

## Note 10: Guarantees, Pledged Assets and Collateral (continued)

### REPURCHASE AND SECURITIES LENDING AGREEMENTS

Securities sold under repurchase agreements and securities lending arrangements are effectively short-term collateralized borrowings. In these transactions, we receive cash in exchange for transferring securities as collateral and recognize an obligation to reacquire the securities for cash at the transaction's maturity. These types of transactions create risks, including (1) the counterparty may fail to return the securities at maturity, (2) the fair value of the securities transferred may decline below the amount of our obligation to reacquire the securities, and therefore create an obligation for us to pledge additional amounts, and (3) the counterparty may accelerate the maturity

on demand requiring us to reacquire the security prior to contractual maturity. We attempt to mitigate these risks by the fact that most of our securities financing activities involve highly liquid securities, we underwrite and monitor the financial strength of our counterparties, we monitor the fair value of collateral pledged relative to contractually required repurchase amounts, and we monitor that our collateral is properly returned through the clearing and settlement process in advance of our cash repayment. Table 10.4 provides the underlying collateral types of our gross obligations under repurchase and securities lending agreements.

**Table 10.4: Underlying Collateral Types of Gross Obligations**

(in millions)	Sep 30, 2016	Dec 31, 2015
Repurchase agreements:		
Securities of U.S. Treasury and federal agencies	\$ 58,777	32,254
Securities of U.S. States and political subdivisions	136	7
Federal agency mortgage-backed securities	38,587	37,033
Non-agency mortgage-backed securities	2,334	1,680
Corporate debt securities	6,359	4,674
Asset-backed securities	3,129	2,275
Equity securities	2,154	2,457
Other	901	1,162
Total repurchases	112,377	81,542
Securities lending:		
Securities of U.S. Treasury and federal agencies	186	61
Federal agency mortgage-backed securities	138	76
Non-agency mortgage-backed securities	—	—
Corporate debt securities	908	899
Equity securities (1)	10,783	8,700
Total securities lending	12,015	9,736
Total repurchases and securities lending	\$ 124,392	91,278

(1) Equity securities are generally exchange traded and either re-hypothecated under margin lending agreements or obtained through contemporaneous securities borrowing transactions with other counterparties.

Table 10.5 provides the contractual maturities of our gross obligations under repurchase and securities lending agreements.

**Table 10.5: Contractual Maturities of Gross Obligations**

(in millions)	Overnight/ continuous	Up to 30 days	30-90 days	>90 days	Total gross obligation
<b>September 30, 2016</b>					
Repurchase agreements	\$ 86,113	11,545	9,570	5,149	112,377
Securities lending	9,726	712	1,577	—	12,015
<b>Total repurchases and securities lending (1)</b>	<b>\$ 95,839</b>	<b>12,257</b>	<b>11,147</b>	<b>5,149</b>	<b>124,392</b>
<b>December 31, 2015</b>					
Repurchase agreements	\$ 58,021	19,561	2,935	1,025	81,542
Securities lending	7,845	362	1,529	—	9,736
<b>Total repurchases and securities lending (1)</b>	<b>\$ 65,866</b>	<b>19,923</b>	<b>4,464</b>	<b>1,025</b>	<b>91,278</b>

(1) Repurchase and securities lending transactions are largely conducted under enforceable master lending agreements that allow either party to terminate the transaction on demand. These transactions have been reported as continuous obligations unless the MRA or MSLA has been modified with an overriding agreement that specifies an alternative termination date.

## Note 11: Legal Actions

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The following supplements our discussion of certain matters previously reported in Note 15 (Legal Actions) to Financial Statements in our 2015 Form 10-K and Note 11 (Legal Actions) to Financial Statements in our 2016 first and second quarter Quarterly Reports on Form 10-Q for events occurring during third quarter 2016.

### **MORTGAGE RELATED REGULATORY INVESTIGATIONS**

Federal and state government agencies, including the United States Department of Justice, continue investigations or examinations of certain mortgage related practices of Wells Fargo and predecessor institutions. Wells Fargo, for itself and for predecessor institutions, has responded, and continues to respond, to requests from these agencies seeking information regarding the origination, underwriting and securitization of residential mortgages, including sub-prime mortgages. This includes discussions with various government agencies that are part of the RMBS Working Group of the Financial Fraud Enforcement Task Force in which potential theories of liability have been raised. Other financial institutions have entered into settlements with these agencies, the nature of which related to the specific activities of those financial institutions, including the imposition of significant financial penalties and remedial actions.

**ORDER OF POSTING LITIGATION** A series of putative class actions have been filed against Wachovia Bank, N.A. and Wells Fargo Bank, N.A., as well as many other banks, challenging the "high to low" order in which the banks post debit card transactions to consumer deposit accounts. There are currently several such cases pending against Wells Fargo Bank (including the Wachovia Bank cases to which Wells Fargo succeeded), most of which have been consolidated in multi-district litigation proceedings (the "MDL proceedings") in the U.S. District Court for the Southern District of Florida. The court in the MDL proceedings has certified a class of putative plaintiffs and Wells Fargo moved to compel arbitration of the claims of unnamed class members. The court denied these motions to compel arbitration on October 17, 2016.

**SALES PRACTICES MATTERS** Federal, state and local government agencies, including the United States Department of Justice and the United States Securities and Exchange Commission, and state attorneys general and prosecutors' offices, as well as Congressional committees, have undertaken formal or informal inquiries, investigations or examinations arising out of certain sales practices of the Company that were the subject of settlements with the Consumer Financial Protection Bureau, the Office of the Comptroller of the Currency and the Office of the Los Angeles City Attorney announced by the Company on September 8, 2016. The Company has responded, and continues to respond, to requests from a number of the foregoing seeking information regarding these sales practices and the circumstances of the settlements and related matters. A number of lawsuits have also been filed by non-governmental parties seeking damages or other remedies related to these sales practices.

**OUTLOOK** When establishing a liability for contingent litigation losses, the Company determines a range of potential losses for each matter that is both probable and estimable, and records the amount it considers to be the best estimate within the range. The high end of the range of reasonably possible potential litigation losses in excess of the Company's liability for probable and estimable losses was approximately \$1.7 billion as of September 30, 2016. The change in the high end of the range from June 30, 2016 related to a number of matters. It is inherently difficult to determine whether any loss is probable or even possible or to estimate the amount of any loss. Accordingly, there may be a range of possible losses in excess of the established liability or the range of reasonably possible loss. Wells Fargo is unable to determine whether the ultimate resolution of either the mortgage related regulatory investigations or the sales practices matters will have a material adverse effect on its consolidated financial condition. Based on information currently available, advice of counsel, available insurance coverage and established reserves, Wells Fargo believes that the eventual outcome of other actions against Wells Fargo and/or its subsidiaries will not, individually or in the aggregate, have a material adverse effect on Wells Fargo's consolidated financial condition. However, it is possible that the ultimate resolution of a matter, if unfavorable, may be material to Wells Fargo's results of operations for any particular period.

## Note 12: Derivatives

We use derivatives to manage exposure to market risk, including interest rate risk, credit risk and foreign currency risk, and to assist customers with their risk management objectives. We designate certain derivatives as hedging instruments in a qualifying hedge accounting relationship (fair value or cash flow hedge). Our remaining derivatives consist of economic hedges that do not qualify for hedge accounting and derivatives held for customer accommodation trading, or other purposes. For more information on our derivative activities, see Note 16 (Derivatives) to Financial Statements in our 2015 Form 10-K.

Table 12.1 presents the total notional or contractual amounts and fair values for our derivatives. Derivative transactions can be

measured in terms of the notional amount, but this amount is not recorded on the balance sheet and is not, when viewed in isolation, a meaningful measure of the risk profile of the instruments. The notional amount is generally not exchanged but is used only as the basis on which interest and other payments are determined. Derivatives designated as qualifying hedging instruments and economic hedges are recorded on the balance sheet at fair value in other assets or other liabilities. Customer accommodation trading and other derivatives are recorded on the balance sheet at fair value in trading assets, other assets or other liabilities.

**Table 12.1: Notional or Contractual Amounts and Fair Values of Derivatives**

	September 30, 2016			December 31, 2015		
	Notional or contractual amount	Fair value		Notional or contractual amount	Fair value	
(in millions)		Derivative assets	Derivative liabilities		Derivative assets	Derivative liabilities
<b>Derivatives designated as hedging instruments</b>						
Interest rate contracts (1)	\$ 228,108	13,924	1,522	191,684	7,477	2,253
Foreign exchange contracts (1)	28,858	1,134	1,499	25,115	378	2,494
Total derivatives designated as qualifying hedging instruments		15,058	3,021		7,855	4,747
<b>Derivatives not designated as hedging instruments</b>						
Economic hedges:						
Interest rate contracts (2)	280,338	422	731	211,375	195	315
Equity contracts	8,446	602	139	7,427	531	47
Foreign exchange contracts	14,966	600	125	16,407	321	100
Credit contracts – protection purchased	534	94	—	—	—	—
Subtotal		1,718	995		1,047	462
Customer accommodation trading and other derivatives:						
Interest rate contracts	6,111,740	97,444	100,134	4,685,898	55,053	55,409
Commodity contracts	55,865	2,573	2,711	47,571	4,659	5,519
Equity contracts	170,192	6,955	6,368	139,956	7,068	4,761
Foreign exchange contracts	340,620	7,092	7,571	295,962	8,248	8,339
Credit contracts – protection sold	10,399	82	417	10,544	83	541
Credit contracts – protection purchased	21,469	400	130	18,018	567	88
Other contracts	986	—	73	1,041	—	58
Subtotal		114,546	117,404		75,678	74,715
Total derivatives not designated as hedging instruments		116,264	118,399		76,725	75,177
Total derivatives before netting		131,322	121,420		84,580	79,924
<b>Netting (3)</b>		<b>(112,586)</b>	<b>(107,817)</b>		<b>(66,924)</b>	<b>(66,004)</b>
Total		\$ 18,736	13,603		17,656	13,920

- (1) Notional amounts presented exclude \$1.9 billion of interest rate contracts at both September 30, 2016, and December 31, 2015, for certain derivatives that are combined for designation as a hedge on a single instrument. The notional amount for foreign exchange contracts at September 30, 2016, and December 31, 2015, excludes \$10.2 billion and \$7.8 billion, respectively, for certain derivatives that are combined for designation as a hedge on a single instrument.
- (2) Includes economic hedge derivatives used to hedge the risk of changes in the fair value of residential MSRs, MHFS, loans, derivative loan commitments and other interests held.
- (3) Represents balance sheet netting of derivative asset and liability balances, related cash collateral and portfolio level counterparty valuation adjustments. See Table 12.2 for further information.

Table 12.2 provides information on the gross fair values of derivative assets and liabilities, the balance sheet netting adjustments and the resulting net fair value amount recorded on our balance sheet, as well as the non-cash collateral associated with such arrangements. We execute substantially all of our derivative transactions under master netting arrangements. We reflect all derivative balances and related cash collateral subject to enforceable master netting arrangements on a net basis within the balance sheet. The “Gross amounts recognized” column in the following table includes \$116.2 billion and \$114.2 billion of gross derivative assets and liabilities, respectively, at September 30, 2016, and \$69.9 billion and \$74.0 billion, respectively, at December 31, 2015, with counterparties subject to enforceable master netting arrangements that are carried on the balance sheet net of offsetting amounts. The remaining gross derivative assets and liabilities of \$15.2 billion and \$7.0 billion, respectively, at September 30, 2016, and \$14.6 billion and \$5.9 billion, respectively, at December 31, 2015, include those with counterparties subject to master netting arrangements for which we have not assessed the enforceability because they are with counterparties where we do not currently have positions to offset, those subject to master netting arrangements where we have not been able to confirm the enforceability and those not subject to master netting arrangements. As such, we do not net derivative balances or collateral within the balance sheet for these counterparties.

We determine the balance sheet netting adjustments based on the terms specified within each master netting arrangement. We disclose the balance sheet netting amounts within the column titled “Gross amounts offset in consolidated balance sheet.” Balance sheet netting adjustments are determined at the counterparty level for which there may be multiple contract types. For disclosure purposes, we allocate these adjustments to the contract type for each counterparty proportionally based upon the “Gross amounts recognized” by counterparty. As a result, the net amounts disclosed by contract type may not represent the actual exposure upon settlement of the contracts.

Balance sheet netting does not include non-cash collateral that we receive and pledge. For disclosure purposes, we present the fair value of this non-cash collateral in the column titled “Gross amounts not offset in consolidated balance sheet (Disclosure-only netting)” within the table. We determine and allocate the Disclosure-only netting amounts in the same manner as balance sheet netting amounts.

The “Net amounts” column within Table 12.2 represents the aggregate of our net exposure to each counterparty after considering the balance sheet and Disclosure-only netting adjustments. We manage derivative exposure by monitoring the credit risk associated with each counterparty using counterparty specific credit risk limits, using master netting arrangements and obtaining collateral. Derivative contracts executed in over-the-counter markets include bilateral contractual arrangements that are not cleared through a central clearing organization but are typically subject to master netting arrangements. The percentage of our bilateral derivative transactions outstanding at period end in such markets, based on gross fair value, is provided within the following table. Other derivative contracts executed in over-the-counter or exchange-traded markets are settled through a central clearing organization and are excluded from this percentage. In addition to the netting amounts included in the table, we also have balance sheet netting related to resale and repurchase agreements that are disclosed within Note 10 (Guarantees, Pledged Assets and Collateral).

## Note 12: Derivatives (continued)

**Table 12.2: Gross Fair Values of Derivative Assets and Liabilities**

(in millions)	Gross amounts recognized	Gross amounts offset in consolidated balance sheet (1)	Net amounts in consolidated balance sheet (2)	Gross amounts not offset in consolidated balance sheet (Disclosure-only netting) (3)	Net amounts	Percent exchanged in over-the-counter market (4)
<b>September 30, 2016</b>						
<b>Derivative assets</b>						
Interest rate contracts	\$111,790	(102,677)	9,113	(1,314)	7,799	28%
Commodity contracts	2,573	(834)	1,739	(75)	1,664	59
Equity contracts	7,557	(2,719)	4,838	(422)	4,416	53
Foreign exchange contracts	8,826	(5,933)	2,893	(69)	2,824	93
Credit contracts – protection sold	82	(45)	37	—	37	60
Credit contracts – protection purchased	494	(378)	116	(5)	111	99
<b>Total derivative assets</b>	<b>\$131,322</b>	<b>(112,586)</b>	<b>18,736</b>	<b>(1,885)</b>	<b>16,851</b>	
<b>Derivative liabilities</b>						
Interest rate contracts	\$102,387	(96,409)	5,978	(4,250)	1,728	23%
Commodity contracts	2,711	(563)	2,148	(31)	2,117	68
Equity contracts	6,507	(2,570)	3,937	(473)	3,464	83
Foreign exchange contracts	9,195	(7,862)	1,333	(695)	638	100
Credit contracts – protection sold	417	(358)	59	(57)	2	100
Credit contracts – protection purchased	130	(55)	75	(4)	71	39
Other contracts	73	—	73	—	73	100
<b>Total derivative liabilities</b>	<b>\$121,420</b>	<b>(107,817)</b>	<b>13,603</b>	<b>(5,510)</b>	<b>8,093</b>	
<b>December 31, 2015</b>						
<b>Derivative assets</b>						
Interest rate contracts	\$ 62,725	(56,612)	6,113	(749)	5,364	39 %
Commodity contracts	4,659	(998)	3,661	(76)	3,585	35
Equity contracts	7,599	(2,625)	4,974	(471)	4,503	51
Foreign exchange contracts	8,947	(6,141)	2,806	(34)	2,772	98
Credit contracts – protection sold	83	(79)	4	—	4	76
Credit contracts – protection purchased	567	(469)	98	(2)	96	100
<b>Total derivative assets</b>	<b>\$ 84,580</b>	<b>(66,924)</b>	<b>17,656</b>	<b>(1,332)</b>	<b>16,324</b>	
<b>Derivative liabilities</b>						
Interest rate contracts	\$ 57,977	(53,259)	4,718	(3,543)	1,175	35 %
Commodity contracts	5,519	(1,052)	4,467	(40)	4,427	84
Equity contracts	4,808	(2,241)	2,567	(154)	2,413	85
Foreign exchange contracts	10,933	(8,968)	1,965	(634)	1,331	100
Credit contracts – protection sold	541	(434)	107	(107)	—	100
Credit contracts – protection purchased	88	(50)	38	(6)	32	70
Other contracts	58	—	58	—	58	100
<b>Total derivative liabilities</b>	<b>\$ 79,924</b>	<b>(66,004)</b>	<b>13,920</b>	<b>(4,484)</b>	<b>9,436</b>	

- (1) Represents amounts with counterparties subject to enforceable master netting arrangements that have been offset in the consolidated balance sheet, including related cash collateral and portfolio level counterparty valuation adjustments. Counterparty valuation adjustments were \$423 million and \$375 million related to derivative assets and \$111 million and \$81 million related to derivative liabilities at September 30, 2016, and December 31, 2015, respectively. Cash collateral totaled \$9.1 billion and \$4.7 billion, netted against derivative assets and liabilities, respectively, at September 30, 2016, and \$5.3 billion and \$4.7 billion, respectively, at December 31, 2015.
- (2) Net derivative assets of \$4.9 billion and \$12.4 billion are classified in Trading assets at September 30, 2016, and December 31, 2015, respectively. \$13.9 billion and \$5.3 billion are classified in Other assets in the consolidated balance sheet at September 30, 2016, and December 31, 2015, respectively. Net derivative liabilities are classified in Accrued expenses and other liabilities in the consolidated balance sheet.
- (3) Represents non-cash collateral pledged and received against derivative assets and liabilities with the same counterparty that are subject to enforceable master netting arrangements. U.S. GAAP does not permit netting of such non-cash collateral balances in the consolidated balance sheet but requires disclosure of these amounts.
- (4) Represents derivatives executed in over-the-counter markets that are not settled through a central clearing organization. Over-the-counter percentages are calculated based on gross amounts recognized as of the respective balance sheet date. The remaining percentage represents derivatives settled through a central clearing organization, which are executed in either over-the-counter or exchange-traded markets.

## Fair Value Hedges

We use derivatives to hedge against changes in fair value of certain financial instruments, including available-for-sale debt securities, mortgages held for sale, and long-term debt. For more information on fair value hedges, see Note 16 (Derivatives) to Financial Statements in our 2015 Form 10-K.

Table 12.3 shows the net gains (losses) recognized in the income statement related to derivatives in fair value hedging relationships. The entire derivative gain or loss is included in the

assessment of hedge effectiveness for all fair value hedge relationships, except for those involving foreign-currency denominated available-for-sale securities and long-term debt hedged with foreign currency forward derivatives for which the time value component of the derivative gain or loss related to the changes in the difference between the spot and forward price is excluded from the assessment of hedge effectiveness.

**Table 12.3: Derivatives in Fair Value Hedging Relationships**

(in millions)	Interest rate contracts hedging:			Foreign exchange contracts hedging:		Total net gains (losses) on fair value hedges
	Available-for-sale securities	Mortgages held for sale	Long-term debt	Available-for-sale securities	Long-term debt	
<b>Quarter ended September 30, 2016</b>						
<b>Net interest income (expense) recognized on derivatives</b>	<b>\$ (117)</b>	<b>(1)</b>	<b>471</b>	<b>2</b>	<b>9</b>	<b>364</b>
<b>Gains (losses) recorded in noninterest income</b>						
<b>Recognized on derivatives</b>	<b>21</b>	<b>6</b>	<b>(271)</b>	<b>30</b>	<b>312</b>	<b>98</b>
<b>Recognized on hedged item</b>	<b>(10)</b>	<b>(7)</b>	<b>354</b>	<b>(32)</b>	<b>(234)</b>	<b>71</b>
<b>Net recognized on fair value hedges (ineffective portion) (1)</b>	<b>\$ 11</b>	<b>(1)</b>	<b>83</b>	<b>(2)</b>	<b>78</b>	<b>169</b>
Quarter ended September 30, 2015						
Net interest income (expense) recognized on derivatives	\$ (199)	(3)	494	—	35	327
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(1,182)	(20)	2,233	27	(200)	858
Recognized on hedged item	1,180	16	(2,039)	(29)	213	(659)
Net recognized on fair value hedges (ineffective portion) (1)	\$ (2)	(4)	194	(2)	13	199
<b>Nine months ended September 30, 2016</b>						
<b>Net interest income (expense) recognized on derivatives</b>	<b>\$ (468)</b>	<b>(5)</b>	<b>1,436</b>	<b>4</b>	<b>40</b>	<b>1,007</b>
<b>Gains (losses) recorded in noninterest income</b>						
<b>Recognized on derivatives</b>	<b>(2,674)</b>	<b>(36)</b>	<b>4,815</b>	<b>98</b>	<b>1,475</b>	<b>3,678</b>
<b>Recognized on hedged item</b>	<b>2,699</b>	<b>32</b>	<b>(4,215)</b>	<b>(106)</b>	<b>(1,242)</b>	<b>(2,832)</b>
<b>Net recognized on fair value hedges (ineffective portion) (1)</b>	<b>\$ 25</b>	<b>(4)</b>	<b>600</b>	<b>(8)</b>	<b>233</b>	<b>846</b>
Nine months ended September 30, 2015						
Net interest income (expense) recognized on derivatives	\$ (585)	(10)	1,445	—	152	1,002
Gains (losses) recorded in noninterest income						
Recognized on derivatives	(496)	(14)	1,186	191	(1,823)	(956)
Recognized on hedged item	484	5	(1,121)	(187)	1,860	1,041
Net recognized on fair value hedges (ineffective portion) (1)	\$ (12)	(9)	65	4	37	85

(1) The third quarter and first nine months of 2016 included \$(3) million and \$(10) million, respectively, and the third quarter and first nine months of 2015 included \$(1) million and \$(4) million, respectively, of the time value component recognized as net interest income (expense) on forward derivatives hedging foreign currency available-for-sale securities and long-term debt that were excluded from the assessment of hedge effectiveness.

## Cash Flow Hedges

We use derivatives to hedge certain financial instruments against future interest rate increases and to limit the variability of cash flows on certain financial instruments due to changes in the benchmark interest rate. For more information on cash flow hedges, see Note 16 (Derivatives) to Financial Statements in our 2015 Form 10-K.

Based upon current interest rates, we estimate that \$887 million (pre tax) of deferred net gains on derivatives in OCI at September 30, 2016, will be reclassified into net interest

income during the next twelve months. Future changes to interest rates may significantly change actual amounts reclassified to earnings. We are hedging our exposure to the variability of future cash flows for all forecasted transactions for a maximum of 6 years.

Table 12.4 shows the net gains (losses) recognized related to derivatives in cash flow hedging relationships.

**Table 12.4: Derivatives in Cash Flow Hedging Relationships**

(in millions)	Quarter ended Sep 30,		Nine months ended Sep 30,	
	2016	2015	2016	2015
Gains (losses) (pre tax) recognized in OCI on derivatives	<b>\$ (445)</b>	1,769	<b>2,611</b>	2,233
Gains (pre tax) reclassified from cumulative OCI into net income (1)	<b>262</b>	293	<b>783</b>	795
Gains (losses) (pre tax) recognized in noninterest income for hedge ineffectiveness (2)	—	—	<b>1</b>	1

(1) See Note 17 (Other Comprehensive Income) for detail on components of net income.

(2) None of the change in value of the derivatives was excluded from the assessment of hedge effectiveness.

## Note 12: Derivatives (continued)

### Derivatives Not Designated as Hedging Instruments

We use economic hedges primarily to hedge the risk of changes in the fair value of certain residential MHFS, certain loans held for investment, residential MSRs measured at fair value, derivative loan commitments and other interests held. The resulting gain or loss on these economic hedge derivatives is reflected in mortgage banking noninterest income, net gains (losses) from equity investments and other noninterest income.

The derivatives used to hedge MSRs measured at fair value, resulted in net derivative gains of \$142 million and \$2.6 billion in the third quarter and first nine months of 2016, respectively, and \$1.1 billion and \$1.0 billion in the third quarter and first nine months of 2015, respectively, which are included in mortgage banking noninterest income. The aggregate fair value of these derivatives was a net asset of \$263 million at September 30, 2016, and net liability of \$3 million at December 31, 2015. The change in fair value of these derivatives for each period end is due

to changes in the underlying market indices and interest rates as well as the purchase and sale of derivative financial instruments throughout the period as part of our dynamic MSR risk management process.

Interest rate lock commitments for mortgage loans that we intend to sell are considered derivatives. The aggregate fair value of derivative loan commitments on the balance sheet was a net asset of \$236 million and \$56 million at September 30, 2016, and December 31, 2015, respectively, and is included in the caption “Interest rate contracts” under “Customer accommodation trading and other derivatives” in Table 12.1 in this Note.

For more information on economic hedges and other derivatives, see Note 16 (Derivatives) to Financial Statements in our 2015 Form 10-K. Table 12.5 shows the net gains recognized in the income statement related to derivatives not designated as hedging instruments.

**Table 12.5: Derivatives Not Designated as Hedging Instruments**

(in millions)	Quarter ended September 30,		Nine months ended September 30,	
	2016	2015	2016	2015
<b>Net gains (losses) recognized on economic hedges derivatives:</b>				
Interest rate contracts				
Recognized in noninterest income:				
Mortgage banking (1)	\$ 4	621	1,435	885
Other (2)	(56)	(92)	(308)	(42)
Equity contracts (3)	(372)	(90)	(84)	(85)
Foreign exchange contracts (2)	175	325	504	303
Credit contracts (2)	12	—	12	—
Subtotal	(237)	764	1,559	1,061
<b>Net gains (losses) recognized on customer accommodation trading and other derivatives:</b>				
Interest rate contracts				
Recognized in noninterest income:				
Mortgage banking (4)	510	442	1,485	806
Other (5)	210	(340)	(520)	56
Commodity contracts (5)	45	10	162	54
Equity contracts (5)	(982)	747	(1,277)	797
Foreign exchange contracts (5)	188	286	686	611
Credit contracts (5)	(25)	37	(66)	36
Other (2)	15	(33)	(15)	(26)
Subtotal	(39)	1,149	455	2,334
Net gains (losses) recognized related to derivatives not designated as hedging instruments	\$ (276)	1,913	2,014	3,395

(1) Reflected in mortgage banking noninterest income including gains (losses) on the derivatives used as economic hedges of MSRs measured at fair value, interest rate lock commitments and mortgages held for sale.

(2) Included in other noninterest income.

(3) Included in net gains (losses) from equity investments and other noninterest income.

(4) Reflected in mortgage banking noninterest income including gains (losses) on interest rate lock commitments and net gains from trading activities in noninterest income.

(5) Included in net gains from trading activities in noninterest income.

## Credit Derivatives

Credit derivative contracts are arrangements whose value is derived from the transfer of credit risk of a reference asset or entity from one party (the purchaser of credit protection) to another party (the seller of credit protection). We use credit derivatives to assist customers with their risk management objectives. We may also use credit derivatives in structured product transactions or liquidity agreements written to special purpose vehicles. The maximum exposure of sold credit derivatives is managed through posted collateral, purchased credit derivatives and similar products in order to achieve our desired credit risk profile. This credit risk management provides an ability to recover a significant portion of any amounts that would be paid under the sold credit derivatives. We would be

required to perform under sold credit derivatives in the event of default by the referenced obligors. Events of default include events such as bankruptcy, capital restructuring or lack of principal and/or interest payment. In certain cases, other triggers may exist, such as the credit downgrade of the referenced obligors or the inability of the special purpose vehicle for which we have provided liquidity to obtain funding.

Table 12.6 provides details of sold and purchased credit derivatives.

**Table 12.6: Sold and Purchased Credit Derivatives**

		Notional amount					
(in millions)	Fair value liability	Protection sold (A)	Protection sold – non-investment grade	Protection purchased with identical underlyings (B)	Net protection sold (A) - (B)	Other protection purchased	Range of maturities
September 30, 2016							
Credit default swaps on:							
Corporate bonds	\$ 14	4,343	1,661	3,284	1,059	1,900	2016 - 2025
Structured products	214	441	353	307	134	84	2020 - 2047
Credit protection on:							
Default swap index	—	2,300	380	1,113	1,187	3,852	2016 - 2021
Commercial mortgage-backed securities index	170	560	—	516	44	153	2047 - 2058
Asset-backed securities index	18	45	—	40	5	189	2045 - 2046
Other	1	2,710	2,710	—	2,710	10,565	2016 - 2026
Total credit derivatives	\$ 417	10,399	5,104	5,260	5,139	16,743	
December 31, 2015							
Credit default swaps on:							
Corporate bonds	\$ 44	4,838	1,745	3,602	1,236	2,272	2016 - 2025
Structured products	275	598	463	395	203	142	2017 - 2047
Credit protection on:							
Default swap index	—	1,727	370	1,717	10	960	2016 - 2020
Commercial mortgage-backed securities index	203	822	—	766	56	316	2047 - 2057
Asset-backed securities index	18	47	—	1	46	71	2045 - 2046
Other	1	2,512	2,512	—	2,512	7,776	2016 - 2025
Total credit derivatives	\$ 541	10,544	5,090	6,481	4,063	11,537	

Protection sold represents the estimated maximum exposure to loss that would be incurred under an assumed hypothetical circumstance, where the value of our interests and any associated collateral declines to zero, without any consideration of recovery or offset from any economic hedges. We believe this hypothetical circumstance to be an extremely remote possibility and accordingly, this required disclosure is not an indication of expected loss. The amounts under non-investment grade represent the notional amounts of those credit derivatives on which we have a higher risk of being required to perform under the terms of the credit derivative and are a function of the underlying assets.

We consider the risk of performance to be high if the underlying assets under the credit derivative have an external rating that is below investment grade or an internal credit default grade that is equivalent thereto. We believe the net protection sold, which is representative of the net notional amount of protection sold and purchased with identical underlyings, in combination with other protection purchased, is more representative of our exposure to loss than either non-investment grade or protection sold. Other protection purchased represents additional protection, which may offset the exposure to loss for protection sold, that was not purchased with an identical underlying of the protection sold.



**Credit-Risk Contingent Features**

Certain of our derivative contracts contain provisions whereby if the credit rating of our debt were to be downgraded by certain major credit rating agencies, the counterparty could demand additional collateral or require termination or replacement of derivative instruments in a net liability position. The aggregate fair value of all derivative instruments with such credit-risk-related contingent features that are in a net liability position was \$13.7 billion at September 30, 2016, and \$12.3 billion at December 31, 2015, for which we posted \$10.2 billion and \$8.8 billion, respectively, in collateral in the normal course of business. If the credit rating of our debt had been downgraded below investment grade, which is the credit-risk-related contingent feature that if triggered requires the maximum amount of collateral to be posted, on September 30, 2016, or December 31, 2015, we would have been required to post additional collateral of \$3.5 billion or \$3.6 billion, respectively, or potentially settle the contract in an amount equal to its fair value. Some contracts require that we provide more collateral than the fair value of derivatives that are in a net liability position if a downgrade occurs.

**Counterparty Credit Risk**

By using derivatives, we are exposed to counterparty credit risk if counterparties to the derivative contracts do not perform as expected. If a counterparty fails to perform, our counterparty credit risk is equal to the amount reported as a derivative asset on our balance sheet. The amounts reported as a derivative asset are derivative contracts in a gain position, and to the extent subject to legally enforceable master netting arrangements, net of derivatives in a loss position with the same counterparty and cash collateral received. We minimize counterparty credit risk through credit approvals, limits, monitoring procedures, executing master netting arrangements and obtaining collateral, where appropriate. To the extent the master netting arrangements and other criteria meet the applicable requirements, including determining the legal enforceability of the arrangement, it is our policy to present derivative balances and related cash collateral amounts net on the balance sheet. We incorporate credit valuation adjustments (CVA) to reflect counterparty credit risk in determining the fair value of our derivatives. Such adjustments, which consider the effects of enforceable master netting agreements and collateral arrangements, reflect market-based views of the credit quality of each counterparty. Our CVA calculation is determined based on observed credit spreads in the credit default swap market and indices indicative of the credit quality of the counterparties to our derivatives.

## Note 13: Fair Values of Assets and Liabilities

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We use fair value measurements to record fair value adjustments to certain assets and liabilities and to determine fair value disclosures. Assets and liabilities recorded at fair value on a recurring basis are presented in Table 13.2 in this Note. From time to time, we may be required to record fair value adjustments on a nonrecurring basis. These nonrecurring fair value adjustments typically involve application of LOCOM accounting or write-downs of individual assets. Assets recorded on a nonrecurring basis are presented in Table 13.14 in this Note.

See Note 1 (Summary of Significant Accounting Policies) to Financial Statements in our 2015 Form 10-K for discussion of how we determine fair value. For descriptions of the valuation methodologies we use for assets and liabilities recorded at fair value on a recurring or nonrecurring basis and for estimating fair value for financial instruments that are not recorded at fair value, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in our 2015 Form 10-K.

**FAIR VALUE HIERARCHY** We group our assets and liabilities measured at fair value in three levels based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value. These levels are:

- Level 1 – Valuation is based upon quoted prices for identical instruments traded in active markets.
- Level 2 – Valuation is based upon quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active, and model-based valuation techniques for which all significant assumptions are observable in the market.
- Level 3 – Valuation is generated from techniques that use significant assumptions that are not observable in the market. These unobservable assumptions reflect estimates of assumptions that market participants would use in pricing the asset or liability. Valuation techniques include use of option pricing models, discounted cash flow models and similar techniques.

In accordance with new accounting guidance that we adopted effective January 1, 2016, we do not classify an investment in the fair value hierarchy if we use the non-published net asset value (NAV) per share (or its equivalent) that has been communicated to us as an investor as a practical expedient to measure fair value. We generally use NAV per share as the fair value measurement for certain nonmarketable equity fund investments. This guidance was required to be applied retrospectively. Accordingly, certain prior period fair value disclosures have been revised to conform with current period presentation. Marketable equity investments with published NAVs continue to be classified in the fair value hierarchy.

### Fair Value Measurements from Vendors

For certain assets and liabilities, we obtain fair value measurements from vendors, which predominantly consist of third-party pricing services, and record the unadjusted fair value in our financial statements. For additional information, see Note 17 (Fair Values of Assets and Liabilities) to Financial Statements in our 2015 Form 10-K. Table 13.1. presents unadjusted fair value measurements provided by brokers or third-party pricing services by fair value hierarchy level. Fair value measurements obtained from brokers or third-party pricing services that we have adjusted to determine the fair value recorded in our financial statements are excluded from Table 13.1.