basis, gross	$14,434	$716	$2	$15,152		
Cash collateral received[9]				9		
Netting of cash collateral paid					$(17)	
Total non-trading derivatives and other financial liabilities measured on a recurring basis	$14,434	$716	$2	$15,161	$(17)	$15,144
Total liabilities	$90,433	$515,660	$22,603	$644,553	$(408,114)	$236,439
Total as a percentage of gross liabilities[7]	14.4 %	82.0 %	3.6 %			

(1) For the three and nine months ended September 30, 2017, the Company transferred assets of approximately $0.6 billion and $3.6 billion from Level 1 to Level 2, primarily related to foreign government securities and equity securities not traded in active markets. During the three and nine months ended September 30, 2017, the Company transferred assets of approximately $0.9 billion and $3.1 billion from Level 2 to Level 1, primarily related to foreign government bonds traded with sufficient frequency to constitute an active market. For the three and nine months ended September 30, 2017, the Company transferred liabilities of approximately $0.2 billion and $0.3 billion from Level 1 to Level 2. During the three and nine months ended September 30, 2017, the Company

transferred liabilities of approximately $0.1 billion and $0.2 billion 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) Includes positions related to investments in unallocated precious metals, as discussed in Note 21 to the Consolidated Financial Statements. Also includes physical commodities accounted for at the lower of cost or fair value and unfunded credit products.

(4) Reflects the net amount of $46,381 million gross cash collateral paid, of which $32,390 million was used to offset trading derivative liabilities.

(5) Amounts exclude $0.4 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).

(6) Reflects the net amount of $17 million of gross cash collateral paid, all of which 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 $53,724 million of gross cash collateral received, of which $37,876 million was used to offset trading derivative assets.

(9) Reflects the net amount of $1,014 million of gross cash collateral received, of which $1,005 million was used to offset non-trading derivative assets.

Fair Value Levels

In millions of dollars at December 31, 2016	Level 1[1]	Level 2[1]	Level 3	Gross inventory	Netting[2]	Net balance
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	$—	$172,394	$1,496	$173,890	$(40,686)	$133,204
Trading non-derivative assets						
Trading mortgage-backed securities						
U.S. government-sponsored agency guaranteed	—	22,718	176	22,894	—	22,894
Residential	—	291	399	690	—	690
Commercial	—	1,000	206	1,206	—	1,206
Total trading mortgage-backed securities	$—	$24,009	$781	$24,790	$—	$24,790
U.S. Treasury and federal agency securities	$16,368	$4,811	$1	$21,180	$—	$21,180
State and municipal	—	3,780	296	4,076	—	4,076
Foreign government	32,164	17,492	40	49,696	—	49,696
Corporate	424	14,199	324	14,947	—	14,947
Equity securities	45,056	5,260	127	50,443	—	50,443
Asset-backed securities	—	892	1,868	2,760	—	2,760
Other trading assets[3]	—	9,466	2,814	12,280	—	12,280
Total trading non-derivative assets	$94,012	$79,909	$6,251	$180,172	$—	$180,172
Trading derivatives						
Interest rate contracts	$105	$366,995	$2,225	$369,325		
Foreign exchange contracts	53	184,776	833	185,662		
Equity contracts	2,306	21,209	595	24,110		
Commodity contracts	261	12,999	505	13,765		
Credit derivatives	—	23,021	1,594	24,615		
Total trading derivatives	$2,725	$609,000	$5,752	$617,477		
Cash collateral paid[4]				$11,188		
Netting agreements					$(519,000)	
Netting of cash collateral received					(45,912)	
Total trading derivatives	$2,725	$609,000	$5,752	$628,665	$(564,912)	$63,753
Investments						
Mortgage-backed securities						
U.S. government-sponsored agency guaranteed	$—	$38,304	$101	$38,405	$—	$38,405
Residential	—	3,860	50	3,910	—	3,910
Commercial	—	358	—	358	—	358
Total investment mortgage-backed securities	$—	$42,522	$151	$42,673	$—	$42,673
U.S. Treasury and federal agency securities	$112,916	$10,753	$2	$123,671	$—	$123,671
State and municipal	—	8,909	1,211	10,120	—	10,120
Foreign government	54,028	43,934	186	98,148	—	98,148
Corporate	3,215	13,598	311	17,124	—	17,124
Equity securities	336	46	9	391	—	391
Asset-backed securities	—	6,134	660	6,794	—	6,794
Other debt securities	—	503	—	503	—	503

Non-marketable equity securities[5]	—	35	1,331	1,366	—	1,366
Total investments	$170,495	$126,434	$3,861	$300,790	$—	$300,790

Table continues on the next page.

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

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

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

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

(5) Amounts exclude $0.4 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).

(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 $61,643 million of gross cash collateral received, of which $45,912 million was used to offset trading derivative assets.

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

Changes in Level 3 Fair Value Category

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

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

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

Level 3 Fair Value Rollforward

In millions of dollars	Jun. 30, 2017	Net realized/unrealized gains (losses) incl. in Principal transactions	Other	Transfers into Level 3[1][2]	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2017	Unrealized gains (losses) still held[3]
Assets											
Federal funds sold and securities borrowed or purchased under agreements to resell	$1,002	$ (338)	$ —	$ —	$—	$—	$ —	$—	$ —	$664	$ (338)
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	204	—	—	75	(21)	174	—	(123)	—	309	—
Residential	327	24	—	41	(9)	39	—	(71)	—	351	12
Commercial	318	10	—	22	(17)	11	—	(232)	—	112	5
Total trading mortgage-backed securities	$849	$ 34	$ —	$138	$(47)	$224	$ —	$(426)	$ —	$772	$ 17
U.S. Treasury and federal agency securities	$—	$ —	$ —	$ —	$—	$—	$ —	$—	$ —	$—	$ —
State and municipal	284	(2)	—	—	—	49	—	(61)	—	270	(1)
Foreign government	108	(5)	—	4	(114)	161	—	(59)	—	95	(2)
Corporate	401	105	—	16	(11)	148	—	(268)	—	391	103
Equity securities	240	183	—	3	(41)	29	—	(178)	—	236	6
Asset-backed securities	1,570	114	—	5	(6)	481	—	(460)	—	1,704	26
Other trading assets	1,803	(38)	—	38	(607)	1,349	4	(394)	(4)	2,151	29
Total trading non-derivative assets	$5,255	$ 391	$ —	$204	$(826)	$2,441	$ 4	$(1,846)	$ (4)	$5,619	$ 178
Trading derivatives, net[4]											
Interest rate contracts	$(288)	$ 196	$ —	$4	$(4)	$25	$ —	$(20)	$ (114)	$(201)	$ 120
Foreign exchange contracts	184	(92)	—	1	(4)	(6)	—	(3)	68	148	(92)
Equity contracts	(1,647)	201	—	(52)	(34)	31	—	(126)	(221)	(1,848)	(10)
Commodity contracts	(2,024)	(248)	—	(29)	(10)	—	—	(3)	(25)	(2,339)	(255)

Credit derivatives	(1,339)	(150)	—	25	115	7	—	—	401	(941)	(185)
Total trading derivatives, net[4]	$(5,114)	$ (93)	$ —	$(51)	$63	$57	$ —	$(152)	$ 109	$(5,181)	$ (422)

Table continues on the next page.

In millions of dollars	Jun. 30, 2017	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2017	Unrealized gains (losses) still held[3]
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$50	$ —	$ 12	$—	$(5)	$ —	$ —	$—	$ —	$57	$ 28
Residential	—	—	—	—	—	—	—	—	—	—	—
Commercial	—	—	—	3	—	—	—	—	—	3	—
Total investment mortgage-backed securities	$50	$ —	$ 12	$3	$(5)	$ —	$ —	$—	$ —	$60	$ 28
U.S. Treasury and federal agency securities	$1	$ —	$ —	$—	$—	$ —	$ —	$—	$ —	$—	$ —
State and municipal	1,285	—	(2)	21	(3)	16	—	(45)	—	1,272	17
Foreign government	358	—	(58)	—	(18)	122	—	(103)	—	301	(7)
Corporate	156	—	146	10	(2)	41	—	(231)	—	120	—
Equity securities	9	—	(1)	—	—	—	—	(5)	—	3	—
Asset-backed securities	1,028	—	(280)	2	(7)	504	—	(417)	—	830	(134)
Other debt securities	10	—	—	—	—	—	—	—	—	10	—
Non-marketable equity securities	939	—	(61)	—	—	1	—	(1)	(49)	829	(18)
Total investments	$3,836	$ —	$ (244)	$36	$(35)	$ 684	$ —	$(803)	$ (49)	$3,425	$ (114)
Loans	$577	$ —	$ 73	$—	$—	$ 131	$ —	$(236)	$ (1)	$544	$ 264
Mortgage servicing rights	560	—	(6)	—	—	—	19	—	(20)	553	3
Other financial assets measured on a recurring basis	17	—	13	—	—	1	43	(4)	(56)	14	17
Liabilities											
Interest-bearing deposits	$300	$ —	$ (2)	$—	$—	$ —	$ —	$—	$ (2)	$300	$ 6
Federal funds purchased and securities loaned or sold under agreements to repurchase	807	(1)	—	—	—	—	—	—	(43)	765	4
Trading account liabilities											
Securities sold, not yet purchased	1,143	496	—	5	(10)	—	—	88	(46)	684	24
Other trading liabilities	—	—	—	—	—	—	—	—	—	—	—
Short-term borrowings	29	(13)	—	3	(1)	—	12	—	—	56	7
Long-term debt	11,831	1,057	—	181	(490)	—	419	—	437	11,321	716
Other financial liabilities measured on a recurring basis	2	—	—	—	—	—	1	—	(1)	2	(1)

(1) Changes in fair value for available-for-sale investments are recorded in AOCI, 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 AOCI for changes in fair value of available-for-sale investments), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at September 30, 2017.

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

In millions of dollars	Dec. 31, 2016	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2017	Unrealized gains (losses) still held[3]
Assets											
Federal funds sold and securities borrowed or purchased under agreements to resell	$1,496	$(340)	$—	$—	$(491)	$—	$—	$—	$(1)	$664	$—
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	176	4	—	154	(86)	438	—	(377)	—	309	1
Residential	399	61	—	88	(58)	105	—	(244)	—	351	35
Commercial	206	7	—	66	(46)	445	—	(566)	—	112	(5)
Total trading mortgage-backed securities	$781	$72	$—	$308	$(190)	$988	$—	$(1,187)	$—	$772	$31
U.S. Treasury and federal agency securities	$1	$—	$—	$—	$—	$—	$—	$(1)	$—	$—	$—
State and municipal	296	3	—	24	(48)	137	—	(142)	—	270	(1)
Foreign government	40	2	—	88	(204)	288	—	(119)	—	95	(1)
Corporate	324	320	—	132	(84)	424	—	(725)	—	391	167
Equity securities	127	212	—	135	(54)	38	—	(222)	—	236	20
Asset-backed securities	1,868	251	—	28	(87)	1,185	—	(1,541)	—	1,704	34
Other trading assets	2,814	(88)	—	470	(1,381)	2,002	5	(1,652)	(19)	2,151	29
Total trading non-derivative assets	$6,251	$772	$—	$1,185	$(2,048)	$5,062	$5	$(5,589)	$(19)	$5,619	$279
Trading derivatives, net[4]											
Interest rate contracts	$(663)	$4	$—	$(24)	$647	$90	$—	$(225)	$(30)	$(201)	$65
Foreign exchange contracts	413	(389)	—	54	(63)	32	—	(37)	138	148	(134)
Equity contracts	(1,557)	98	—	(34)	(8)	180	—	(263)	(264)	(1,848)	(22)
Commodity contracts	(1,945)	(576)	—	29	39	—	—	(3)	117	(2,339)	(255)
Credit derivatives	(1,001)	(535)	—	(43)	91	5	—	2	540	(941)	(197)
Total trading derivatives, net[4]	$(4,753)	$(1,398)	$—	$(18)	$706	$307	$—	$(526)	$501	$(5,181)	$(543)
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$101	$—	$15	$1	$(60)	$—	$—	$—	$—	$57	$30
Residential	50	—	2	—	(47)	—	—	(5)	—	—	—

Commercial	—	—	—	3	—	8	—	(8)	—	3	—	
Total investment mortgage-backed securities	$151	$—	$17	$4	$(107)	$8	$—	$(13)	$—	$60	$30	
U.S. Treasury and federal agency securities	$2	$—	$—	$—	$—	$—	$—	$(2)	$—	$—	$—	
State and municipal	1,211	—	37	70	(36)	92	—	(102)	—	1,272	35	
Foreign government	186	—	(47)	2	(37)	455	—	(258)	—	301	(5)	
Corporate	311	—	11	74	(6)	224	—	(494)	—	120	—	
Equity securities	9	—	(1)	—	—	—	—	(5)	—	3	—	
Asset-backed securities	660	—	(98)	23	(20)	864	—	(599)	—	830	(134)	
Other debt securities	—	—	—	—	—	21	—	(11)	—	10	—	
Non-marketable equity securities	1,331	—	(124)	2	—	10	—	(228)	(162)	829	49	
Total investments	$3,861	$—	$(205)	$175	$(206)	$1,674	$—	$(1,712)	$(162)	$3,425	$(25)	

Table continues on the next page.

In millions of dollars	Dec. 31, 2016	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2017	Unrealized gains (losses) still held[3]
Loans	$568	$ —	$ 57	$80	$(16)	$ 173	$ —	$(312)	$ (6)	$ 544	$ 266
Mortgage servicing rights	1,564	—	50	—	—	—	75	(1,046)	(90)	553	(40)
Other financial assets measured on a recurring basis	34	—	(147)	3	(8)	1	303	(8)	(164)	14	(68)
Liabilities											
Interest-bearing deposits	$293	$ —	$ 9	$40	$—	$ —	$ —	$—	$ (24)	$ 300	$ 6
Federal funds purchased and securities loaned or sold under agreements to repurchase	849	7	—	—	—	—	—	—	(77)	765	4
Trading account liabilities											
Securities sold, not yet purchased	1,177	49	0	—	18	(53)	—	—	265	(233)	684	24
Other trading liabilities	—	—	—	—	—	—	—	—	—	—	—	—
Short-term borrowings	42	18	—	4	(1)	—	31	—	(2)	56	7
Long-term debt	9,744	456	—	702	(1,457)	—	2,701	—	87	11,321	708
Other financial liabilities measured on a recurring basis	8	—	—	—	—	—	3	(1)	(8)	2	(1)

(1) Changes in fair value of available-for-sale investments are recorded in AOCI, 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 AOCI for changes in fair value of available-for-sale investments), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at September 30, 2017.

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

In millions of dollars	Jun. 30, 2016	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1]	Transfers into Level 3[2]	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2016	Unrealized gains (losses) still held[3]
Assets											
Federal funds sold and securities borrowed or purchased under agreements to resell	$1,819	$(6)	$—	$—	$—	$5	$—	$—	$(505)	$1,313	$(3)
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	730	1	—	67	(387)	96	—	(286)	7	228	—
Residential	801	116	—	5	(66)	18	—	(433)	—	441	(58)
Commercial	390	2	—	1	(107)	309	—	(151)	—	444	6
Total trading mortgage-backed securities	$1,921	$119	$—	$73	$(560)	$423	$—	$(870)	$7	$1,113	$(52)
U.S. Treasury and federal agency securities	$3	$—	$—	$—	$—	$—	$—	$(2)	$—	$1	$—
State and municipal	117	18	—	118	(37)	56	—	(115)	—	157	(1)
Foreign government	81	(19)	—	—	—	24	—	(23)	—	63	1
Corporate	405	39	—	49	(26)	414	—	(208)	12	685	(31)
Equity securities	3,970	348	—	12	(811)	102	—	(61)	—	3,560	(371)
Asset-backed securities	2,670	47	—	38	(42)	783	—	(747)	—	2,749	(58)
Other trading assets	2,839	12	—	296	(897)	966	9	(628)	(17)	2,580	(63)
Total trading non-derivative assets	$12,006	$564	$—	$586	$(2,373)	$2,768	$9	$(2,654)	$2	$10,908	$(575)
Trading derivatives, net[4]											
Interest rate contracts	$(374)	$(82)	$—	$(59)	$77	$5	$—	$(37)	$(93)	$(563)	$(143)
Foreign exchange contracts	(29)	10	—	69	(13)	52	—	(50)	50	89	149
Equity contracts	(1,071)	29	—	14	123	17	—	(28)	(51)	(967)	(189)
Commodity contracts	(2,017)	(76)	—	(379)	74	3	—	5	91	(2,299)	(285)
Credit derivatives	(754)	(651)	—	32	26	(4)	—	(35)	367	(1,019)	450
Total trading derivatives, net[4]	$(4,245)	$(770)	$—	$(323)	$287	$73	$—	$(145)	$364	$(4,759)	$(18)
Investments											
Mortgage-backed securities											
U.S. government-sponsored agency guaranteed	$94	$—	$(4)	$3	$(10)	$6	$—	$—	$—	$89	$(1)

Residential	25	—	1	49	—	1	—	(23)	—	53	—	
Commercial	5	—	(1)	—	(4)	—	—	—	—	—	—	
Total investment mortgage-backed securities	$124	$—	$(4)	$52	$(14)	$7	$—	$(23)	$—	$142	$(1)	
U.S. Treasury and federal agency securities	$3	$—	$—	$—	$—	$—	$—	$(1)	$—	$2	$—	
State and municipal	2,016	—	(54)	5	(338)	60	—	(33)	—	1,656	40	
Foreign government	141	—	(14)	5	—	42	—	(29)	—	145	(5)	
Corporate	460	—	42	1	(18)	412	—	(8)	(365)	524	(1)	
Equity securities	128	—	11	—	—	—	—	(129)	—	10	—	
Asset-backed securities	597	—	(88)	3	(25)	121	—	(7)	81	682	88	
Other debt securities	5	—	—	10	—	1	—	(5)	—	11	—	
Non-marketable equity securities	1,139	—	54	53	(23)	1	—	(14)	(29)	1,181	(9)	
Total investments	$4,613	$—	$(53)	$129	$(418)	$644	$—	$(249)	$(313)	$4,353	$112	

In millions of dollars	Jun. 30, 2016	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2016	Unrealized gains (losses) still held[3]
Loans	$1,234	$ —	$ 89	$24	$(196)	$ 93	$ —	$(137)	$ (25)	$1,082	$ (179)
Mortgage servicing rights	1,324	—	13	—	—	—	43	(32)	(78)	1,270	15
Other financial assets measured on a recurring basis	111	—	31	1	(41)	1	72	(4)	(105)	66	(69)
Liabilities											
Interest-bearing deposits	$433	$ —	$ 41	$—	$(100)	$ —	$ —	$—	$ (32)	$260	$ 42
Federal funds purchased and securities loaned or sold under agreements to repurchase	1,107	10	—	—	(150)	—	—	11	(35)	923	8
Trading account liabilities											
Securities sold, not yet purchased	12	(30)	—	21	(42)	(9)	—	142	5	159	(30)
Other Trading Liabilities	—	—	—	1	—	—	—	—	—	1	—
Short-term borrowings	53	(9)	—	1	(32)	—	15	—	(14)	32	2
Long-term debt	9,138	(191)	—	947	(1,550)	—	1,719	—	(1,263)	9,182	(191)
Other financial liabilities measured on a recurring basis	5	—	(26)	2	—	(1)	—	—	—	32	(2)

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In millions of dollars	Dec. 31, 2015	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2016	Unrealized gains (losses) still held[3]
Assets											
Federal funds sold and securities borrowed or purchased under agreements to resell	$1,337	$2	$—	$—	$(28)	$508	$—	$—	$(506)	$1,313	$3
Trading non-derivative assets											
Trading mortgage-backed securities											
U.S. government-sponsored agency guaranteed	744	13	—	485	(969)	857	—	(920)	18	228	4
Residential	1,326	104	—	134	(153)	275	—	(1,239)	(6)	441	23
Commercial	517	15	—	180	(209)	661	—	(720)	—	444	(23)
Total trading mortgage-backed securities	$2,587	$132	$—	$799	$(1,331)	$1,793	$—	$(2,879)	$12	$1,113	$4
U.S. Treasury and federal agency securities	$1	$—	$—	$2	$—	$—	$—	$(2)	$—	$1	$—
State and municipal	351	26	—	136	(253)	224	—	(327)	—	157	—
Foreign government	197	(27)	—	2	(17)	99	—	(191)	—	63	(2)
Corporate	376	323	—	129	(102)	748	—	(796)	7	685	58
Equity securities	3,684	(187)	—	279	(871)	851	—	(196)	—	3,560	(125)
Asset-backed securities	2,739	181	—	195	(237)	1,969	—	(2,098)	—	2,749	87
Other trading assets	2,483	(104)	—	1,754	(2,379)	2,323	7	(1,468)	(36)	2,580	136
Total trading non-derivative assets	$12,418	$344	$—	$3,296	$(5,190)	$8,007	$7	$(7,957)	$(17)	$10,908	$158
Trading derivatives, net[4]											
Interest rate contracts	$(495)	$(408)	$—	$250	$116	$147	$(18)	$(140)	$(15)	$(563)	$84
Foreign exchange contracts	620	(667)	—	73	(73)	158	—	(141)	119	89	(428)
Equity contracts	(800)	137	—	78	(305)	63	38	(99)	(79)	(967)	191
Commodity contracts	(1,861)	(357)	—	(428)	48	359	—	(347)	287	(2,299)	11
Credit derivatives	307	(1,803)	—	(82)	3	38	—	(35)	553	(1,019)	(1,272)
Total trading derivatives, net[4]	$(2,229)	$(3,098)	$—	$(109)	$(211)	$765	$20	$(762)	$865	$(4,759)	$(1,414)
Investments											
Mortgage-backed securities	$139	$—	$(29)	$15	$(72)	$46	$—	$(9)	$(1)	$89	$49

U.S. government-sponsored agency guaranteed												
Residential	4	—	2	49	—	26	—	(28)	—	53	1	
Commercial	2	—	(1)	6	(7)	—	—	—	—	—	—	
Total investment mortgage-backed securities	$145	$—	$(28)	$70	$(79)	$72	$—	$(37)	$(1)	$142	$50	
U.S. Treasury and federal agency securities	$4	$—	$—	$—	$—	$—	$—	$(2)	$—	$2	$—	
State and municipal	2,192	—	108	396	(1,121)	300	—	(219)	—	1,656	45	
Foreign government	260	—	5	38	—	145	—	(300)	(3)	145	1	
Corporate	603	—	87	6	(63)	506	—	(250)	(365)	524	1	
Equity securities	124	—	11	4	—	—	—	(129)	—	10	—	
Asset-backed securities	596	—	(53)	3	(48)	325	—	(222)	81	682	(35)	
Other debt securities	—	—	—	10	—	6	—	(5)	—	11	—	
Non-marketable equity securities	1,135	—	78	104	(23)	19	—	(14)	(118)	1,181	29	
Total investments	$5,059	$—	$208	$631	$(1,334)	$1,373	$—	$(1,178)	$(406)	$4,353	$91	

In millions of dollars	Dec. 31, 2015	Net realized/unrealized gains (losses) incl. in Principal transactions	Other[1][2]	Transfers into Level 3	Transfers out of Level 3	Purchases	Issuances	Sales	Settlements	Sept. 30, 2016	Unrealized gains (losses) still held[3]
Loans	$2,166	$ —	$ 31	$113	$(734)	$ 663	$ 219	$(812)	$ (564)	$1,082	$ 383
Mortgage servicing rights	1,781	—	(349)	—	—	—	111	(18)	(255)	1,270	(154)
Other financial assets measured on a recurring basis	180	—	64	41	(46)	1	202	(128)	(248)	66	(260)
Liabilities											
Interest-bearing deposits	$434	$ —	$ 76	$322	$(309)	$ —	$ 5	$—	$ (116)	$260	$ 42
Federal funds purchased and securities loaned or sold under agreements to repurchase	1,247	(11)	—	—	(150)	—	—	27	(212)	923	(24)
Trading account liabilities											
Securities sold, not yet purchased	199	(16)	—	118	(85)	(70)	(41)	212	(190)	159	(61)
Other Trading Liabilities	—	—	—	1	—	—	—	—	—	1	—
Short-term borrowings	9	(36)	—	18	(36)	—	56	—	(51)	32	2
Long-term debt	7,543	(21)	7	2,168	(3,393)	—	4,591	61	(2,005)	9,182	(277)
Other financial liabilities measured on a recurring basis	14	—	(33)	2	(10)	(7)	2	—	(2)	32	(7)

(1) Changes in fair value of available-for-sale investments are recorded in AOCI, 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 AOCI for changes in fair value of available-for-sale investments), attributable to the change in fair value relating to assets and liabilities classified as Level 3 that are still held at September 30, 2016.

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

Level 3 Fair Value Rollforward

There were no significant Level 3 transfers for the period June 30, 2017 to September 30, 2017:

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

- Transfers of Long-term debt of $0.7 billion from Level 2 to Level 3, and of $1.5 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 $0.5 billion from Level 2 to Level 3, and of $1.4 billion from Level 3 to Level 2, related to trading loans, reflecting changes in the volume of market quotations and significance of unobservable inputs as well as certain underlying market inputs becoming less or more observable.

The following were the significant Level 3 transfers for the period June 30, 2016 to September 30, 2016.

- Transfers of Other trading assets of $0.3 billion from Level 2 to Level 3, and of $0.9 billion from Level 3 to Level 2, related to trading loans, reflecting changes in volume of market quotations.
-

Transfers of Long-term debt of $0.9 billion from Level 2 to Level 3, and of $1.6 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.

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

- Transfers of Trading mortgage-backed securities of $0.8 billion from Level 2 to Level 3, and of $1.3 billion from Level 3 to Level 2, related to Agency Guaranteed MBS securities, reflecting changes in the volume of market quotations.
- Transfers of Other trading assets of $1.8 billion from Level 2 to Level 3, and of $2.4 billion from Level 3 to Level 2, related to trading loans, reflecting changes in the volume of market quotations.
- Transfers of Long-term debt of $2.2 billion from Level 2 to Level 3, and of $3.4 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 State and municipal investments of $1.1 billion from Level 3 to Level 2, mainly related to changes in the volume of market quotations.

Valuation Techniques and Inputs for Level 3 Fair Value Measurements

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

As of September 30, 2017	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	$ 664	Model-based	IR Normal Volatility	26.85 %	77.79 %	64.45 %
Mortgage-backed securities	$ 480	Price-based	Price	$5.90	$102.90	$73.64
	339	Yield Analysis	Yield	1.55 %	13.72 %	4.96 %
Non-mortgage debt securities	$ 2,830	Price-based	Price	$21.03	$108.46	$88.99
	$ 1,535	Model-based	Credit Spread	35 bps	375 bps	233 bps
			Yield	2.17 %	16.04 %	5.92 %
Equity securities[5]	$ 156	Price-based	Price	$0.09	$1,402.80	$640.33
	$ 80	Model-based				
Asset-backed securities	$ 2,387	Price-based	Price	$36.50	$100.00	$85.34
Non-marketable equity	$ 502	Comparable Analysis	EBITDA Multiples	7.30 x	13.3 x	8.94 x
	283	Price-based	Discount to price	— %	100.00 %	9.71 %
			Price to book ratio	0.05 x	1.12 x	0.85 x
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 3,679	Model-based	IR Normal Volatility	10.36 %	79.60 %	59.26 %
			Mean Reversion	1.00 %	20.00 %	10.50 %
Foreign exchange contracts (gross)	$ 906	Model-based	FX Volatility	5.98 %	20.23 %	10.45 %
			IR Basis	(0.99)%	0.38 %	(0.04)%
			Credit Spread	0.00 bps	602 bps	168 bps
			IR-IR Correlation	(51.00)%	40.00 %	35.65 %
			IR-FX Correlation	(10.09)%	60.00 %	49.13 %

Equity contracts (gross)	$ 2,977	Model-based	Equity Volatility	3.00	% 54.00	% 24.61	%
			Forward Price	69.30	% 114.48	% 94.45	%
Commodity and other contracts (gross)	$ 2,939	Model-based	Forward Price	41.12	% 405.15	% 141.97	%
			Commodity Volatility	8.99	% 49.49	% 27.04	%
			Commodity Correlation	(38.81)	% 90.59	% 37.73	%
Credit derivatives (gross)	$ 2,187	Model-based	Recovery Rate	12.22	% 55.00	% 36.93	%
	949	Price-based	Credit Correlation	10.00	% 85.00	% 42.46	%
			Upfront Points	10.94	% 99.00	% 68.80	%
			Credit Spread	2 bps	1,407 bps	112 bps	

As of September 30, 2017	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (Gross)	$ 16	Model-based	Redemption Rate	10.70 %	99.50 %	74.48 %
Loans and leases	$ 388	Model-based	Price	$29.16	$146.83	$137.53
	150	Price-based	Yield	2.53 %	3.09 %	3.02 %
Mortgage servicing rights	$ 465	Cash flow	Yield	8.00 %	18.96 %	12.59 %
	88	Model-based	WAL	4.06 years	7.30 years	6.02 years
Liabilities						
Interest-bearing deposits	$ 300	Model-based	Mean Reversion	1.00 %	20.00 %	10.50 %
			Forward Price	99.08 %	99.65 %	99.13 %
Federal funds purchased and securities loaned or sold under agreement to repurchase	$ 765	Model-based	Interest Rate	1.11 %	2.17 %	2.00 %
Trading account liabilities						
Securities sold, not yet purchased	$ 612	Model-based	IR Normal Volatility	26.85 %	77.79 %	64.45 %
Short-term borrowings and long-term debt	$ 11,377	Model-based	Forward Price	69.30 %	193.63 %	105.10 %

As of December 31, 2016	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
Assets						
Federal funds sold and securities borrowed or purchased under agreements to resell	$ 1,496	Model-based	IR Log-Normal Volatility	12.86 %	75.50 %	61.73 %
			Interest Rate	(0.51)%	5.76 %	2.80 %
Mortgage-backed securities	$ 509	Price-based	Price	$5.50	$113.48	$61.74
	368	Yield analysis	Yield	1.90 %	14.54 %	4.34 %
State and municipal, foreign government, corporate and other debt securities	$ 3,308	Price-based	Price	$15.00	$103.60	$89.93
	1,513	Cash flow	Credit Spread	35 bps	600 bps	230 bps
Equity securities[5]	$ 69	Model-based	Price	$0.48	$104.00	$22.19
	58	Price-based				
Asset-backed securities	$ 2,454	Price-based	Price	$4.00	$100.00	$71.51
Non-marketable equity	$ 726	Price-based	Discount to Price	—	90.00 %	13.36 %
	565	Comparables analysis	EBITDA Multiples	6.80 x	10.10 x	8.62 x
			Price-to-Book Ratio	0.32 x	1.03 x	0.87 x
			Price	$—	$113.23	$54.40
Derivatives—gross[6]						
Interest rate contracts (gross)	$ 4,897	Model-based	IR Log-Normal Volatility	1.00 %	93.97 %	62.72 %

			Mean Reversion	1.00	%	20.00	%	10.50 %
Foreign exchange contracts (gross)	$ 1,110	Model-based	Foreign Exchange (FX) Volatility	1.39	%	26.85	%	15.18 %
	134	Cash flow	IR Basis	(0.85	)%	(0.49	)%	(0.84)%
			Credit Spread	4 bps		657 bps		266 bps
			IR-IR Correlation	40.00	%	50.00	%	41.27 %
			IR-FX Correlation	16.41	%	60.00	%	49.52 %
Equity contracts (gross)[7]	$ 2,701	Model-based	Equity Volatility	3.00	%	97.78	%	29.52 %
			Forward Price	69.05	%	144.61	%	94.28 %
			Equity-FX Correlation	(60.70	)%	28.20	%	(26.28)%
			Equity-IR Correlation	(35.00	)%	41.00	%	(15.65)%

As of December 31, 2016	Fair value[1] (in millions)	Methodology	Input	Low[2][3]	High[2][3]	Weighted average[4]
			Yield Volatility	3.55 %	14.77 %	9.29 %
			Equity-Equity Correlation	(87.70)%	96.50 %	67.45 %
Commodity contracts (gross)	$ 2,955	Model-based	Forward Price	35.74 %	235.35 %	119.99 %
			Commodity Volatility	2.00 %	32.19 %	17.07 %
			Commodity Correlation	(41.61)%	90.42 %	52.85 %
Credit derivatives (gross)	$ 2,786	Model-based	Recovery Rate	20.00 %	75.00 %	39.75 %
	1,403	Price-based	Credit Correlation	5.00 %	90.00 %	34.27 %
			Upfront Points	6.00 %	99.90 %	72.89 %
			Price	$1.00	$167.00	$77.35
			Credit Spread	3 bps	1,515 bps	256 bps
Nontrading derivatives and other financial assets and liabilities measured on a recurring basis (gross)[6]	$ 42	Model-based	Recovery Rate	40.00 %	40.00 %	40.00 %
			Redemption Rate	3.92 %	99.58 %	74.69 %
			Upfront Points	16.00 %	20.50 %	18.78 %
Loans	$ 258	Price-based	Price	$31.55	$105.74	$56.46
	221	Yield analysis	Yield	2.75 %	20.00 %	11.09 %
	79	Model-based				
Mortgage servicing rights	$ 1,473	Cash flow	Yield	4.20 %	20.56 %	9.32 %
			WAL	3.53 years	7.24 years	5.83 years
Liabilities						
Interest-bearing deposits	$ 293	Model-based	Mean Reversion	1.00 %	20.00 %	10.50 %
			Forward Price	98.79 %	104.07 %	100.19 %
Federal funds purchased and securities loaned or sold under agreements to repurchase	$ 849	Model-based	Interest Rate	0.62 %	2.19 %	1.99 %
Trading account liabilities						
Securities sold, not yet purchased	$ 1,056	Model-based	IR Normal Volatility	12.86 %	75.50 %	61.73 %
Short-term borrowings and long-term debt	$ 9,774	Model-based	Mean Reversion	1.00 %	20.00 %	10.50 %
			Commodity Correlation	(41.61)%	90.42 %	52.85 %
			Commodity Volatility	2.00 %	32.19 %	17.07 %
			Forward Price	69.05 %	235.35 %	103.28 %

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

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

(3) When the low and high inputs are the same, there is either a constant input applied to all positions, or the methodology involving the input applies to only one large position.
(4) Weighted averages are calculated based on the fair values of the instruments.
(5) For equity securities, the price inputs are expressed on an absolute basis, not as a percentage of the notional amount.
(6) Both trading and nontrading account derivatives—assets and liabilities—are presented on a gross absolute value basis.
(7) Includes hybrid products.

Items Measured at Fair Value on a Nonrecurring Basis

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

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

In millions of dollars	Fair value	Level 2	Level 3
September 30, 2017			
Loans held-for-sale[(1)]	$3,211	$1,039	$2,172
Other real estate owned	52	9	43
Loans[(2)]	718	267	451
Total assets at fair value on a nonrecurring basis	$3,981	$1,315	$2,666
In millions of dollars	Fair value	Level 2	Level 3
December 31, 2016			
Loans held-for-sale[(1)]	$5,802	$3,389	$2,413
Other real estate owned	75	15	60
Loans[(2)]	1,376	586	790
Total assets at fair value on a nonrecurring basis	$7,253	$3,990	$3,263

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

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

Valuation Techniques and Inputs for Level 3 Nonrecurring Fair Value Measurements

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

As of September 30, 2017	Fair value[1] (in millions)	Methodology	Input	Low[2]	High	Weighted average[3]
Loans held-for-sale	$ 2,114	Price-based	Price	$87.73	$100.00	$98.96
Other real estate owned	$ 41	Price-based	Appraised Value	$20,291	$4,491,044	$1,967,435
			Discount to price	34.00 %	34.00 %	34.00 %
			Price	$30.00	$54.49	$53.48
Loans[5]	$ 231	Recovery Analysis	Recovery Rate	48.00 %	91.97 %	65.20 %
	155	Cashflow	Appraised Value	$70.00	$88.05	$79.61
	50	Price-based	Price	$2.75	$100.00	$128.92

As of December 31, 2016	Fair value[1] (in millions)	Methodology	Input	Low[2]	High	Weighted average[3]
Loans held-for-sale	$ 2,413	Price-based	Price	$—	$100.00	$93.08
Other real estate owned	$ 59	Price-based	Discount to price[4]	0.34 %	13.00 %	3.10 %
			Price	$64.65	$74.39	$66.21
Loans[5]	$ 431	Cash flow	Price	$3.25	$105.00	$59.61
	197	Recovery analysis	Forward price	$2.90	$210.00	$156.78
	135	Price-based	Discount to price[4]	0.25 %	13.00 %	8.34 %
			Appraised value	$25.80	$26,400,000	$6,462,735

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

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

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

(4) Includes estimated costs to sell.

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

Nonrecurring Fair Value Changes

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

	Three Months Ended September 30,	
In millions of dollars	2017	2016
Loans held-for-sale	$10	$(17)
Other real estate owned	(4)	(4)
Loans[1]	(66)	(42)
Total nonrecurring fair value gains (losses)	$(60)	$(63)

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

In millions of dollars	Nine Months Ended September 30, 2017	2016
Loans held-for-sale	$11	$(15)
Other real estate owned	(4)	(6)
Loans[(1)]	(80)	(110)
Total nonrecurring fair value gains (losses)	$(73)	$(131)

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

Estimated Fair Value of Financial Instruments Not Carried at Fair Value

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

	September 30, 2017		Estimated fair value		
In billions of dollars	Carrying value	Estimated fair value	Level 1	Level 2	Level 3
Assets					
Investments	$58.1	$ 58.6	$0.3	$56.3	$2.0
Federal funds sold and securities borrowed or purchased under agreements to resell	96.3	96.3	—	90.7	5.6
Loans[1][2]	634.7	635.8	—	5.8	630.0
Other financial assets[2][3]	251.2	251.7	7.2	179.2	65.3
Liabilities					
Deposits	$962.5	$ 960.3	$—	$819.1	$141.2
Federal funds purchased and securities loaned or sold under agreements to repurchase	116.0	116.0	—	116.0	—
Long-term debt[4]	201.8	210.5	—	178.8	31.7
Other financial liabilities[5]	128.3	128.3	—	15.4	112.9

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

(1) The carrying value of loans is net of the Allowance for loan losses of $12.4 billion for September 30, 2017 and $12.1 billion for December 31, 2016. In addition, the carrying values exclude $1.8 billion and $1.9 billion of lease finance receivables at September 30, 2017 and December 31, 2016, 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 recoverables and other financial instruments included in Other assets on the Consolidated Balance Sheet, for all of which the carrying value is a reasonable estimate of fair value.

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

(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.

The estimated fair values of the Company’s corporate unfunded lending commitments at September 30, 2017 and December 31, 2016 were liabilities of $2.7 billion and $5.2 billion, respectively, substantially all of which are classified as Level 3. The Company does not estimate the fair values of consumer unfunded lending commitments, which are generally cancellable by providing notice to the borrower.

21. FAIR VALUE ELECTIONS

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

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

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

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

	Changes in fair value—gains (losses)			
	Three Months Ended September 30,		Nine Months Ended September 30,	
In millions of dollars	2017	2016	2017	2016
Assets				
Federal funds sold and securities borrowed or purchased under agreements to resell—selected portfolios	$(17)	$(54)	$(108)	$(7)
Trading account assets	581	571	1,243	509
Investments	—	(4)	(3)	(25)
Loans				
Certain corporate loans[1]	(61)	5	(42)	65
Certain consumer loans[1]	1	1	3	—
Total loans	$(60)	$6	$(39)	$65
Other assets				
MSRs	$(6)	$13	$50	$(349)
Certain mortgage loans held-for-sale[2]	34	100	115	271
Other assets	—	6	—	376
Total other assets	$28	$119	$165	$298
Total assets	$532	$638	$1,258	$840
Liabilities				
Interest-bearing deposits	$(16)	$(16)	$(60)	$(84)
Federal funds purchased and securities loaned or sold under agreements to repurchase—selected portfolios	97	32	183	24
Trading account liabilities	19	4	70	101
Short-term borrowings	(30)	(173)	(110)	(207)
Long-term debt	(198)	(305)	(669)	(845)
Total liabilities	$(128)	$(458)	$(586)	$(1,011)

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

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

Own Debt Valuation Adjustments (DVA)

Own debt valuation adjustments are recognized on Citi's liabilities for which the fair value option has been elected using Citi's credit spreads observed in the bond market. Effective January 1, 2016, changes in fair value of fair value option liabilities related to changes in Citigroup's own credit spreads (DVA) are reflected as a component of AOCI; previously these amounts were recognized in Citigroup's Revenues and Net income along with all other changes in fair value. See Note 1 to the Consolidated Financial Statements for additional information.

Among other variables, the fair value of liabilities for which the fair value option has been elected (other than non-recourse and similar liabilities) is impacted by the narrowing or widening of the Company's credit spreads. The estimated change in the fair value of these liabilities due to such changes in the Company's own credit spread (or instrument-specific credit risk) was a loss of $195 million and $319 million for the three months ended September 30, 2017 and 2016, and a loss of $422 million and a gain of $8 million for the nine months ended September 30, 2017 and 2016, respectively. Changes in fair value resulting from changes in instrument-specific credit risk were estimated by incorporating the Company's current credit spreads observable in the bond market into the relevant valuation technique used to value each liability as described above.

The Fair Value Option for Financial Assets and Financial Liabilities

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

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

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

Certain Loans and Other Credit Products

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

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

	September 30, 2017		December 31, 2016	
In millions of dollars	Trading assets	Loans	Trading assets	Loans
Carrying amount reported on the Consolidated Balance Sheet	$8,926	$4,308	$9,824	$3,486
Aggregate unpaid principal balance in excess of fair value	518	82	758	18
Balance of non-accrual loans or loans more than 90 days past due	—	1	—	1
	—	—	—	1

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

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In addition to the amounts reported above, $653 million and $1,828 million of unfunded commitments related to certain credit products selected for fair value accounting were outstanding as of September 30, 2017 and December 31, 2016, respectively.

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 nine months ended September 30, 2017 and 2016 due to instrument-specific credit risk totaled to a gain of $57 million and $83 million, respectively.

Certain Investments in Unallocated Precious Metals

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

As part of its commodity and foreign currency trading activities, Citi trades unallocated precious metals investments and executes forward purchase and forward sale derivative contracts with trading counterparties. When Citi sells an unallocated precious metals investment, Citi's receivable from its depository bank is repaid and Citi derecognizes its investment in the unallocated precious metal. The forward purchase or sale contract with the trading counterparty indexed to unallocated precious metals is accounted for as a derivative, at fair value through earnings. As of September 30, 2017, there were approximately $14.4 billion and $8.8 billion notional amounts of such forward purchase and forward sale derivative contracts outstanding, respectively.

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

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

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

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

Certain Mortgage Loans Held-for-Sale (HFS)

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

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

In millions of dollars

	September 30, 2017	December 31, 2016
Carrying amount reported on the Consolidated Balance Sheet	$ 448	$ 915
Aggregate fair value in excess of unpaid principal balance	15	8
Balance of non-accrual loans or loans more than 90 days past due	—	—
Aggregate unpaid principal balance in excess of fair value for non-accrual loans or loans more than 90 days past due	—	—

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

Certain Structured Liabilities

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

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

In billions of dollars	September 30, 2017	December 31, 2016
Interest rate linked	$ 13.1	$ 10.6
Foreign exchange linked	0.3	0.2
Equity linked	11.9	12.3
Commodity linked	1.2	0.3
Credit linked	2.3	0.9
Total	$ 28.8	$ 24.3

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

Certain Non-Structured Liabilities

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

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

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

In millions of dollars	September 30, 2017	December 31, 2016
Carrying amount reported on the Consolidated Balance Sheet	$ 30,826	$ 26,254
Aggregate unpaid principal balance in excess of (less than) fair value	12	(128)

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

In millions of dollars	September 30, 2017	December 31, 2016
Carrying amount reported on the Consolidated Balance Sheet	$ 4,827	$ 2,700
Aggregate unpaid principal balance in excess of (less than) fair value	21	(61)

22. GUARANTEES AND COMMITMENTS

Citi provides a variety of guarantees and indemnifications to its customers to enhance their credit standing and enable them to complete a wide variety of business transactions. For certain contracts meeting the definition of a guarantee, the guarantor must recognize, at inception, a liability for the fair value of the obligation undertaken in issuing the guarantee.

In addition, the guarantor must disclose the maximum potential amount of future payments that the guarantor could be required to make under the guarantee, if there were a total default by the guaranteed parties. The determination of the maximum potential future payments is based on the notional amount of the guarantees without consideration of possible recoveries under recourse provisions or from collateral held or pledged. As such, Citi believes such amounts bear no relationship to the anticipated losses, if any, on these guarantees.

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

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

	Maximum potential amount of future payments			
In billions of dollars at September 30, 2017 except carrying value in millions	Expire within 1 year	Expire after 1 year	Total amount outstanding	Carrying value (in millions of dollars)
Financial standby letters of credit	$27.0	$66.2	$ 93.2	$ 166
Performance guarantees	8.0	3.0	11.0	20
Derivative instruments considered to be guarantees	13.8	86.7	100.5	676
Loans sold with recourse	—	0.2	0.2	9
Securities lending indemnifications[1]	106.4	—	106.4	—
Credit card merchant processing[1][2]	82.6	—	82.6	—
Credit card arrangements with partners	0.1	1.3	1.4	205
Custody indemnifications and other	—	54.6	54.6	59
Total	$237.9	$212.0	$ 449.9	$ 1,135

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

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

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

(2) At September 30, 2017 and December 31, 2016, this maximum potential exposure was estimated to be $83 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.

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 $72 million and $107 million at September 30, 2017 and December 31, 2016, respectively, and these amounts are included in Other liabilities on the Consolidated Balance Sheet.

Credit card arrangements with partners

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

Other guarantees and indemnifications

Credit Card Protection Programs

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

Value-Transfer Networks

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

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

Long-Term Care Insurance Indemnification

In connection with the 2005 sale of certain insurance and annuity subsidiaries to MetLife Inc. (MetLife), the Company provided an indemnification for policyholder claims and other liabilities relating to a book of long-term care (LTC) business (for the entire term of the LTC policies) that is fully reinsured by subsidiaries of Genworth Financial Inc. (Genworth). In turn, Genworth has offsetting reinsurance agreements with MetLife and the Union Fidelity Life Insurance Company (UFLIC), a subsidiary of the General Electric Company. Genworth has funded two trusts with securities whose fair value (approximately $7.4 billion at September 30, 2017, compared to $7.0 billion at December 31, 2016) is designed to cover Genworth's statutory liabilities for the LTC policies. The trusts serve as collateral for Genworth's reinsurance obligations related to the MetLife LTC policies and MetLife Insurance Company USA is the sole beneficiary of the trusts. The assets in these trusts are evaluated and adjusted periodically to ensure that the fair value of the assets continues to cover the estimated statutory liabilities related to the LTC policies, as those statutory liabilities change over time.

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

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

Futures and over-the-counter derivatives clearing

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

As a clearing member, Citi collects and remits cash and securities collateral (margin) between its clients and the respective CCP. In certain circumstances, Citi collects a higher amount of cash (or securities) from its clients than it needs to remit to the CCPs. This excess cash is then held at depository institutions such as banks or carry brokers. There are two types of margin: initial margin and variation margin. Where Citi obtains benefits from or controls cash initial margin (e.g., retains an interest spread), cash initial margin collected from clients and remitted to the CCP, or depository institutions, is reflected within Brokerage payables (payables to customers) and Brokerage receivables (receivables from brokers, dealers and clearing organizations) or Cash and due from banks. However, for exchange-traded and OTC-cleared derivatives contracts where Citi does not obtain benefits from or control the client cash balances, the client cash initial margin collected from clients and remitted to the CCP or depository institutions is not reflected on Citi's Consolidated Balance Sheet. These conditions are met when Citi has contractually agreed with the client that (i) Citi will pass through to the client all interest paid by the CCP or depository institutions on the cash initial margin; (ii) Citi will not utilize its right as a clearing member to transform cash margin into other assets; (iii) Citi does not guarantee and is not liable to the client for the performance of the CCP or the depository institution; and (iv) the client cash balances are legally isolated from Citi's bankruptcy estate. The total amount of cash initial margin collected and remitted in this manner was approximately $10.6 billion and $9.4 billion as of September 30, 2017 and December 31, 2016, respectively.

Variation margin due from clients to the respective CCP, or from the CCP to clients, reflects changes in the value of the client's derivative contracts for each trading day. As a clearing member, Citi is exposed to the risk of nonperformance by clients (e.g., failure of a client to post variation margin to the CCP for negative changes in the value of the client's derivative contracts). In the event of non-performance by a client, Citi would move to close out the client's positions. The CCP would typically utilize initial margin posted by the client and held by the CCP, with any remaining shortfalls required to be paid by Citi as clearing member. Citi generally holds incremental cash or securities margin posted by the client, which would typically be expected to be sufficient to mitigate Citi's credit risk in the event the client fails to perform.

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

Carrying Value—Guarantees and Indemnifications

At September 30, 2017 and December 31, 2016, the total carrying amounts of the liabilities related to the guarantees and indemnifications included in the tables above amounted to approximately $1.1 billion and $1.2 billion The carrying value of financial and performance guarantees is included in Other liabilities. For loans sold with recourse, the carrying value of the liability is included in Other liabilities.

Collateral

Cash collateral available to Citi to reimburse losses realized under these guarantees and indemnifications amounted to $65 billion and $48 billion at September 30, 2017 and December 31, 2016, respectively. Securities and other marketable assets held as collateral amounted to $53 billion and $41 billion at September 30, 2017 and December 31, 2016, respectively. The majority of collateral is held to reimburse losses realized under securities lending indemnifications. Additionally, letters of credit in favor of Citi held as collateral amounted to $5.4 billion at both September 30, 2017 and December 31, 2016. Other property may also be available to Citi to cover losses under certain guarantees and indemnifications; however, the value of such property has not been determined.

Performance risk

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

In billions of dollars at September 30, 2017	Maximum potential amount of future payments			
	Investment-grade	Non-investment-grade	Not rated	Total
Financial standby letters of credit	$65.9	$ 13.2	$14.1	$93.2
Performance guarantees	7.2	3.0	0.8	11.0
Derivative instruments deemed to be guarantees	—	—	100.5	100.5
Loans sold with recourse	—	—	0.2	0.2
Securities lending indemnifications	—	—	106.4	106.4
Credit card merchant processing	—	—	82.6	82.6
Credit card arrangements with partners	—	—	1.4	1.4
Custody indemnifications and other	54.3	0.3	—	54.6
Total	$127.4	$ 16.5	$306.0	$449.9

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

Credit Commitments and Lines of Credit

The table below summarizes Citigroup's credit commitments:

In millions of dollars	U.S.	Outside of U.S.	September 30, 2017	December 31, 2016
Commercial and similar letters of credit	$756	$4,297	$ 5,053	$ 5,736
One- to four-family residential mortgages	1,352	1,831	3,183	2,838
Revolving open-end loans secured by one- to four-family residential properties	11,137	1,508	12,645	13,405
Commercial real estate, construction and land development	9,166	1,973	11,139	10,781
Credit card lines	579,285	100,624	679,909	664,335
Commercial and other consumer loan commitments	167,736	95,939	263,675	259,934
Other commitments and contingencies	2,115	1,325	3,440	3,202
Total	$771,547	$207,497	$ 979,044	$ 960,231

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.

Other commitments and contingencies

Other commitments and contingencies include all other transactions related to commitments and contingencies not reported on the lines above.

Unsettled reverse repurchase and securities lending agreements and unsettled repurchase and securities borrowing agreements

In addition, in the normal course of business, Citigroup enters into reverse repurchase and securities borrowing agreements, as well as repurchase and securities lending agreements, which settle at a future date. At September 30, 2017, and December 31, 2016, Citigroup had $44.8 billion and $43.1 billion of unsettled reverse repurchase and securities borrowing agreements, respectively, and $23.9 billion and $14.9 billion of unsettled repurchase and securities lending agreements, respectively. For a further discussion of securities purchased under agreements to resell and securities borrowed, and securities sold under agreements to repurchase and securities loaned, including the Company's policy for offsetting repurchase and reverse repurchase agreements, see Note 10.

23. CONTINGENCIES

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

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

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

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

Subject to the foregoing, it is the opinion of Citigroup's management, based on current knowledge and after taking into account its current legal accruals, that the eventual outcome of

all matters described in this Note would not be likely to have a material adverse effect on the consolidated financial condition of Citigroup. Nonetheless, given the substantial or indeterminate amounts sought in certain of these matters and the inherent unpredictability of such matters, an adverse outcome in certain of these matters could, from time to time, have a material adverse effect on Citigroup's consolidated results of operations or cash flows in particular quarterly or annual periods.

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

Credit Crisis-Related Litigation and Other Matters

Mortgage-Related Litigation and Other Matters

Mortgage-Backed Securities Trustee Actions: On July 28, 2017, Citibank filed an appeal with the New York State Supreme Court Appellate Division, First Department, appealing the portions of the June 27, 2017 New York State Supreme Court decision in FIXED INCOME SHARES: SERIES M, ET AL. v. CITIBANK, N.A. denying its motion to dismiss. Additional information concerning this action is publicly available in court filings under the docket number

653891/2015 (N.Y. Sup. Ct.) (Ramos, J.).

Lehman Brothers Bankruptcy Proceedings

On September 29, 2017, Lehman Brothers Holdings Inc. (LBHI) filed a motion for approval of a global settlement in LEHMAN BROTHERS HOLDINGS INC. ET AL. v. CITIBANK, N.A. ET AL. As part of the global settlement, Citibank will retain $350 million from LBHI's deposit at Citibank and return to LBHI and its affiliates all of the remaining deposited funds. In addition, LBHI will withdraw its remaining objections to the bankruptcy claims filed by Citibank and its affiliates. 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.).

Foreign Exchange Matters

Antitrust and Other Litigation: On August 3, 2017, in NYPL v. JPMORGAN CHASE & CO., ET AL., the court ruled that plaintiffs sufficiently alleged in their proposed amended complaint that they suffered antitrust injury and are appropriate plaintiffs to bring the suit. On August 10, 2017, plaintiffs filed an amended complaint. On August 24, 2017, defendants filed a renewed motion to dismiss or to certify the court's ruling for interlocutory appeal. 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 August 11, 2017, defendants filed a motion to dismiss plaintiffs' consolidated amended complaints in CONTANT ET AL. v. BANK OF AMERICA CORPORATION ET AL. and LAVENDER ET AL. v. BANK OF AMERICA CORPORATION ET AL. Additional information concerning these actions is publicly available in court filings under the

docket numbers 16 Civ. 7512 (S.D.N.Y.) (Schofield, J.), 17 Civ. 4392 (S.D.N.Y.) (Schofield, J.), and 17 Civ. 3139 (S.D.N.Y.) (Schofield, J.).

On August 18, 2017, in NEGRETE v. CITIBANK, N.A., the parties stipulated to voluntary dismissal of plaintiffs' sole remaining claim that was not dismissed in the court's February 27, 2017 order. On September 7, 2017, plaintiffs filed a notice of appeal to the United States Court of Appeals for the Second Circuit. Additional information concerning this action is publicly available in court filings under the docket numbers 15 Civ. 7250 (S.D.N.Y.) (Sweet, J.) and 17-2783 (2d Cir.).

On September 11, 2017, in ALPARI (US), LLC v. CITIGROUP INC. AND CITIBANK, N.A., plaintiff filed a notice of dismissal, dismissing its case against Citigroup and Citibank in its entirety without prejudice. The court approved the dismissal on September 12, 2017 and ordered the case closed. Additional information concerning this action is publicly available in court filings under the docket number 17 Civ. 5269 (S.D.N.Y.).

Interbank Offered Rates-Related Litigation and Other Matters

Antitrust and Other Litigation: On August 31, 2017, the court granted preliminary approval to a $130 million settlement with Citigroup and Citibank and the largest plaintiffs' class in IN RE LIBOR-BASED FINANCIAL INSTRUMENTS ANTITRUST LITIGATION, which consists of investors who purchased over-the-counter (OTC) derivatives from USD LIBOR panel banks. On October 11, 2017, the second largest plaintiffs' class, made up of investors who traded Eurodollar futures and options on exchanges, filed a motion for preliminary approval of settlements with certain defendants, including Citigroup and Citibank. Additional information concerning these actions and related actions and appeals is publicly available in court filings under the docket numbers 11 MD 2262 (S.D.N.Y.) (Buchwald, J.) and 17-1569 (2d Cir.).

On August 18, 2017, in FRONTPOINT ASIAN EVENT DRIVEN FUND, LTD ET AL. v. CITIBANK, N.A. ET AL., the court granted in part the defendants' motion to dismiss. The court dismissed all claims against foreign bank defendants, antitrust claims asserted by one of the two named plaintiffs, and all RICO, implied covenant, and unjust enrichment claims. The court allowed one antitrust claim to proceed against the U.S. bank defendants, including Citigroup and Citibank. Plaintiffs filed an amended complaint on September 18, 2017. On October 18, 2017, defendants filed a motion to dismiss the amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 16 Civ. 5263 (S.D.N.Y.) (Hellerstein, J.).

Sovereign Securities Matters

Antitrust and Other Litigation: In IN RE TREASURY SECURITIES AUCTION ANTITRUST LITIGATION, pursuant to a court-ordered stipulation, plaintiffs will file a consolidated amended complaint by November 15, 2017. Additional information concerning this action is publicly available in court filings under the docket number 15 MD 2673 (S.D.N.Y.) (Gardephe, J.).

On October 6, 2017, plaintiffs in IN RE SSA BONDS ANTITRUST LITIGATION filed a motion for leave to amend their complaint, along with a proposed second amended complaint. Additional information concerning this action is publicly available in court filings under the docket number 16 Civ. 03711 (S.D.N.Y.) (Ramos, J.).

Settlement Payments

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

24. CONDENSED CONSOLIDATING FINANCIAL STATEMENTS

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

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

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

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

Condensed Consolidating Statements of Income and Comprehensive Income

	Three Months Ended September 30, 2017				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$5,360	$—	$ —	$ (5,360)	$ —
Interest revenue	—	1,439	14,382	—	15,821
Interest revenue—intercompany	1,040	313	(1,353)	—	—
Interest expense	1,195	642	2,542	—	4,379
Interest expense—intercompany	240	581	(821)	—	—
Net interest revenue	$(395)	$529	$ 11,308	$ —	$ 11,442
Commissions and fees	$—	$1,284	$ 1,647	$ —	$ 2,931
Commissions and fees—intercompany	—	13	(13)	—	—
Principal transactions	610	688	872	—	2,170
Principal transactions—intercompany	168	(249)	81	—	—
Other income	(860)	649	1,841	—	1,630
Other income—intercompany	33	(21)	(12)	—	—
Total non-interest revenues	$(49)	$2,364	$ 4,416	$ —	$ 6,731
Total revenues, net of interest expense	$4,916	$2,893	$ 15,724	$ (5,360)	$ 18,173
Provisions for credit losses and for benefits and claims	$—	$(1)	$ 2,000	$ —	$ 1,999
Operating expenses					
Compensation and benefits	$(3)	$1,104	$ 4,203	$ —	$ 5,304
Compensation and benefits—intercompany	46	—	(46)	—	—
Other operating	(17)	457	4,427	—	4,867
Other operating—intercompany	8	517	(525)	—	—
Total operating expenses	$34	$2,078	$ 8,059	$ —	$ 10,171
Equity in undistributed income of subsidiaries	$(1,015)	$—	$ —	$ 1,015	$ —
Income (loss) from continuing operations before income taxes	$3,867	$816	$ 5,665	$ (4,345)	$ 6,003
Provision (benefit) for income taxes	(266)	324	1,808	—	1,866
Income (loss) from continuing operations	$4,133	$492	$ 3,857	$ (4,345)	$ 4,137
Loss from discontinued operations, net of taxes	—	—	(5)	—	(5)
Net income before attribution of noncontrolling interests	$4,133	$492	$ 3,852	$ (4,345)	$ 4,132
Noncontrolling interests	—	—	(1)	—	(1)
Net income (loss)	$4,133	$492	$ 3,853	$ (4,345)	$ 4,133
Comprehensive income					
Add: Other comprehensive income (loss)	$8	$(84)	$ (762)	$ 846	$ 8
Total Citigroup comprehensive income (loss)	$4,141	$408	$ 3,091	$ (3,499)	$ 4,141
Add: Other comprehensive income attributable to noncontrolling interests	$—	$—	$ 12	$ —	$ 12
Add: Net income attributable to noncontrolling interests	—	—	(1)	—	(1)
Total comprehensive income (loss)	$4,141	$408	$ 3,102	$ (3,499)	$ 4,152

Condensed Consolidating Statements of Income and Comprehensive Income

	Three Months Ended September 30, 2016				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$4,000	$—	$ —	$ (4,000)	$ —
Interest revenue	2	1,158	13,493	—	14,653
Interest revenue—intercompany	695	148	(843)	—	—
Interest expense	1,102	345	1,727	—	3,174
Interest expense—intercompany	61	401	(462)	—	—
Net interest revenue	$(466)	$560	$ 11,385	$ —	$ 11,479
Commissions and fees	$—	$1,062	$ 1,582	$ —	$ 2,644
Commissions and fees—intercompany	—	63	(63)	—	—
Principal transactions	(1,103)	1,600	1,741	—	2,238
Principal transactions—intercompany	977	(470)	(507)	—	—
Other income	482	51	866	—	1,399
Other income—intercompany	(501)	51	450	—	—
Total non-interest revenues	$(145)	$2,357	$ 4,069	$ —	$ 6,281
Total revenues, net of interest expense	$3,389	$2,917	$ 15,454	$ (4,000)	$ 17,760
Provisions for credit losses and for benefits and claims	$—	$—	$ 1,736	$ —	$ 1,736
Operating expenses					
Compensation and benefits	$26	$1,150	$ 4,027	$ —	$ 5,203
Compensation and benefits—intercompany	8	—	(8)	—	—
Other operating	(103)	444	4,860	—	5,201
Other operating—intercompany	133	379	(512)	—	—
Total operating expenses	$64	$1,973	$ 8,367	$ —	$ 10,404
Equity in undistributed income of subsidiaries	$120	$—	$ —	$ (120)	$ —
Income (loss) from continuing operations before income taxes	$3,445	$944	$ 5,351	$ (4,120)	$ 5,620
Provision (benefit) for income taxes	(395)	345	1,783	—	1,733
Income (loss) from continuing operations	$3,840	$599	$ 3,568	$ (4,120)	$ 3,887
Loss from discontinued operations, net of taxes	—	—	(30)	—	(30)
Net income (loss) before attribution of noncontrolling interests	$3,840	$599	$ 3,538	$ (4,120)	$ 3,857
Noncontrolling interests	—	(9)	26	—	17
Net income (loss)	$3,840	$608	$ 3,512	$ (4,120)	$ 3,840
Comprehensive income					
Add: Other comprehensive income (loss)	$(1,078)	$(133)	$ (1,003)	$ 1,136	$ (1,078)
Total Citigroup comprehensive income (loss)	$2,762	$475	$ 2,509	$ (2,984)	$ 2,762
Add: Other comprehensive income attributable to noncontrolling interests	$—	$—	$ 10	$ —	$ 10
Add: Net income attributable to noncontrolling interests	—	(9)	26	—	17
Total comprehensive income (loss)	$2,762	$466	$ 2,545	$ (2,984)	$ 2,789

Condensed Consolidating Statements of Income and Comprehensive Income

	Nine Months Ended September 30, 2017				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$11,625	$—	$ —	$ (11,625)	$ —
Interest revenue	—	3,870	41,575	—	45,445
Interest revenue—intercompany	2,909	847	(3,756)	—	—
Interest expense	3,549	1,584	6,848	—	11,981
Interest expense—intercompany	593	1,660	(2,253)	—	—
Net interest revenue	$(1,233)	$1,473	$ 33,224	$ —	$ 33,464
Commissions and fees	$—	$3,818	$ 4,809	$ —	$ 8,627
Commissions and fees—intercompany	(1)	123	(122)	—	—
Principal transactions	1,569	2,692	3,493	—	7,754
Principal transactions—intercompany	768	(641)	(127)	—	—
Other income	(2,500)	810	6,039	—	4,349
Other income—intercompany	71	6	(77)	—	—
Total non-interest revenues	$(93)	$6,808	$ 14,015	$ —	$ 20,730
Total revenues, net of interest expense	$10,299	$8,281	$ 47,239	$ (11,625)	$ 54,194
Provisions for credit losses and for benefits and claims	$—	$—	$ 5,378	$ —	$ 5,378
Operating expenses					
Compensation and benefits	$(18)	$3,578	$ 12,741	$ —	$ 16,301
Compensation and benefits—intercompany	97	—	(97)	—	—
Other operating	(333)	1,306	13,880	—	14,853
Other operating—intercompany	(41)	1,487	(1,446)	—	—
Total operating expenses	$(295)	$6,371	$ 25,078	$ —	$ 31,154
Equity in undistributed income of subsidiaries	$755	$—	$ —	$ (755)	$ —
Income (loss) from continuing operations before income taxes	$11,349	$1,910	$ 16,783	$ (12,380)	$ 17,662
Provision (benefit) for income taxes	(746)	800	5,470	—	5,524
Income (loss) from continuing operations	$12,095	$1,110	$ 11,313	$ (12,380)	$ 12,138
Loss from discontinued operations, net of taxes	—	—	(2)	—	(2)
Net income (loss) before attribution of noncontrolling interests	$12,095	$1,110	$ 11,311	$ (12,380)	$ 12,136
Noncontrolling interests	—	—	41	—	41
Net income (loss)	$12,095	$1,110	$ 11,270	$ (12,380)	$ 12,095
Comprehensive income					
Add: Other comprehensive income (loss)	$1,986	$(142)	$ (4,638)	$ 4,780	$ 1,986
Total Citigroup comprehensive income (loss)	$14,081	$968	$ 6,632	$ (7,600)	$ 14,081
Add: other comprehensive income attributable to noncontrolling interests	$—	$—	$ 82	$ —	$ 82
Add: Net income attributable to noncontrolling interests	—	—	41	—	41
Total comprehensive income (loss)	$14,081	$968	$ 6,755	$ (7,600)	$ 14,204

Condensed Consolidating Statements of Income and Comprehensive Income

	Nine Months Ended September 30, 2016				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Revenues					
Dividends from subsidiaries	$9,700	$—	$ —	$ (9,700)	$ —
Interest revenue	5	3,555	39,616	—	43,176
Interest revenue—intercompany	2,235	423	(2,658)	—	—
Interest expense	3,266	1,110	4,858	—	9,234
Interest expense—intercompany	140	1,246	(1,386)	—	—
Net interest revenue	$(1,166)	$1,622	$ 33,486	$ —	$ 33,942
Commissions and fees	$—	$3,141	$ 4,691	$ —	$ 7,832
Commissions and fees—intercompany	(19)	33	(14)	—	—
Principal transactions	(1,498)	3,857	3,535	—	5,894
Principal transactions—intercompany	1,018	(1,513)	495	—	—
Other income	(3,197)	178	8,214	—	5,195
Other income—intercompany	3,495	250	(3,745)	—	—
Total non-interest revenues	$(201)	$5,946	$ 13,176	$ —	$ 18,921
Total revenues, net of interest expense	$8,333	$7,568	$ 46,662	$ (9,700)	$ 52,863
Provisions for credit losses and for benefits and claims	$—	$—	$ 5,190	$ —	$ 5,190
Operating expenses					
Compensation and benefits	$18	$3,641	$ 12,329	$ —	$ 15,988
Compensation and benefits—intercompany	34	—	(34)	—	—
Other operating	377	1,242	13,689	—	15,308
Other operating—intercompany	213	1,008	(1,221)	—	—
Total operating expenses	$642	$5,891	$ 24,763	$ —	$ 31,296
Equity in undistributed income of subsidiaries	$2,773	$—	$ —	$ (2,773)	$ —
Income (loss) from continuing operations before income taxes	$10,464	$1,677	$ 16,709	$ (12,473)	$ 16,377
Provision (benefit) for income taxes	(875)	539	5,271	—	4,935
Income (loss) from continuing operations	$11,339	$1,138	$ 11,438	$ (12,473)	$ 11,442
Loss from discontinued operations, net of taxes	—	—	(55)	—	(55)
Net income (loss) before attribution of noncontrolling interests	$11,339	$1,138	$ 11,383	$ (12,473)	$ 11,387
Noncontrolling interests	—	(10)	58	—	48
Net income (loss)	$11,339	$1,148	$ 11,325	$ (12,473)	$ 11,339
Comprehensive income					
Add: Other comprehensive income (loss)	$2,166	$(28)	$ 171	$ (143)	$ 2,166
Total Citigroup comprehensive income (loss)	$13,505	$1,120	$ 11,496	$ (12,616)	$ 13,505
Add: Other comprehensive income attributable to noncontrolling interests	$—	$—	$ (13)	$ —	$ (13)
Add: Net income attributable to noncontrolling interests	—	(10)	58	—	48
Total comprehensive income (loss)	$13,505	$1,110	$ 11,541	$ (12,616)	$ 13,540

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Condensed Consolidating Balance Sheet

	September 30, 2017				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$—	$728	$21,876	$—	$22,604
Cash and due from banks—intercompany	179	3,791	(3,970)	—	—
Federal funds sold and resale agreements	—	202,366	50,242	—	252,608
Federal funds sold and resale agreements—intercompany	—	14,980	(14,980)	—	—
Trading account assets	—	137,196	121,711	—	258,907
Trading account assets—intercompany	215	1,208	(1,423)	—	—
Investments	28	162	354,484	—	354,674
Loans, net of unearned income	—	1,364	651,819	—	653,183
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for loan losses	—	—	(12,366)	—	(12,366)
Total loans, net	$—	$1,364	$639,453	$—	$640,817
Advances to subsidiaries	$132,197	$—	$(132,197)	$—	$—
Investments in subsidiaries	229,142	—	—	(229,142)	—
Other assets [1]	24,032	58,665	276,826	—	359,523
Other assets—intercompany	15,541	49,032	(64,573)	—	—
Total assets	$401,334	$469,492	$1,247,449	$(229,142)	$1,889,133
Liabilities and equity					
Deposits	$—	$—	$964,038	$—	$964,038
Deposits—intercompany	—	—	—	—	—
Federal funds purchased and securities loaned or sold	—	135,520	25,762	—	161,282
Federal funds purchased and securities loaned or sold—intercompany	—	19,127	(19,127)	—	—
Trading account liabilities	—	91,058	47,762	—	138,820
Trading account liabilities—intercompany	18	1,071	(1,089)	—	—
Short-term borrowings	246	3,221	34,682	—	38,149
Short-term borrowings—intercompany	—	63,197	(63,197)	—	—
Long-term debt	151,914	17,758	63,001	—	232,673
Long-term debt—intercompany	—	30,609	(30,609)	—	—
Advances from subsidiaries	17,947	—	(17,947)	—	—
Other liabilities	2,790	62,950	59,809	—	125,549
Other liabilities—intercompany	785	11,281	(12,066)	—	—
Stockholders' equity	227,634	33,700	196,430	(229,142)	228,622
Total liabilities and equity	$401,334	$469,492	$1,247,449	$(229,142)	$1,889,133

(1) Other assets for Citigroup parent company at September 30, 2017 included $17.8 billion of placements to Citibank and its branches, of which $16.0 billion had a remaining term of less than 30 days.

Condensed Consolidating Balance Sheet

	December 31, 2016				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Assets					
Cash and due from banks	$—	$870	$22,173	$—	$23,043
Cash and due from banks—intercompany	142	3,820	(3,962)	—	—
Federal funds sold and resale agreements	—	196,236	40,577	—	236,813
Federal funds sold and resale agreements—intercompany	—	12,270	(12,270)	—	—
Trading account assets	6	121,484	122,435	—	243,925
Trading account assets—intercompany	1,173	907	(2,080)	—	—
Investments	173	335	352,796	—	353,304
Loans, net of unearned income	—	575	623,794	—	624,369
Loans, net of unearned income—intercompany	—	—	—	—	—
Allowance for loan losses	—	—	(12,060)	—	(12,060)
Total loans, net	$—	$575	$611,734	$—	$612,309
Advances to subsidiaries	$143,154	$—	$(143,154)	$—	$—
Investments in subsidiaries	226,279	—	—	(226,279)	—
Other assets[1]	23,734	46,095	252,854	—	322,683
Other assets—intercompany	27,845	38,207	(66,052)	—	—
Total assets	$422,506	$420,799	$1,175,051	$(226,279)	$1,792,077
Liabilities and equity					
Deposits	$—	$—	$929,406	$—	$929,406
Deposits—intercompany	—	—	—	—	—
Federal funds purchased and securities loaned or sold	—	122,320	19,501	—	141,821
Federal funds purchased and securities loaned or sold—intercompany	—	25,417	(25,417)	—	—
Trading account liabilities	—	87,714	51,331	—	139,045
Trading account liabilities—intercompany	1,006	868	(1,874)	—	—
Short-term borrowings	—	1,356	29,345	—	30,701
Short-term borrowings—intercompany	—	35,596	(35,596)	—	—
Long-term debt	147,333	8,128	50,717	—	206,178
Long-term debt—intercompany	—	41,287	(41,287)	—	—
Advances from subsidiaries	41,258	—	(41,258)	—	—
Other liabilities	3,466	57,430	57,887	—	118,783
Other liabilities—intercompany	4,323	7,894	(12,217)	—	—
Stockholders' equity	225,120	32,789	194,513	(226,279)	226,143
Total liabilities and equity	$422,506	$420,799	$1,175,051	$(226,279)	$1,792,077

(1) Other assets for Citigroup parent company at December 31, 2016 included $20.7 billion of placements to Citibank and its branches, of which $6.8 billion had a remaining term of less than 30 days.

Condensed Consolidating Statement of Cash Flows

	Nine Months Ended September 30, 2017				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$15,381	$(15,237)	$(3,449)	$—	$(3,305)
Cash flows from investing activities of continuing operations					
Purchases of investments	$—	$—	$(151,362)	$—	$(151,362)
Proceeds from sales of investments	132	—	89,592	—	89,724
Proceeds from maturities of investments	—	—	67,166	—	67,166
Change in deposits with banks	—	10,972	(37,026)	—	(26,054)
Change in loans	—	—	(41,569)	—	(41,569)
Proceeds from sales and securitizations of loans	—	—	7,019	—	7,019
Proceeds from significant disposals	—	—	3,411	—	3,411
Change in federal funds sold and resales	—	(8,840)	(6,955)	—	(15,795)
Changes in investments and advances—intercompany	13,269	(5,439)	(7,830)	—	—
Other investing activities	—	—	(2,210)	—	(2,210)
Net cash provided by (used in) investing activities of continuing operations	$13,401	$(3,307)	$(79,764)	$—	$(69,670)
Cash flows from financing activities of continuing operations					
Dividends paid	$(2,639)	$—	$—	$—	$(2,639)
Treasury stock acquired	(9,071)	—	—	—	(9,071)
Proceeds (repayments) from issuance of long-term debt, net	6,665	4,385	11,458	—	22,508
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	(1,300)	1,300	—	—
Change in deposits	—	—	34,632	—	34,632
Change in federal funds purchased and repos	—	6,910	12,551	—	19,461
Change in short-term borrowings	44	1,865	5,539	—	7,448
Net change in short-term borrowings and other advances—intercompany	(23,342)	6,573	16,769	—	—
Capital contributions from parent	—	(60)	60	—	—
Other financing activities	(402)	—	—	—	(402)
Net cash provided by (used in) financing activities of continuing operations	$(28,745)	$18,373	$82,309	$—	$71,937
Effect of exchange rate changes on cash and due from banks	$—	$—	$599	$—	$599
Change in cash and due from banks	$37	$(171)	$(305)	$—	$(439)
Cash and due from banks at beginning of period	142	4,690	18,211	—	23,043
Cash and due from banks at end of period	$179	$4,519	$17,906	$—	$22,604
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (received) during the year for income taxes	$(772)	$470	$3,016	$—	$2,714
Cash paid during the year for interest	3,319	3,175	5,110	—	11,604

Non-cash investing activities					
Transfers to loans HFS from loans	$—	$—	$ 3,800	$	—$ 3,800
Transfers to OREO and other repossessed assets	—	—	85	—	85

Condensed Consolidating Statement of Cash Flows

	Nine Months Ended September 30, 2016				
In millions of dollars	Citigroup parent company	CGMHI	Other Citigroup subsidiaries and eliminations	Consolidating adjustments	Citigroup consolidated
Net cash provided by (used in) operating activities of continuing operations	$16,685	$5,285	$6,364	$—	$28,334
Cash flows from investing activities of continuing operations					
Purchases of investments	$—	$—	$(155,804)	$—	$(155,804)
Proceeds from sales of investments	229	—	98,943	—	99,172
Proceeds from maturities of investments	61	—	52,546	—	52,607
Change in deposits with banks	—	(1,464)	(18,910)	—	(20,374)
Change in loans	—	—	(42,163)	—	(42,163)
Proceeds from sales and securitizations of loans	—	—	12,676	—	12,676
Proceeds from significant disposals	—	—	265	—	265
Change in federal funds sold and resales	—	(12,398)	(3,972)	—	(16,370)
Changes in investments and advances—intercompany	(14,378)	(23)	14,401	—	—
Other investing activities	2,962	—	(4,587)	—	(1,625)
Net cash used in investing activities of continuing operations	$(11,126)	$(13,885)	$(46,605)	$—	$(71,616)
Cash flows from financing activities of continuing operations					
Dividends paid	$(1,517)	$—	$—	$—	$(1,517)
Issuance of preferred stock	2,498	—	—	—	2,498
Treasury stock acquired	(5,167)	—	—	—	(5,167)
Proceeds (repayments) from issuance of long-term debt, net	1,613	4,196	(2,806)	—	3,003
Proceeds (repayments) from issuance of long-term debt—intercompany, net	—	(12,533)	12,533	—	—
Change in deposits	—	—	32,365	—	32,365
Change in federal funds purchased and repos	—	12,251	(5,623)	—	6,628
Change in short-term borrowings	(163)	1,251	7,360	—	8,448
Net change in short-term borrowings and other advances—intercompany	(2,503)	(726)	3,229	—	—
Capital contributions from parent	—	5,000	(5,000)	—	—
Other financing activities	(313)	—	—	—	(313)
Net cash provided by (used in) financing activities of continuing operations	$(5,552)	$9,439	$42,058	$—	$45,945
Effect of exchange rate changes on cash and due from banks	$—	$—	$(144)	$—	$(144)
Change in cash and due from banks	$7	$839	$1,673	$—	$2,519
Cash and due from banks at beginning of period	124	1,995	18,781	—	20,900
Cash and due from banks at end of period	$131	$2,834	$20,454	$—	$23,419
Supplemental disclosure of cash flow information for continuing operations					
Cash paid (refund) during the year for income taxes	$(265)	$81	$3,039	$—	$2,855

Cash paid during the year for interest	3,402	2,378	3,980	—	9,760
Non-cash investing activities					
Transfers to loans HFS from loans	$—	$—	$ 8,600	$ —	$ 8,600
Transfers to OREO and other repossessed assets	—	—	138	—	138

UNREGISTERED SALES OF EQUITY SECURITIES, PURCHASES OF EQUITY SECURITIES AND DIVIDENDS

Unregistered Sales of Equity Securities
None.

Equity Security Repurchases
The following table summarizes Citi's equity security repurchases, which consisted entirely of common stock repurchases:

In millions, except per share amounts	Total shares purchased	Average price paid per share	Approximate dollar value of shares that may yet be purchased under the plan or programs
July 2017			
Open market repurchases[1]	25.5	$ 67.33	$ 13,884
Employee transactions[2]	—	—	N/A
August 2017			
Open market repurchases[1]	31.0	67.84	11,782
Employee transactions[2]	—	—	N/A
September 2017			
Open market repurchases[1]	24.1	69.26	10,110
Employee transactions[2]	—	—	N/A
Total for 3Q17 and remaining program balance as of September 30, 2017	80.6	$ 68.10	$ 10,110

(1) Represents repurchases under the $15.6 billion 2017 common stock repurchase program (2017 Repurchase Program) that was approved by Citigroup's Board of Directors and announced on June 28, 2017. The 2017 Repurchase Program was part of the planned capital actions included by Citi in its 2017 Comprehensive Capital Analysis and Review (CCAR). Shares repurchased under the 2017 Repurchase Program were added to treasury stock.

(2) Consisted of shares added to 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.

N/A Not applicable

Dividends
In addition to Board of Directors' approval, Citi's ability to pay common stock dividends substantially depends on regulatory approval, including an annual regulatory review of the results of the CCAR process required by the Federal Reserve Board and the supervisory stress tests required under the Dodd-Frank Act. For additional information regarding Citi's capital planning and stress testing, see "Capital Resources—Current Regulatory Capital Standards—Capital Planning and Stress Testing" and "Risk Factors—Strategic Risks" in Citi's 2016 Annual Report on Form 10-K. Any dividend on Citi's outstanding common stock would also need to be made in compliance with Citi's obligations to its outstanding preferred stock.
For information on the ability of Citigroup's subsidiary depository institutions to pay dividends, see Note 18 to the Consolidated Financial Statements in Citi's 2016 Annual Report on Form 10-K.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 31st day of October, 2017.

CITIGROUP INC.
(Registrant)

By /s/ John C. Gerspach
John C. Gerspach
Chief Financial Officer
(Principal Financial Officer)

By /s/ Jeffrey R. Walsh
Jeffrey R. Walsh
Controller and Chief Accounting Officer
(Principal Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Description of Exhibit
3.01	Restated Certificate of Incorporation of the Company, as in effect on the date hereof, incorporated by reference to Exhibit 3.01 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2016 (File No. 1-9924).
12.01+	Calculation of Ratio of Income to Fixed Charges.
12.02+	Calculation of Ratio of Income to Fixed Charges Including Preferred Stock Dividends.
31.01+	Certification of principal executive officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02+	Certification of principal financial officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01+	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.01+	Financial statements from the Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2017, filed on October 31, 2017, formatted in XBRL: (i) the Consolidated Statement of Income, (ii) the Consolidated Balance Sheet, (iii) the Consolidated Statement of Changes in Equity, (iv) the Consolidated Statement of Cash Flows and (v) the Notes to Consolidated Financial Statements.

The total amount of securities authorized pursuant to any instrument defining rights of holders of long-term debt of the Company does not exceed 10% of the total assets of the Company and its consolidated subsidiaries. The Company will furnish copies of any such instrument to the SEC upon request.

+ Filed herewith.