

Quarterly Report on Bank Trading and Derivatives Activities

Fourth Quarter 2017

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About This Report

The Office of the Comptroller of the Currency's (OCC) quarterly report on bank trading and derivatives activities is based on call report information provided by all insured U.S. commercial banks (including trust companies) and savings associations; reports filed by U.S. financial holding companies; and other published data. A total of 1,364¹ insured U.S. commercial banks and savings associations reported derivative activities at the end of the fourth quarter of 2017. A small group of large financial institutions continues to dominate derivative activity in the U.S. commercial banking system. During the fourth quarter of 2017, four large commercial banks represented 89.4 percent of the total banking industry notional amounts and 85.9 percent of industry net current credit exposure (NCCE) (see table 4 in the appendix).

The OCC and other supervisors have dedicated examiners at the largest banks to continuously evaluate the credit, market, operational, reputation, and compliance risks of bank derivative activities. In addition to the OCC's supervisory activities, the OCC works with other financial supervisors and major market participants to address infrastructure, clearing, and margining issues in over-the-counter (OTC) derivatives. OCC activities include development of objectives and milestones for stronger trade processing and improved market transparency across all OTC derivative categories, migration of certain highly liquid products to clearinghouses, and requirements for posting and collecting margin.

This is the 89th edition of the OCC's *Quarterly Report on Bank Trading and Derivatives Activities*. The first report was published in 1995. In our continuous efforts to improve this report, we now incorporate an entity's Legal Entity Identifier (LEI), if available, in the supplementary tables in the appendix.² Please send any comments or feedback on the structure and content of this report to the OCC by email: QuarterlyDerivatives@occ.treas.gov.

Executive Summary

- Insured U.S. commercial banks and savings associations (collectively, banks) reported trading revenue of \$5.0 billion in the fourth quarter of 2017, \$1.4 billion less (21.2 percent) than in the previous quarter and \$1.0 billion less (16.1 percent) than a year earlier (see page 4).
- Credit exposure from derivatives decreased in the fourth quarter of 2017 as compared to the third quarter of 2017. NCCE decreased \$11.2 billion, or 3.2 percent, to \$337.1 billion (see page 8).
- Trading risk, as measured by value-at-risk (VaR), increased in the fourth quarter of 2017. Total average VaR across the top five dealer banking companies increased \$2.0 million, or 0.8 percent, to \$258 million (see page 11).
- Derivative notional amounts decreased in the fourth quarter of 2017 by \$16.4 trillion, or 8.7 percent, to \$172.0 trillion (see page 14).
- Derivative contracts remained concentrated in interest rate products, which represented 75.8 percent of total derivative notional amounts (see page 14).

¹ Beginning March 31, 2017, institutions with total assets of less than \$1 billion have the option to file the FFIEC 051 call report. Due to the limited amount of derivatives data provided by FFIEC 051 call report filers, this report provides this information separately and distinctly in table 13 in the appendix.

² The LEI is a 20-digit alphanumeric code that enables clear and unique identification of legal entities. For more information, see the Global Legal Entity Identifier Foundation's website at www.gleif.org.

Revenue

Insured U.S. Commercial Banks and Savings Associations' Trading Revenue

Insured U.S. commercial banks and savings associations reported \$5.0 billion in trading revenue in the fourth quarter of 2017, \$1.4 billion less (21.2 percent) than in the previous quarter and \$1.0 billion less (16.1 percent) than a year earlier (see table 1). The quarter-over-quarter and year-over-year decrease in trading revenue was primarily due to declines in credit, interest rate, and foreign exchange (FX) trading revenue. For a historical view of quarterly bank trading revenue by instrument, see graph 9a in the appendix.

Table 1. Quarterly Bank Trading Revenue, in Millions of Dollars

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change	2016 Q4	Y/Y Change	Y/Y % Change
Interest Rate & FX	\$4,034	\$4,458	-\$425	-9.5%	\$4,395	-\$361	-8.2%
Equity	\$990	\$1,184	-\$194	-16.4%	\$681	\$309	45.3%
Commodity & Other	\$251	\$284	-\$34	-11.8%	\$296	-\$45	-15.3%
Credit	-\$237	\$470	-\$707	-150.5%	\$634	-\$871	-137.4%
Total Trading Revenue	\$5,037	\$6,396	-\$1,359	-21.2%	\$6,006	-\$969	-16.1%

Source: Call reports, Schedule RI

Holding Company Trading Revenue

Consolidated bank holding company (BHC) trading performance provides a more complete picture of trading revenue in the banking system. As shown in table 2, consolidated holding company trading revenue of \$9.9 billion in the fourth quarter of 2017 was \$4.1 billion (29.3 percent) lower than in the previous quarter. A \$2.3 billion decrease in credit revenue, a \$1.6 billion decrease in equity revenue, and a \$0.3 billion decrease in commodity and other revenue drove the decrease in trading revenue from the previous quarter. Year-over-year holding company trading results decreased by \$1.7 billion (14.8 percent). For a historical view of quarterly holding company trading revenue by instrument, see graph 9b in the appendix.

Table 2. Quarterly Holding Company Trading Revenue, in Millions of Dollars

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change	2016 Q4	Y/Y Change	Y/Y % Change
Interest Rate & FX	\$6,606	\$6,546	\$59	0.9%	\$6,814	-\$208	-3.1%
Equity	\$3,096	\$4,705	-\$1,609	-34.2%	\$3,021	\$75	2.5%
Commodity & Other	\$523	\$784	-\$261	-33.3%	\$1,003	-\$479	-47.8%
Credit	-\$356	\$1,917	-\$2,273	-118.6%	\$742	-\$1,097	-148.0%
Total HC Trading Revenue	\$9,870	\$13,953	-\$4,083	-29.3%	\$11,579	-\$1,709	-14.8%

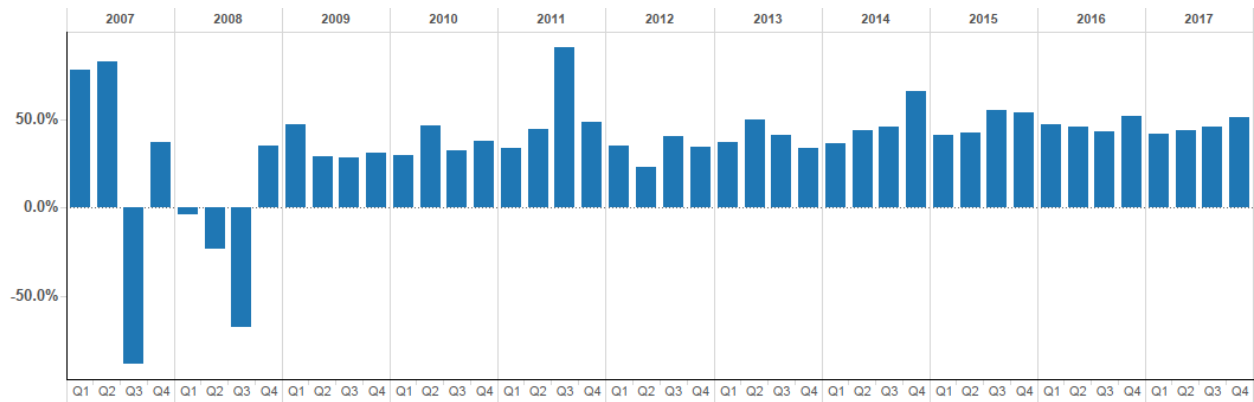
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

Bank Trading Revenue as a Percentage of Consolidated Holding Company Trading Revenue

Before the financial crisis, trading revenue at banks typically ranged from 60 percent to 80 percent of consolidated BHC trading revenue. Since the financial crisis and the adoption of bank charters by the former investment banks, the percentage of bank trading revenue to consolidated BHC trading revenue has fallen and is now typically between 30 percent and 50 percent. This decline reflects the significant amount of trading activity by the former investment banks that, while included in BHC results, remains outside insured commercial banks. More generally, insured U.S. commercial banks and savings associations have more limited legal authorities than their holding companies, particularly in the trading of commodity and equity products.

In the fourth quarter of 2017, banks generated 51.0 percent of consolidated holding company trading revenue, up from 45.8 percent in the previous quarter (see figure 1).

Figure 1. Bank Trading Revenue as a Percentage of Consolidated Holding Company Trading Revenue



Source: Consolidated Financial Statements for Holding Companies—FR Y-9C (Schedule HI) and call report (Schedule RI)

Credit Risk

Credit risk is a significant risk in bank derivative trading activities. The notional amount of a derivative contract is a reference amount that determines contractual payments, but it is generally not an amount at risk. The credit risk in a derivative contract is a function of a number of variables, such as whether counterparties exchange notional principal, the volatility of the underlying market factors (interest rate, currency, commodity, equity, or corporate reference entity), the maturity and liquidity of the contract, and the creditworthiness of the counterparty.

Credit risk in derivatives differs from credit risk in loans because of the more uncertain nature of the potential credit exposure. Because the credit exposure is a function of movements in market factors, banks do not know, and can only estimate, how much the value of the derivative contract might be at various points in the future.

The credit exposure is bilateral in most derivative transactions, such as swaps (which make up the bulk of bank derivative contracts). Each party to the contract may (and, if the contract has a long enough tenor, probably will) have a current credit exposure to the other party at various times during the contract's life. With a funded traditional loan, the amount at risk is the amount advanced to the borrower. The credit risk is unilateral as the bank faces the credit exposure of the borrower.

Measuring credit exposure in derivative contracts involves identifying those contracts on which a bank would lose value if the counterparty to a contract defaulted. The total of all contracts with positive value (i.e., derivative receivables) to the bank is the gross positive fair value (GPFV) and represents an initial measurement of credit exposure. The total of all contracts with negative value (i.e., derivative payables) to the bank is the gross negative fair value (GNFV) and represents a measurement of the exposure the bank poses to its counterparties.

GPFV decreased by \$202 billion (9.9 percent) in the fourth quarter of 2017 to \$1.8 trillion, driven by a \$165.8 billion (12.4 percent) decrease in receivables from interest rate contracts (see table 3).

Because banks mostly hedge the market risk of their derivative portfolios with other derivatives, a similar decrease in GNFVs generally matched the change in GPFV. Derivative payables, GNFV, decreased \$196 billion (9.9 percent) to \$1.8 trillion during the quarter, driven by a decrease in payables on interest rate contracts

GPFV and GNFV interest rate contracts declined 40.6 percent and 41.3 percent, respectively year-over-year. Part of the decline is a result of the continued implementation of settled-to-market (STM) treatment for variation margin. STM allows for the characterization of variation margin for OTC derivatives that are cleared through central clearing parties (CCP) to constitute a settlement of the exposure, as opposed to collateralization.

Table 3. Gross Positive Fair Values and Gross Negative Fair Values, in Billions of Dollars

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change	2016 Q4	Y/Y Change	Y/Y % Change
Interest Rate	\$1,173	\$1,339	-\$166	-12.4%	\$1,976	-\$803	-40.6%
Foreign Exchange	\$441	\$476	-\$35	-7.4%	\$673	-\$233	-34.6%
Equity	\$108	\$105	\$2	2.3%	\$91	\$16	17.8%
Commodities	\$53	\$47	\$6	12.8%	\$48	\$5	10.7%
Credit	\$58.8	\$68.0	-\$9	-13.7%	\$76	-\$17	-22.8%
Gross Positive Fair Value	\$1,833	\$2,035	-\$202.0	-9.9%	\$2,865	-\$1,032	-36.0%

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change	2016 Q4	Y/Y Change	Y/Y % Change
Interest Rate	\$1,124	\$1,287	-\$163	-12.6%	\$1,914	-\$790	-41.3%
Foreign Exchange	\$430	\$462	-\$32	-6.9%	\$663	-\$232	-35.1%
Equity	\$115	\$111	\$4	3.8%	\$94	\$22	23.1%
Commodities	\$54	\$48	\$5	11.2%	\$47	\$7	13.9%
Credit	\$60.0	\$71.0	-\$11	-15.2%	\$75	-\$14	-19.3%
Gross Negative Fair Value	\$1,783	\$1,979	-\$196.0	-9.9%	\$2,791	-\$1,008	-36.1%

Source: Call reports, Schedule RC-L

A legally enforceable netting agreement between a bank and a counterparty creates a single legal obligation for all transactions (called a “netting set”) under the agreement. Therefore, when banks have such agreements with their counterparties, contracts with negative values (an amount a bank would pay to its counterparty) can offset contracts with positive values (an amount owed by the counterparty to the bank), leaving an NCCE as shown in table 4.

Table 4. Netting Contract Examples

Bank A Portfolio With Counterparty B	Number of Contracts	Value of Contracts	Credit Measure/Metric
Contracts With Positive Value to Bank A	6	\$500	Gross Positive Fair Value
Contracts With Negative Value to Bank A	4	-\$350	Gross Negative Fair Value
Total Contracts	10	\$150	NCCE to Bank A From Counterparty B

Most, but not necessarily all, derivative transactions that a bank has with an individual counterparty are subject to a legally enforceable netting agreement. Some transactions may be subject to the laws of a jurisdiction that does not provide legal certainty of netting agreements, in which case banks must regard such transactions as separate from the netting set. Other transactions may involve nonstandard contractual documentation. Transactions that are not subject to the same legally enforceable netting agreement have distinct values that cannot be netted and for which the appropriate current credit measure is the gross exposure to the bank, if that amount is positive. While banks can net exposures within a netting set under the same netting agreement, they cannot net exposures across netting sets without a separate legally enforceable netting agreement. As a result, a bank’s NCCE to a particular counterparty equals the sum of the GPFV of contracts less the dollar amount of netting benefits with that counterparty. A bank’s NCCE across all counterparties equals the sum of its NCCE to each of its counterparties.

NCCE is the primary metric the OCC uses to evaluate credit risk in bank derivative activities. NCCE for insured U.S. commercial banks and saving associations decreased by \$11.2 billion (3.2 percent) to \$337.1 billion in the fourth quarter of 2017 (see table 5).³ Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 81.6 percent (\$1.5 trillion) in the fourth quarter of 2017, compared with 82.9 percent (\$1.7 trillion) in the previous quarter.

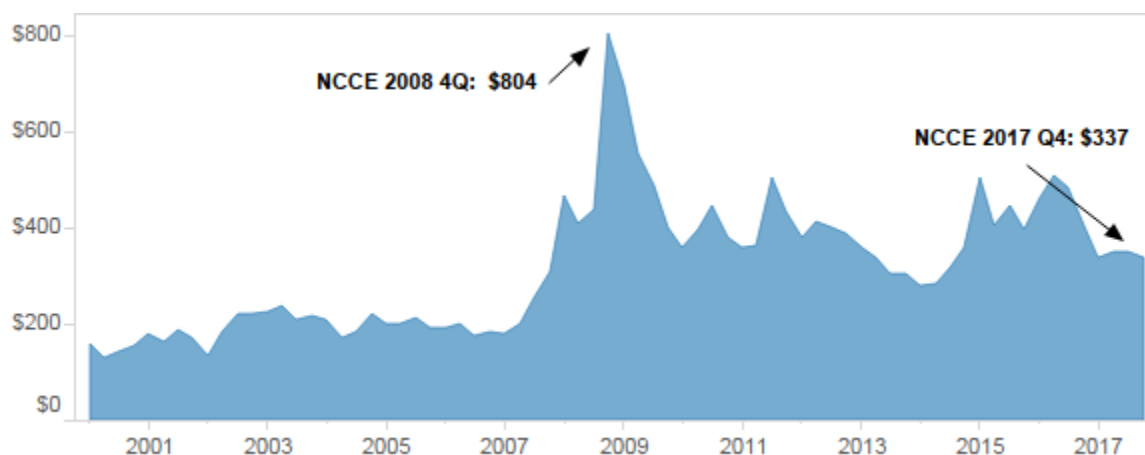
Table 5. Net Current Credit Exposure, in Billions of Dollars

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change
Gross Positive Fair Value	\$1,833	\$2,035	-\$202	-9.9%
NCCE RC-R	\$337	\$348	-\$11.2	-3.2%
Netting Benefit RC-R	\$1,495	\$1,686	-\$191	-11.3%
Netting Benefit % RC-R	81.6%	82.9%		-1.3%

Source: Call reports, Schedules RC-L and RC-R

NCCE peaked at \$804.1 billion at the end of 2008, during the financial crisis, when interest rates had plunged and credit spreads were very high (see figure 2). The significant decline in NCCE since 2008 has largely resulted from declines in the GPFV of interest rate and credit contracts. GPFV from interest rate contracts has fallen from \$5.1 trillion at the end of 2008 to \$1.1 trillion at the end of the fourth quarter of 2017. On December 31, 2017, exposure from credit contracts was \$58.8 billion (see table 3), which is \$1.0 trillion lower (94.1 percent) than the \$1.1 trillion on December 31, 2008.

Figure 2. Net Current Credit Exposure, in Billions of Dollars



Source: Call reports, Schedule RC-R

The bulk of NCCE in the financial system is concentrated in banks and securities firms (41.7 percent) and in corporations and other counterparties (47.3 percent) (see table 6).

The combined exposure to hedge funds, sovereign governments, and monoline financial firms was small (11.1 percent in total). The sheer size of aggregate counterparty exposures, however,

³ Banks report NCCE on two different schedules (RC-R and RC-L) of the call report, and the amounts reported are not the same because of differences in the scope of coverage. Neither measure comprehensively captures NCCE. RC-L includes exposure only from OTC derivative transactions; it excludes exchange-traded transactions. RC-R excludes transactions not subject to capital requirements. This report uses RC-R to measure NCCE.

results in the potential for major losses, even in sectors where credit exposure is a small percentage of the total. For example, notwithstanding the minimal share of NCCE to monolines, banks suffered material losses on these exposures during the credit crisis. Sovereign credit exposures were also a small component (7.9 percent) of NCCE during the quarter and, like monoline exposures before the financial crisis, are largely unsecured.

Table 6. Net Current Credit Exposure by Counterparty Type as a Percentage of Total Net Current Credit Exposure

	Banks & Securities Firms	Monoline Financial Firms	Hedge Funds	Sovereign Governments	Corp & All Other Counterparties
2017 Q4	41.7%	0.1%	3.1%	7.9%	47.3%
2017 Q3	40.1%	0.1%	3.2%	7.6%	49.0%
2017 Q2	47.5%	0.1%	2.5%	7.1%	42.8%
2017 Q1	47.5%	0.1%	2.2%	7.5%	42.7%
2016 Q4	48.5%	0.1%	2.0%	6.5%	43.0%
2015 Q4	53.3%	0.1%	2.1%	6.0%	38.5%
2014 Q4	53.2%	0.1%	1.9%	6.4%	38.4%

Source: Call reports, Schedule RC-L

A more risk-sensitive measure of credit exposure would consider the value of collateral held against counterparty exposures. Commercial banks and savings associations with total assets greater than \$10 billion report the fair value of collateral held against various classifications of counterparty exposure.

Reporting banks held collateral valued at 111.5 percent of their total NCCE at the end of the fourth quarter of 2017, up from 109.2 percent in the third quarter of 2017 (see table 7). The increase in the ratio of the value of collateral held to the value of counterparty exposure was due primarily to the stronger collateral coverage ratio of exposures to hedge funds, which increased from 461.8 percent to 495.5 percent. Bank exposures to hedge funds have always been secured, because banks take initial margin on transactions with hedge funds, in addition to fully securing any current credit exposure. Collateral coverage of corporate, monoline, and sovereign exposures is much less than coverage of financial institutions and hedge funds, although coverage of corporate exposures has been increasing over the past several years because of increases in the volume of trades cleared at central counterparties.

Table 7. Ratio of Fair Value Collateral to Net Current Credit Exposure

	FV Banks & Securities Firms	FV Monoline Financial Firms	FV Hedge Funds	FV Sovereign Governments	FV Corp and All Other Counterparties	FV/NCCE%
2017 Q4	124.4%	0.0%	495.5%	25.1%	89.8%	111.5%
2017 Q3	133.6%	0.0%	461.8%	34.1%	77.9%	109.2%
2017 Q2	125.7%	0.0%	522.3%	35.0%	77.5%	108.6%
2017 Q1	122.7%	0.0%	579.9%	34.5%	77.4%	106.7%
2016 Q4	119.0%	0.0%	491.5%	34.2%	67.1%	98.5%
2015 Q4	101.6%	5.2%	435.5%	15.6%	66.2%	89.6%
2014 Q4	94.4%	0.0%	361.5%	11.0%	59.5%	80.6%

Source: Call reports, Schedule RC-L

Collateral quality held by banks was very high and liquid during the quarter, with 63.1 percent held in cash (both U.S. dollar and non-dollar) and an additional 12.2 percent held in U.S.

Treasuries and government agency securities (see table 8). Supervisors assess changes in the quality of collateral held as a key early indicator of potential easing in credit terms. Examiners review the collateral management practices of derivative dealers as a regular part of their supervision activities.

Table 8. Composition of Collateral

	Cash U.S. Dollar	Cash Other Currencies	U.S. Treasury Securities	U.S. Gov't Agency	Corp Bonds	Equity Securities	All Other Collateral
2017 Q4	37.6%	25.5%	10.3%	1.9%	2.5%	5.7%	16.4%
2017 Q3	38.2%	26.8%	10.1%	2.1%	2.2%	5.8%	14.8%
2017 Q2	40.9%	27.6%	9.5%	2.1%	2.0%	5.3%	12.5%
2017 Q1	42.0%	27.5%	8.3%	1.9%	2.0%	5.5%	12.8%
2016 Q4	40.1%	31.5%	8.1%	1.7%	1.6%	5.0%	12.0%
2015 Q4	43.7%	31.7%	4.6%	1.6%	1.4%	5.3%	11.7%
2014 Q4	43.8%	31.9%	4.1%	1.7%	1.2%	1.7%	15.7%

Source: Call reports, Schedule RC-L

Credit quality metrics for derivative exposures declined slightly in the fourth quarter of 2017, as banks reported net charge-offs of \$10.3 million, compared to net recoveries of \$8.8 million in the third quarter of 2017 (see graph 7 in the appendix). The number of banks reporting charge-offs remained the same at seven banks. Net charge-offs in the fourth quarter of 2017 represented 0.003 percent of the NCCE from derivative contracts. For comparison purposes, commercial and industrial (C&I) loan net charge-offs increased \$499.8 million, or 31.2 percent, to \$2.1 billion during the quarter and were 0.1 percent of total C&I loans. Charge-offs of derivative exposures typically are associated with problem commercial lending exposures, in which the borrower has an associated swap transaction.

Market Risk**Value-at-Risk**

Banks primarily control market risk in trading operations by establishing limits against potential losses. Banks use VaR to quantify the maximum expected loss over a specified time period and at a certain confidence level under relevant market conditions. Since VaR does not measure the maximum potential loss, banks stress test trading portfolios to assess the potential for loss beyond the VaR measure. Banks and supervisors have been working to expand the use of stress testing to complement the VaR risk measurement process that banks typically use to assess a bank's exposure to market risk.

The large trading banks disclose average VaR data in published financial reports. Comparing the VaR numbers over time to equity capital and net income provides perspective on the market risk of trading activities. As shown in table 9, market risk reported by the five largest banking companies, as measured by VaR, is small as a percentage of their equity capital.

Table 9. Value-at-Risk at Major Bank Holding Companies, in Millions of Dollars

	JPMORGAN	CITIGROUP	BANK OF AMERICA	GOLDMAN	MORGAN STANLEY	TOTAL
Q4 2017	\$34	\$91	\$41	\$54	\$38	\$258
Q3 2017	\$30	\$89	\$47	\$47	\$43	\$256
Q/Q Change	\$4	\$2	-\$6	\$7	-\$5	\$2
Q/Q % Change	13.3%	2.2%	-12.8%	14.9%	-11.6%	0.8%
Equity Capital	\$255,693	\$201,334	\$267,146	\$82,243	\$77,434	\$883,850
2017 Net Income	\$64,575	\$17,943	\$48,925	\$16,841	\$17,239	\$165,523
Avg VaR/Equity	0.0%	0.1%	0.0%	0.1%	0.1%	0.0%
Avg VaR/Net Income	0.1%	0.5%	0.1%	0.3%	0.2%	0.2%

Source: 10K and 10Q U.S. Securities and Exchange Commission reports

VaR measures are not comparable across firms because of methodological differences in calculating VaR, as well as differences in the scope of coverage. These differences can result in materially different VaR estimates across firms, even for the same portfolios. When assessing trading risk in the banking system, it is therefore appropriate to review the trend in VaR at individual firms, not in aggregate across firms.

Because of methodological differences in calculating VaR, readers are cautioned that a higher VaR figure at a particular bank may not necessarily imply that the bank has more trading risk than another bank with a lower VaR. For example, JPMorgan, Goldman Sachs, and Morgan Stanley calculate VaR using a 95 percent confidence interval. If those firms used a 99 percent confidence interval, as Bank of America and Citigroup do, their VaR estimates would be meaningfully higher. The data series used to measure risk also is an important factor in the calculated risk. VaR for a single portfolio of exposures will differ if the historical period used to measure risk differs. The scope of coverage of the VaR measure is also important when reviewing risks across institutions. Some firms disclose VaR based only on their trading and intermediation activity, while others also include risks from hedging mortgage-servicing assets, fair value option portfolios, and asset and liability management activities. Graph 16 in the appendix illustrates the trend over the past seven years in average VaR at each of the top five large banking companies.

Figure 3 shows the VIX, a volatility index,⁴ which measures the market’s expectation of stock market volatility in the S&P 500 index over the next 30-day period. The chart illustrates that there has been an extended period of low volatility since the end of the financial crisis.

Figure 3. Volatility Index (VIX)

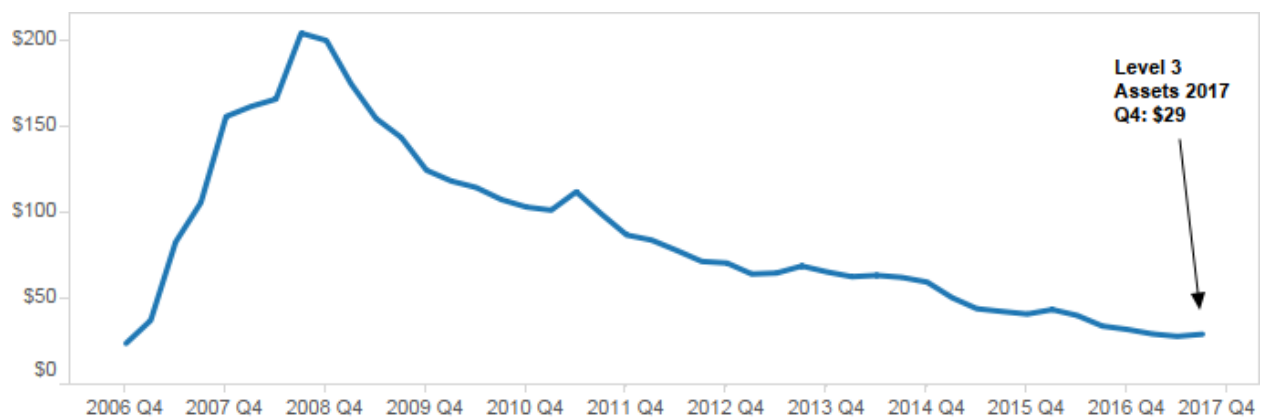


Source: Bloomberg

Level 3 Trading Assets

Another measure used to assess market risk is the volume of and changes in level 3 trading assets. Level 3 trading assets are assets whose fair value cannot be determined by using observable inputs, such as market prices. Since the peak of the financial crisis at the end of 2008, major dealers have reduced the volume of level 3 trading assets. Because banks cannot observe inputs into the models that determine the fair value of these illiquid exposures, banks use their own assumptions in determining their fair values. Level 3 assets peaked at \$204.1 billion at the end of 2008 (see figure 4). At the end of the fourth quarter of 2017, banks held \$29.1 billion of level 3 trading assets, up 4.5 percent from the previous quarter, and 14.0 percent lower than a year ago. Level 3 assets are \$175.0 billion (85.7 percent) lower than the peak level from 2008.

Figure 4. Level 3 Trading Assets, in Billions of Dollars



Source: Call reports, Schedule RC-Q

⁴ VIX is the trademarked ticker symbol for the Chicago Board Options Exchange SPX Volatility Index.

Credit Derivatives

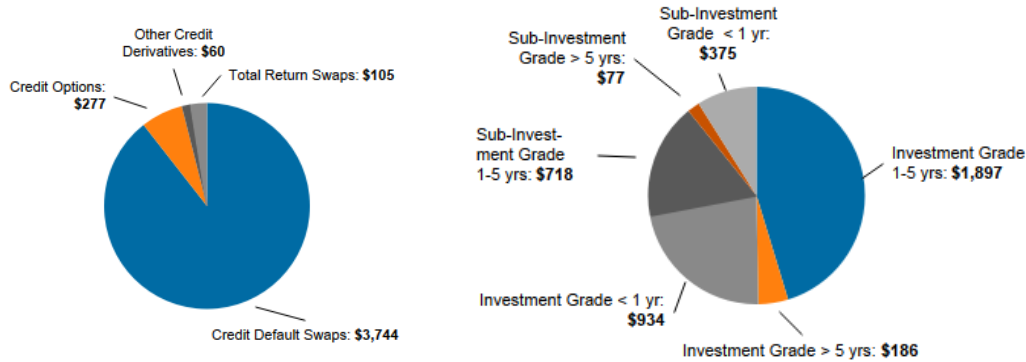
The notional amounts outstanding of credit derivatives decreased \$904.0 billion (17.8 percent), to \$4.2 trillion, in the fourth quarter of 2017. Contracts referencing sub-investment-grade firms decreased \$273.1 billion in the fourth quarter, while contracts referencing investment-grade firms decreased \$631.0 billion. Credit derivatives outstanding remained well below the peak of \$16.4 trillion in the first quarter of 2008 (see graphs 1 and 14 in the appendix). As shown in figure 5, credit default swaps are the dominant product, at \$3.7 trillion (89.4 percent) of all credit derivative notional amounts (see also tables 11 and 12 in the appendix).

Contracts referencing investment-grade entities with maturities from one to five years, which decreased by \$188.6 billion (9.0 percent) in the quarter, represented the largest segment of the market at 45.3 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are 72.1 percent of the market (see chart on right in figure 5 and graph 14 in the appendix).

Figure 5. 2017 Q4 Credit Derivative Composition, in Billions of Dollars

By Product Type

By Maturity and Quality of Underlying Reference Entity



Source: Call reports, Schedule RC-L

The notional amount for the 71 banks that net sold credit protection (i.e., assumed credit risk) was \$2.0 trillion, down \$453.9 billion (18.2 percent) from the third quarter of 2017. The notional amount for the 59 banks that net purchased credit protection (i.e., hedged credit risk) was \$2.1 trillion, \$430.0 billion lower (18.4 percent) than in the third quarter of 2017 (see table 12 in the appendix).

Notional Amounts

Changes in notional amounts are generally reasonable reflections of business activity and can provide insight into potential revenue and operational issues. The notional amount of derivative contracts, however, does not provide a useful measure of market or credit risk.

The notional amount of derivative contracts held by banks in the fourth quarter decreased by \$16.4 trillion (8.7 percent) to \$172.0 trillion from the previous quarter (see table 10). The decrease in the notional amount of derivative contracts by underlying risk exposure was primarily driven by a \$10.8 trillion decrease in interest rate notional amounts and a \$4.6 trillion decrease in foreign exchange notional amounts. Interest rate notional amounts continued to

represent the majority of banks' derivative holdings at \$130.4 trillion, or 75.8 percent of total derivatives during the fourth quarter of 2017 (see table 10).

The decrease in the notional amount of derivative contracts by contract type was driven by a decrease across all contract types (see table 11). Swap contracts remained the leading derivatives contract type at 55.0 percent of all notional amounts.

The four banks with the most derivative activity hold 89.4 percent of all bank derivatives, while the largest 25 banks account for nearly 100 percent of all contracts (see tables 3 and 5 and graph 4 in the appendix).

Table 10. Derivative Notional Amounts by Underlying Risk Exposure Quarter-Over-Quarter, in Billions of Dollars

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change	2016 Q4	Y/Y Change	Y/Y % Change
Interest Rate	\$130,423	\$141,256	-\$10,834	-7.7%	\$124,480	\$5,943	4.8%
Foreign Exchange	\$32,903	\$37,457	-\$4,554	-12.2%	\$31,737	\$1,165	3.7%
Equity	\$3,080	\$3,056	\$24	0.8%	\$2,475	\$604	24.4%
Commodity	\$1,373	\$1,478	-\$105	-7.1%	\$1,257	\$116	9.2%
Credit Derivatives	\$4,186	\$5,090	-\$904	-17.8%	\$5,293	-\$1,107	-20.9%
Total Notional	\$171,964	\$188,337	-\$16,373	-8.7%	\$165,243	\$6,721	4.1%

Source: Call reports, Schedule RC-L

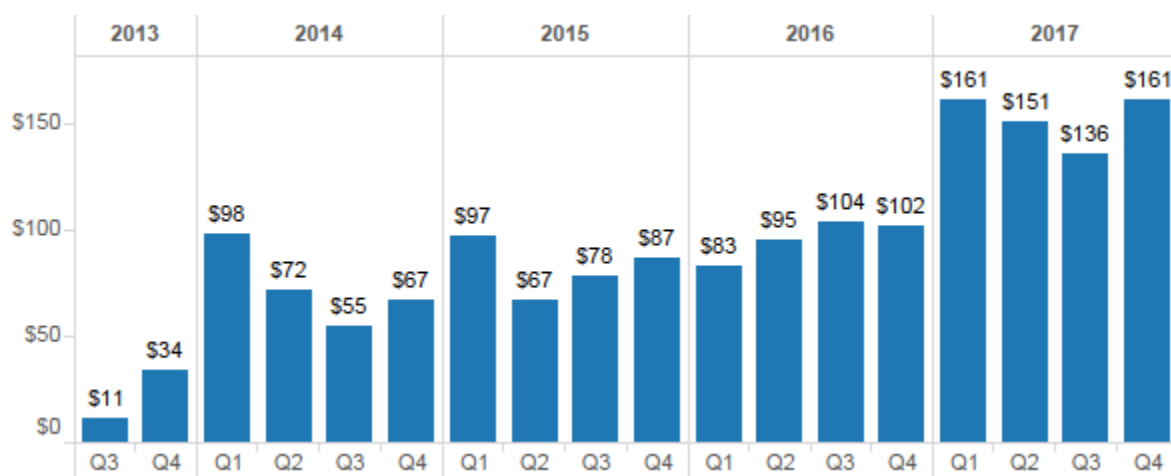
Table 11. Derivative Notional Amounts by Contract Type Quarter-Over-Quarter, in Billions of Dollars

	2017 Q4	2017 Q3	Q/Q Change	Q/Q % Change	2016 Q4	Y/Y Change	Y/Y % Change
Futures & Forwards	\$34,407	\$40,119	-\$5,711	-14.2%	\$34,193	\$214	0.6%
Swaps	\$94,524	\$101,821	-\$7,297	-7.2%	\$96,384	-\$1,860	-1.9%
Options	\$38,847	\$41,307	-\$2,460	-6.0%	\$29,373	\$9,474	32.3%
Credit Derivatives	\$4,186	\$5,090	-\$904	-17.8%	\$5,293	-\$1,107	-20.9%
Total Notional	\$171,964	\$188,337	-\$16,373	-8.7%	\$165,243	\$6,721	4.1%

Source: Call reports, Schedule RC-L

Compression Activity

Notional amounts of banks' derivative contracts have generally declined since 2011 because of trade compression efforts, leading to less need for risk management products. Trade compression continues to be a significant factor in reducing the amount of notional derivatives outstanding. Trade compression aggregates a large number of swap contracts with similar factors, such as risk or cash flows, into fewer trades. Compression removes economic redundancy in a derivative book and reduces operational risk and capital costs for large banks. Trade compression activities increased in the fourth quarter of 2017, as shown in figure 6.

Figure 6. Quarterly Compression Activity, in Trillions of Dollars


Source: LCH.Clearnet

In the first quarter of 2015, banks began reporting their volumes of cleared and non-cleared derivative transactions, as well as risk weights for counterparties in each of these categories. In the fourth quarter of 2017, 38.0 percent of banks' derivative holdings were centrally cleared (see table 12). From a market factor perspective, 47.8 percent of interest rate derivative contracts' notional amounts outstanding were centrally cleared, while very little of the FX derivative market was centrally cleared. The bank-held credit derivative market remained largely uncleared, as 28.0 percent of investment grade and 21.4 percent of non-investment-grade transactions were centrally cleared (see graph 15 in the appendix).

Centrally cleared derivative transactions were heavily concentrated at qualified central counterparties, with 89.7 percent of notional amounts reflecting the 2 percent risk weight applicable to such counterparties.

Table 12. Centrally Cleared Derivative Contracts as a Percentage of Total Derivative Contracts

	Interest Rate	Foreign Exchange	Equity	Precious Metals	Credit	Other	Total
2017 Q4	47.8%	1.0%	25.7%	7.8%	25.8%	15.0%	38.0%
2017 Q3	50.2%	1.3%	28.6%	4.3%	26.2%	15.5%	39.6%
2017 Q2	50.8%	1.1%	27.3%	4.9%	23.6%	15.5%	40.3%
2017 Q1	49.8%	1.2%	25.1%	5.0%	22.3%	16.0%	39.2%
2016 Q4	49.2%	1.0%	23.5%	5.1%	20.4%	15.0%	38.8%
2016 Q3	49.2%	0.7%	24.3%	6.4%	21.2%	14.9%	39.0%
2016 Q2	49.1%	0.5%	22.1%	5.5%	18.3%	13.7%	39.1%
2016 Q1	45.4%	0.5%	21.4%	4.4%	19.4%	13.6%	36.5%
2015 Q4	46.2%	0.5%	20.0%	3.7%	16.8%	14.0%	36.9%
2015 Q3	44.7%	0.5%	14.5%	5.0%	20.4%	12.5%	36.0%
2015 Q2	43.1%	0.3%	13.6%	2.6%	19.6%	10.7%	35.0%
2015 Q1	44.7%	0.2%	13.6%	1.6%	19.7%	16.0%	36.5%

Source: Call reports, Schedule RC-R

Glossary of Terms

Bilateral netting: A legally enforceable arrangement between a bank and a counterparty that creates a single legal obligation covering all included individual contracts. This arrangement means that a bank's receivables or payables, in the event of the default or insolvency of one of the parties, would be the net sum of all positive and negative fair values of contracts included in the bilateral netting arrangement.

Centrally cleared derivative contract: A standardized derivative contract that is transacted bilaterally but submitted for clearing to a central counterparty, with the central counterparty becoming the ultimate counterparty to both the buyer and the seller.

Credit derivative: A financial contract that allows a party to take on or reduce credit exposure (generally on a bond, loan, or index). The OCC's derivatives survey includes OTC credit derivatives, such as credit default swaps, total return swaps, and credit spread options.

Derivative: A financial contract in which the value is derived from the performance of underlying market factors, such as interest rates, currency exchange rates, and commodity, credit, and equity prices. Derivative transactions include a wide assortment of financial contracts, such as structured debt obligations and deposits, swaps, futures, options, caps, floors, collars, forwards, and various combinations thereof.

Gross negative fair value (GNFV): The sum total of the fair values of contracts when the bank owes money to its counterparties, without taking into account netting. This amount represents the maximum losses the bank's counterparties would incur if the bank defaulted and there was no netting of contracts, and the counterparties held no bank collateral. GNFVs associated with credit derivatives are included.

Gross positive fair value (GPFV): The sum total of the fair values of contracts when the bank is owed money by its counterparties, without taking into account netting. This amount represents the maximum losses a bank would incur if all its counterparties defaulted and there was no netting of contracts, and the bank held no counterparty collateral. GPFVs associated with credit derivatives are included.

Net current credit exposure (NCCE): For a portfolio of derivative contracts, NCCE is the GPFV of contracts less the dollar amount of netting benefits. On any individual contract, current credit exposure (CCE) is the fair value of the contract if positive, and zero when the fair value is negative or zero. NCCE is also the net amount owed to banks if all contracts were immediately liquidated.

Notional amount: The nominal or face amount that is used to calculate payments made on swaps and other risk management products. This amount generally does not change hands and is thus referred to as notional.

OTC derivative contracts: Privately negotiated derivative contracts that are transacted off of organized exchanges.

Potential future exposure (PFE): An estimate of what the CCE could be over time, based on a supervisory formula in the agencies' risk-based capital rules. PFE is generally determined by multiplying the notional amount of the contract by a credit conversion factor that is based on the underlying market factor (e.g., interest rates, commodity prices, or equity prices) and the contract's remaining maturity. The risk-based capital rules, however, permit banks to adjust the

formulaic PFE measure by the net-to-gross ratio, which proxies the risk-reduction benefits attributable to a valid bilateral netting contract. PFE data in this report use the amounts on which banks hold risk-based capital.

Qualified central counterparty: Qualified central counterparties are defined in 12 CFR 3.2 as either a CCP that the Financial Stability Oversight Council has designated systemically important under Title VIII of the Dodd-Frank Wall Street Reform and Consumer Protection Act or meets a series of standards, see 12 CFR 3.2 for full definition.

Total credit exposure (TCE): The sum total of NCCE and PFE.

Total risk-based capital: The sum of tier 1 plus tier 2 capital. Tier 1 capital generally consists of common shareholders' equity, perpetual preferred shareholders' equity with noncumulative dividends, retained earnings, and tier 1 capital of consolidated subsidiaries that is not owned by the bank (minority interest), less regulatory adjustments and deductions. Tier 2 capital generally consists of subordinated debt, intermediate-term preferred stock, cumulative and long-term preferred stock, tier 2 capital of consolidated subsidiaries that is not owned by the bank (minority interest), and a portion of a bank's allowance for loan and lease losses less regulatory adjustments and deductions.

Trade compression: A significant factor in reducing the amount of notional derivatives outstanding. Trade compression aggregates a large number of swap contracts with similar factors, such as risk or cash flows, into fewer trades. Compression removes economic redundancy in a derivative book and reduces operational risks and capital costs for large banks.

Volatility index (VIX): A measure of the market's expectation of stock market volatility of S&P 500 index options over the next 30-day period.

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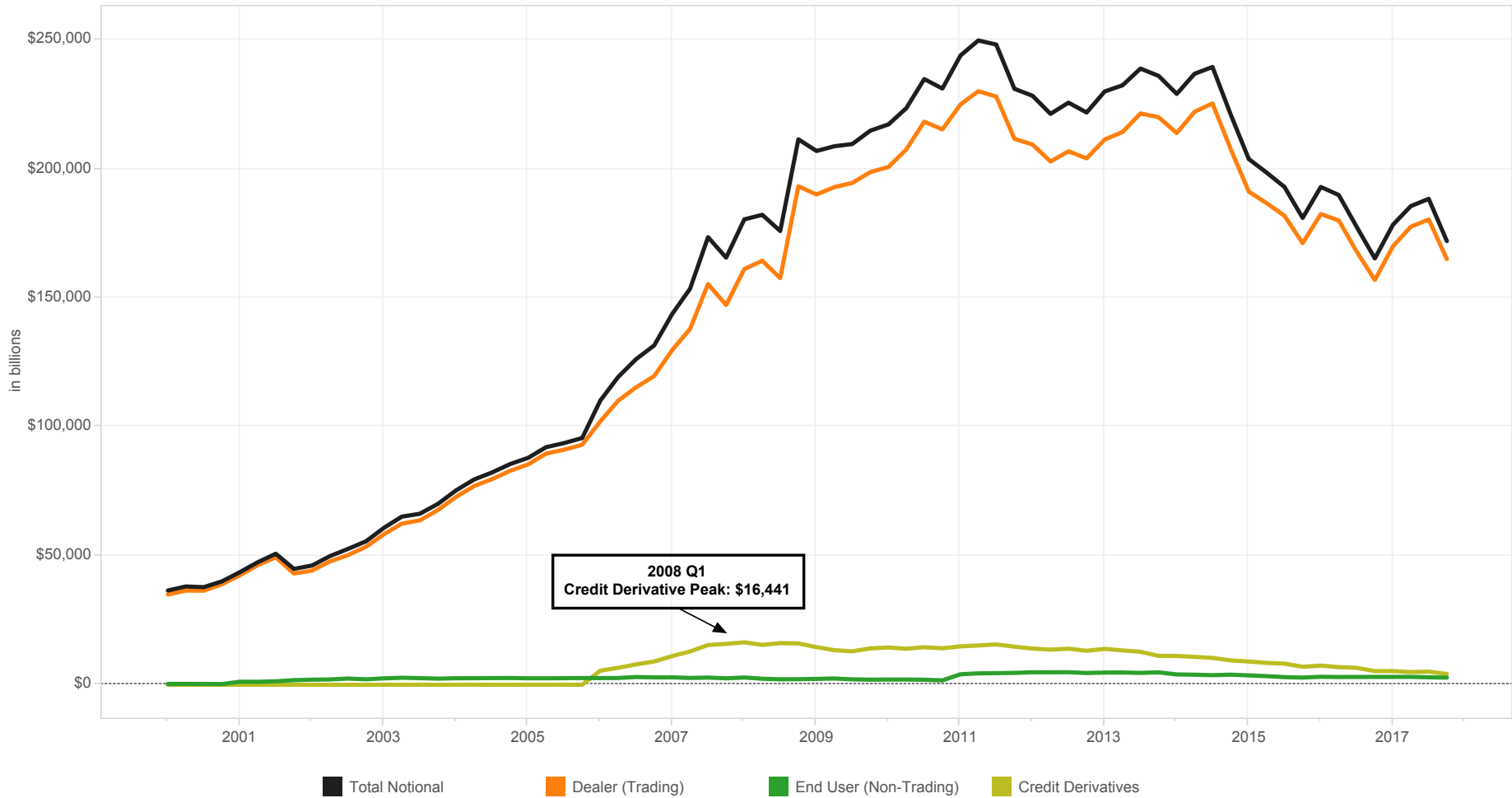
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Table 13. Derivatives Data Reported By FFIEC 051 Filers

Graph 1
Derivative Notional Amounts by Type
Insured U.S. Commercial Banks and Savings Associations

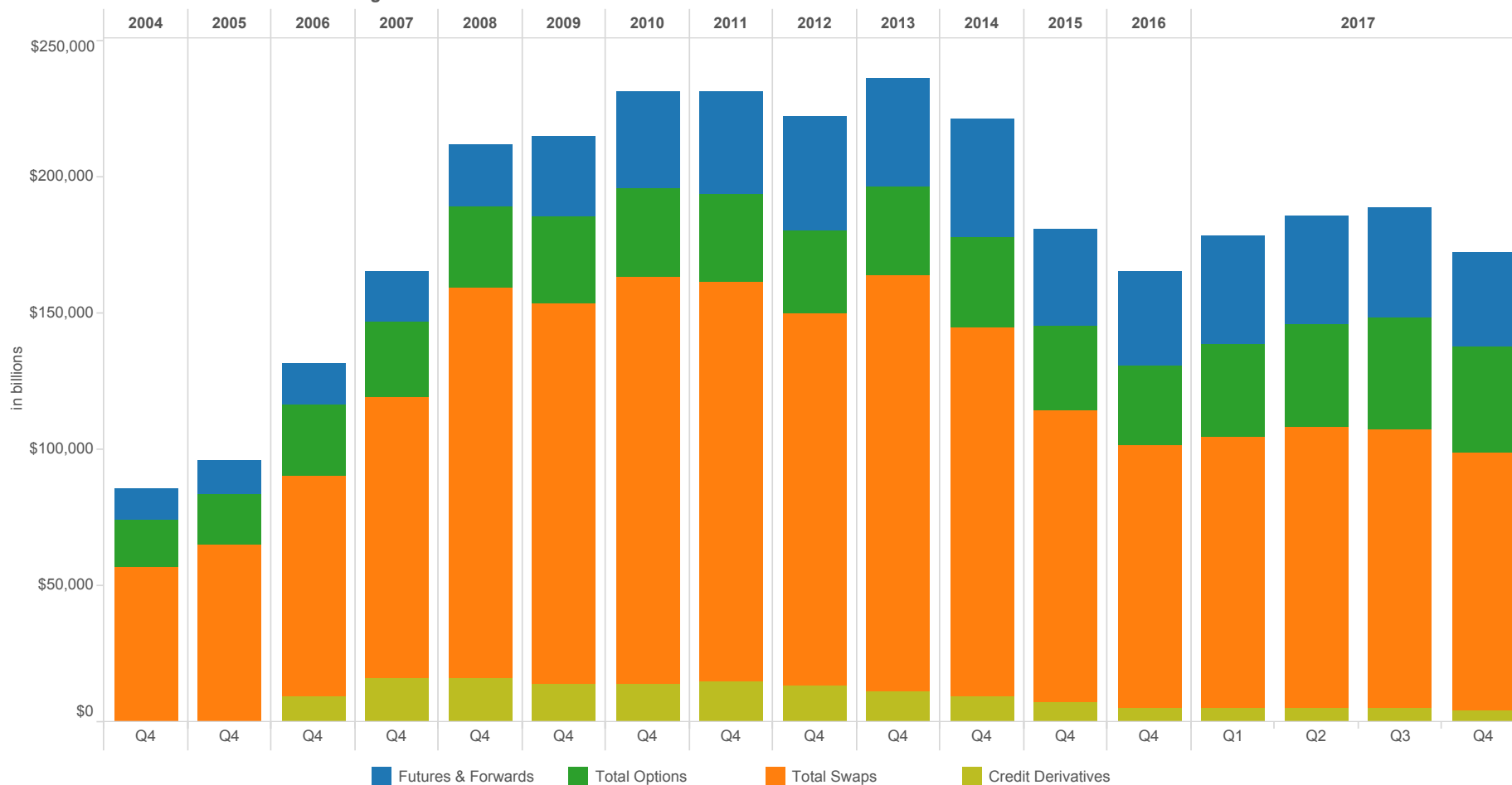


In billions of dollars

	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Total Notional	\$229,987	\$232,342	\$238,827	\$235,992	\$229,011	\$236,808	\$239,459	\$221,078	\$203,771	\$198,523	\$192,937	\$180,952	\$192,947	\$189,834	\$177,461	\$165,243	\$178,330	\$185,516	\$188,337	\$171,964
Dealer (Trading)	211,353	214,240	221,425	219,990	213,838	222,078	225,318	207,711	191,123	186,686	181,777	171,172	182,437	179,971	167,873	156,901	169,971	177,519	180,344	165,004
End User (Non-Trading)	4,733	4,776	4,610	4,812	4,008	3,903	3,732	3,918	3,632	3,349	2,963	2,794	3,092	3,010	3,025	3,049	3,056	3,063	2,903	2,774
Credit Derivatives	13,901	13,327	12,793	11,191	11,165	10,827	10,408	9,449	9,017	8,488	8,198	6,986	7,418	6,853	6,562	5,293	5,304	4,935	5,090	4,186

Note: Numbers may not add up to total due to rounding. Total derivative notionals are now reported including credit derivatives, for which regulatory reporting does not differentiate between trading and non-trading.
Source: Call reports

Graph 2
Derivative Contracts by Product*
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

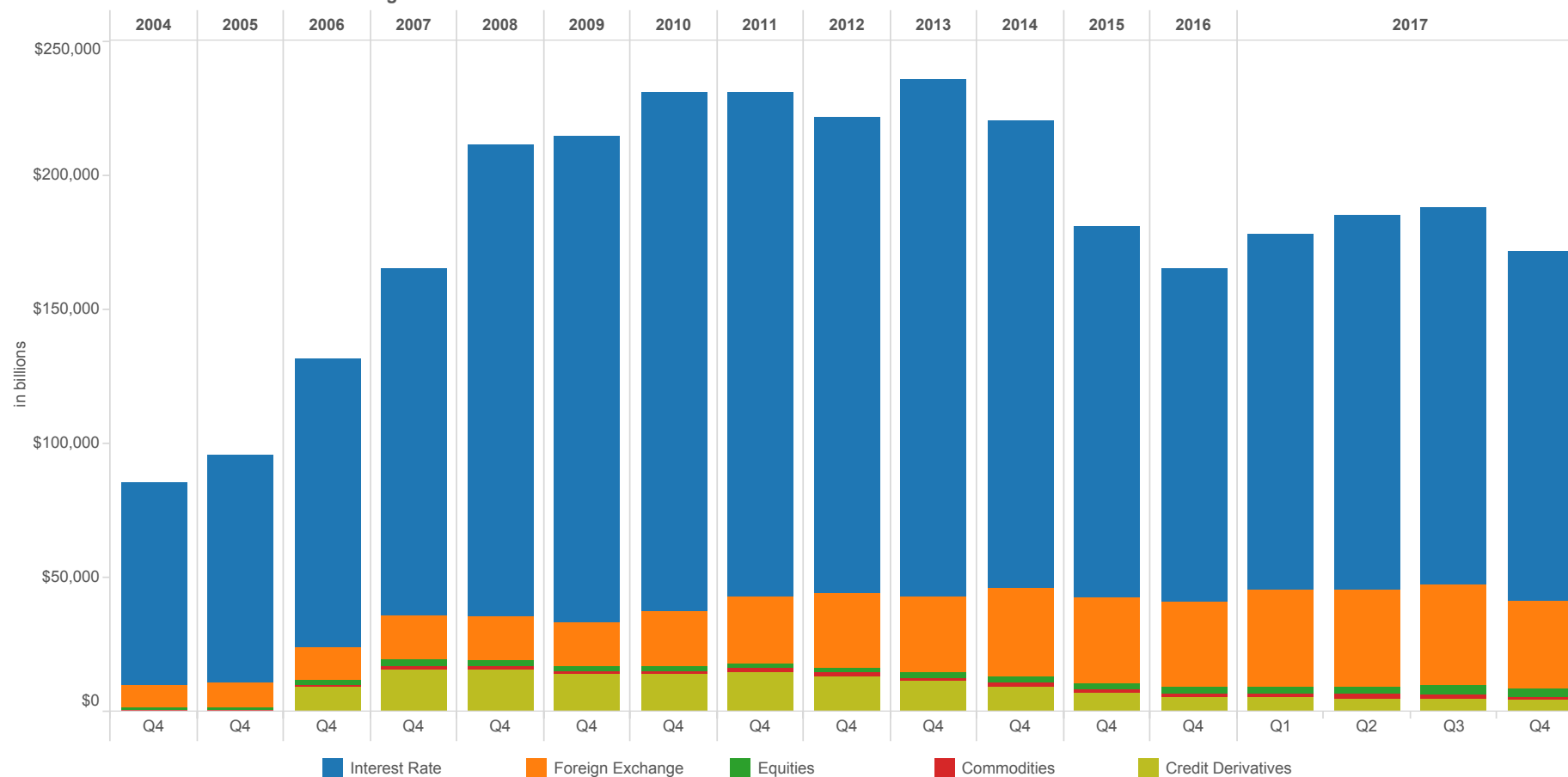
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3	Q4
Futures & Forwards	\$11,370	\$12,057	\$14,882	\$18,867	\$22,529	\$29,652	\$35,539	\$37,469	\$41,621	\$40,027	\$43,380	\$35,685	\$34,193	\$39,858	\$39,841	\$40,119	\$34,407
Total Options	17,754	18,858	26,277	27,727	29,747	31,884	32,078	32,505	30,375	32,305	33,081	30,889	29,373	33,986	37,736	41,307	38,847
Total Swaps	56,411	64,712	81,340	103,102	143,111	139,138	149,331	146,266	136,608	152,469	135,169	107,392	96,384	99,183	103,004	101,821	94,524
Credit Derivatives	0	0	9,020	15,863	16,029	14,112	14,151	14,759	13,190	11,191	9,449	6,986	5,293	5,304	4,935	5,090	4,186
Total Notional	85,536	95,627	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,952	165,243	178,330	185,516	188,337	171,964

*Notional amount of total: futures, exchange-traded options, over the counter options, forwards and swaps.

Note: Numbers may not add up to total due to rounding.

Source: Call reports

Graph 3
Derivative Contracts by Type*
Insured U.S. Commercial Banks and Savings Associations

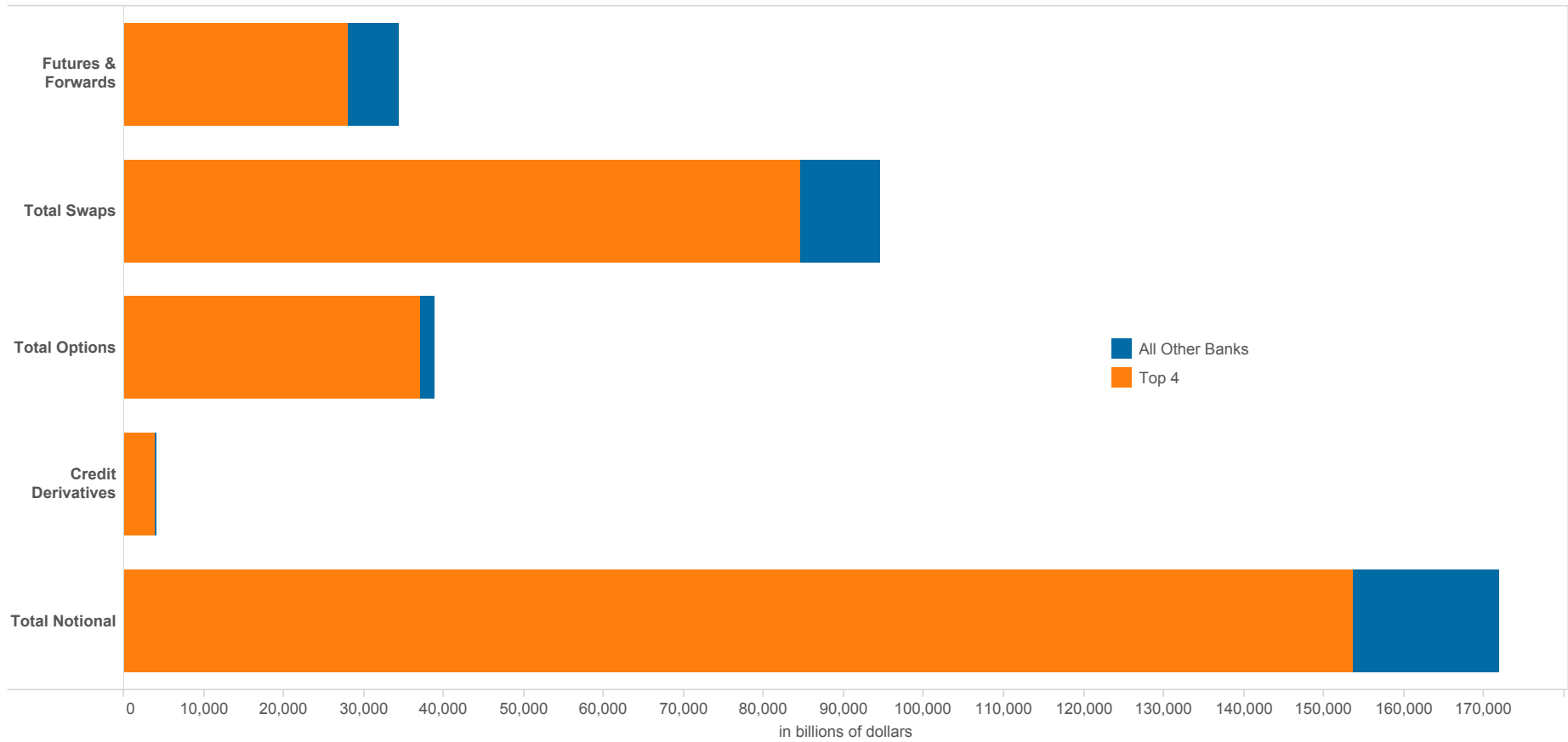


In billions of dollars

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3	Q4
Interest Rate	\$75,533	\$84,530	\$107,435	\$129,491	\$175,895	\$181,454	\$193,399	\$187,866	\$177,650	\$193,084	\$174,687	\$138,363	\$124,480	\$132,690	\$139,817	\$141,256	\$130,423
Foreign Exchange	8,607	9,289	11,900	16,614	16,224	16,555	20,990	25,436	27,587	28,480	33,183	32,100	31,737	36,161	36,521	37,457	32,903
Equities	1,112	1,255	2,271	2,524	2,207	1,685	1,364	1,606	1,970	2,028	2,537	2,395	2,475	2,826	2,908	3,056	3,080
Commodities	284	552	893	1,067	1,061	979	1,195	1,330	1,397	1,209	1,222	1,108	1,257	1,350	1,334	1,478	1,373
Credit Derivatives	0	0	9,020	15,863	16,029	14,112	14,151	14,759	13,190	11,191	9,449	6,986	5,293	5,304	4,935	5,090	4,186
Total Notional	85,536	95,627	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,952	165,243	178,330	185,516	188,337	171,964

Note: As of 2006 Q2 equities and commodities types are shown as separate categories. They were previously shown as "Other Derivs."
 Numbers may not add up to total due to rounding.
 Source: Call reports

Graph 4
Four Banks Dominate in Derivatives*
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

	Top 4	All Other Banks	Grand Total
Futures & Forwards	\$28,145	\$6,263	\$34,407
Total Swaps	84,598	9,926	94,524
Total Options	37,003	1,844	38,847
Credit Derivatives	4,021	165	4,186
Total Notional	153,766	18,198	171,964

*Notional amount of total: futures, exchange-traded options, over-the-counter options, forwards, and swaps.
 Source: Call reports

Graph 5
Credit Exposure to Risk-Based Capital (in Percentage)
Top 4 Insured U.S. Commercial Banks and Savings Associations by Derivative Holdings

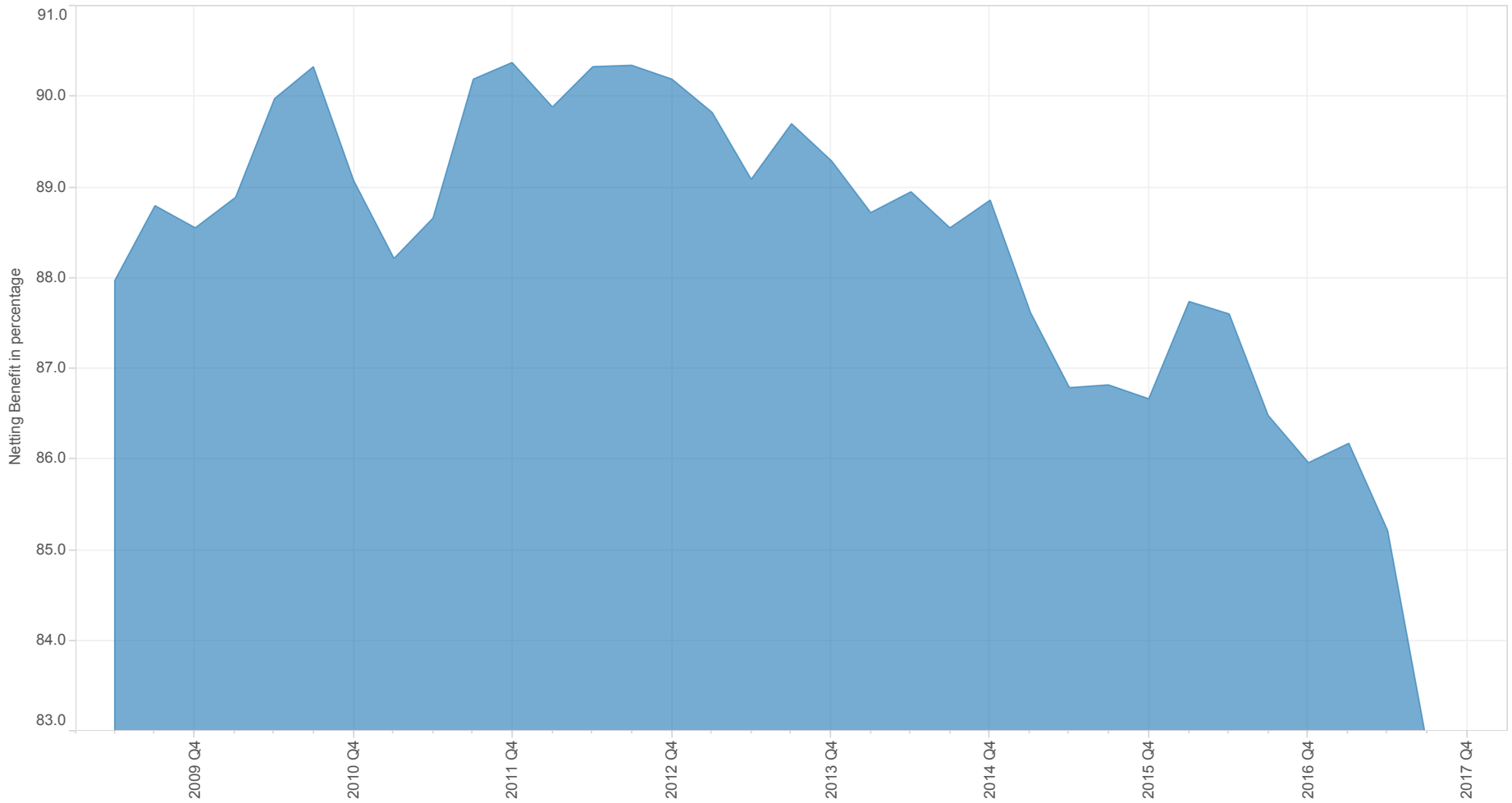


	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
JPMorgan Chase Bank NA	219	216	205	183	183	189	181	177	229	228	219	209	225	221	216	199	201	193	195	179
Bank of America NA	129	125	121	117	109	107	107	93	100	95	91	85	81	77	68	66	66	64	59	57
Citibank NA	165	164	161	148	147	156	190	173	187	184	181	166	180	181	188	183	186	184	171	141
Goldman Sachs	703	693	719	741	689	620	539	516	547	563	530	516	482	467	433	481	472	484	433	420
TOTAL	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	261	258	262	262	248	240	224	211	238	242	232	223	226	222	217	220	220	218	205	191

Note: The methodology to calculate the credit risk exposure to capital ratio for the Top 4 category uses a weighted average of total current credit exposure.
 Source: Call reports

Graph 6

Netting Benefit*: Amount of Gross Credit Exposure Eliminated Through Bilateral Netting Insured U.S. Commercial Banks and Savings Associations by Derivative Holdings



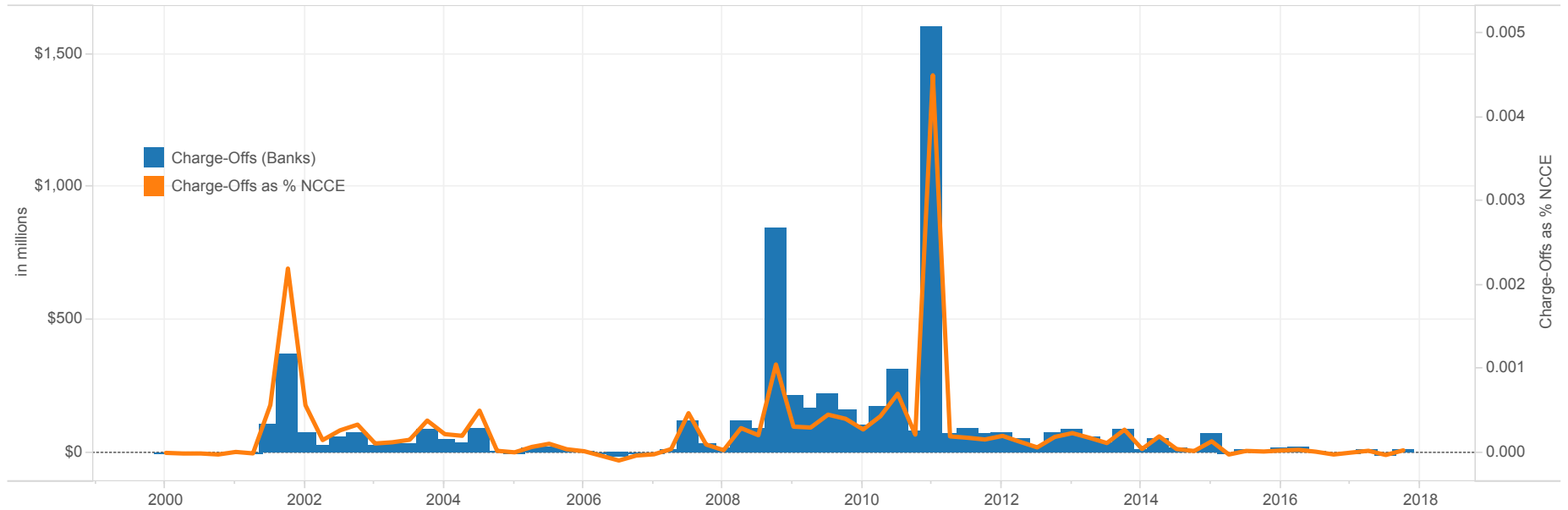
Netting Benefit (in percentage)

2009			2010				2011				2012				2013				2014				2015				2016				2017			
Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4				
88.0	88.8	88.5	88.9	90.0	90.3	89.1	88.2	88.6	90.2	90.4	89.9	90.3	90.3	90.2	89.8	89.1	89.7	89.3	88.7	88.9	88.6	88.8	87.6	86.8	86.8	86.7	87.7	87.6	86.5	86.0	86.2	85.2	82.9	81.6

*The netting benefit is defined as: \$ amount of netting benefits/gross positive fair value.
Source: Call reports, beginning the first quarter of 2015 RC-R; otherwise RC-L

Graph 7

**Quarterly Charge-Offs/(Recoveries) From Derivatives - Bank
Insured U.S. Commercial Banks and Savings Associations with Derivatives**



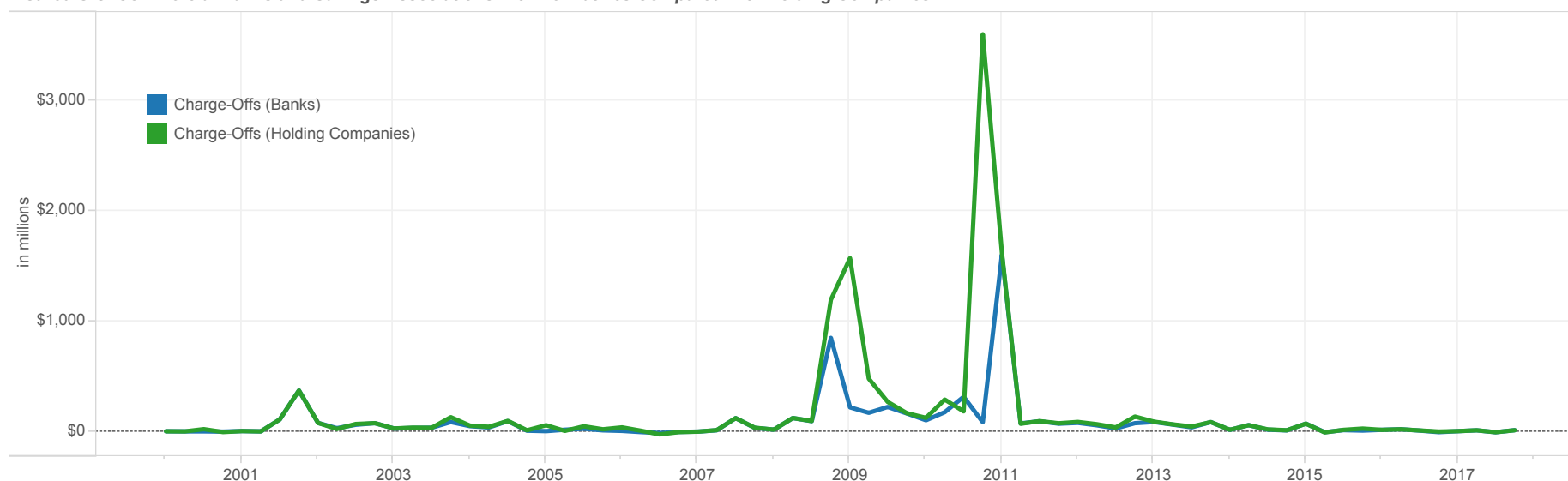
In millions of dollars

	2000				2001				2002				2003			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Charge-Offs (Banks)	0.0	-1.0	-1.0	-3.0	2.0	-1.0	107.3	370.0	75.8	28.2	59.0	73.7	25.3	29.9	32.3	83.7
	2004				2005				2006				2007			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Charge-Offs (Banks)	46.7	34.9	92.2	5.4	1.3	14.2	23.0	8.3	3.6	-7.0	-16.0	-5.8	-3.1	9.1	119.5	30.7
	2008				2009				2010				2011			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Charge-Offs (Banks)	15	120	92	847	217	168	221	162	100	173	313	83	1,601	72	91	69
	2012				2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Charge-Offs (Banks)	76.35	54.34	26.12	73.44	84.28	60.72	35.77	83.45	12.78	55.90	14.53	7.91	69.31	-7.93	10.44	6.40
	2016				2017											
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
Charge-Offs (Banks)	13.30	18.56	6.48	-7.84	1.22	8.71	-8.77	10.26								

Note: The figures are for each quarter alone, not year-to-date.
 NCCE: Pre 2009 Q2 (RC-R); 2009 Q2 - 2014 Q4 (RC-L); 2015 Q1 onward (RC-R)
 Source: Call reports

Graph 8

Quarterly Charge-Offs/(Recoveries) From Derivatives - Holding Company
Insured U.S. Commercial Banks and Savings Associations with Derivatives Compared with Holding Companies

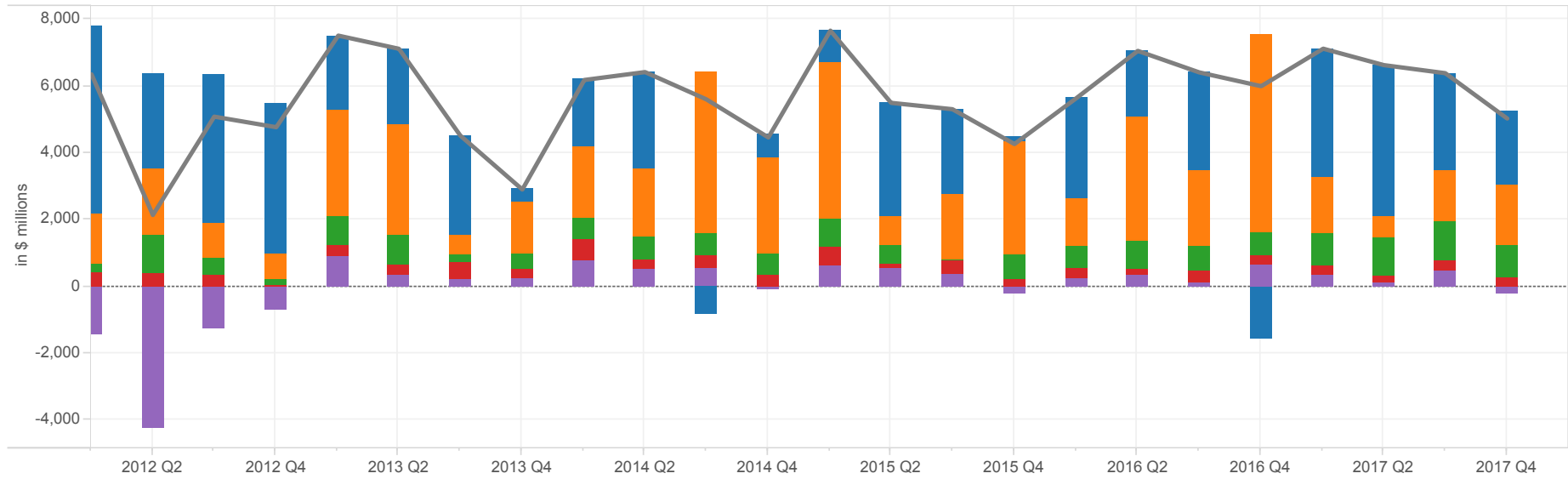


In millions of dollars

	2000				2001				2002				2003											
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
Charge-Offs (Banks)	0.0	-1.0	-1.0	-3.0	2.0	-1.0	107.3	370.0	75.8	28.2	59.0	73.7	25.3	29.9	32.3	83.7								
Charge-Offs (Holding Companies)	0.1	-1.0	19.3	-7.0	2.0	-1.0	107.3	369.6	75.8	21.2	66.0	73.7	25.3	32.9	31.4	127.8								
	2004				2005				2006				2007											
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
Charge-Offs (Banks)	46.7	34.9	92.2	5.4	1.3	14.2	23.0	8.3	3.6	-7.0	-16.0	-5.8	-3.1	9.1	119.5	30.7								
Charge-Offs (Holding Companies)	51.2	40.4	94.2	9.0	54.9	3.6	45.1	18.1	35.4	5.4	-28.1	-7.2	-3.1	10.4	119.4	32.2								
	2008				2009				2010				2011											
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4								
Charge-Offs (Banks)	15	120	92	847	217	168	221	162	100	173	313	83	1,601	72	91	69								
Charge-Offs (Holding Companies)	15	120	93	1,192	1,570	477	266	164	122	288	181	3,598	1,617	68	92	73								
	2012				2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Charge-Offs (Banks)	76.3	54.3	26.1	73.4	84.3	60.7	35.8	83.5	12.8	55.9	14.5	7.9	69.3	-7.9	10.4	6.4	13.3	18.6	6.5	-7.8	1.2	8.7	-8.8	10.3
Charge-Offs (Holding Companies)	84.6	64.0	34.9	133.4	87.2	62.6	42.9	83.4	13.6	55.6	17.2	9.1	69.0	-10.2	12.9	24.5	12.8	18.0	7.5	-2.5	1.4	8.9	-8.3	9.6

Note: The figures are for each quarter alone, not year-to-date.
 Source: Call reports and Y-9

Graph 9a
Quarterly Trading Revenue (Cash and Derivative Positions)* - Bank
Insured U.S. Commercial Banks and Savings Associations



- Interest Rate
- Foreign Exchange
- Equity
- Commodity & Other
- Credit
- Total Trading Revenue

In millions of dollars

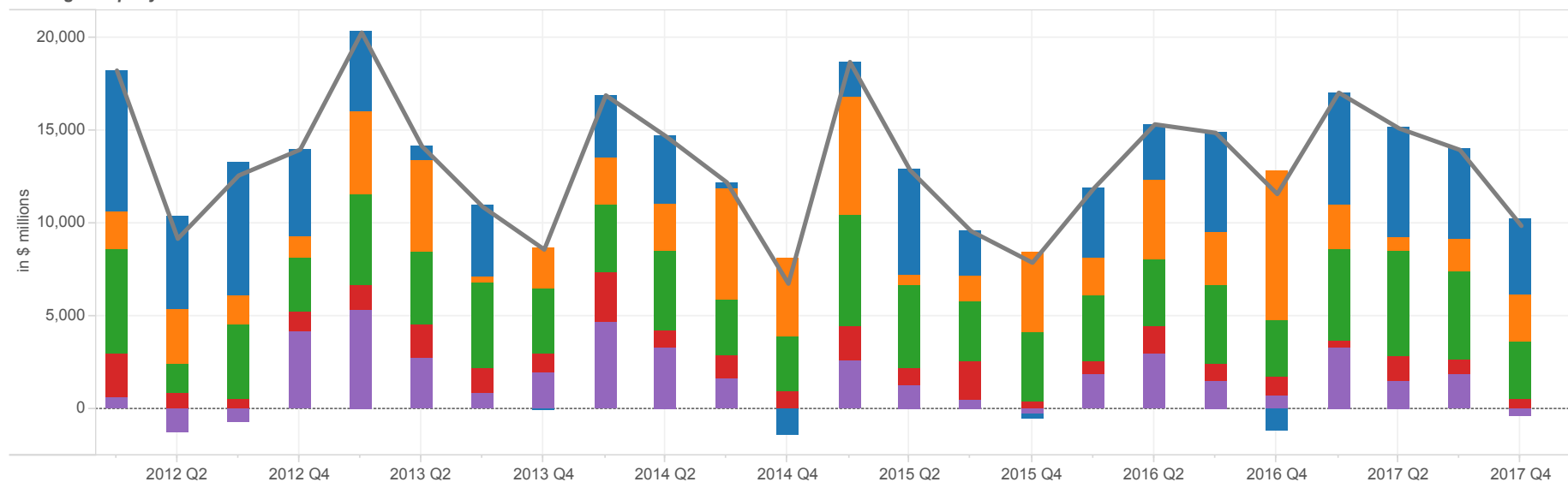
	4Q2017	Average Past 12 Q4's	Past 8 Quarter Average	Past 8 Quarter High	Past 8 Quarter Low	Since 2000 Average	Max Since 2000	Min Since 2000
Interest Rate	2,238	377	2,229	4,520	-5,282	1,718	9,291	-1,547
Foreign Exchange	1,796	3,510	2,498	5,941	-1,069	1,843	5,941	681
Equity	990	766	879	1,183	-1,059	579	1,830	668
Commodity & Other	251	270	261	353	-307	227	789	161
Credit	-237	24	201	634	-10,237	-173	2,727	-237
Total Trading Revenue	5,037	4,947	6,068	7,129	-10,580	4,194	10,217	4,273

In millions of dollars

	2012				2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Interest Rate	5,627	2,870	4,457	4,521	2,243	2,268	3,002	360	2,015	2,883	-819	664	958	3,406	2,578	154	3,023	1,973	2,920	-1,547	3,865	4,520	2,918	2,238
Foreign Exchange	1,505	1,990	1,020	753	3,185	3,303	588	1,550	2,137	2,026	4,830	2,902	4,703	855	1,931	3,401	1,424	3,719	2,294	5,941	1,685	681	1,540	1,796
Equity	260	1,140	508	187	838	924	233	491	612	726	654	650	797	587	49	742	668	867	734	681	922	1,122	1,183	990
Commodity & Other	412	390	350	30	364	292	481	265	672	293	411	335	587	129	402	198	271	161	353	296	328	206	284	251
Credit	-1,444	-4,243	-1,242	-713	890	339	222	245	756	500	535	-79	624	530	357	-222	263	342	118	634	330	108	470	-237
Total Trading Revenue	6,359	2,147	5,093	4,778	7,520	7,125	4,527	2,911	6,192	6,428	5,612	4,471	7,669	5,507	5,316	4,273	5,650	7,062	6,420	6,006	7,129	6,637	6,396	5,037

*The trading revenue figures are for cash and derivative activities. Revenue figures are for each quarter alone, not year-to-date.
 Note: Numbers may not add up to total due to rounding.
 Source: Call reports

Graph 9b
Quarterly Trading Revenue (Cash and Derivative Positions)*
Holding Company



- Interest Rate
- Foreign Exchange
- Equity
- Commodity & Other
- Credit
- Total Trading Revenue

In millions of dollars

	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Interest Rate	4,272	823	3,811	-94	3,395	3,645	353	-1,396	1,893	5,662	2,403	-243	3,808	2,965	5,359	-1,193	6,013	5,884	4,780	4,022
Foreign Exchange	4,414	4,890	320	2,205	2,472	2,521	5,985	4,243	6,329	552	1,393	4,338	2,025	4,318	2,899	8,007	2,440	721	1,766	2,584
Equity	4,960	3,936	4,561	3,484	3,682	4,296	2,938	2,947	6,022	4,481	3,196	3,696	3,441	3,612	4,159	3,021	4,902	5,682	4,705	3,096
Commodity & Other	1,324	1,746	1,347	1,052	2,617	924	1,242	954	1,833	871	2,146	412	738	1,491	969	1,003	399	1,330	784	523
Credit	5,292	2,761	855	1,949	4,718	3,292	1,687	14	2,603	1,294	452	-317	1,880	2,940	1,482	742	3,274	1,493	1,917	-356
Total Trading Revenue	20,262	14,156	10,893	8,595	16,885	14,679	12,205	6,762	18,680	12,860	9,590	7,887	11,892	15,327	14,868	11,579	17,028	15,111	13,953	9,870

*The trading revenue figures are for cash and derivative activities. Revenue figures are for each quarter alone, not year-to-date.

Note: Numbers may not add up to total due to rounding.

Source: Y9

Graph 10

Quarterly Trading Revenue (Cash and Derivative Positions) as a Percentage of Gross Revenue (in Percentage)
Top 4 Insured U.S. Commercial Banks and Savings Associations by Derivative Holdings



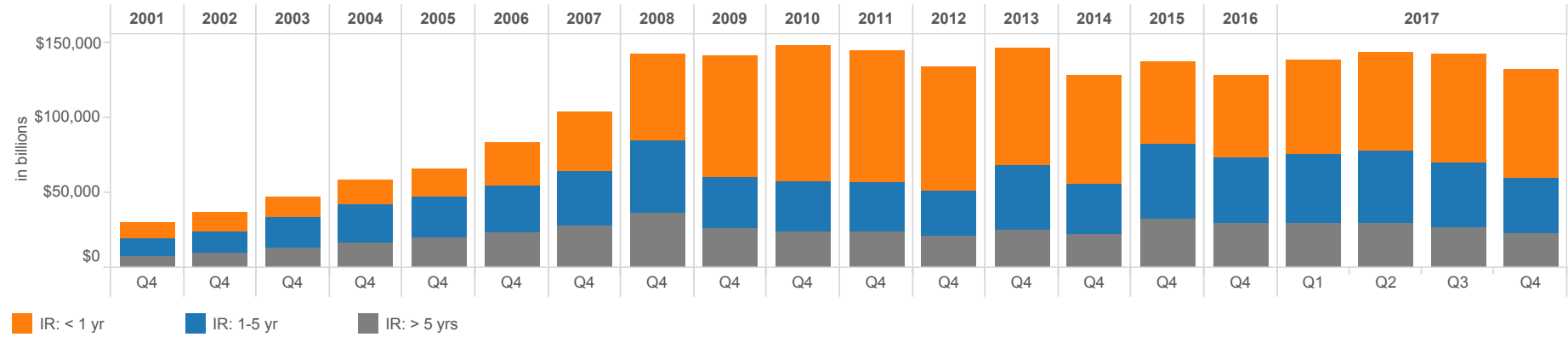
Trading Revenue to Gross Revenue (in percentage)*

	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
JPMorgan Chase Bank NA	18.65	18.73	10.67	1.24	12.63	13.31	13.47	6.97	17.73	13.25	12.65	7.03	12.26	13.34	13.83	11.17	13.84	12.16	11.64	7.94
Bank of America NA	3.39	-5.97	2.14	-1.58	7.80	9.11	5.11	3.68	6.78	0.49	5.19	1.72	3.90	6.87	4.18	3.28	4.70	4.49	4.09	3.87
Citibank NA	7.45	11.71	6.39	7.20	8.51	7.43	5.48	4.78	9.17	8.41	6.54	6.30	7.19	9.41	6.47	10.97	10.47	8.50	9.12	6.94
Goldman Sachs	32.65	37.30	11.54	24.45	23.67	22.21	13.74	13.06	15.85	17.32	13.32	6.16	23.78	9.54	12.16	7.22	17.71	15.66	7.10	2.15
TOTAL	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
	10.42	9.56	6.72	2.77	10.06	10.45	8.53	5.35	11.68	7.62	8.41	5.03	8.45	10.14	8.51	8.51	10.10	8.74	8.47	6.20

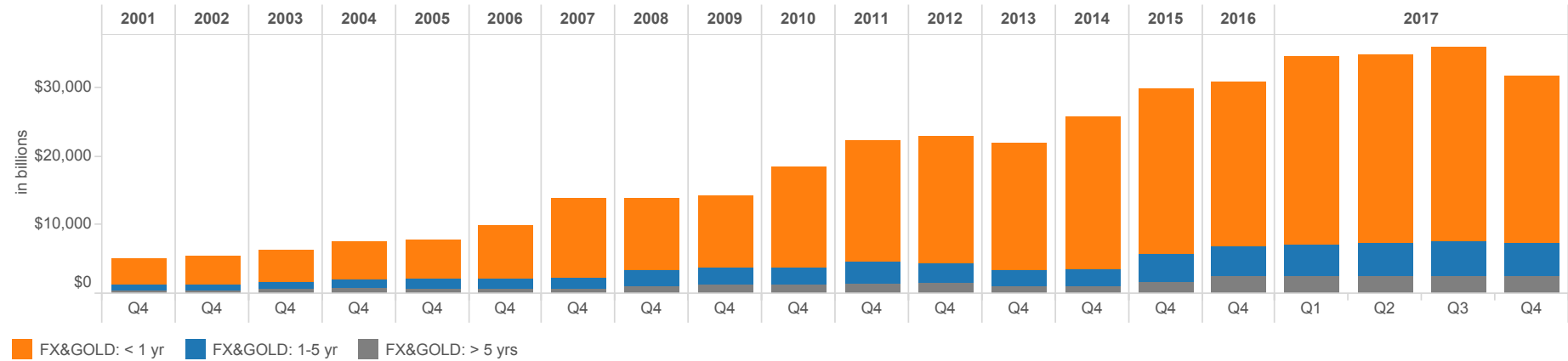
*The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.
 Note: Gross revenue equals interest income plus non-interest income.
 Source: Call reports

Graph 11
Notional Amounts of Interest Rate and FX + Gold Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations

Interest Rate



FX & Gold



In billions of dollars

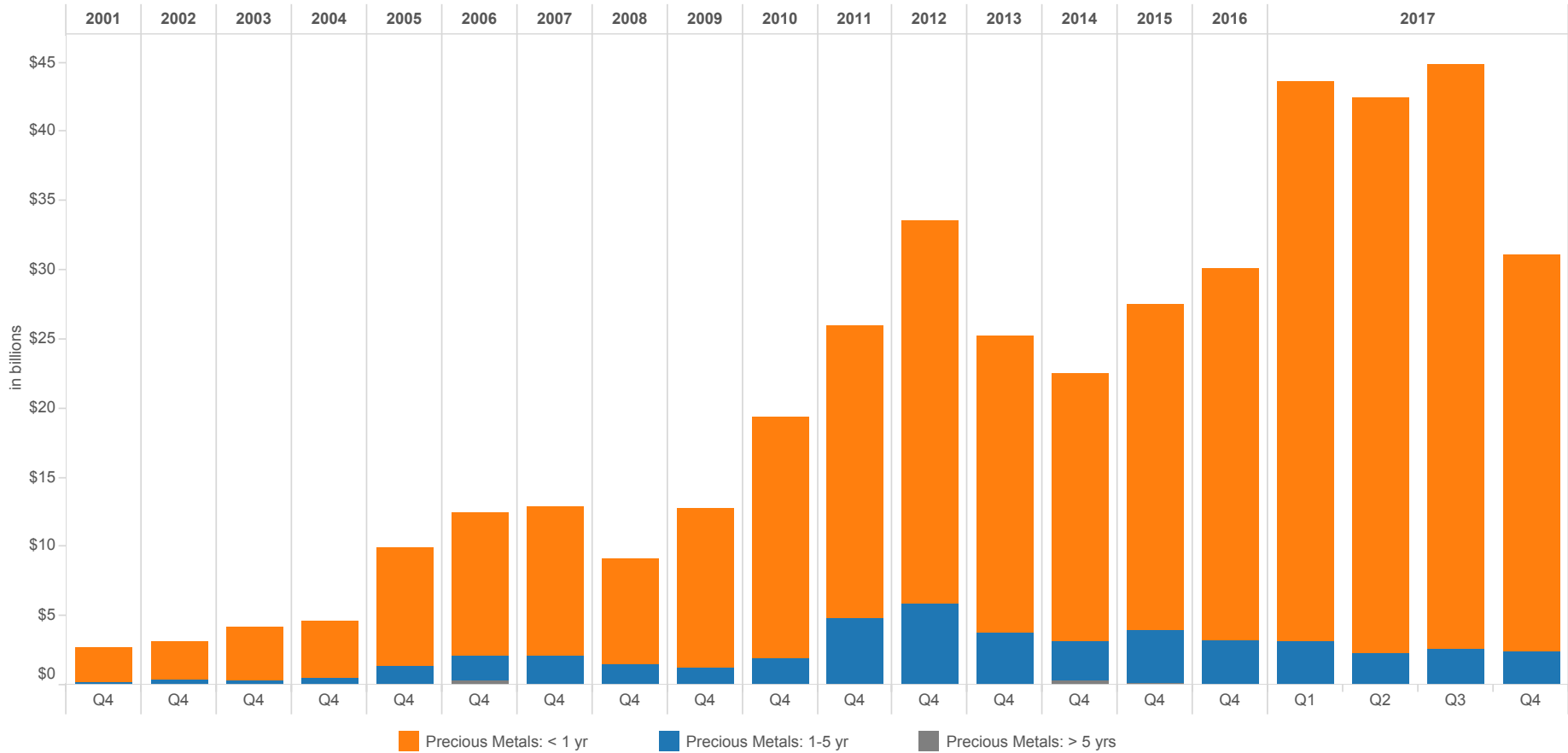
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3	Q4
IR: < 1 yr	\$10,379	\$12,982	\$13,581	\$15,921	\$18,483	\$29,552	\$39,085	\$58,618	\$81,236	\$90,843	\$87,812	\$82,948	\$77,758	\$71,808	\$55,047	\$55,053	\$61,923	\$65,969	\$72,155	\$72,589
IR: 1-5 yr	11,709	14,328	20,404	25,893	27,683	31,386	37,222	47,456	33,970	33,497	32,750	30,191	44,157	33,727	49,406	43,262	46,450	48,374	43,431	36,154
IR: > 5 yrs	7,451	9,735	13,117	16,492	19,825	23,273	27,724	36,868	26,374	24,307	24,168	21,175	24,630	22,214	32,981	29,762	29,972	29,633	27,040	23,565
FX&GOLD: < 1 yr	3,816	4,078	4,510	5,384	5,728	7,730	11,660	10,640	10,490	14,629	17,632	18,386	18,372	22,145	24,130	23,911	27,320	27,411	28,416	24,380
FX&GOLD: 1-5 yr	686	857	1,146	1,317	1,381	1,452	1,639	2,195	2,473	2,462	3,117	2,910	2,341	2,587	3,986	4,453	4,772	4,813	4,987	4,805
FX&GOLD: > 5 yrs	499	439	582	762	689	594	622	1,082	1,347	1,290	1,503	1,480	1,029	969	1,648	2,420	2,429	2,496	2,544	2,525

Note: Figures above exclude FX contracts with an original maturity of 14 days or less, written options, basis swaps, and any other contracts not subject to risk-based capital requirements. Effective Q1 2015, the reporting form and call report instructions changed. Schedule RC-R now requires banks to report gold and FX notionals in aggregate, rather than separately. Source: Call reports

Graph 12

**Notional Amounts of Precious Metal Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations**

Precious Metals



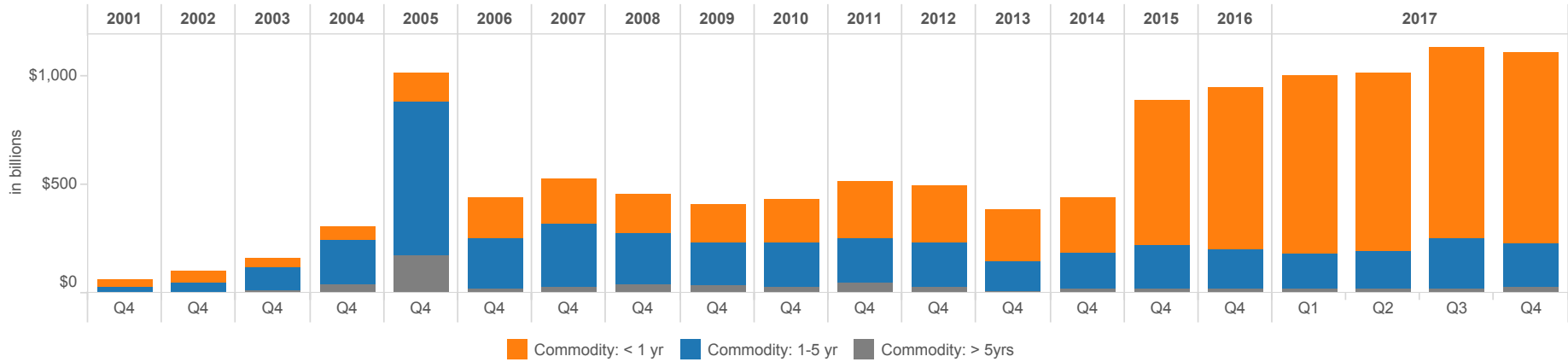
In billions of dollars

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3	Q4
Precious Metals: < 1 yr	2.44	2.72	3.87	4.04	8.59	10.35	10.72	7.55	11.55	17.47	21.12	27.68	21.41	19.29	23.51	26.87	40.42	40.14	42.21	28.62
Precious Metals: 1-5 yr	0.23	0.46	0.33	0.51	1.29	1.75	2.10	1.51	1.24	1.89	4.74	5.82	3.80	2.84	3.92	3.27	3.13	2.24	2.56	2.38
Precious Metals: > 5 yrs	0.00	0.00	0.00	0.00	0.06	0.33	0.01	0.00	0.00	0.03	0.10	0.03	0.00	0.29	0.07	0.02	0.05	0.04	0.04	0.01

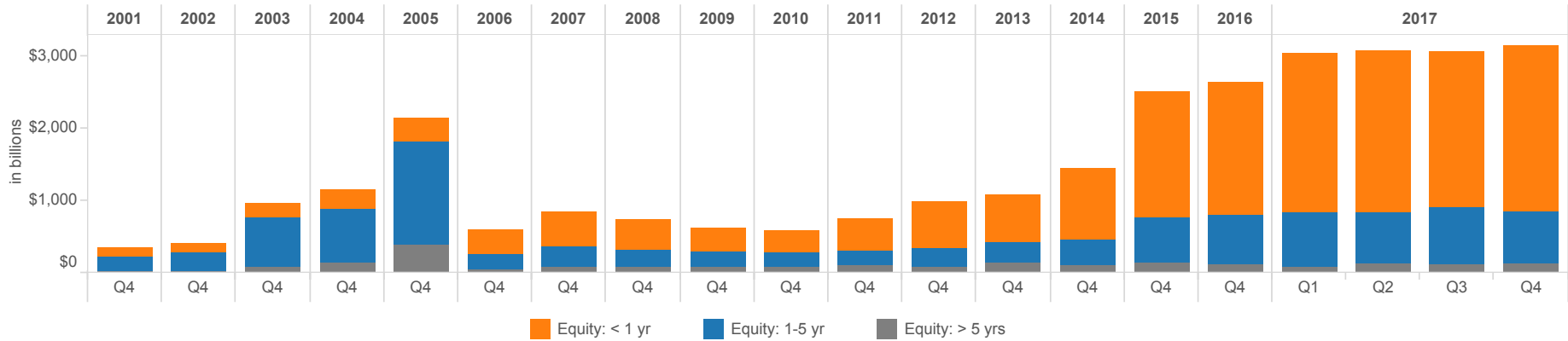
Note: Figures exclude FX contracts with an original maturity of 14 days or less, written options, basis swaps, and any other contracts not subject to risk-based capital requirements.
Source: Call reports

Graph 13
Notional Amounts of Commodity and Equity Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations

Commodity



Equity



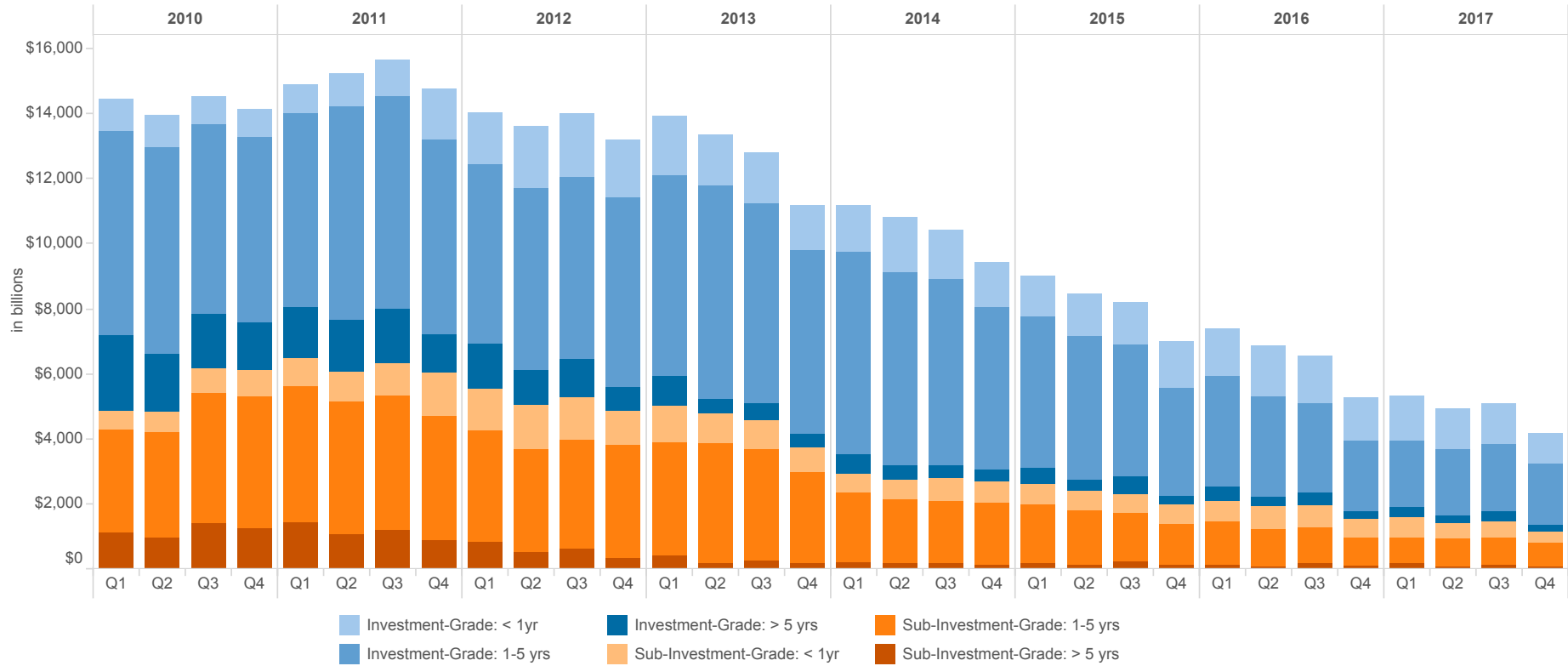
In billions of dollars

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017			
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3	Q4
Commodity: < 1 yr	\$31	\$55	\$43	\$64	\$133	\$185	\$206	\$179	\$176	\$203	\$261	\$261	\$235	\$257	\$668	\$750	\$824	\$819	\$883	\$883
Commodity: 1-5 yr	25	35	103	205	707	235	297	233	198	209	209	208	144	164	197	179	160	175	233	202
Commodity: > 5yrs	2	9	14	40	175	20	25	43	33	25	46	28	6	20	22	23	20	21	23	25
Equity: < 1 yr	121	127	197	273	321	341	473	409	312	296	427	627	645	996	1,743	1,842	2,198	2,236	2,160	2,296
Equity: 1-5 yr	209	249	674	736	1,428	221	297	256	228	191	210	262	291	352	628	677	760	720	781	733
Equity: > 5 yrs	18	25	84	140	383	45	70	72	82	85	94	82	136	101	130	123	85	127	119	113

Note: Figures above exclude foreign exchange contracts with an original maturity of 14 days or less, written options, basis swaps, and any other contracts not subject to risk-based capital requirements.
 Source: Call reports

Graph 14

**Notional Amounts of Credit Derivative Contracts by Credit Quality and Maturity
Insured U.S. Commercial Banks and Savings Associations**



In billions of dollars

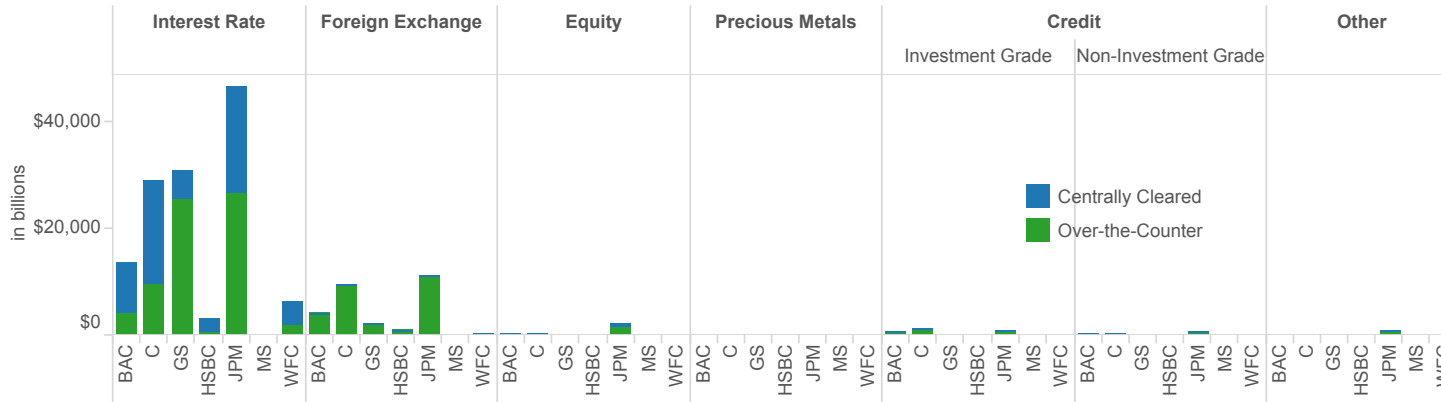
	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Investment-Grade: < 1yr	\$1,790	\$1,550	\$1,548	\$1,384	\$1,414	\$1,707	\$1,478	\$1,375	\$1,256	\$1,292	\$1,270	\$1,380	\$1,471	\$1,549	\$1,451	\$1,348	\$1,343	\$1,234	\$1,216	\$934
Investment-Grade: 1-5 yrs	6,168	6,536	6,127	5,661	6,227	5,909	5,722	5,007	4,649	4,450	4,108	3,328	3,400	3,101	2,765	2,170	2,072	2,073	2,085	1,897
Investment-Grade: > 5 yrs	948	455	552	409	577	448	433	382	508	359	520	281	457	262	385	214	309	195	345	186
Total Investment Grade	\$8,906	\$8,541	\$8,228	\$7,455	\$8,218	\$8,064	\$7,633	\$6,764	\$6,413	\$6,101	\$5,898	\$4,990	\$5,328	\$4,911	\$4,601	\$3,732	\$3,724	\$3,502	\$3,647	\$3,016

	2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Sub-Investment-Grade: < 1yr	\$1,090	\$933	\$879	\$765	\$619	\$642	\$671	\$658	\$596	\$562	\$569	\$607	\$622	\$683	\$683	\$581	\$582	\$509	\$480	\$375
Sub-Investment-Grade: 1-5 yrs	3,491	3,656	3,424	2,792	2,127	1,960	1,948	1,887	1,813	1,673	1,518	1,271	1,313	1,159	1,122	869	838	830	814	718
Sub-Investment-Grade: > 5 yrs	414	197	262	179	200	160	157	140	194	152	213	119	155	101	157	111	159	93	149	77
Total Sub-Investment Grade	\$4,995	\$4,786	\$4,565	\$3,736	\$2,946	\$2,763	\$2,775	\$2,685	\$2,604	\$2,387	\$2,299	\$1,997	\$2,090	\$1,943	\$1,962	\$1,561	\$1,579	\$1,432	\$1,443	\$1,170

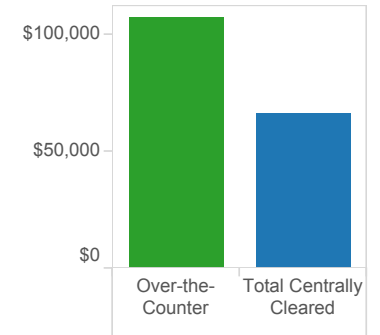
Note: Figures exclude FX contracts with an original maturity of 14 days or less, written options, basis swaps, and any other contracts not subject to risk-based capital requirements.
Source: Call reports

Graph 15

2017 Q4 Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts Insured U.S. Commercial Banks and Savings Associations



ALL BANKS



In billions of dollars

Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other	
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter
									Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter		
JPM	20,054	26,614	136	10,940	627	1,489	0	15	308	548	176	507	85	766
C	19,400	9,494	116	9,554	59	383	2	7	242	1,008	69	335	55	86
BAC	9,669	4,112	40	4,235	94	272	0	0	219	310	51	149	0	13
GS	5,547	25,317	0	2,284	0	30	0	0	0	90	0	54	0	7
HSBC	2,713	566	21	948	0	43	0	6	2	10	2	30	0	1
WFC	4,409	1,861	0	425	29	88	0	1	1	1	2	14	25	24
MS	0	1	0	151	0	0	0	0	0	8	0	2	0	0
Grand Total	61,792	67,966	313	28,538	809	2,305	2	29	771	1,975	300	1,092	165	897

Total Centrally Cleared	Over-the-Counter	Total Notional
21,386	40,879	62,264
19,944	20,868	40,812
10,073	9,093	19,166
5,547	27,782	33,329
2,738	1,604	4,342
4,465	2,413	6,879
0	162	162
64,153	102,801	166,954

ALL OTHER

1,440	1,109	0	2,859	0	28	0	0	0	7	0	13	1	47
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1,441	4,063	5,505
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TOTAL

63,232	69,075	313	31,397	809	2,333	2	29	771	1,982	300	1,105	166	944
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65,594	106,865	172,459
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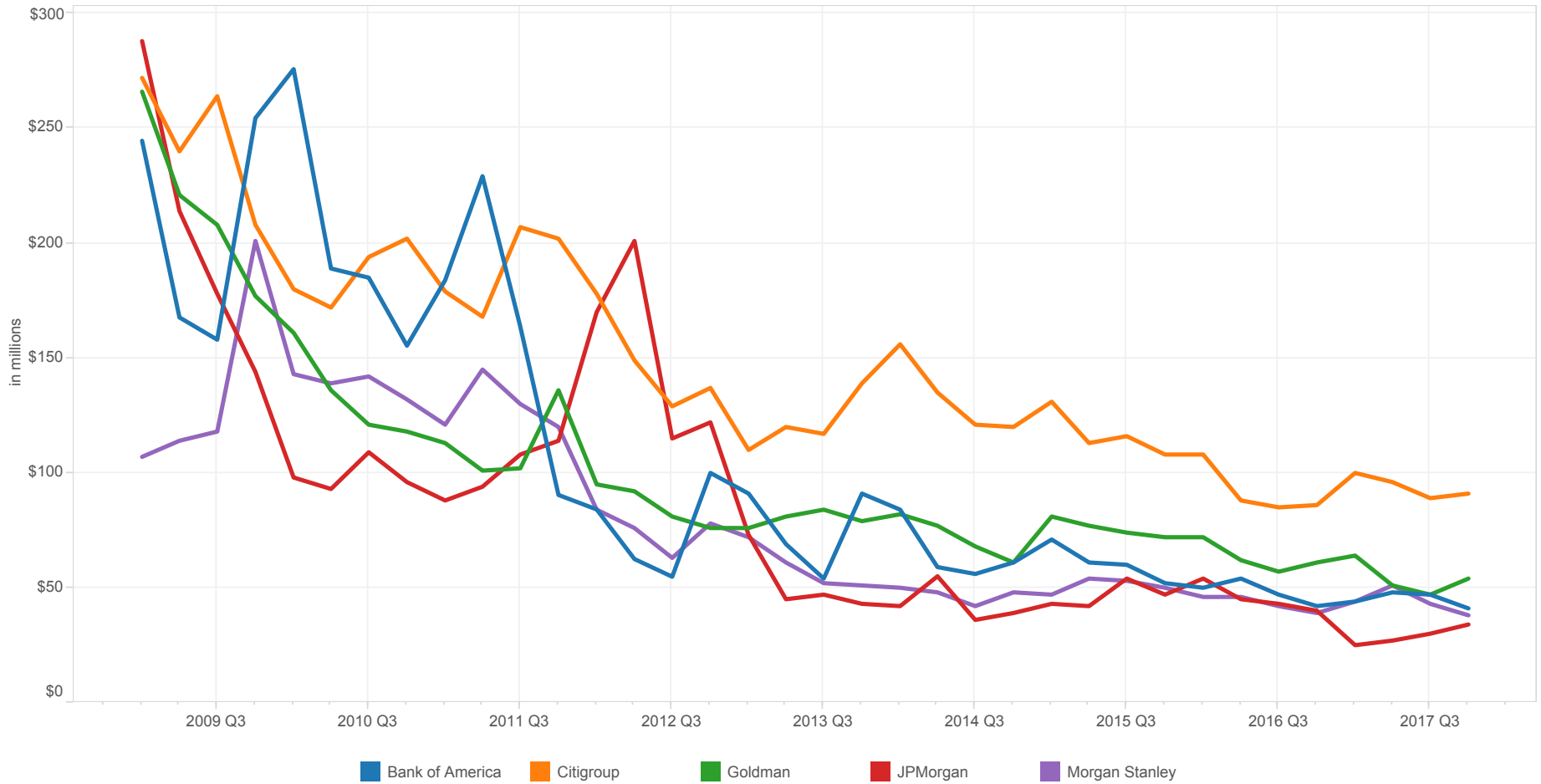
% of Total

Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other	
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter
									Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter		
JPM	43%	57%	1%	99%	30%	70%	0%	100%	36%	64%	26%	74%	10%	90%
C	67%	33%	1%	99%	13%	87%	27%	73%	19%	81%	17%	83%	39%	61%
BAC	70%	30%	1%	99%	26%	74%	0%	100%	41%	59%	25%	75%	0%	100%
GS	18%	82%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%
HSBC	83%	17%	2%	98%	0%	100%	0%	100%	19%	81%	6%	94%	0%	100%
WFC	70%	30%	0%	100%	25%	75%	0%	100%	49%	51%	14%	86%	51%	49%
MS	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%

Total Centrally Cleared as a % of Total Notional	Total Over-the-Counter as a % of Total Notional
34%	66%
49%	51%
53%	47%
17%	83%
63%	37%
65%	35%
0%	100%

Source: Call reports, Schedule RC-R

Graph 16
Value-at-Risk (VaR)
Insured U.S. Commercial Banks and Savings Associations



In millions of dollars

	2011				2012				2013				2014				2015				2016				2017			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Bank of America	\$184	\$229	\$164	\$90	\$84	\$63	\$55	\$100	\$91	\$69	\$54	\$91	\$84	\$59	\$56	\$61	\$71	\$61	\$60	\$52	\$50	\$54	\$47	\$42	\$44	\$48	\$47	\$41
Citigroup	179	168	207	202	178	149	129	137	110	120	117	139	156	135	121	120	131	113	116	108	108	88	85	86	100	96	89	91
Goldman	113	101	102	136	95	92	81	76	76	81	84	79	82	77	68	61	81	77	74	72	72	62	57	61	64	51	47	54
JPMorgan	88	94	108	114	170	201	115	122	73	45	47	43	42	55	36	39	43	42	54	47	54	45	43	40	25	27	30	34
Morgan Stanley	121	145	130	120	84	76	63	78	72	61	52	51	50	48	42	48	47	54	53	50	46	46	42	39	44	51	43	38
Total	685	737	711	662	611	581	443	513	422	376	354	403	414	374	323	329	373	347	357	329	330	295	274	268	277	273	256	258

Source: 10Q, 10k U.S. Securities and Exchange Commission Reports

TABLE 1

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL FUTURES (EXCH TR)	TOTAL OPTIONS (EXCH TR)	TOTAL FORWARDS (OTC)	TOTAL SWAPS (OTC)	TOTAL OPTIONS (OTC)	TOTAL CREDIT DERIVATIVES (OTC)	SPOT FX
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$48,551,629	\$1,883,777	\$1,946,041	\$8,387,707	\$26,361,582	\$8,474,043	\$1,498,479	\$457,280
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,385,697	45,819,592	3,196,509	1,283,558	4,715,164	26,675,394	8,284,399	1,664,568	544,557
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	2,285,987	6,844,552	2,204,932	21,234,082	8,591,094	148,354	43,957
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	1,071,442	125,069	4,399,063	10,326,947	1,453,928	709,484	315,390
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,747,354	7,466,594	166,138	198,619	1,954,899	4,147,214	972,188	27,536	5,994
6	HSBC NA	11E8VN30JCEQV1H4R804	180,372	4,765,005	238,410	1,726	841,235	3,305,779	287,565	90,290	19,401
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	235,022	1,694,126	2,335	0	1,659,623	4,864	27,305	0	47,526
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	297,305	1,018,299	26,130	63	562,263	403,947	25,716	180	68,980
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	370,002	421,086	50,772	0	25,693	312,827	25,478	6,316	804
10	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	456,026	352,485	18,113	900	58,200	198,602	71,334	5,337	758
11	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	138,163	329,245	0	0	314,401	13,796	1,049	0	9,122
12	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	201,638	252,762	27,746	14,060	17,134	138,827	51,025	3,970	145
13	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	129,707	219,762	0	0	54,640	130,447	24,347	10,328	2,230
14	TD BANK NATIONAL ASSN	03D0JEWFFDUSOSEEKG89	288,294	183,151	0	0	3,431	178,829	525	365	0
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDVOK75	290,651	133,887	221	0	1,763	128,382	479	3,042	14
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	118,537	126,948	2,484	0	49,698	69,388	5,301	76	566
17	CITIZENS BANK NATIONAL ASSN	DRMSV1QOQEKMEXLAU1P80	121,996	95,517	0	0	4,607	79,415	9,010	2,484	106
18	KEYBANK NATIONAL ASSN	HUX2X73FCYHUVH1BK78	135,758	95,052	4,493	0	7,805	76,572	5,852	330	521
19	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	123,325	83,549	3,479	30	18,464	53,312	5,071	3,193	13
20	FIFTH THIRD BANK	QFROUN1UWYUUDVIWD51	140,078	80,997	952	354	5,434	56,857	13,974	3,426	395
21	BRANCH BANKING&TRUST CO	JJKC32MCHWDI71265Z06	216,077	63,147	194	0	6,689	45,617	10,647	0	26
22	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	119,556	47,934	0	0	9,094	38,840	0	0	74
23	MANUFACTURERS&TRADERS TR CO	WWW2V0FCW3A0EE3ZJN75	118,072	47,513	0	0	1,808	29,816	15,889	0	76
24	COMPASS BANK	C90VT034M03BN29IRA40	86,505	46,003	1,449	0	918	33,689	9,885	61	117
25	BOKF NATIONAL ASSN	FU7RSW4CQOY98A2O7J66	32,217	40,672	635	407	34,301	3,818	1,511	1	7
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,989,193	\$171,329,889	\$8,981,265	\$10,415,378	\$25,338,966	\$94,048,843	\$28,367,614	\$4,177,822	\$1,518,058
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,617,116	634,292	6,094	4,347	80,882	475,018	59,650	8,300	1,297
TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	8,987,359	10,419,725	25,419,849	94,523,862	28,427,264	4,186,122	1,519,355

Note: Credit derivatives have been included in the sum of total derivatives. Credit derivatives have been included as an "over the counter" category, although the call report does not differentiate by market currently.

Note: Before the first quarter of 1995 total derivatives included spot FX. Beginning in that quarter, spot FX has been reported separately.

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RC-L

TABLE 2

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS (HOLDING COMPANIES)
TOP 25 HOLDING COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	HOLDING COMPANY	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	FUTURES (EXCH TR)	OPTIONS (EXCH TR)	FORWARDS (OTC)	SWAPS (OTC)	OPTIONS (OTC)	CREDIT DERIVATIVES (OTC)	SPOT FX
1	GOLDMAN SACHS GROUP, INC., THE	784F5XWPLTWKTBV3E584	\$916,787	\$48,584,634	\$3,334,063	\$7,781,413	\$6,276,973	\$19,834,013	\$10,103,782	\$1,254,390	\$290,467
2	JPMORGAN CHASE & CO.	815DZWZKVSZ11NUHU748	2,533,600	47,938,966	1,897,487	2,139,059	8,740,565	25,478,518	8,161,163	1,522,174	446,187
3	CITIGROUP INC.	6SHGI4ZSSLXCXQSBB395	1,843,059	47,620,742	3,287,078	4,304,434	5,598,944	24,855,390	8,062,041	1,512,855	536,826
4	MORGAN STANLEY	IGJSJL3JD5P3016NJZ34	851,733	31,526,333	3,194,820	1,540,348	2,655,059	16,766,990	6,765,864	603,252	31,085
5	BANK OF AMERICA CORPORATION	9DJT3UXIJIZJ14WXO774	2,281,477	30,402,923	1,705,892	785,467	6,057,058	17,739,247	3,086,795	1,028,464	266,803
6	WELLS FARGO & COMPANY	PBLD0EJDB5FWOLXP3B76	1,951,757	7,582,943	178,525	220,719	2,200,235	3,988,321	968,605	26,538	5,990
7	HSBC NORTH AMERICA HOLDINGS INC.	213800JCL1FHBQK3M654	273,486	6,924,865	448,000	276,901	841,385	4,972,466	295,822	90,290	19,401
8	MIZUHO AMERICAS LLC		39,937	5,354,101	10,778	2,234	393,285	4,909,520	37,279	1,005	1,905
9	STATE STREET CORPORATION	549300ZFEJ2IP5VME73	238,496	1,702,222	2,508	0	1,660,052	12,357	27,305	0	47,526
10	RBC USA HOLDCO CORPORATION		141,975	1,203,645	172,899	743,564	200,223	86,185	399	375	141
11	CREDIT SUISSE HOLDINGS (USA), INC.	549300YHT5NGRJKD1R94	141,413	1,130,949	9,819	12,503	960,231	73,486	14,435	60,474	0
12	BANK OF NEW YORK MELLON CORPORATION, THE	WFLLPEPC7FZXENRZV188	371,758	1,013,611	27,426	2,353	579,287	378,649	25,716	180	68,989
13	BARCLAYS US LLC	213800H14XVWVOV87OI72	157,927	545,535	54,975	240,157	148,412	27,702	0	74,289	13
14	PNC FINANCIAL SERVICES GROUP, INC., THE	CFGNEKWOP8842LEUIA51	381,451	417,836	50,947	35	27,833	307,282	25,423	6,316	804
15	U.S. BANCORP	N1GZ7BBF3NP8GI976H15	462,040	354,158	18,113	900	57,019	201,454	71,334	5,338	758
16	NORTHERN TRUST CORPORATION	549300GLF98S992BC502	138,590	328,495	0	0	314,401	13,046	1,049	0	9,122
17	TD GROUP US HOLDINGS LLC	549300ARWZ5E3L64UH29	380,907	254,363	47,215	4,000	14,401	187,824	525	397	0
18	SUNTRUST BANKS, INC.	7E1PDLW1JL6TS0BS1G03	206,634	249,705	27,746	14,060	17,134	136,771	50,025	3,970	145
19	DB USA CORPORATION	529900RO45LRDMWLR157	148,248	240,104	7,353	168,273	44,829	16,382	395	2,872	0
20	BNP PARIBAS USA, INC.	549300QVEGJN81E8T563	139,136	210,951	2	2,335	181,311	24,678	2,624	0	18
21	CAPITAL ONE FINANCIAL CORPORATION	ZUE8T73ROZOF6FLBAR73	365,693	196,525	221	0	11,009	181,773	479	3,042	88
22	MUFG AMERICAS HOLDINGS CORPORATION		154,557	150,288	12,846	279	62,199	69,587	5,301	76	566
23	CITIZENS FINANCIAL GROUP, INC.	2138004JDDA4ZQUPFW65	152,710	107,357	0	0	4,607	89,727	10,068	2,954	106
24	KEYCORP	RKPI3RZGV1V1FJTH5T61	138,064	100,193	4,493	0	9,273	79,209	6,903	315	521
25	FIFTH THIRD BANCORP	THRNG6BD57P9QWTQLG42	142,193	82,190	952	354	5,433	58,051	13,974	3,426	395
TOP 25 HOLDING COMPANIES WITH DERIVATIVES			\$14,553,629	\$234,223,633	\$14,494,158	\$18,239,387	\$37,061,160	\$120,488,628	\$37,737,306	\$6,202,995	\$1,727,855

Note: Currently, the Y-9 report does not differentiate credit derivatives by contract type. Credit derivatives have been included in the sum of total derivatives.

Note: Before to the first quarter of 2005, total derivatives included spot FX. Beginning in that quarter, spot FX has been reported separately.

Note: Numbers may not add up to total due to rounding.

Source: Consolidated Financial Statements for Bank Holding Companies, FR Y- 9, Schedule HC-L

TABLE 3

DISTRIBUTION OF DERIVATIVE CONTRACTS
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	PERCENT EXCH TRADED CONTRACTS	PERCENT OTC CONTRACTS	PERCENT INT RATE CONTRACTS	PERCENT FOREIGN EXCH CONTRACTS	PERCENT OTHER CONTRACTS	PERCENT CREDIT DERIVATIVES
					(%)	(%)	(%)	(%)	(%)	(%)
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$48,551,629	7.9	92.1	68.9	22.8	5.2	3.1
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	9.8	90.2	70.7	23.5	2.2	3.6
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	22.1	77.9	93.8	5.7	0.1	0.4
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	6.6	93.4	70.4	23.6	2.0	3.9
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMUCUFXT09	1,747,354	7,466,594	4.9	95.1	90.3	5.9	3.5	0.4
6	HSBC NA	11E8VN3OJCEQV1H4R804	180,372	4,765,005	5.0	95.0	75.4	20.5	2.2	1.9
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	235,022	1,694,126	0.1	99.9	0.3	98.1	1.6	0.0
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4N0NFVK49	297,305	1,018,299	2.6	97.4	30.3	69.6	0.1	0.0
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	370,002	421,086	12.1	87.9	91.7	4.9	1.9	1.5
10	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	456,026	352,485	5.4	94.6	81.9	16.2	0.4	1.5
11	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	138,163	329,245	0.0	100.0	4.1	95.8	0.1	0.0
12	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	201,638	252,762	16.5	83.5	79.7	2.8	16.0	1.6
13	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	129,707	219,762	0.0	100.0	1.8	93.4	0.1	4.7
14	TD BANK NATIONAL ASSN	03D0JEWFDUFUS0SEEKG89	288,294	183,151	0.0	100.0	96.3	3.5	0.0	0.2
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM00VDVOK75	290,651	133,887	0.2	99.8	91.0	0.8	5.9	2.3
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	118,537	126,948	2.0	98.0	92.8	5.1	2.0	0.1
17	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	121,996	95,517	0.0	100.0	87.1	10.3	0.0	2.6
18	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUHVH1BK78	135,758	95,052	4.7	95.3	89.9	9.1	0.7	0.3
19	REGIONS BANK	EQTWVK1G7ODGC2MGLV11	123,325	83,549	4.2	95.8	93.2	2.0	1.0	3.8
20	FIFTH THIRD BANK	QFROUN1UWUYU0DVIWD51	140,078	80,997	1.6	98.4	73.0	15.3	7.5	4.2
21	BRANCH BANKING&TRUST CO	JJKC32MCHWDI71265Z06	216,077	63,147	0.3	99.7	99.3	0.7	0.0	0.0
22	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	119,556	47,934	0.0	100.0	81.0	19.0	0.0	0.0
23	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	118,072	47,513	0.0	100.0	99.0	1.0	0.0	0.0
24	COMPASS BANK	C90VT034M03BN29IRA40	86,505	46,003	3.1	96.9	94.7	1.8	3.3	0.1
25	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	32,217	40,672	2.6	97.4	92.8	0.6	6.5	0.0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,989,193	\$171,329,889	\$19,396,643	\$151,933,246	\$129,836,423	\$32,874,764	\$62	\$4,177,822
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,617,116	634,292	10,441	623,850	586,351	28,024	668	8,300
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	19,407,084	152,557,096	130,422,773	32,902,788	730	4,186,122
				(%)	(%)	(%)	(%)	(%)	(%)	(%)
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				99.6	11.3	88.4	75.5	19.1	0.0	2.4
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				0.4	0.0	0.4	0.3	0.0	0.0	0.0
TOTAL FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				100.0	11.3	88.7	75.8	19.1	0.0	2.4
<p>Note: Currently, the call report does not differentiate credit derivatives by over the counter or exchange traded. Credit derivatives have been included in the "over the counter" category as well as in the sum of total derivatives here.</p> <p>Note: "FX" does not include spot FX.</p> <p>Note: "Other" is defined as the sum of commodity and equity contracts.</p> <p>Note: Numbers may not add up to total due to rounding.</p> <p>Source: Call reports, Schedule RC-L</p>										

TABLE 4

CREDIT EQUIVALENT EXPOSURES
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL RISK-BASED CAPITAL	BILATERALLY NETTED CURRENT CREDIT EXPOSURE		TOTAL CREDIT EXPOSURE (%)	
						POTENTIAL FUTURE EXPOSURE	FROM ALL CONTRACTS	TOTAL CREDIT EXPOSURE TO CAPITAL	
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$48,551,629	\$195,839	\$130,395	\$220,934	\$351,329	179
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	139,351	64,547	131,535	196,082	141
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	27,890	57,498	59,600	117,098	420
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	1,751,524	18,085,933	163,243	37,014	56,608	93,622	57
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCFXT09	1,747,354	7,466,594	165,735	13,674	31,197	44,871	27
6	HSBC NA	1IE8VN30JCEQV1H4R804	180,372	4,765,005	25,522	7,583	14,256	21,839	86
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	235,022	1,694,126	17,586	6,112	10,845	16,957	96
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4N0NFVK49	297,305	1,018,299	20,925	4,532	5,463	9,995	48
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	370,002	421,086	34,756	2,743	1,469	4,213	12
10	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	456,026	352,485	45,466	798	4,704	5,503	12
11	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	138,163	329,245	9,682	1,222	2,480	3,702	38
12	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	201,638	252,762	22,132	1,003	2,777	3,780	17
13	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	129,707	219,762	15,454	276	2,767	3,043	20
14	TD BANK NATIONAL ASSN	03DOJEWVDFUS0SEEKG89	288,294	183,151	25,959	1,487	1,147	2,634	10
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM00VDVOK75	290,651	133,887	26,214	1,034	2,158	3,193	12
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	118,537	126,948	15,335	828	376	1,204	8
17	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	121,996	95,517	14,128	634	675	1,309	9
18	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	135,758	95,052	14,957	572	333	905	6
19	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	123,325	83,549	14,042	321	678	999	7
20	FIFTH THIRD BANK	QFROUN1UWUYU0DVIWD51	140,078	80,997	16,126	479	1,103	1,582	10
21	BRANCH BANKING&TRUST CO	JJKC32MCHWD171265Z06	216,077	63,147	22,915	432	433	865	4
22	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	119,556	47,934	17,521	129	178	307	2
23	MANUFACTURERS&TRADERS TR CO	VWB2V0FCW3A0EE3ZJN75	118,072	47,513	11,948	83	157	240	2
24	COMPASS BANK	C90VT034M03BN29IRA40	86,505	46,003	9,008	202	178	380	4
25	BOKF NATIONAL ASSN	FU7RSW4CQQY98A207J66	32,217	40,672	3,105	196	244	440	14
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,989,193	\$171,329,889	\$1,074,840	\$333,795	\$552,295	\$886,090	82
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,617,116	634,292	496,905	3,348	4,974	8,321	2
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	1,571,745	337,143	557,269	894,411	57

Note: Total credit exposure is defined as the credit equivalent amount from derivative contracts (RC-R column B lines 20 and 21), which is the sum of netted current credit exposure and PFE.

Note: The total credit exposure to capital ratio is calculated using risk based capital (tier 1 plus tier 2 capital).

Note: Currently, the call report does not differentiate credit derivatives by contract type. Credit derivatives have been included in the sum of total derivatives here.

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RC-R.

TABLE 5

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS HELD FOR TRADING
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL HELD FOR TRADING & MTM	% HELD FOR TRADING & MTM	TOTAL NOT FOR TRADING MTM	% NOT FOR TRADING MTM
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$48,551,629	\$46,776,544	99.4	\$276,606	0.6
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	44,078,470	99.8	76,554	0.2
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	41,136,686	99.9	23,961	0.1
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	16,590,821	95.5	785,628	4.5
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$148,582,521	99.2	\$1,162,749	0.8
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	16,421,397	91.1	1,611,392	8.9
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	165,003,918	98.3	2,774,141	1.7
<p>Note: Currently, the call report does not differentiate between traded and not-traded credit derivatives. Credit derivatives have been excluded from the sum of total derivatives here</p> <p>Note: Numbers may not add up to total due to rounding.</p> <p>Source: Call reports, Schedule RC-L</p>								

TABLE 6

**GROSS FAIR VALUES OF DERIVATIVE CONTRACTS
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TRADING		NOT FOR TRADING		CREDIT DERIVATIVES	
					GROSS POSITIVE FAIR VALUE*	GROSS NEGATIVE FAIR VALUE**	GROSS POSITIVE FAIR VALUE*	GROSS NEGATIVE FAIR VALUE**	GROSS POSITIVE FAIR VALUE*	GROSS NEGATIVE FAIR VALUE**
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$48,551,629	\$575,904	\$547,740	\$2,186	\$2,256	\$22,195	\$22,267
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	380,890	370,873	984	1,501	22,628	22,935
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	508,068	494,415	127	204	3,156	3,147
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	1,751,524	18,085,933	156,792	151,043	16,594	21,955	9,481	10,327
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$1,621,654	\$1,564,071	\$19,891	\$25,916	\$57,460	\$58,676
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	123,856	122,122	8,383	10,616	1,294	1,455
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	1,745,510	1,686,193	28,274	36,532	58,754	60,131

Note: Currently, the call report does not differentiate between traded and non-traded credit derivatives. Credit derivatives have been included in the sum of total derivatives here. Numbers may not sum due to rounding.

*Market value of contracts that have a positive fair value as of the end of the quarter.

**Market value of contracts that have a negative fair value as of the end of the quarter.

Source: Call reports, Schedule RC-L

TABLE 7

TRADING REVENUES FROM CASH INSTRUMENTS AND DERIVATIVES
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS
NOTE: REVENUE FIGURES ARE FOR THE QUARTER (NOT YEAR-TO-DATE)

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL TRADING REV FROM CASH & OFF BAL SHEET POSITIONS	TRADING REV FROM INT RATE POSITIONS	TRADING REV FROM FOREIGN EXCH POSITIONS	TRADING REV FROM EQUITY POSITIONS	TRADING REV FROM COMMOD & OTH POSITIONS	TRADING REV FROM CREDIT POSITIONS
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,140,778	\$48,551,629	\$1,791	\$758	\$350	\$527	\$104	\$52
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	1,118	760	423	60	1	(126)
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	37	297	(145)	64	0	(179)
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	740	52	319	299	42	28
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$3,686	\$1,867	\$947	\$950	\$147	(\$225)
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	1,351	371	849	40	104	(12)
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	5,037	2,238	1,796	990	251	(237)

Note: Effective in the first quarter of 2007, trading revenues from credit exposures are reported separately, along with the four other types of exposures. The total derivatives column includes credit exposures.

Note: Trading revenue is defined here as "trading revenue from cash instruments and off-balance-sheet derivative instruments."

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RI

TABLE 8

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (INTEREST RATE, FX AND GOLD)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	INT RATE MATURITY < 1 YR	INT RATE MATURITY 1 - 5 YRS	INT RATE MATURITY > 5 YRS	INT RATE ALL MATURITIES	FX and GOLD MATURITY < 1 YR	FX and GOLD MATURITY 1 - 5 YRS	FX and GOLD MATURITY > 5 YRS	FX and GOLD ALL MATURITIES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,140,778	\$48,551,629	\$22,152,160	\$15,562,636	\$8,953,336	\$46,668,132	\$7,760,637	\$2,209,155	\$1,106,347	\$11,076,139
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	21,109,316	4,722,570	3,062,843	28,894,729	8,094,645	1,083,065	492,999	9,670,709
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAVLU02	164,539	41,309,001	18,550,177	6,261,432	6,052,823	30,864,432	998,537	687,652	598,008	2,284,197
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	6,057,267	5,039,242	2,684,889	13,781,398	3,513,699	547,480	214,004	4,275,183
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$67,868,920	\$31,585,880	\$20,753,891	\$120,208,691	\$20,367,518	\$4,527,352	\$2,411,358	\$27,306,228
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	4,719,722	4,567,696	2,810,711	12,098,128	4,012,134	277,864	113,971	4,403,969
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	72,588,642	36,153,576	23,564,602	132,306,819	24,379,652	4,805,216	2,525,329	31,710,197

Note: Figures above exclude any contracts not subject to risk-based capital requirements, such as FX contracts with an original maturity of 14 days or less, futures contracts, written options, and basis swaps. Therefore, the total notional amount of derivatives by maturity will not add to the total derivatives figure in this table.

Note: Numbers may not add up to total due to rounding.

Note: Effective 2015 Q1, the reporting form and call report instructions changed. Schedule RC-R now requires banks to report FX and gold notional amounts in aggregate, rather than separately.

Source: Call reports, Schedule RC-R

TABLE 9

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE & MATURITY (PRECIOUS METALS)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	PREC METALS MATURITY < 1 YR	PREC METALS MATURITY 1 - 5 YRS	PREC METALS MATURITY > 5 YRS	PREC METALS ALL MATURITIES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$48,551,629	\$14,530	\$456	\$0	\$14,986
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,385,697	45,819,592	7,771	1,201	0	8,972
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	0	0	0	0
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	31	0	0	31
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$22,332	\$1,657	\$0	\$23,989
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	6,283	719	8	7,010
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	28,615	2,376	8	30,999

Note: Figures above exclude any contracts not subject to risk-based capital requirements, such as FX contracts with an original maturity of 14 days or less, futures contracts, written options, and basis swaps. Therefore, the total notional amount of derivatives by maturity will not add to the total derivatives figure in this table.

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RC-R

TABLE 10

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (OTHER COMMODITY AND EQUITY
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVE!
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL		OTHER COMM	OTHER COMM	OTHER COMM	OTHER COMM	EQUITY	EQUITY	EQUITY	EQUITY
			ASSETS	DERIVATIVES	MATURITY < 1 YR	MATURITY 1 - 5 YRS	MATURITY > 5 YRS	ALL MATURITIES	MATURITY < 1 YR	MATURITY 1 - 5 YRS	MATURITY > 5 YRS	ALL MATURITIES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,140,778	\$48,551,629	\$734,583	\$96,421	\$19,532	\$850,536	\$1,551,224	\$472,238	\$92,096	\$2,115,558
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,385,697	45,819,592	98,008	40,289	3,503	141,800	310,639	120,894	10,751	442,284
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	3,538	3,604	13	7,155	11,477	13,822	4,245	29,544
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	9,592	3,174	602	13,368	308,120	56,649	1,776	366,545
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$845,721	\$143,488	\$23,650	\$1,012,859	\$2,181,460	\$663,603	\$108,868	\$2,953,931
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	37,362	58,591	1,525	97,477	114,226	69,306	4,282	187,814
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	883,083	202,079	25,175	1,110,336	2,295,686	732,909	113,150	3,141,745

Note: Figures above exclude any contracts not subject to risk-based capital requirements, such as FX contracts with an original maturity of 14 days or less, futures contracts, written options, and basis swaps. Therefore, the total notional amount of derivatives by maturity will not add to the total derivatives figure in this table.

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RC-R

TABLE 11

**NOTIONAL AMOUNTS OF CREDIT DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (INVESTMENT GRADE AND SUB-INVESTMENT GRADE)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL CREDIT DERIVATIVES	CREDIT DERIVATIVES INVESTMENT GRADE				CREDIT DERIVATIVES SUB-INVESTMENT GRADE			
						MATURITY < 1 YR	MATURITY 1 - 5 YRS	MATURITY > 5 YRS	ALL MATURITIES	MATURITY < 1 YR	MATURITY 1 - 5 YRS	MATURITY > 5 YRS	ALL MATURITIES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,140,778	\$48,551,629	\$1,498,479	\$325,246	\$650,395	\$66,834	\$1,042,475	\$155,433	\$271,149	\$29,422	\$456,004
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,385,697	45,819,592	1,664,568	361,012	833,230	63,210	1,257,452	119,406	276,228	11,482	407,116
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,309,001	148,354	22,702	53,731	17,473	93,906	16,632	26,137	11,679	54,448
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	18,085,933	709,484	214,304	315,290	32,129	561,723	69,524	64,476	13,761	147,761
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,442,538	\$153,766,155	\$4,020,885	\$923,264	\$1,852,646	\$179,646	\$2,955,556	\$360,995	\$637,990	\$66,344	\$1,065,329
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,163,771	18,198,026	165,237	10,378	44,136	5,865	60,378	13,926	79,992	10,941	104,859
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	171,964,181	4,186,122	933,642	1,896,782	185,511	3,015,934	374,921	717,982	77,285	1,170,188

Note: Figures above exclude any contracts not subject to risk-based capital requirements, such as FX contracts with an original maturity of 14 days or less, futures contracts, written options, and basis swaps.

Therefore, the total notional amount of derivatives by maturity will not add to the total derivatives figure in this table.

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RC-L and RC-R

TABLE 12

DISTRIBUTION OF CREDIT DERIVATIVE CONTRACTS HELD FOR TRADING
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL CREDIT DERIVATIVES	TOTAL CREDIT DERIVATIVES		PURCHASED				SOLD			
						PURCHASED	SOLD	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	OTHER CREDIT DERIVATIVES	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	OTHER CREDIT DERIVATIVES		
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,140,778	\$47,053,150	\$1,498,479	\$763,461	\$735,018	\$691,120	\$19,827	\$46,326	\$6,188	\$676,017	\$12,284	\$46,682	\$35
2	CITIBANK NATIONAL ASSN	E57ODZWZ7F32TWEFA76	1,385,697	44,155,024	1,664,568	847,966	816,602	765,841	22,997	59,128	0	750,128	11,857	54,617	0
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	164,539	41,160,647	148,354	81,151	67,203	73,928	2,520	4,651	52	60,469	2,520	4,214	0
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,751,524	17,376,449	709,484	358,877	350,607	318,223	10,477	30,177	0	306,689	12,629	31,289	0
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMUFXT09	1,747,354	7,439,058	27,536	17,886	9,650	3,137	0	0	14,749	2,572	0	0	7,078
6	HSBC NA	1E8VN30JCEQV1H4R804	180,372	4,674,714	90,290	47,962	42,328	43,125	4,837	0	0	40,727	1,602	0	0
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	235,022	1,694,126	0	0	0	0	0	0	0	0	0	0	0
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	297,305	1,018,119	180	180	0	180	0	0	0	0	0	0	0
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	370,002	414,770	6,316	2,702	3,614	15	0	0	2,687	0	0	0	3,614
10	U S BANK NATIONAL ASSN	6BYL5QZYBCK8S7L3M02	456,026	347,148	5,337	1,559	3,779	0	0	0	1,559	0	0	0	3,779
11	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	138,163	329,245	0	0	0	0	0	0	0	0	0	0	0
12	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	201,638	248,792	3,970	2,242	1,729	520	1,717	0	4	0	1,717	0	11
13	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	129,707	209,434	10,328	10,328	0	10,328	0	0	0	0	0	0	0
14	TD BANK NATIONAL ASSN	03DOJEWFDUSOSEEK89	288,294	182,786	365	360	5	360	0	0	0	5	0	0	0
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YMOVDVOK75	290,651	130,845	3,042	966	2,077	0	0	0	966	0	0	0	2,077
16	MUFJ UNION BANK NA	OX3PU53ZLPQKJ4700D47	118,537	126,872	76	76	0	76	0	0	0	0	0	0	0
17	CITIZENS BANK NATIONAL ASSN	DRMSV1QOEKMXLAU1P80	121,996	93,033	2,484	0	2,484	0	0	0	0	0	0	0	2,484
18	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	135,758	94,722	330	207	123	207	0	0	0	30	93	0	0
19	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	123,325	80,356	3,193	1,080	2,113	43	0	0	1,038	43	0	0	2,070
20	FIFTH THIRD BANK	QFROUN1UWUYU00V1W5D1	140,078	77,570	3,426	588	2,838	0	0	0	588	0	0	0	2,838
21	BRANCH BANKING&TRUST CO	JKC32MCHWDI71265Z06	216,077	63,147	0	0	0	0	0	0	0	0	0	0	0
22	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	119,556	47,934	0	0	0	0	0	0	0	0	0	0	0
23	MANUFACTURERS&TRADERS TR CO	VWB2V0FCW3AOE3ZJN75	118,072	47,513	0	0	0	0	0	0	0	0	0	0	0
24	COMPASS BANK	C90VT034M03BN291RA40	86,505	45,942	61	0	61	0	0	0	0	61	0	0	0
25	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	32,217	40,672	1	0	0	0	0	0	0	0	0	0	0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,989,193	\$167,152,067	\$4,177,822	\$2,137,591	\$2,040,231	\$1,907,103	\$62,375	\$140,282	\$27,830	\$1,836,741	\$42,702	\$136,802	\$23,987
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,617,116	625,992	8,300	3,795	4,504	11	79	0	3,705	386	2	0	4,116
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,606,309	167,778,059	4,186,122	2,141,386	2,044,735	1,907,114	62,455	140,282	31,535	1,837,127	42,704	136,802	28,103
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					99.8	51.1	48.7	45.6	1.5	3.4	0.7	43.9	1.0	3.3	0.6
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					100.0	51.2	48.8	45.6	1.5	3.4	0.8	43.9	1.0	3.3	0.7

Note: Credit derivatives have been excluded from the sum of total derivatives here.

Note: Numbers may not add up to total due to rounding.

Source: Call reports, Schedule RC-L

TABLE 13

**DERIVATIVES DATA REPORTED BY FFIEC 051 FILERS
COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
DECEMBER 31, 2017, MILLIONS OF DOLLARS**

Call Report Schedule SU	
A. Gross Notional Amount of Derivatives	
Total gross notional amount of interest rate derivatives held for trading	\$542
Total gross notional amount of all other derivatives held for trading	\$5
Total gross notional amount of interest rate derivatives not held for trading	\$6,092
Total gross notional amount of all other derivatives not held for trading	\$86
Call Report Schedule RC-R	
A. Notional principal amounts of over-the-counter derivative contracts covered by the regulatory capital rules:	
a. Interest rate	\$3,845
b. Foreign exchange rate and gold	\$0
c. Credit (investment grade reference asset)	\$13
d. Credit (non-investment grade reference asset)	\$11
e. Equity	\$0
g. Other	\$5
f. Precious metals (except gold)	\$0
B. Notional principal amounts of centrally cleared derivative contracts covered by the regulatory capital rules:	
a. Interest rate	\$249
b. Foreign exchange rate and gold	\$0
c. Credit (investment grade reference asset)	\$0
d. Credit (non-investment grade reference asset)	\$0
e. Equity	\$0
f. Precious metals (except gold)	\$0
g. Other	\$0
C. Current credit exposure across all derivative contracts covered by the regulatory capital rules	\$44

Source: Call reports, Schedule SU and Schedule RC-R