

Quarterly Report on Bank Trading and Derivatives Activities

Second Quarter 2018

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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 1,358¹ insured U.S. commercial banks and savings associations reported trading and derivatives activities at the end of the second quarter of 2018. A small group of large financial institutions continues to dominate trading and derivatives activity in the U.S. commercial banking system. During the second quarter of 2018, four large commercial banks represented 89.9 percent of the total banking industry notional amounts and 84.6 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 trading and derivatives 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 derivative categories, migration of certain highly liquid products to clearinghouses, and requirements for posting and collecting margin.

This is the 91st 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. 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 \$6.9 billion in the second quarter of 2018, \$1.3 billion less (16.2 percent) than in the previous quarter and \$0.2 billion more (3.5 percent) than a year earlier (see page 4).
- Credit exposure from derivatives decreased in the second quarter of 2018 compared with the first quarter of 2018. NCCE decreased \$0.4 billion, or 0.1 percent, to \$361.7 billion (see page 8).
- Trading risk, as measured by daily value-at-risk (VaR), decreased in the second quarter of 2018. Total VaR² across the top five dealer banking companies decreased \$42.0 million, or 13.6 percent, to \$267 million (see page 11).
- Derivative notional amounts increased in the second quarter of 2018 by \$3.4 trillion, or 1.7 percent, to \$207.2 trillion (see page 14).
- Derivative contracts remained concentrated in interest rate products, which represented 76.0 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 Average daily VaR as reported by the firms 10Q and 10K U.S. Securities and Exchange Commission Reports.

Revenue

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

Insured U.S. commercial banks and savings associations reported \$6.9 billion in trading revenue in the second quarter of 2018, \$1.3 billion less (16.2 percent) than in the previous quarter and \$0.2 billion more (3.5 percent) than a year earlier (see table 1). The quarter-over-quarter decrease in trading revenue was due to decreases across all trading revenue products. 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

	2Q2018	1Q2018	Q/Q Change	Q/Q % Change	2Q2017	Y/Y Change	Y/Y % Change
Interest Rate & FX	\$4,790	\$5,544	-\$753	-13.6%	\$5,201	-\$411	-7.9%
Equity	\$1,486	\$1,866	-\$379	-20.3%	\$1,122	\$364	32.5%
Commodity & Other	\$313	\$368	-\$56	-15.1%	\$206	\$107	52.0%
Credit	\$281	\$421	-\$140	-33.2%	\$108	\$173	159.3%
Total Trading Revenue	\$6,870	\$8,198	-\$1,328	-16.2%	\$6,637	\$234	3.5%

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 \$12.5 billion in the second quarter of 2018 was \$6.2 billion (33.2 percent) lower than in the previous quarter. The quarter-over-quarter decrease in trading revenue was due to decreases in combined interest rate and foreign exchange (FX) and commodity and other trading revenue products. Year-over-year holding company trading revenue decreased by \$2.6 billion (17.3 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

	2Q2018	1Q2018	Q/Q Change	Q/Q % Change	2Q2017	Y/Y Change	Y/Y % Change
Interest Rate & FX	\$3,291	\$9,971	-\$6,680	-67.0%	\$6,605	-\$3,314	-50.2%
Equity	\$6,499	\$6,259	\$240	3.8%	\$5,682	\$817	14.4%
Commodity & Other	\$707	\$1,195	-\$488	-40.8%	\$1,330	-\$622	-46.8%
Credit	\$2,001	\$1,296	\$705	54.4%	\$1,493	\$508	34.0%
Total HC Trading Revenue	\$12,498	\$18,721	-\$6,223	-33.2%	\$15,111	-\$2,613	-17.3%

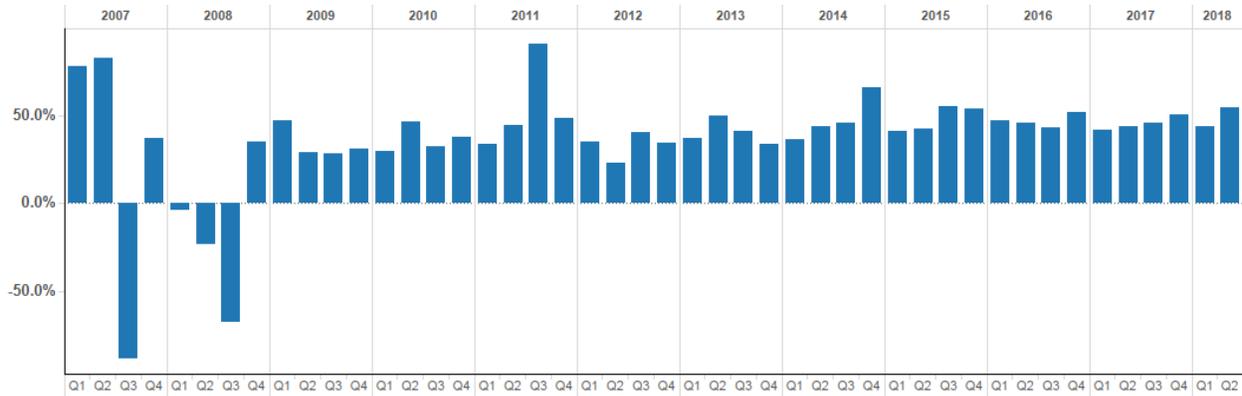
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

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 second quarter of 2018, banks generated 55.0 percent of consolidated holding company trading revenue, up from 43.8 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)

Counterparty Credit Risk

Counterparty 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 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 increased by \$38.7 billion (2.1 percent) in the second quarter of 2018 to \$1.9 trillion, driven by a \$114.7 billion (25.3 percent) increase in receivables from FX contracts offset by a \$74 billion (6.5 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 increase in GNFVs generally matched the change in GPFV. Derivative payables, GNFV, increased \$43.3 billion (2.5 percent) to \$1.8 trillion during the quarter, driven by a \$118.7 billion (27.9 percent) increase in payables on FX contracts offset by a \$71.8 billion (6.6 percent) decrease in interest rate contracts.

GPFV and GNFV interest rate contracts declined 35.2 percent and 35.5 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

	2Q2018	1Q2018	Q/Q Change	Q/Q % Change	2Q2017	Y/Y Change	Y/Y % Change
Interest Rate	\$1,058	\$1,132	-\$74	-6.5%	\$1,634	-\$576	-35.2%
Foreign Exchange	\$569	\$454	\$115	25.3%	\$515	\$54	10.5%
Equity	\$123	\$125	-\$2	-1.6%	\$97	\$26	26.4%
Commodities	\$50	\$44	\$5	12.3%	\$42	\$8	18.3%
Credit	\$53	\$59	-\$6	-9.8%	\$69	-\$16	-23.2%
Gross Positive Fair Value	\$1,852	\$1,814	\$39	2.1%	\$2,357	-\$504	-21.4%

	2Q2018	1Q2018	Q/Q Change	Q/Q % Change	2Q2017	Y/Y Change	Y/Y % Change
Interest Rate	\$1,009	\$1,081	-\$72	-6.6%	\$1,565	-\$556	-35.5%
Foreign Exchange	\$545	\$426	\$119	27.9%	\$515	\$30	5.7%
Equity	\$118	\$118	\$0	-0.3%	\$102	\$16	15.4%
Commodities	\$48	\$45	\$3	7.5%	\$43	\$5	12.0%
Credit	\$53	\$60	-\$7	-11.1%	\$69	-\$16	-23.4%
Gross Negative Fair Value	\$1,773	\$1,730	\$43	2.5%	\$2,295	-\$522	-22.7%

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 savings associations decreased by \$0.4 billion (0.1 percent) to \$361.7 billion in the second quarter of 2018 (see table 5).³ Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 80.5 percent (\$1.5 trillion) in the second quarter of 2018.

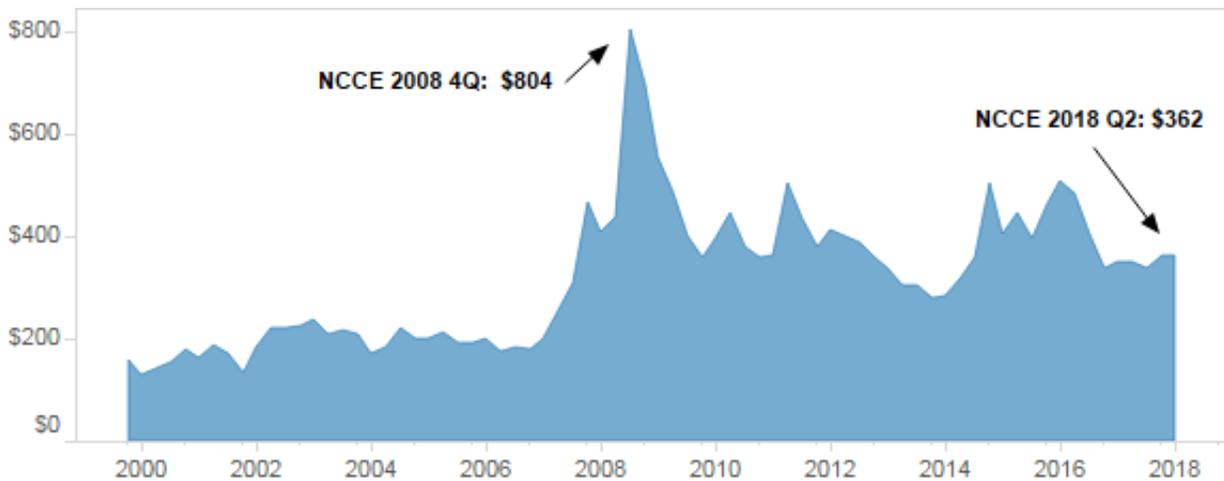
Table 5. Net Current Credit Exposure, in Billions of Dollars

	2Q2018	1Q2018	Q/Q Change	Q/Q % Change
Gross Positive Fair Value	\$1,852	\$1,814	\$39	2.1%
NCCE RC-R	\$362	\$362	-\$0.4	-0.1%
Netting Benefit RC-R	\$1,491	\$1,452	\$39	2.7%
Netting Benefit % RC-R	80.5%	80.0%		0.5%

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 \$1.0 trillion at the end of the second quarter of 2018. On June 30, 2018, exposure from credit contracts was \$52.8 billion (see table 3), which is \$1.0 trillion lower (92.5 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

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.

The bulk of NCCE in the financial system is concentrated in banks and securities firms (39.7 percent) and in corporations and other counterparties (46.0 percent) (see table 6). The combined exposure to hedge funds and sovereign governments was small (14.3 percent in total).

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

	Banks & Securities Firms	Hedge Funds	Sovereign Governments	Corp & All Other Counterparties
2018 Q2	39.7%	4.7%	9.6%	46.0%
2018 Q1	39.7%	5.4%	7.5%	47.3%
2017 Q4	41.7%	3.1%	8.0%	47.2%
2016 Q4	48.3%	2.0%	6.6%	43.1%
2015 Q4	53.2%	2.1%	6.1%	38.5%

Source: Call reports (FFIEC 031), Schedule RC-L

A more risk-sensitive measure of credit exposure would consider the value of collateral held against counterparty exposures. Reporting banks held collateral valued at 109.7 percent of their total NCCE at the end of the second quarter of 2018, down from 111.0 percent in the first quarter of 2018 (see table 7). Collateral held against hedge fund exposures increased in the second quarter. Coverage remains very high at 340.3 percent. Bank exposures to hedge funds are secured, because banks take initial margin on transactions with hedge funds, in addition to fully securing any current credit exposure. Collateral coverage of corporate 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 Hedge Funds	FV Sovereign Governments	FV Corp and All Other Counterparties	FV/NCCE%
2018 Q2	130.2%	340.3%	42.0%	82.4%	109.7%
2018 Q1	125.0%	337.1%	23.3%	87.4%	111.0%
2017 Q4	124.8%	496.4%	25.1%	87.4%	110.5%
2016 Q4	118.8%	493.1%	34.2%	65.1%	97.4%
2015 Q4	101.6%	437.0%	15.5%	64.9%	89.1%

Source: Call reports (FFIEC 031), Schedule RC-L

Collateral quality held by banks was very high and liquid during the quarter, with 63.9 percent held in cash (both U.S. dollar and non-dollar) and an additional 12.0 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
2018 Q2	38.7%	25.2%	10.0%	2.0%	1.9%	7.4%	14.8%
2018 Q1	38.0%	25.8%	10.6%	1.8%	2.2%	8.7%	13.0%
2017 Q4	37.9%	25.9%	10.5%	1.9%	2.5%	5.8%	15.5%
2016 Q4	40.1%	32.0%	8.1%	1.8%	1.7%	5.1%	11.2%
2015 Q4	43.5%	32.3%	4.7%	1.6%	1.5%	5.4%	11.2%

Source: Call reports (FFIEC 031), Schedule RC-L

Credit quality metrics for derivative exposures decreased in the second quarter of 2018, as banks reported net charge-offs of \$4.0 million, compared with net recoveries of \$1.1 million in the first quarter of 2018 (see graph 7 in the appendix). The number of banks reporting charge-offs increased from 12 to 13 banks. Net charge-offs in the second quarter of 2018 represented 0.001 percent of the NCCE from derivative contracts. For comparison purposes, commercial and industrial (C&I) loan net charge-offs decreased \$40.6 million, or 2.9 percent, to \$1.3 billion during the quarter and were 0.07 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 CHASE & CO.	CITIGROUP INC.	BANK OF AMERICA CORPORATION	THE GOLDMAN SACHS GROUP, INC.	MORGAN STANLEY	TOTAL
2018 Q2	\$35	\$90	\$34	\$64	\$44	\$267
2018 Q1	\$43	\$102	\$45	\$73	\$46	\$309
Q/Q Change	-\$8	-\$12	-\$11	-\$9	-\$2	-\$42
Q/Q % Change	-18.6%	-11.8%	-24.4%	-12.3%	-4.3%	-13.6%
2018 Q2 Equity Capital	\$257,458	\$200,094	\$264,216	\$86,599	\$79,109	\$887,476
2018 Q2 Net Income	\$8,316	\$4,490	\$6,784	\$2,565	\$2,437	\$24,592

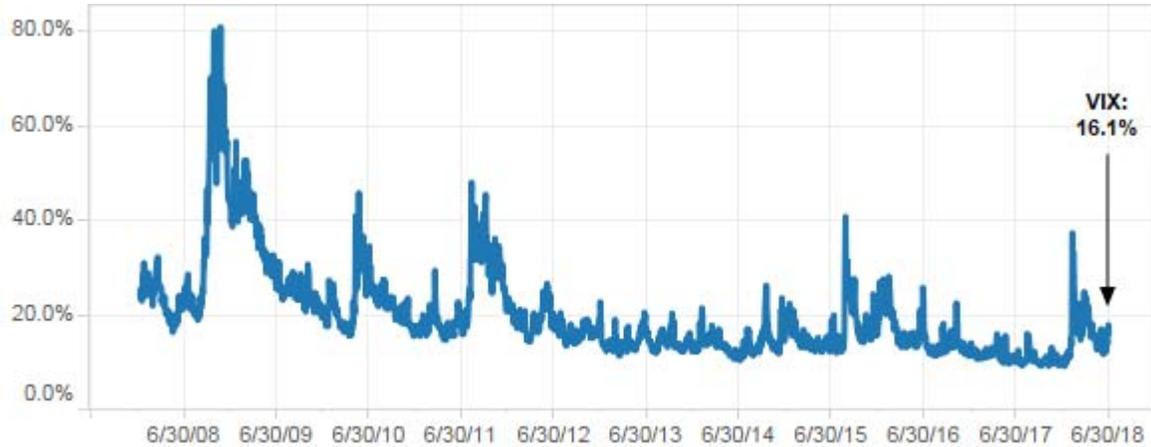
Source: 10K and 10Q U.S. Securities and Exchange Commission reports

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 historic trend 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)

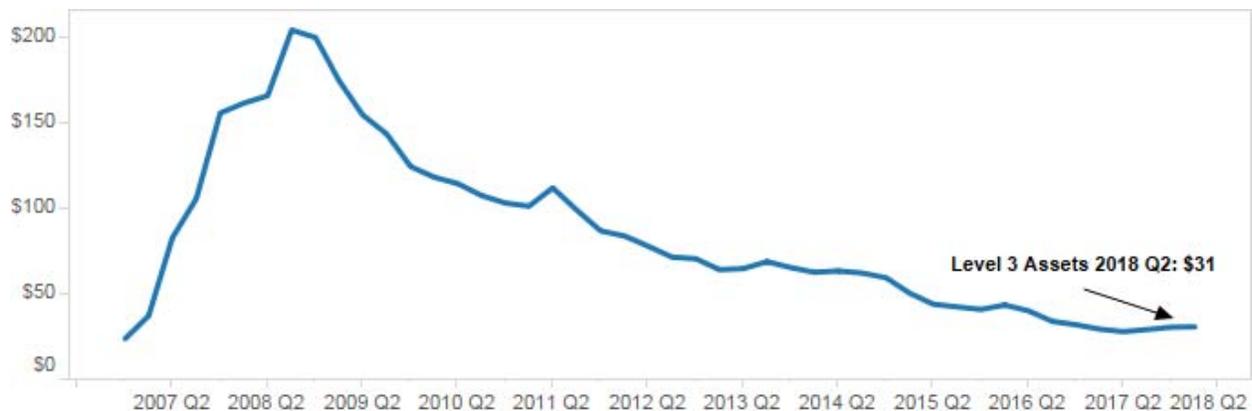


Source: Bloomberg

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 second quarter of 2018, banks held \$30.6 billion of level 3 trading assets, up 0.6 percent from the previous quarter, and 4.7 percent higher than a year ago. Level 3 assets are \$173.5 billion (85.0 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

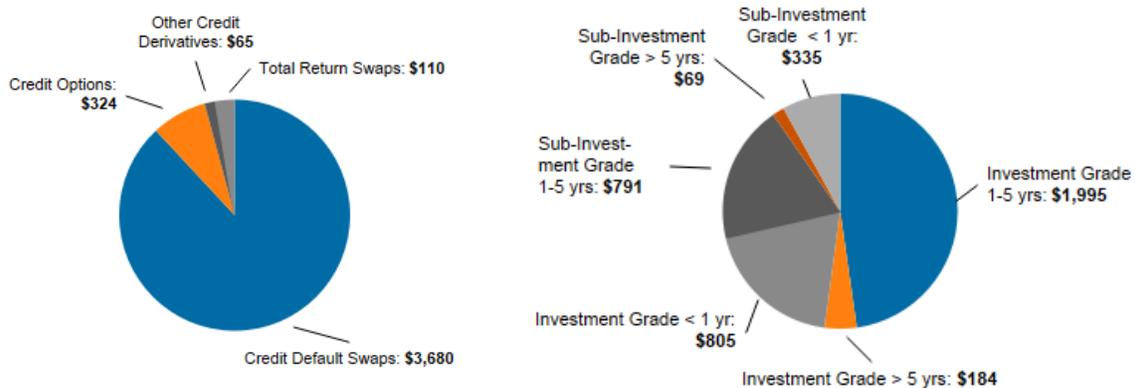
The notional amounts outstanding of credit derivatives decreased \$167.0 billion (3.8 percent), to \$4.2 trillion, in the second quarter of 2018 (see table 10). Contracts referencing sub-investment-grade firms decreased \$101.2 billion in the second quarter, Likewise, and contracts referencing investment-grade firms decreased \$65.8 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 (88.1 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 increased by \$155.9 billion (8.5 percent) in the quarter, represented the largest segment of the market at 47.8 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are 71.4 percent of the market (see chart on right in figure 5 and graph 14 in the appendix).

Figure 5. 2018 Q2 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 80 banks that net sold credit protection (i.e., assumed credit risk) was \$2.0 trillion, down \$81.9 billion (3.9 percent) from the first quarter of 2018. The notional amount for the 60 banks that net purchased credit protection (i.e., hedged credit risk) was \$2.1 trillion, \$85.0 billion lower (3.8 percent) than in the first quarter of 2018 (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 second quarter increased by \$3.4 trillion (1.7 percent) to \$207.2 trillion from the previous quarter (see table 10). The increase in the notional amount of derivative contracts by underlying risk exposure was primarily driven by a \$2.0 trillion increase in interest rate notional amounts and a \$1.8 trillion increase in FX

notional amounts. Interest rate notional amounts continued to represent the majority of banks' derivative holdings at \$157.4 trillion, or 76.0 percent of total derivatives during the second quarter of 2018 (see table 10).

The increase in the notional amount of derivative contracts by contract type was driven by an increase in swap contracts (see table 11). Swap contracts remained the leading derivatives contract type at 52.1 percent of all notional amounts.

The four banks with the most derivative activity hold 89.9 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

	2Q2018	1Q2018	Q/Q Change	Q/Q % Change	2Q2017	Y/Y Change	Y/Y % Change
Interest Rate	\$157,427	\$155,469	\$1,958	1.3%	\$139,823	\$17,604	12.6%
Foreign Exchange	\$40,650	\$38,839	\$1,811	4.7%	\$36,521	\$4,128	11.3%
Equity	\$3,421	\$3,467	-\$46	-1.3%	\$2,908	\$512	17.6%
Commodity	\$1,511	\$1,631	-\$120	-7.4%	\$1,334	\$176	13.2%
Credit Derivatives	\$4,179	\$4,345	-\$167	-3.8%	\$4,935	-\$756	-15.3%
Total Notional	\$207,186	\$203,752	\$3,435	1.7%	\$185,522	\$21,665	11.7%

Source: Call reports, Schedule RC-L

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

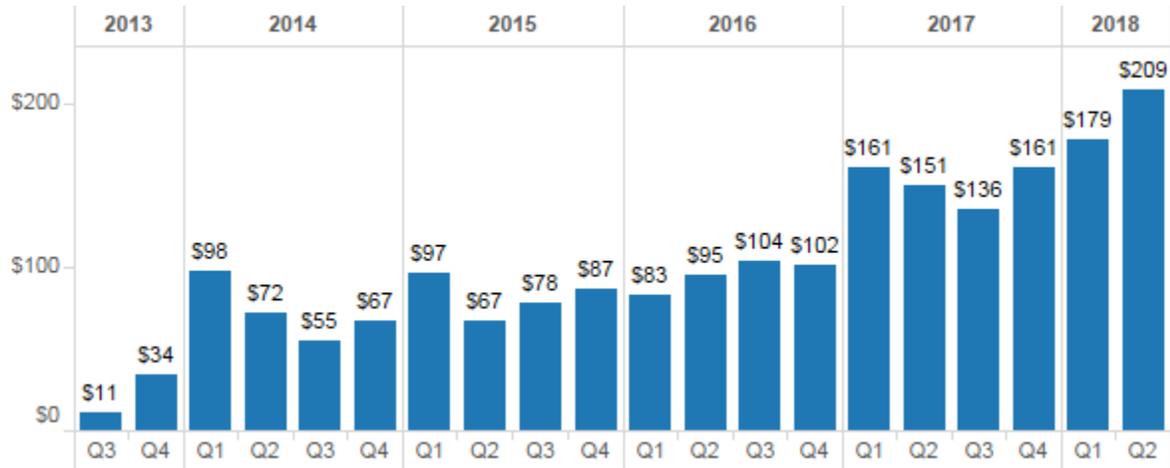
	2Q2018	1Q2018	Q/Q Change	Q/Q % Change	2Q2017	Y/Y Change	Y/Y % Change
Futures & Forwards	\$46,024	\$45,498	\$527	1.2%	\$39,847	\$6,177	15.5%
Swaps	\$107,958	\$105,094	\$2,864	2.7%	\$103,004	\$4,954	4.8%
Options	\$49,025	\$48,814	\$211	0.4%	\$37,736	\$11,289	29.9%
Credit Derivatives	\$4,179	\$4,345	-\$167	-3.8%	\$4,935	-\$756	-15.3%
Total Notional	\$207,186	\$203,752	\$3,435	1.7%	\$185,522	\$21,665	11.7%

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 second quarter of 2018, 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 second quarter of 2018, 41.0 percent of banks’ derivative holdings were centrally cleared (see table 12). From a market factor perspective, 51.5 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 30.2 percent of investment grade and 25.9 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 91.4 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
2018 Q2	51.5%	1.6%	26.8%	9.5%	28.9%	17.3%	41.0%
2018 Q1	49.6%	1.5%	27.9%	8.5%	28.9%	14.9%	39.8%
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%	5.5%	22.3%	16.0%	39.2%
2016 Q4	49.1%	1.0%	23.5%	5.6%	20.4%	15.0%	38.8%
2016 Q3	49.2%	0.7%	24.3%	6.7%	21.2%	14.9%	39.0%
2016 Q2	49.1%	0.5%	22.1%	6.0%	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	44.6%	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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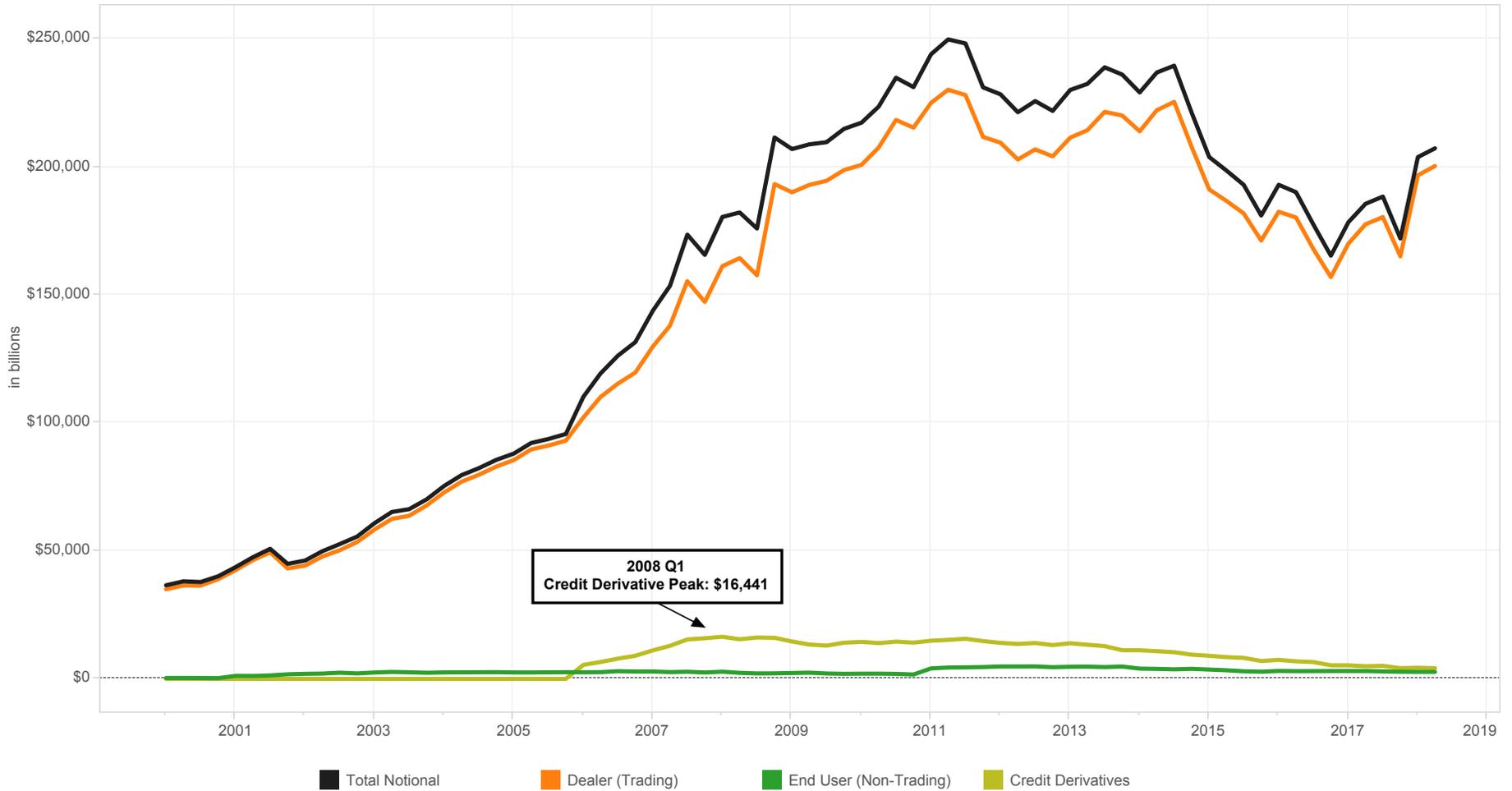
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Table 13. Derivatives Data Reported By FFIEC 051 Filers

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

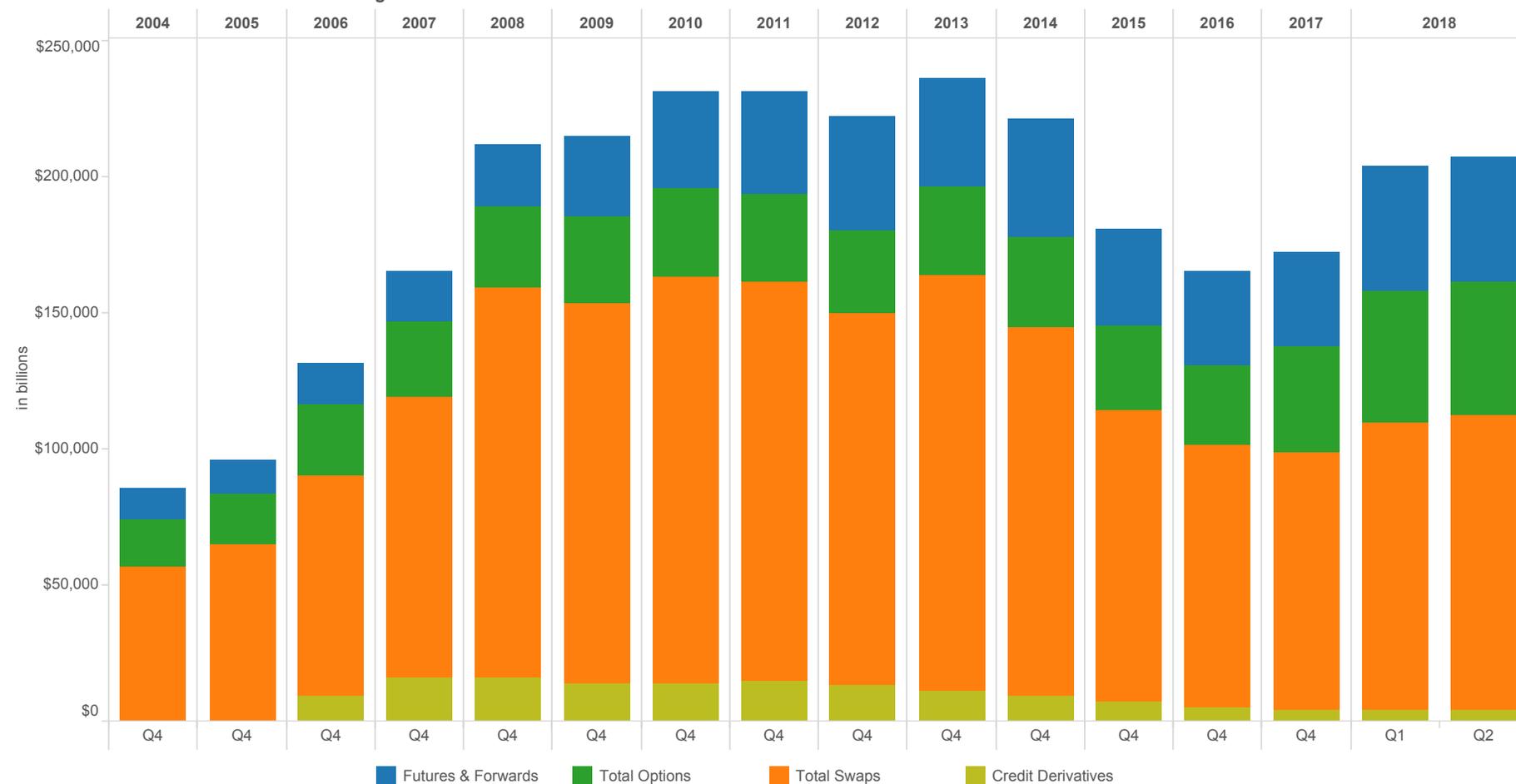


In billions of dollars

	2014				2015				2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2												
Total Notional	\$229,011	\$236,808	\$239,459	\$221,078	\$203,777	\$198,530	\$192,942	\$180,959	\$192,952	\$190,057	\$177,466	\$165,252	\$178,335	\$185,522	\$188,351	\$171,958	\$203,752	\$207,186
Dealer (Trading)	213,838	222,078	225,318	207,711	191,123	186,686	181,777	171,172	182,437	180,186	167,873	156,901	169,971	177,519	180,344	164,987	196,669	200,271
End User (Non-Trading)	4,008	3,903	3,732	3,918	3,637	3,356	2,968	2,800	3,097	3,018	3,030	3,057	3,061	3,069	2,917	2,785	2,737	2,737
Credit Derivatives	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	4,345	4,179

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

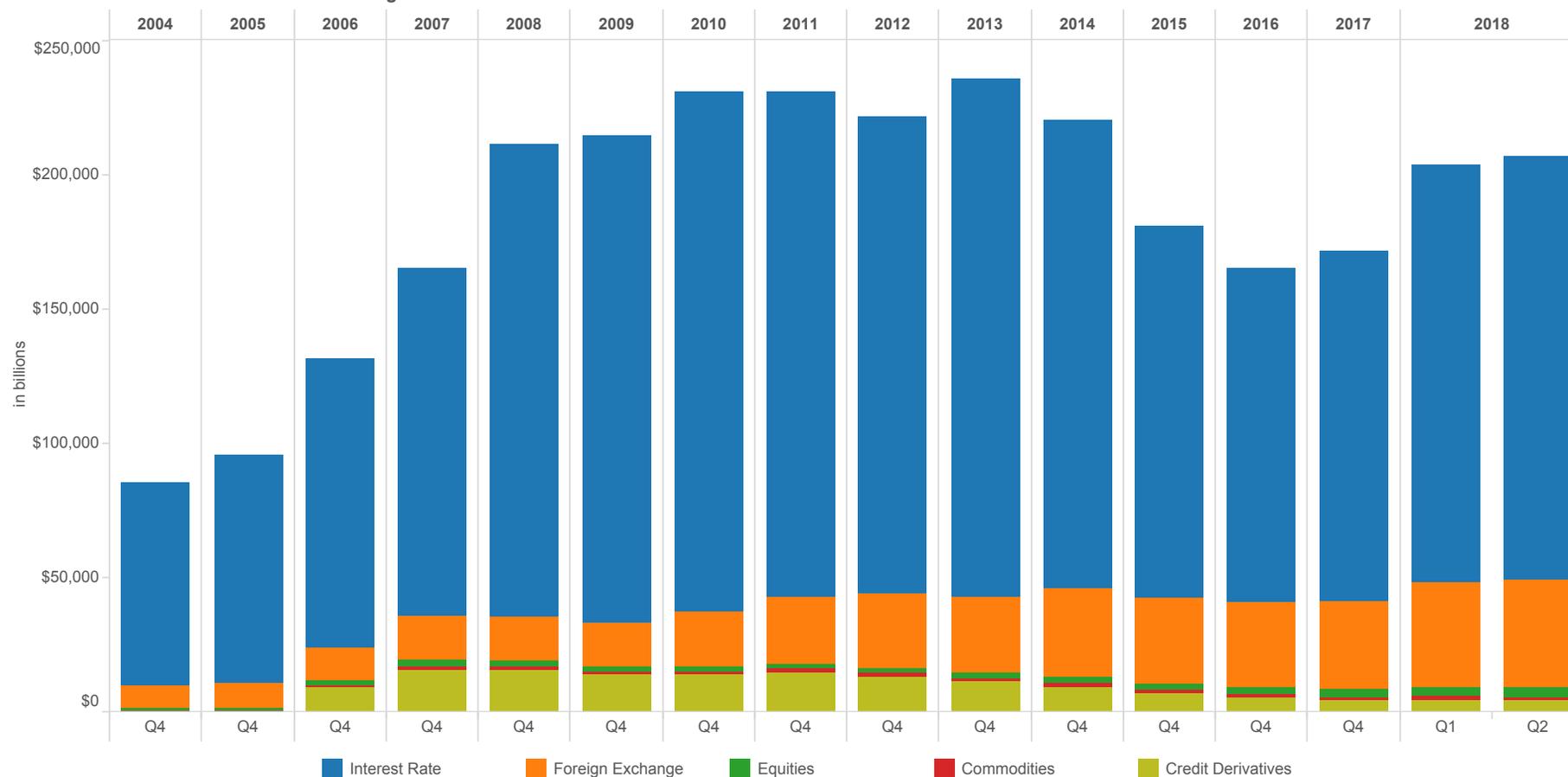


In billions of dollars

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
Futures & Forwards	\$11,370	\$12,057	\$14,882	\$18,867	\$22,529	\$29,652	\$35,539	\$37,469	\$41,621	\$40,027	\$43,380	\$35,691	\$34,201	\$34,407	\$45,498	\$46,024
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	38,841	48,814	49,025
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	94,524	105,094	107,958
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	4,186	4,345	4,179
Total Notional	85,536	95,627	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,958	203,752	207,186

*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

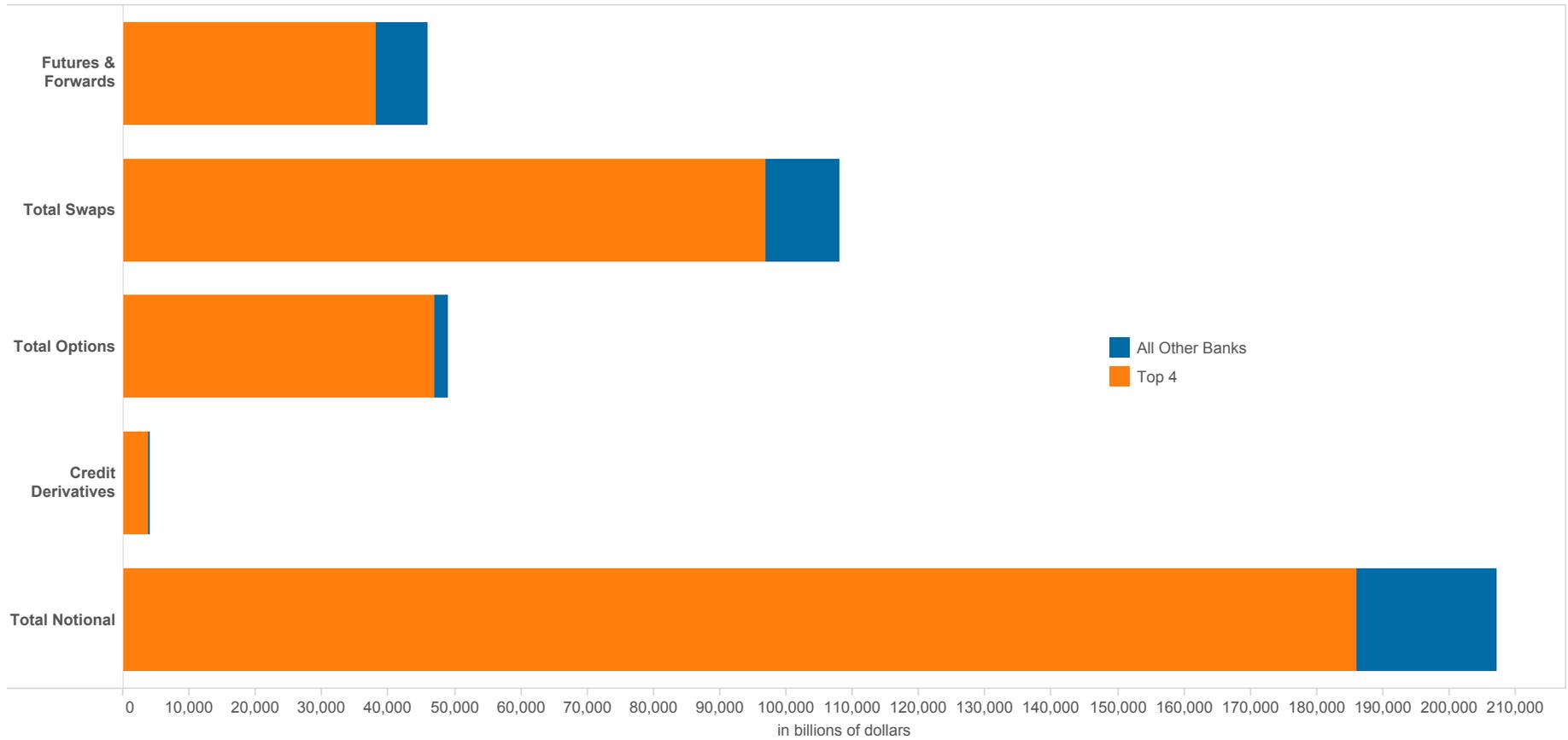


In billions of dollars

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
Interest Rate	\$75,533	\$84,530	\$107,435	\$129,491	\$175,895	\$181,454	\$193,399	\$187,866	\$177,650	\$193,084	\$174,687	\$138,369	\$124,488	\$130,416	\$155,469	\$157,427
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	32,903	38,839	40,650
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	3,080	3,467	3,421
Commodities	284	552	893	1,067	1,061	979	1,195	1,330	1,397	1,209	1,222	1,108	1,257	1,373	1,631	1,511
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	4,186	4,345	4,179
Total Notional	85,536	95,627	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,958	203,752	207,186

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

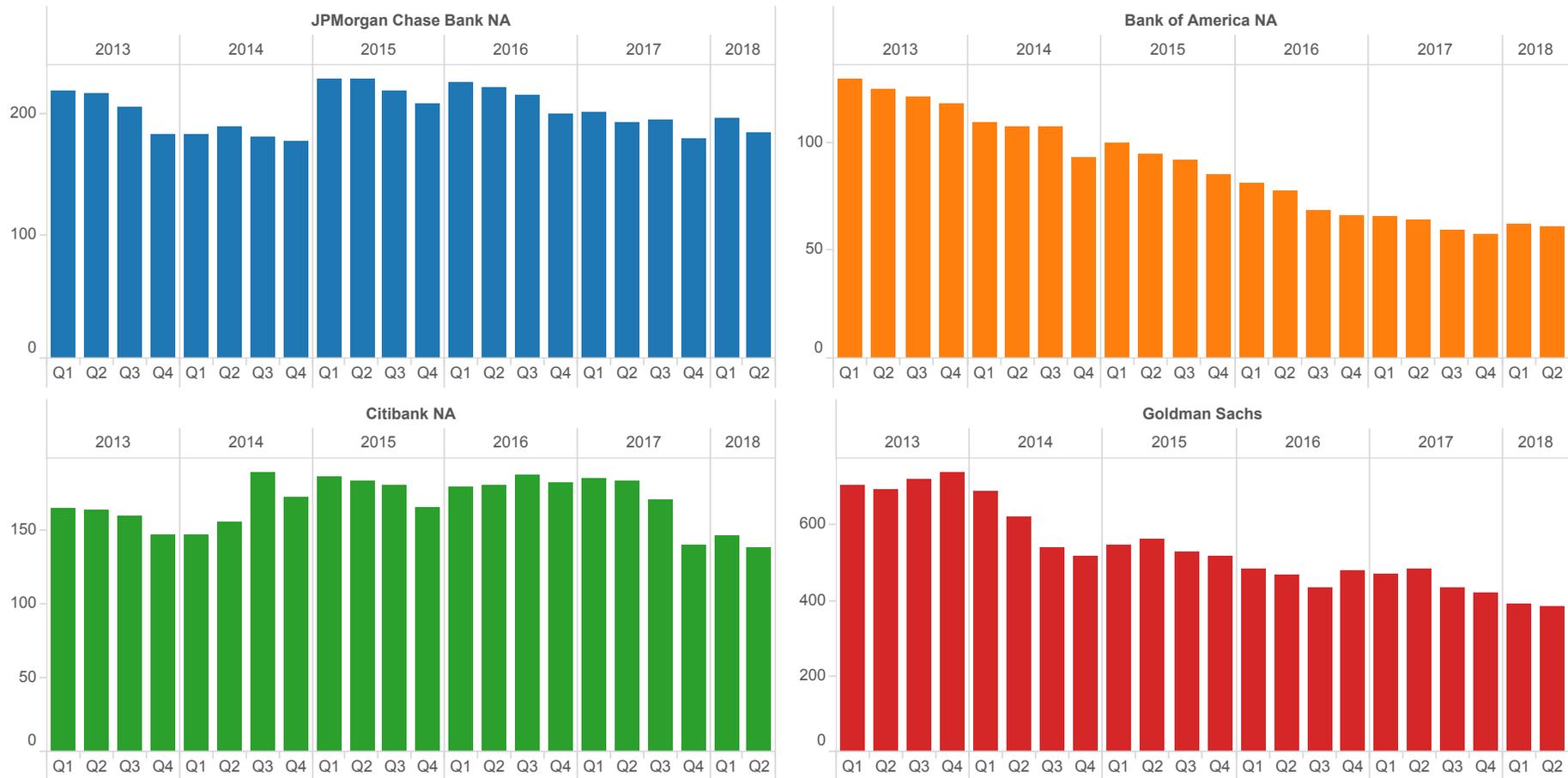


In billions of dollars

	Top 4	All Other Banks	Grand Total
Futures & Forwards	\$38,130	\$7,894	\$46,024
Total Swaps	96,988	10,970	107,958
Total Options	47,048	1,978	49,025
Credit Derivatives	4,007	172	4,179
Total Notional	186,173	21,013	207,186

*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

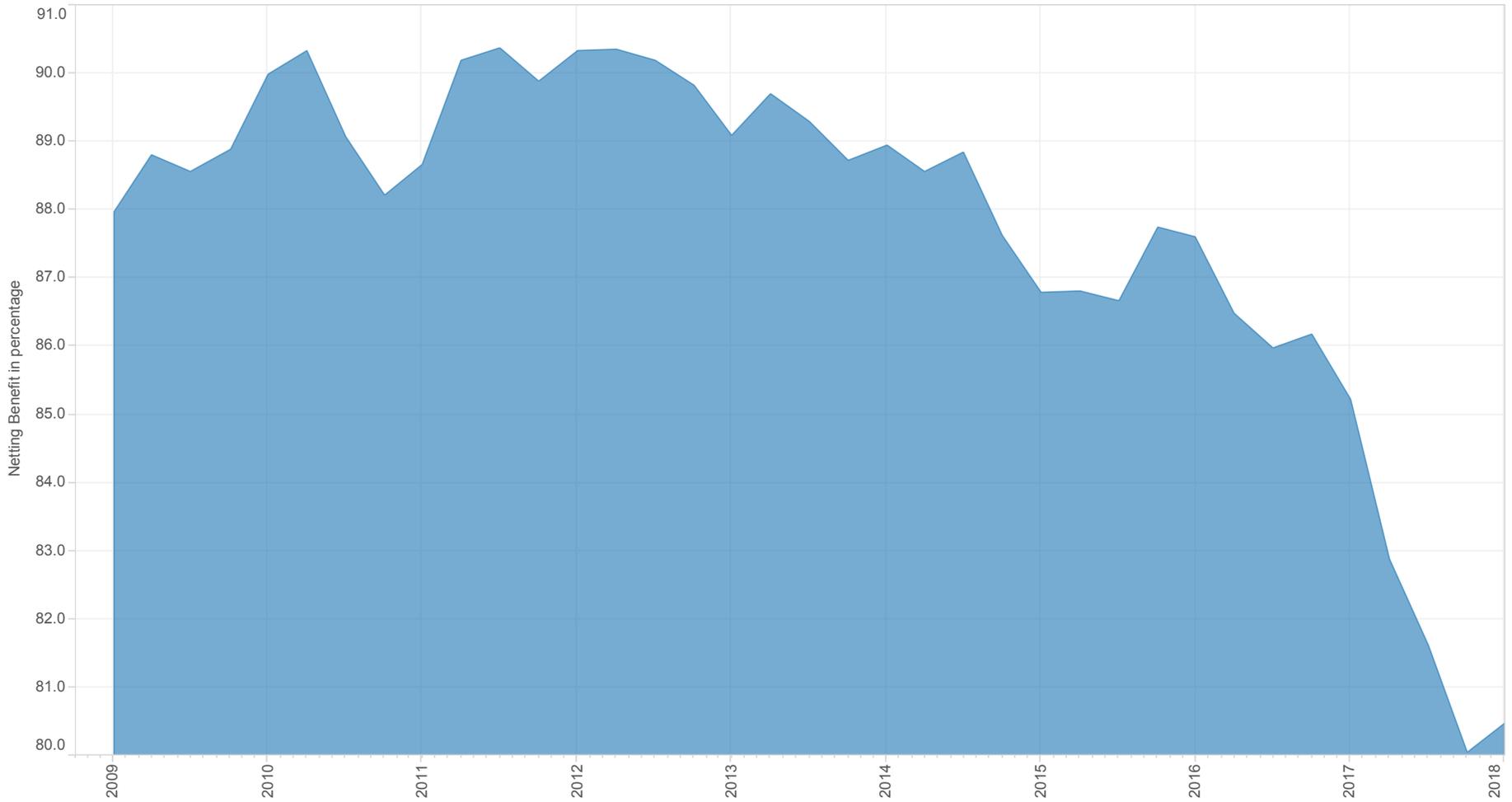


	2013				2014				2015				2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2																
JPMorgan Chase Bank NA	219	216	205	183	183	189	181	177	229	228	219	209	225	221	216	199	201	193	195	179	197	184
Bank of America NA	129	125	121	117	109	107	107	93	100	95	91	85	81	77	68	66	66	64	59	57	62	61
Citibank NA	165	164	161	148	147	156	190	173	187	184	181	166	180	181	188	183	186	184	171	140	146	139
Goldman Sachs	703	693	719	741	689	620	539	516	547	563	530	516	482	467	433	481	472	484	433	420	389	384
TOTAL	Q1	Q2	Q3	Q4	Q1	Q2																
	261	258	262	262	248	240	224	211	238	242	232	223	226	222	217	220	220	218	205	191	195	187

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



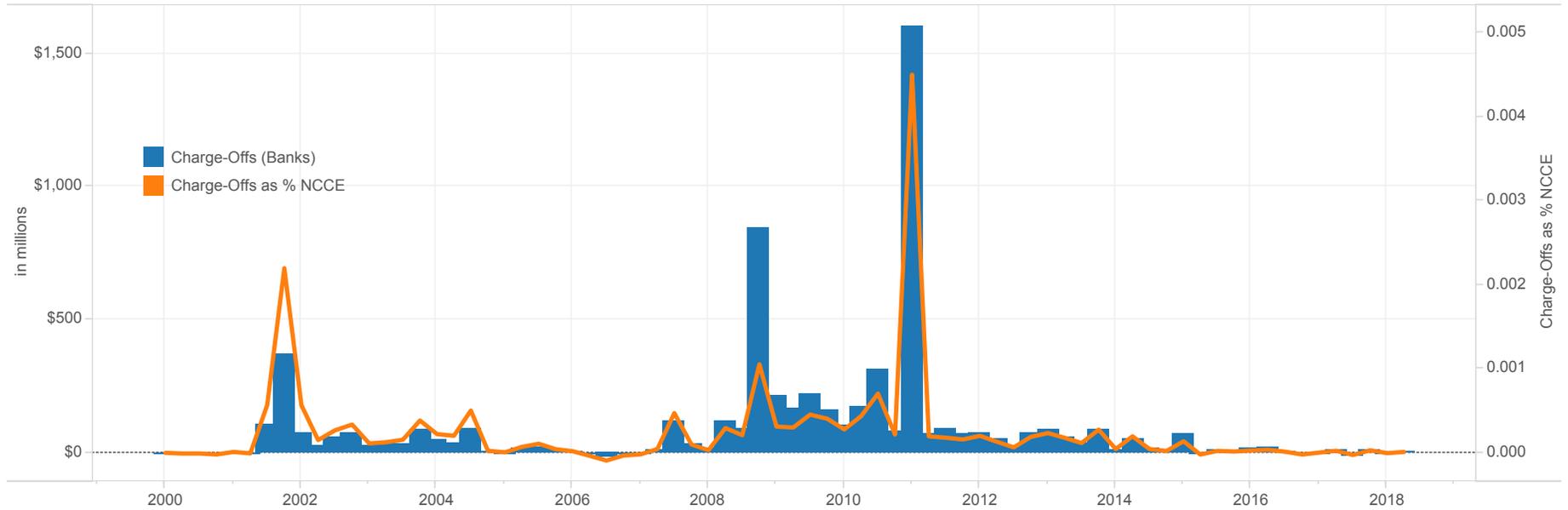
Netting Benefit (in percentage)

2009			2010				2011				2012				2013				2014				2015				2016				2017				2018	
Q2	Q3	Q4	Q1	Q2																																
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	80.0	80.5

*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



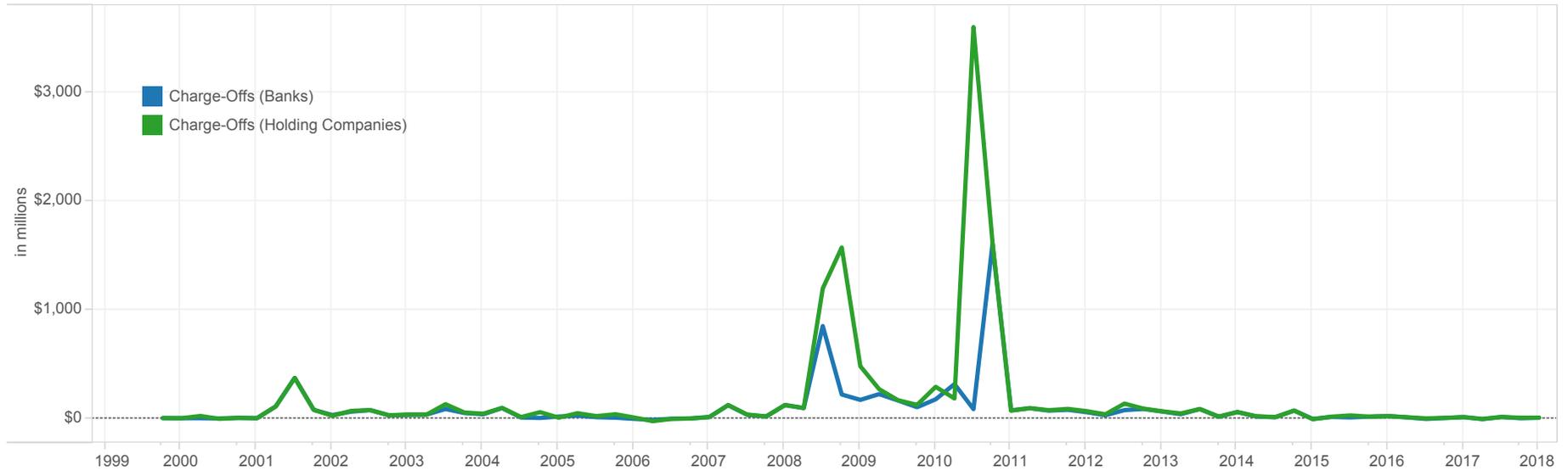
In millions of dollars

	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				2018							
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2						
Charge-Offs (Banks)	13.30	18.56	6.48	-7.84	1.22	8.71	-8.77	10.26	-1.14	3.97						

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

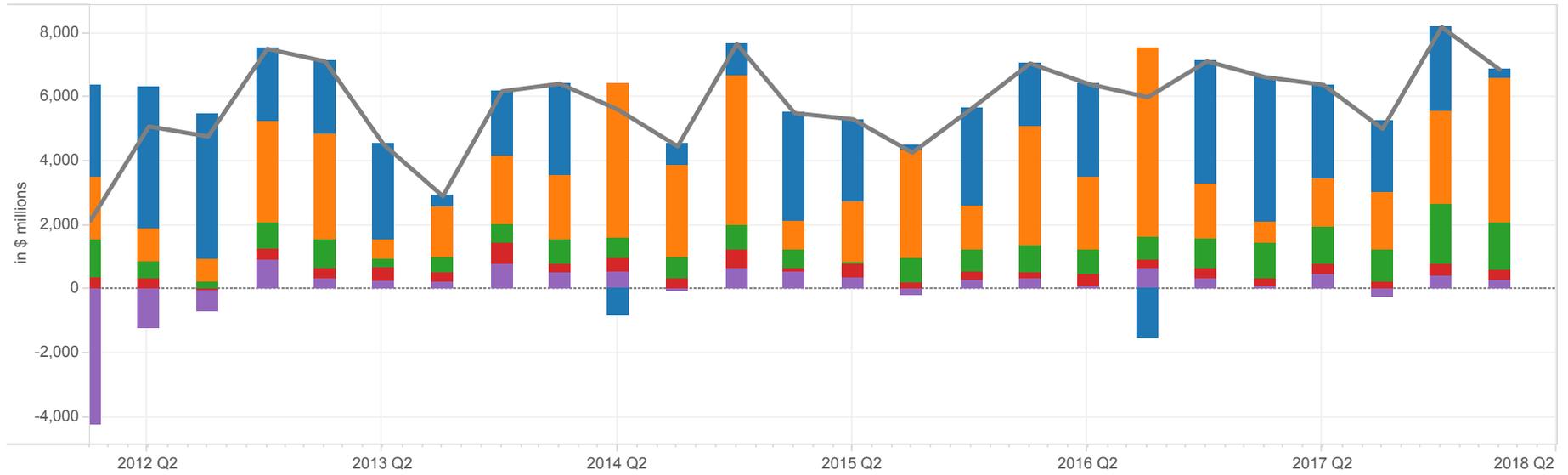


In millions of dollars

	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				2018					
	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	Q1	Q2
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	-1.1	4.0				
Charge-Offs (Holding Companies)	84.6	64.0	34.9	####	87.2	62.6	42.9	83.4	13.6	55.6	17.2	9.1	69.0	####	12.9	24.5	12.8	18.0	7.5	-2.5	1.4	8.9	-8.3	9.6	3.1	3.4				

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

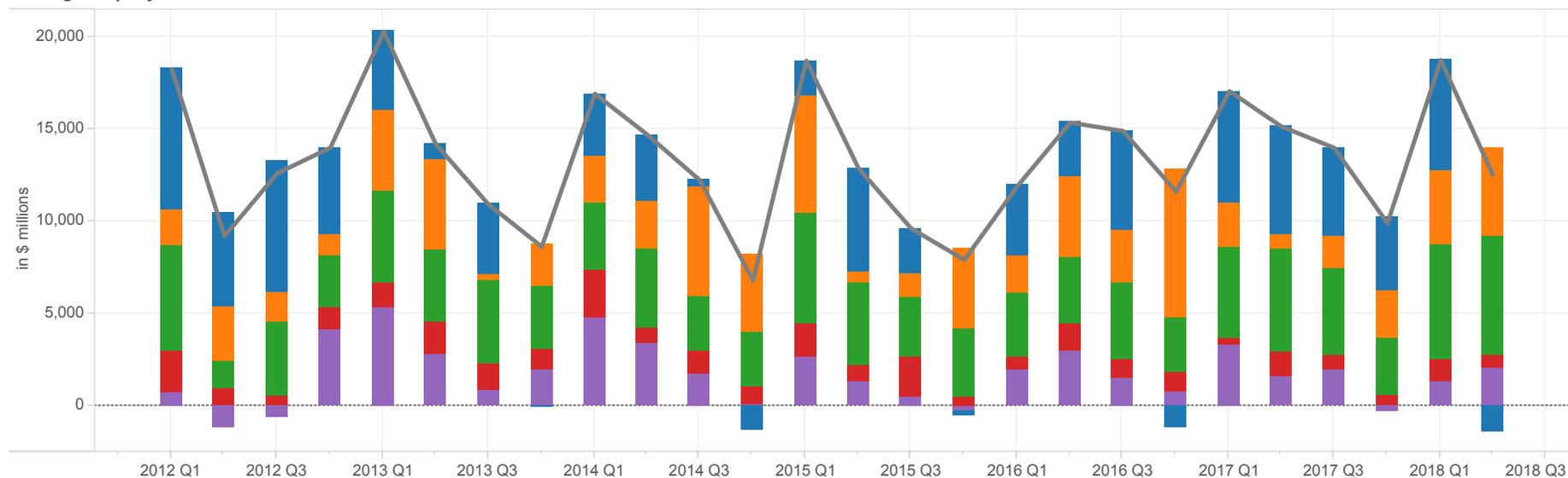
	2Q2018	Average Past 12 Q2's	Past 8 Quarter Average	Past 8 Quarter High	Past 8 Quarter Low	Since 2000 Average	Max Since 2000	Min Since 2000
Interest Rate	255	2,539	2,197	4,520	-5,282	1,711	9,291	-1,547
Foreign Exchange	4,535	2,448	2,787	5,941	-1,069	1,901	5,941	681
Equity	1,486	1,015	1,095	1,865	-1,059	609	1,865	681
Commodity & Other	313	202	284	368	-307	231	789	161
Credit	281	316	274	634	-10,237	-161	2,727	-237
Total Trading Revenue	6,870	6,519	6,637	8,198	-10,580	4,291	10,217	5,017

In millions of dollars

	2013				2014				2015				2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2																
Interest Rate	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	2,224	2,649	255
Foreign Exchange	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	1,791	2,895	4,535
Equity	838	924	233	491	612	726	654	650	797	587	49	742	668	867	734	681	922	1,122	1,183	990	1,865	1,486
Commodity & Other	364	292	481	265	672	293	411	335	587	129	402	198	271	161	353	296	328	206	284	251	368	313
Credit	890	339	222	245	756	500	535	-79	624	530	357	-222	263	342	118	634	330	108	470	-237	421	281
Total Trading Revenue	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	5,017	8,198	6,870

*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: 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				2018	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
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	4,018	6,037	-1,449
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	2,587	3,934	4,740
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	3,095	6,259	6,499
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	1,195	707
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	1,296	2,001
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	9,868	18,721	12,498

*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



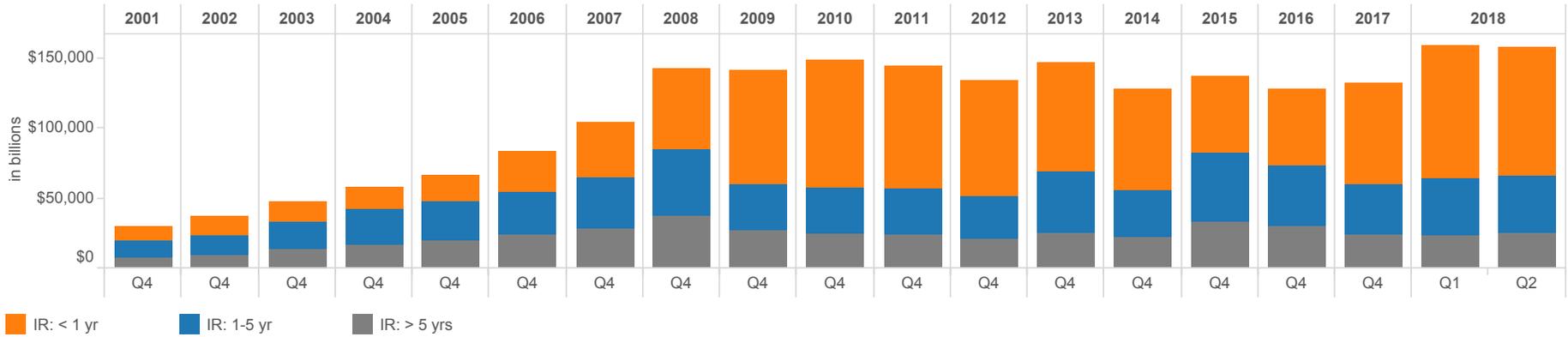
Trading Revenue to Gross Revenue (in percentage)*

	2013				2014				2015				2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
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	13.97	10.24
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	5.62	4.04
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	11.33	10.69
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	10.71	1.86
TOTAL	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	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	10.57	8.18

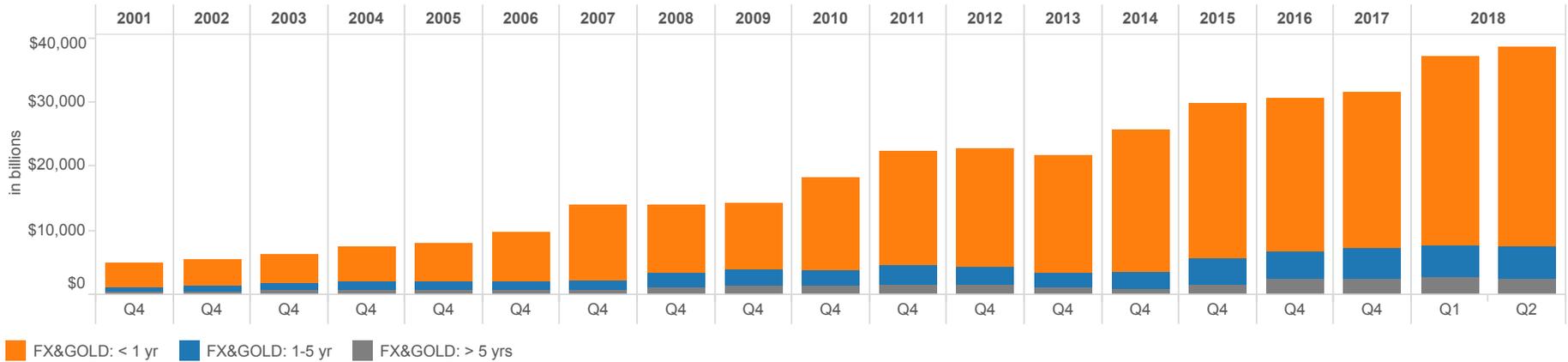
*The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.
 Note: Gross revenue equals interest income plus non-interest income.
 Source: Call reports

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

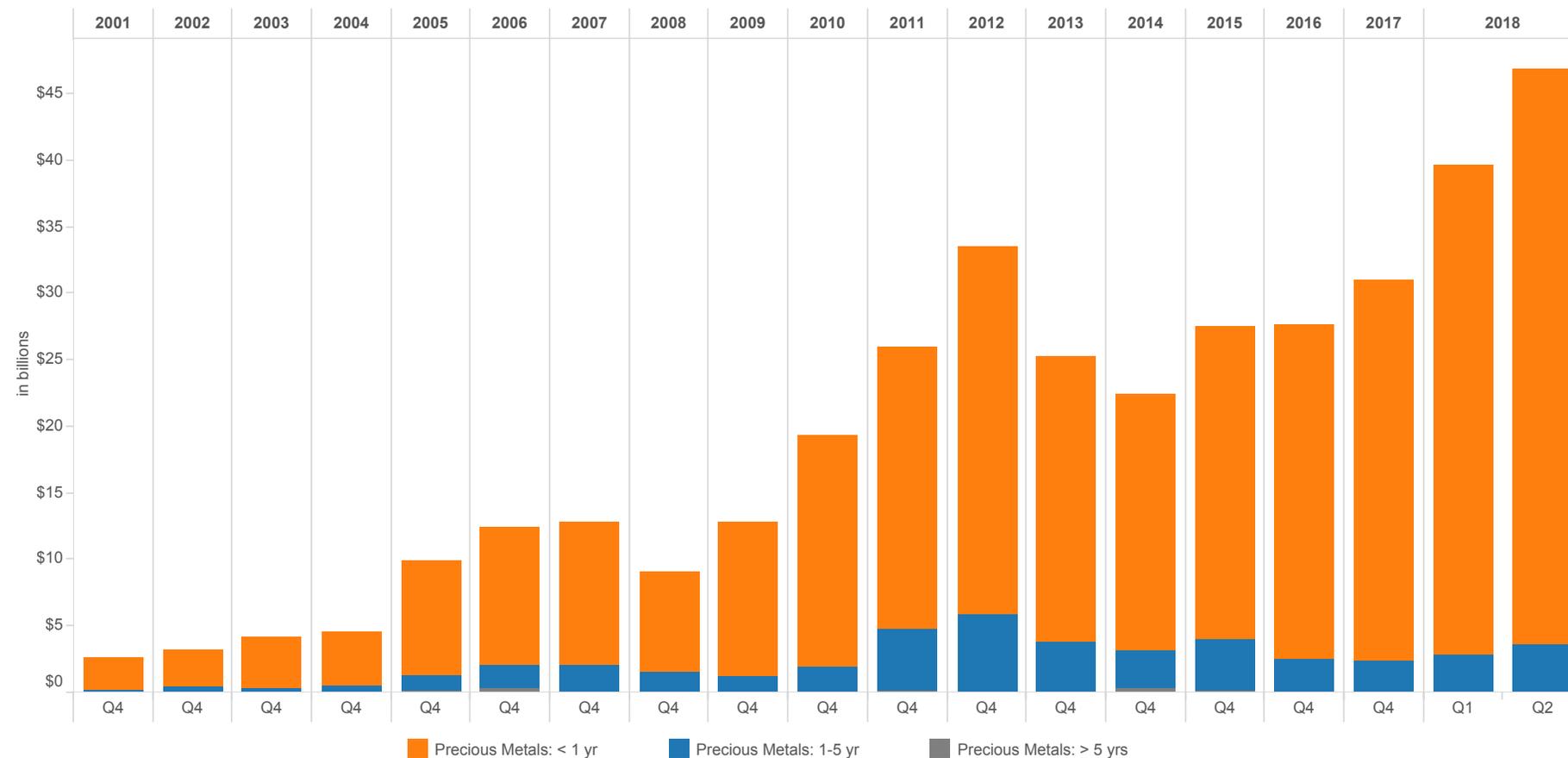
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	Q4	Q1	Q2																
IR: < 1 yr	\$10,379	\$12,982	\$13,581	\$15,921	\$18,483	\$29,552	\$39,085	\$58,618	\$81,236	\$90,843	\$87,812	\$82,948	\$77,758	\$71,808	\$55,054	\$55,061	\$72,589	\$95,439	\$91,957
IR: 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	43,261	36,154	40,334	42,276
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	23,565	23,686	24,372
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	23,912	24,380	29,696	31,341
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	4,454	4,805	5,022	4,906
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	2,525	2,630	2,473

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



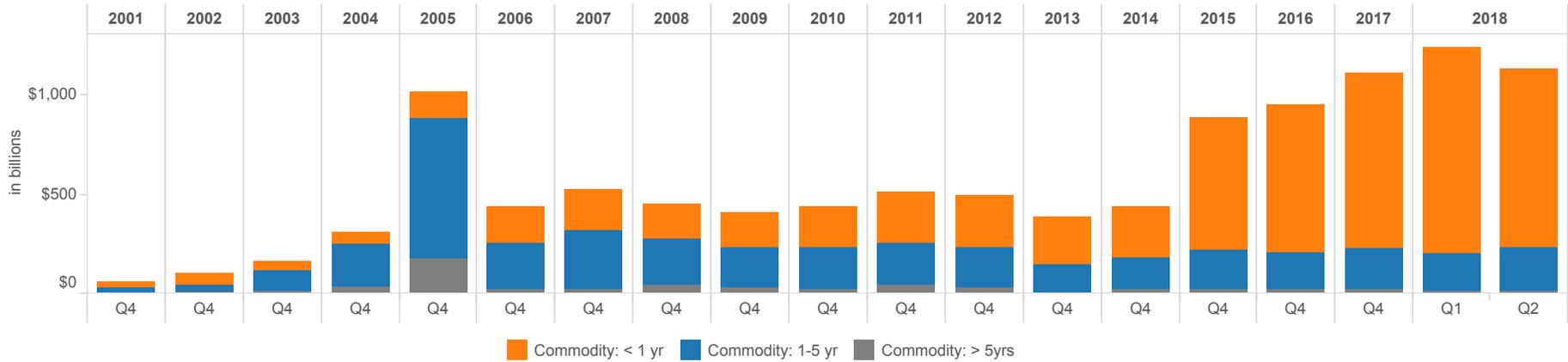
In billions of dollars

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
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	25.07	28.62	36.84	43.18
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	2.49	2.38	2.82	3.61
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	0.01	0.01	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



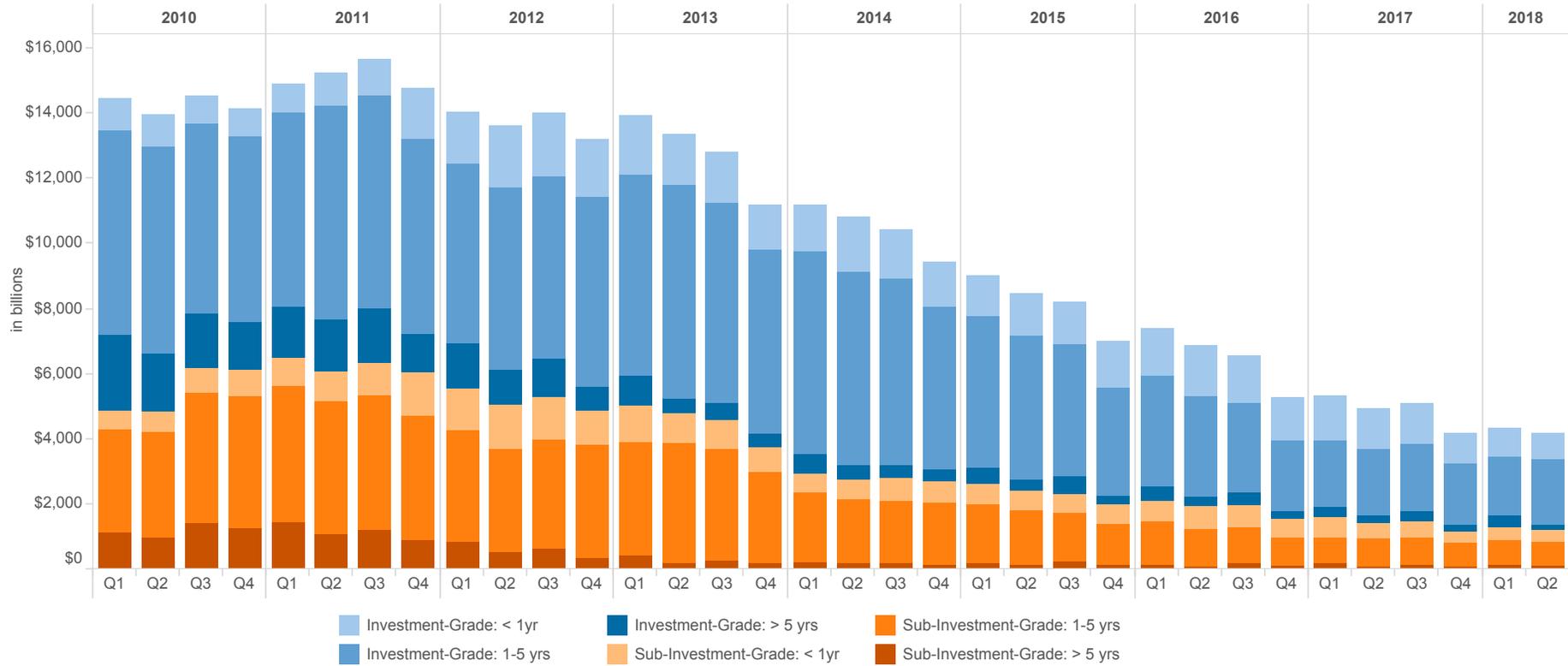
In billions of dollars

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
Commodity: < 1 yr	\$31	\$55	\$43	\$64	\$133	\$185	\$206	\$179	\$176	\$203	\$261	\$261	\$235	\$257	\$668	\$750	\$883	\$1,043	\$898
Commodity: 1-5 yr	25	35	103	205	707	235	297	233	198	209	209	208	144	164	197	179	202	193	219
Commodity: > 5yrs	2	9	14	40	175	20	25	43	33	25	46	28	6	20	22	23	25	11	14
Equity: < 1 yr	121	127	197	273	321	341	473	409	312	296	427	627	645	996	1,743	1,842	2,296	2,747	2,679
Equity: 1-5 yr	209	249	674	736	1,428	221	297	256	228	191	210	262	291	352	628	677	733	843	868
Equity: > 5 yrs	18	25	84	140	383	45	70	72	82	85	94	82	136	101	130	123	113	139	124

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**



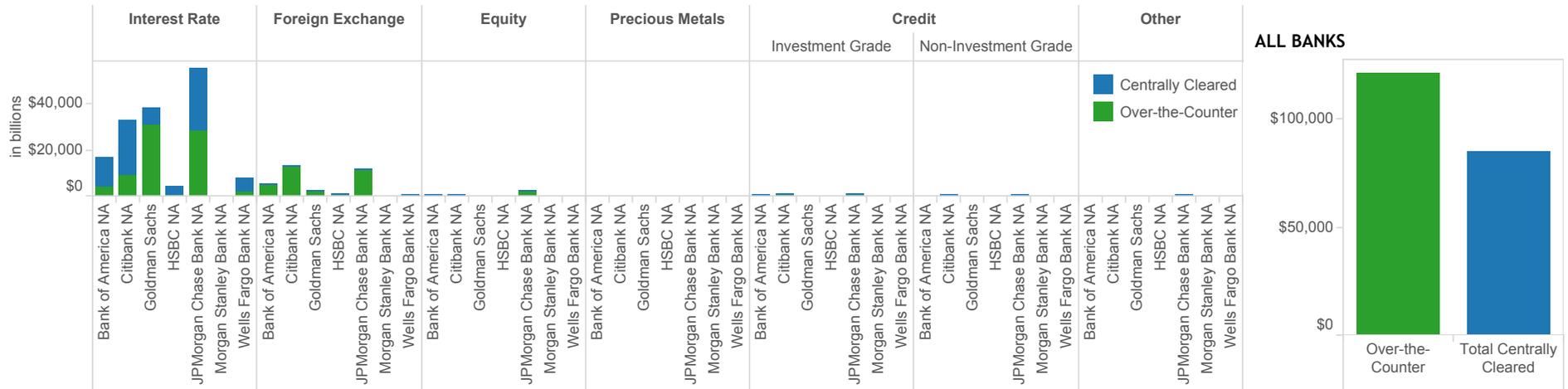
In billions of dollars

	2013				2014				2015				2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2																
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	\$880	\$805
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	1,839	1,995
Investment-Grade: > 5 yrs	948	455	552	409	577	448	433	382	508	359	520	281	457	262	385	214	309	195	345	186	331	184
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	\$3,050	\$2,984

	2013				2014				2015				2016				2017				2018	
	Q1	Q2	Q3	Q4	Q1	Q2																
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	\$400	\$335
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	763	791
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	133	69
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	\$1,296	\$1,195

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
2018 Q2 Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

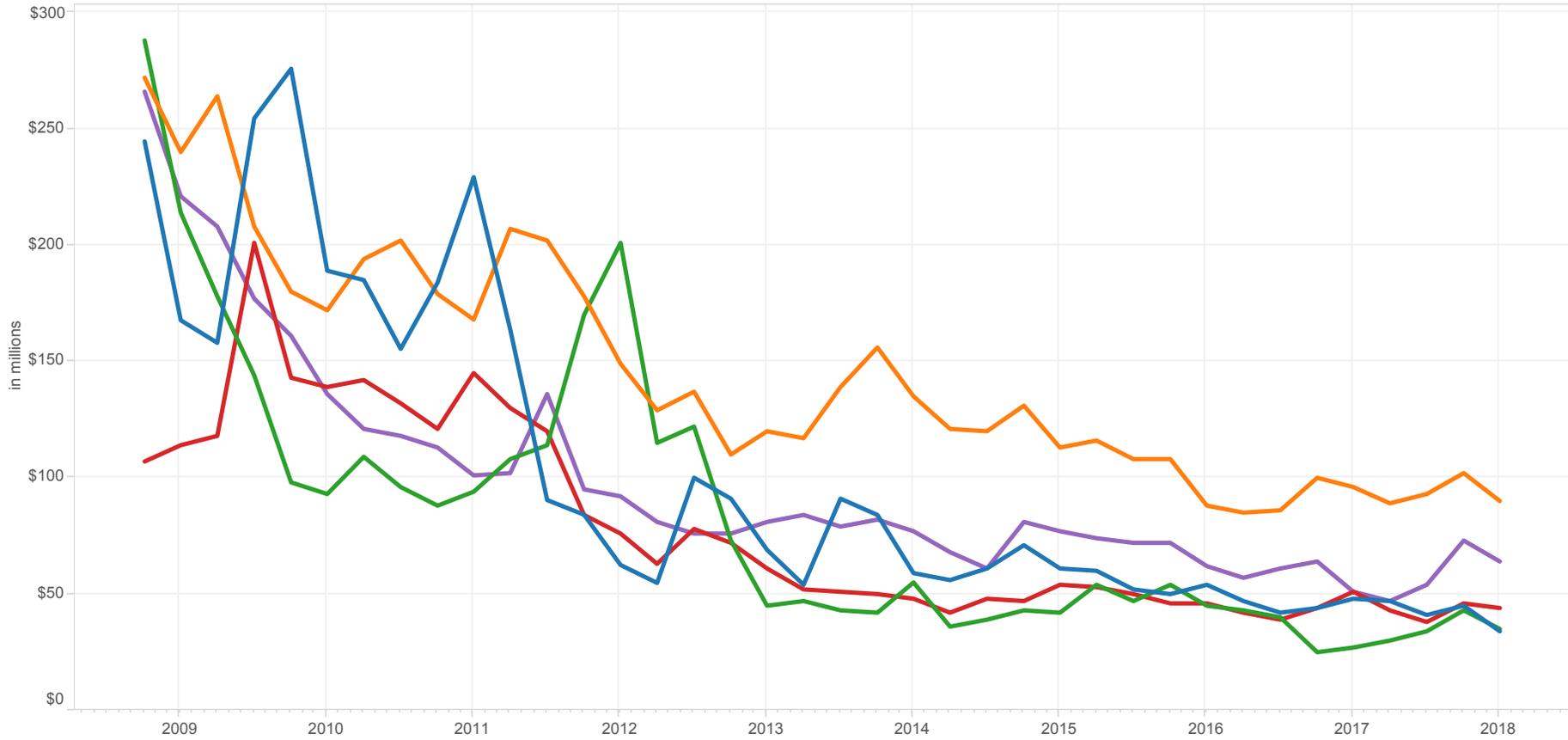
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared	Over-the-Counter	Total Notional
	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter									
									Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter					
JPMorgan Chase Bank NA	27,534	28,593	174	11,991	807	1,638	0	22	422	538	225	365	89	700	29,250	43,847	73,097
Citibank NA	23,722	9,087	328	13,084	37	507	4	9	233	1,070	59	336	73	133	24,456	24,226	48,682
Bank of America NA	12,482	4,149	66	5,414	105	309	0	0	204	275	45	123	0	21	12,903	10,290	23,193
Goldman Sachs	7,246	31,439	11	2,647	0	32	0	0	0	85	0	68	0	5	7,256	34,276	41,532
HSBC NA	3,432	626	28	1,118	0	81	0	10	4	10	4	27	0	1	3,468	1,873	5,341
Wells Fargo Bank NA	5,682	1,906	0	409	36	91	0	2	0	1	0	16	34	23	5,753	2,448	8,201
Morgan Stanley Bank NA	0	6	0	177	0	0	0	0	0	8	0	2	0	0	0	193	193
Grand Total	80,098	75,806	607	34,839	985	2,658	4	42	864	1,986	333	938	196	884	83,087	117,153	200,240
ALL OTHER	1,567	1,135	0	3,274	0	27	0	0	0	9	0	15	0	51	1,568	4,512	6,080
TOTAL	81,664	76,941	608	38,113	985	2,686	4	42	864	1,995	333	953	196	935	84,655	121,665	206,320

% of Total

Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared as a % of Total Notional	Total Over-the-Counter as a % of Total Notional
	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				
JPMorgan Chase Bank NA	49%	51%	1%	99%	33%	67%	0%	100%	44%	56%	38%	62%	11%	89%	40%	60%
Citibank NA	72%	28%	2%	98%	7%	93%	34%	66%	18%	82%	15%	85%	35%	65%	50%	50%
Bank of America NA	75%	25%	1%	99%	25%	75%			43%	57%	27%	73%	0%	100%	56%	44%
Goldman Sachs	19%	81%	0%	100%	0%	100%			0%	100%	0%	100%	0%	100%	17%	83%
HSBC NA	85%	15%	2%	98%	0%	100%	0%	100%	29%	71%	12%	88%	0%	100%	65%	35%
Wells Fargo Bank NA	75%	25%	0%	100%	29%	71%	0%	100%	30%	70%	1%	99%	60%	40%	70%	30%
Morgan Stanley Bank NA	0%	100%	0%	100%	0%	100%			0%	100%	0%	100%			0%	100%

Source: Call reports, Schedule RC-R

Graph 16
Value-at-Risk (VaR)



■ Bank of America Corporation
 ■ Citigroup Inc.
 ■ JPMorgan Chase & Co.
 ■ Morgan Stanley
 ■ The Goldman Sachs Group, Inc.

In millions of dollars

	2012				2013				2014				2015				2016				2017				2018	
	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
Bank of America Corporation	\$84	\$63	\$55	\$100	\$91	\$69	\$54	\$91	\$84	\$59	\$56	\$61	\$71	\$61	\$60	\$52	\$50	\$54	\$47	\$42	\$44	\$48	\$47	\$41	\$45	\$34
Citigroup Inc.	178	149	129	137	110	120	117	139	156	135	121	120	131	113	116	108	108	88	85	86	100	96	89	93	102	90
JPMorgan Chase & Co.	170	201	115	122	73	45	47	43	42	55	36	39	43	42	54	47	54	45	43	40	25	27	30	34	43	35
Morgan Stanley	84	76	63	78	72	61	52	51	50	48	42	48	47	54	53	50	46	46	42	39	44	51	43	38	46	44
The Goldman Sachs Group, Inc.	95	92	81	76	76	81	84	79	82	77	68	61	81	77	74	72	72	62	57	61	64	51	47	54	73	64
Total	611	581	443	513	422	376	354	403	414	374	323	329	373	347	357	329	330	295	274	268	277	273	256	260	309	267

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
JUNE 30, 2018, 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	\$2,167,700	\$57,091,910	\$1,665,327	\$2,906,840	\$11,001,569	\$30,560,262	\$9,458,547	\$1,499,365	\$751,220
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,397,794	55,189,426	3,656,909	2,651,864	7,070,699	30,378,455	9,711,832	1,719,667	995,566
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	3,626,488	7,256,802	3,568,038	24,401,071	13,149,755	156,735	185,959
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	1,537,303	185,475	6,004,004	11,648,472	1,726,734	631,185	473,638
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,675,077	8,817,583	177,472	154,055	3,084,641	4,330,281	1,043,926	27,208	6,567
6	HSBC NA	11E8VN30JCEQV1H4R804	178,624	5,501,032	103,552	6,542	1,262,818	3,694,579	342,393	91,148	40,302
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	245,244	2,187,968	5,606	0	2,149,783	5,156	27,423	0	76,633
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	276,822	960,574	13,456	49	321,417	603,008	22,464	180	75,836
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	368,951	476,275	56,716	2,000	22,350	356,697	30,620	7,892	951
10	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L3M02	453,023	401,870	20,213	600	57,133	225,363	92,477	6,085	637
11	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	138,844	305,845	23	0	51,234	220,241	24,500	9,847	4,706
12	NORTHERN TRUST CO	6PTKHJ8HDUF78PFWH30	134,657	300,886	0	0	284,615	15,168	1,104	0	14,914
13	SUNTRUST BANK	IYDOJBGJWY9T8KCSX06	202,064	234,597	11,627	12,477	18,958	138,132	49,618	3,785	377
14	TD BANK NATIONAL ASSN	03D0JEWFDUFUS0SEKKG89	291,742	196,144	0	0	2,243	192,885	712	304	0
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDVOK75	289,993	152,383	336	0	2,206	145,547	551	3,742	39
16	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	123,921	113,671	0	0	4,570	95,439	10,902	2,760	78
17	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	135,863	103,342	3,380	0	8,236	83,692	7,664	371	659
18	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	123,635	102,370	3,632	0	28,829	59,055	6,667	4,187	21
19	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	123,787	91,079	1,935	0	18,305	67,564	3,199	76	700
20	FIFTH THIRD BANK	QFROUN1UWYU0DVIWD51	138,847	89,952	1,034	175	7,021	60,748	16,650	4,323	161
21	BRANCH BANKING&TRUST CO	JJKC32MCHWDI71265Z06	216,499	59,131	258	0	6,777	42,866	8,840	390	17
22	BOF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	33,735	58,296	735	358	50,848	4,544	1,809	0	0
23	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	117,914	55,814	0	0	2,970	34,125	18,719	0	80
24	COMPASS BANK	C90VT034M03BN29IRA40	87,739	48,707	2,229	0	2,011	34,281	9,909	277	0
25	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	117,380	45,418	0	0	8,474	36,945	0	0	79
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,976,854	\$206,476,335	\$10,888,232	\$13,177,238	\$35,039,749	\$107,434,575	\$35,767,016	\$4,169,526	\$2,629,141
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,733,135	710,022	8,127	2,683	88,323	523,345	78,452	9,092	1,234
TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	10,896,359	13,179,920	35,128,072	107,957,920	35,845,468	4,178,619	2,630,375

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
JUNE 30, 2018, 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	CITIGROUP INC.	6SHGI4ZSSLXQSB395	\$1,912,334	\$57,073,836	\$3,962,215	\$5,478,494	\$8,386,788	\$28,380,761	\$9,412,112	\$1,453,466	\$1,002,677
2	GOLDMAN SACHS GROUP, INC., THE	784F5XWPLTWKTBV3E584	968,617	56,681,744	5,044,062	8,186,349	6,520,625	21,166,463	14,636,783	1,127,462	349,799
3	JPMORGAN CHASE & CO.	815DZWZKVSZI1NUHU748	2,590,050	56,580,241	1,679,215	3,128,931	11,322,561	29,771,002	9,150,063	1,528,469	740,540
4	MORGAN STANLEY	IGJSJL3JD5P3016NJZ34	875,875	36,781,604	3,281,715	2,131,028	3,668,018	18,815,390	8,447,736	437,717	76,121
5	BANK OF AMERICA CORPORATION	9DJT3UXIJZJ14WXO774	2,291,858	36,747,311	2,336,847	1,040,113	9,051,982	19,888,664	3,439,875	989,830	427,970
6	HSBC NORTH AMERICA HOLDINGS INC.	213800JCL1FHBQK3M654	284,283	7,967,251	288,829	367,403	1,263,422	5,605,732	350,717	91,148	40,300
7	BANK OF NEW YORK MELLON CORPORATION, THE	WFLLPEPC7FZXENRZV188	352,928	960,187	16,561	589	342,816	577,577	22,464	180	75,862
8	RBC US GROUP HOLDINGS LLC		118,975	814,865	170,081	384,169	169,450	90,379	439	346	367
9	PNC FINANCIAL SERVICES GROUP, INC., THE	CFGNEKW0P8842LEUIA51	380,796	473,728	57,326	2,000	24,846	351,043	30,620	7,892	951
10	U.S. BANCORP	N1GZ7BBF3NP8GI976H15	461,329	401,992	20,213	600	56,247	226,371	92,476	6,085	637
11	TD GROUP US HOLDINGS LLC	549300ARWZ5E3L64UH29	378,829	323,344	87,184	10,173	24,299	200,672	712	304	0
12	NORTHERN TRUST CORPORATION	549300GLF98S992BC502	135,106	300,136	0	0	284,615	14,418	1,104	0	14,914
13	SUNTRUST BANKS, INC.	7E1PDLW1JL6TSOBS1G03	207,882	230,681	11,627	12,477	18,958	135,243	48,591	3,785	377
14	BNP PARIBAS USA, INC.	549300QVEGJN81E8T563	147,840	223,160	3	106	194,446	26,362	2,243	0	16
15	CAPITAL ONE FINANCIAL CORPORATION	ZUE8T73ROZOF6FLBAR73	363,989	220,785	336	0	10,817	205,338	551	3,742	118
16	DB USA CORPORATION	529900RO45LRDMWLR157	115,767	174,186	5,075	134,563	5,426	19,307	0	9,815	0
17	CITIZENS FINANCIAL GROUP, INC.	2138004JDDA4ZQUPFW65	155,838	126,786	0	0	4,570	106,408	12,556	3,252	78
18	KEYCORP	RKPI3RZGV1V1FJTH5T61	138,165	108,650	3,380	0	8,826	87,133	8,951	361	659
19	REGIONS FINANCIAL CORPORATION	CW05CS5KW59QTCODG824	124,789	100,270	3,632	0	28,829	56,955	6,667	4,187	21
20	FIFTH THIRD BANCORP	THRNG6BD57P9QWTQLG42	140,695	90,657	1,034	175	7,021	61,453	16,650	4,323	161
21	BB&T CORPORATION	549300DRQQI75D2JP341	222,681	71,410	258	0	11,133	50,139	9,490	390	17
22	SANTANDER HOLDINGS USA, INC.	549300DRQQI75D2JP341	130,139	60,003	0	0	1,056	36,816	22,123	9	66
23	BOK FINANCIAL CORPORATION	GRI2NT5QHYW751NMR949	33,934	58,296	735	358	50,848	4,544	1,809	0	19
24	AMERICAN EXPRESS COMPANY	R4PP93JZOLY261QX3811	184,848	56,836	0	0	32,230	24,600	6	0	819
25	M&T BANK CORPORATION	549300WYXDDBYRASEG81	118,426	55,814	0	0	2,970	34,125	18,719	0	80
TOP 25 HOLDING COMPANIES WITH DERIVATIVES			\$12,835,974	\$256,683,772	\$16,970,329	\$20,877,529	\$41,492,798	\$125,936,895	\$45,733,457	\$5,672,763	\$2,732,569

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
JUNE 30, 2018, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	PERCENT EXCH TRADED	PERCENT OTC	PERCENT INT RATE	PERCENT FOREIGN EXCH	PERCENT EQUITY	PERCENT OTHER	PERCENT CREDIT
					CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS
					(%)	(%)	(%)	(%)	(%)	(%)	(%)
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,167,700	\$57,091,910	8.0	92.0	71.4	21.3	3.1	1.6	2.6
2	CITIBANK NATIONAL ASSN	E570DZWZ7FF32TWEFA76	1,397,794	55,189,426	11.4	88.6	67.2	27.4	1.6	0.7	3.1
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	20.9	79.1	94.3	5.3	0.1	0.0	0.3
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	7.9	92.1	70.0	25.2	1.8	0.1	2.9
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCFXT09	1,675,077	8,817,583	3.8	96.2	91.6	4.8	2.5	0.8	0.3
6	HSBC NA	11E8VN3OJCEQV1H4R804	178,624	5,501,032	2.0	98.0	75.7	20.4	1.5	0.8	1.7
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	245,244	2,187,968	0.3	99.7	0.4	98.4	0.0	1.2	0.0
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	276,822	960,574	1.4	98.6	31.1	68.8	0.1	0.0	0.0
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	368,951	476,275	12.3	87.7	92.1	4.0	0.9	1.3	1.7
10	U S BANK NATIONAL ASSN	6BYL5OZYBDK8S7L73M02	453,023	401,870	5.2	94.8	83.0	15.1	0.0	0.3	1.5
11	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	138,844	305,845	0.0	100.0	3.3	93.4	0.1	0.0	3.2
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	134,657	300,886	0.0	100.0	4.6	95.3	0.2	0.0	0.0
13	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	202,064	234,597	10.3	89.7	78.5	3.6	15.6	0.7	1.6
14	TD BANK NATIONAL ASSN	03DOJEWDFUSOSEEKG89	291,742	196,144	0.0	100.0	97.3	2.6	0.0	0.0	0.2
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM00VDVOK75	289,993	152,383	0.2	99.8	90.2	0.8	0.0	6.6	2.5
16	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	123,921	113,671	0.0	100.0	88.5	9.1	0.0	0.0	2.4
17	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	135,863	103,342	3.3	96.7	89.5	9.3	0.0	0.9	0.4
18	REGIONS BANK	EQTWL1G7ODGC2MGLV11	123,635	102,370	3.5	96.5	93.4	1.4	0.0	1.1	4.1
19	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	123,787	91,079	2.1	97.9	90.6	8.0	0.8	0.6	0.1
20	FIFTH THIRD BANK	QFROUN1UWUYU0DVIWD51	138,847	89,952	1.3	98.7	75.0	12.0	2.5	5.7	4.8
21	BRANCH BANKING&TRUST CO	JJKC32MCHWDI71265Z06	216,499	59,131	0.4	99.6	98.4	0.9	0.0	0.0	0.7
22	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	33,735	58,296	1.9	98.1	94.0	0.6	0.3	5.1	0.0
23	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	117,914	55,814	0.0	100.0	99.0	1.0	0.0	0.0	0.0
24	COMPASS BANK	C90VT034M03BN291RA40	87,739	48,707	4.6	95.4	92.9	3.7	2.8	0.0	0.6
25	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	117,380	45,418	0.0	100.0	81.3	18.7	0.0	0.0	0.0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,976,854	\$206,476,335	\$24,065,469	\$182,410,866	\$156,768,711	\$40,619,550	\$3,415,408	\$1,503,140	\$4,169,526
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,733,135	710,022	10,809	699,212	657,975	30,114	5,216	7,624	9,092
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	24,076,279	183,110,078	157,426,686	40,649,664	3,420,624	1,510,765	4,178,619
					(%)	(%)	(%)	(%)	(%)	(%)	(%)
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				99.7	11.6	88.0	75.7	19.6	1.6	0.7	2.0
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				0.3	0.0	0.3	0.3	0.0	0.0	0.0	0.0
TOTAL FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				100.0	11.6	88.4	76.0	19.6	1.7	0.7	2.0

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.

Note: "FX" does not include spot FX.

Note: "Other" is defined as the sum of commodity and equity contracts.

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

Source: Call reports, Schedule RC-L

TABLE 4

CREDIT EQUIVALENT EXPOSURES
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2018, 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 FROM ALL CONTRACTS		TOTAL CREDIT EXPOSURE TO CAPITAL (%)
						CREDIT EXPOSURE	POTENTIAL FUTURE EXPOSURE	CREDIT EXPOSURE	TOTAL CREDIT EXPOSURE	
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,167,700	\$57,091,910	\$200,065	\$139,436	\$229,069	\$368,505	184	
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	55,189,426	154,654	68,544	146,274	214,818	139	
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	31,150	55,041	64,473	119,514	384	
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	1,759,530	21,733,173	159,636	43,005	54,617	97,622	61	
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,675,077	8,817,583	163,069	15,701	27,338	43,039	26	
6	HSBC NA	11E8VN30JCEQV1H4R804	178,624	5,501,032	25,135	6,521	16,505	23,026	92	
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	245,244	2,187,968	17,633	8,429	12,868	21,297	121	
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4N0NFVK49	276,822	960,574	21,234	4,865	5,346	10,211	48	
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	368,951	476,275	34,387	3,111	1,284	4,395	13	
10	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	453,023	401,870	45,228	1,239	5,445	6,685	15	
11	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	138,844	305,845	15,327	236	2,845	3,081	20	
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	134,657	300,886	9,812	1,935	2,349	4,284	44	
13	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	202,064	234,597	22,380	1,081	2,583	3,664	16	
14	TD BANK NATIONAL ASSN	03DOJEWFDUS0SEKKG89	291,742	196,144	26,398	2,578	1,160	3,737	14	
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM00VDVOK75	289,993	152,383	27,782	1,746	2,695	4,441	16	
16	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	123,921	113,671	14,143	319	773	1,092	8	
17	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	135,863	103,342	15,254	575	382	957	6	
18	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	123,635	102,370	14,609	221	314	535	4	
19	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	123,787	91,079	15,016	566	272	838	6	
20	FIFTH THIRD BANK	QFROUN1UWUYU0DVIWD51	138,847	89,952	16,567	676	1,415	2,091	13	
21	BRANCH BANKING&TRUST CO	JJKC32MCHWD171265Z06	216,499	59,131	23,295	172	207	379	2	
22	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	33,735	58,296	3,186	3	12	16	0	
23	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	117,914	55,814	12,569	82	208	290	2	
24	COMPASS BANK	C90VT034M03BN29IRA40	87,739	48,707	9,201	163	204	366	4	
25	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	117,380	45,418	17,972	374	157	531	3	
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,976,854	\$206,476,335	\$1,095,702	\$356,618	\$578,794	\$935,412	85	
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,733,135	710,022	514,932	5,072	5,733	10,805	2	
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	1,610,634	361,690	584,527	946,218	59	

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
JUNE 30, 2018, 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	\$2,167,700	\$57,091,910	\$55,335,372	99.5	\$257,173	0.5
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	55,189,426	53,372,436	99.8	97,323	0.2
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	51,973,395	99.9	28,759	0.1
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	20,375,076	96.6	726,912	3.4
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$181,056,279	99.4	\$1,110,167	0.6
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	19,214,482	92.2	1,626,810	7.8
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	200,270,761	98.7	2,736,977	1.3
<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
JUNE 30, 2018, 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	\$2,167,700	\$57,091,910	\$575,445	\$540,143	\$2,450	\$1,827	\$19,955	\$19,823
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	55,189,426	409,764	395,368	1,440	1,321	19,820	19,849
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	496,520	481,342	188	215	3,286	3,343
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	1,759,530	21,733,173	171,426	154,373	15,084	20,392	8,372	8,718
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$1,653,155	\$1,571,226	\$19,162	\$23,755	\$51,433	\$51,733
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	115,559	116,633	11,769	8,386	1,409	1,492
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	1,768,714	1,687,859	30,931	32,141	52,842	53,225

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
JUNE 30, 2018, 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	7H6GLXDRUGQFU57RNE97	\$2,167,700	\$57,091,910	\$2,691	\$576	\$615	\$937	\$55	\$508
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	55,189,426	1,874	1,203	496	186	32	(43)
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	36	(2,102)	2,364	(85)	0	(141)
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	837	100	315	367	95	(40)
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$5,438	(\$223)	\$3,790	\$1,405	\$182	\$284
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	1,432	478	745	81	131	(3)
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	6,870	255	4,535	1,486	313	281

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
JUNE 30, 2018, 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	\$2,167,700	\$57,091,910	\$26,047,530	\$20,402,546	\$9,676,375	\$56,126,451	\$8,902,220	\$2,203,213	\$1,059,402	\$12,164,835
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	55,189,426	25,137,977	4,659,784	3,010,567	32,808,328	11,697,937	1,204,917	510,100	13,412,954
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAVLU02	177,468	52,158,889	25,520,598	7,065,208	6,098,950	38,684,756	1,423,169	663,501	570,533	2,657,203
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	8,719,398	5,106,514	2,804,696	16,630,608	4,718,513	554,924	206,729	5,480,166
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$85,425,503	\$37,234,052	\$21,590,588	\$144,250,143	\$26,741,839	\$4,626,555	\$2,346,764	\$33,715,158
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	6,531,536	5,041,788	2,781,827	14,355,151	4,599,644	279,861	126,129	5,005,635
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	91,957,039	42,275,840	24,372,415	158,605,294	31,341,483	4,906,416	2,472,893	38,720,793

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
JUNE 30, 2018, 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	7H6GLXDRUGOFU57RNE97	\$2,167,700	\$57,091,910	\$21,249	\$737	\$0	\$21,986
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	55,189,426	10,852	2,239	0	13,091
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	0	0	0	0
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	0	0	0	0
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$32,101	\$2,976	\$0	\$35,077
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	11,083	632	12	11,727
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	43,184	3,608	12	46,804
<p>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.</p> <p>Note: Numbers may not add up to total due to rounding.</p> <p>Source: Call reports, Schedule RC-R</p>								

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!
JUNE 30, 2018, 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	\$2,167,700	\$57,091,910	\$685,820	\$94,500	\$9,104	\$789,424	\$1,801,171	\$548,400	\$94,905	\$2,444,476
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,397,794	55,189,426	149,041	52,829	4,233	206,103	373,706	150,508	19,187	543,401
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,158,889	2,848	2,403	40	5,291	17,179	12,416	2,134	31,729
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	17,119	4,011	28	21,158	340,669	72,587	1,378	414,634
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$854,828	\$153,743	\$13,405	\$1,021,976	\$2,532,725	\$783,911	\$117,604	\$3,434,240
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	43,119	65,347	736	109,201	146,384	83,906	6,133	236,422
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	897,947	219,090	14,141	1,131,177	2,679,109	867,817	123,737	3,670,662

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
JUNE 30, 2018, 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	\$2,167,700	\$57,091,910	\$1,499,365	\$252,336	\$725,067	\$72,721	\$1,050,124	\$127,859	\$296,096	\$25,286	\$449,241
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,397,794	55,189,426	1,719,667	353,655	898,182	69,248	1,321,085	115,781	273,891	8,910	398,582
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAVLU02	177,468	52,158,889	156,735	14,795	54,661	17,158	86,614	17,740	41,947	10,434	70,121
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,733,173	631,185	174,936	268,732	18,761	462,429	58,770	100,214	9,772	168,756
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$5,502,492	\$186,173,398	\$4,006,952	\$795,722	\$1,946,642	\$177,888	\$2,920,252	\$320,150	\$712,148	\$54,402	\$1,086,700
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			10,207,498	21,012,959	171,667	9,355	48,745	5,644	63,743	14,464	78,834	14,625	107,923
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	207,186,357	4,178,619	805,077	1,995,387	183,532	2,983,995	334,614	790,982	69,027	1,194,623

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
JUNE 30, 2018, 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	CREDIT OPTIONS	OTHER CREDIT DERIVATIVES	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT OPTIONS	OTHER CREDIT DERIVATIVES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,167,700	\$55,592,545	\$1,499,365	\$761,978	\$737,387	\$696,969	\$21,377	\$39,046	\$4,586	\$682,260	\$14,345	\$40,638	\$144
2	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,397,794	53,469,759	1,719,667	880,187	839,480	782,512	23,537	74,138	0	757,174	12,762	69,544	0
3	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	177,468	52,002,154	156,735	86,772	69,963	78,738	2,602	5,341	91	63,787	2,602	3,524	50
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	1,759,530	21,101,988	631,185	320,720	310,465	264,230	9,796	46,694	0	253,349	12,444	44,672	0
5	WELLS FARGO BANK NA	KB1H1D5PRFMYMUFXT09	1,675,077	8,790,375	27,208	17,866	9,342	2,773	0	0	15,093	2,151	0	0	7,191
6	HSBC NA	1E8VN30JCEQV1H4R804	178,624	5,409,884	91,148	48,604	42,544	43,168	5,436	0	0	40,964	1,580	0	0
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	245,244	2,187,968	0	0	0	0	0	0	0	0	0	0	0
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	276,822	960,394	180	180	0	180	0	0	0	0	0	0	0
9	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	368,951	468,384	7,892	3,072	4,820	15	0	0	3,057	0	0	0	4,820
10	U S BANK NATIONAL ASSN	6BYL5QZVBDK857L3M02	453,023	395,786	6,085	1,820	4,265	0	0	0	1,820	0	0	0	4,265
11	MORGAN STANLEY BANK NA	G1MLHISON32I3QPLB75	138,844	295,998	9,847	9,837	10	9,837	0	0	0	10	0	0	0
12	NORTHERN TRUST CO	6PTKHJ8HDUF78PFWH30	134,657	300,886	0	0	0	0	0	0	0	0	0	0	0
13	SUNTRUST BANK	IYDOJBGJWY9T8XKCSX06	202,064	230,812	3,785	2,186	1,599	610	1,570	0	6	0	1,570	0	28
14	TD BANK NATIONAL ASSN	03DOJEWFDUS0EEKG89	291,742	195,840	304	299	5	299	0	0	0	5	0	0	0
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YMOOVDVOK75	289,993	148,641	3,742	1,369	2,373	0	0	0	1,369	0	0	0	2,373
16	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	123,921	110,911	2,760	0	2,760	0	0	0	0	0	0	0	2,760
17	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	135,863	102,971	371	247	124	247	0	0	0	31	93	0	0
18	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	123,635	98,183	4,187	1,334	2,852	43	0	0	1,292	43	0	0	2,810
19	MUFG UNION BANK NA	OX3PU53ZLPOKJ4700D47	123,787	91,003	76	76	0	76	0	0	0	0	0	0	0
20	FIFTH THIRD BANK	QFROUN1UWUYU00VWD51	138,847	85,629	4,323	646	3,677	0	0	0	646	0	0	0	3,677
21	BRANCH BANKING&TRUST CO	JKC32MCHWDI71265Z06	216,499	58,741	390	61	329	0	0	0	61	0	0	0	329
22	BOF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	33,735	58,295	0	0	0	0	0	0	0	0	0	0	0
23	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0E3ZJN75	117,914	55,814	0	0	0	0	0	0	0	0	0	0	0
24	COMPASS BANK	C90VT034M03BN29IRA40	87,739	48,430	277	0	277	0	0	0	0	277	0	0	0
25	CAPITAL ONE BANK USA NA	LKE37K2B8CFZUR7F9816	117,380	45,418	0	0	0	0	0	0	0	0	0	0	0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$10,976,854	\$202,306,809	\$4,169,526	\$2,137,255	\$2,032,272	\$1,879,697	\$64,319	\$165,219	\$28,020	\$1,800,050	\$45,396	\$158,378	\$28,447
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			4,733,135	700,929	9,092	4,060	5,033	25	79	0	3,956	404	2	0	4,626
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			15,709,990	203,007,738	4,178,619	2,141,314	2,037,304	1,879,721	64,398	165,219	31,976	1,800,455	45,398	158,378	33,073
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	48.6	45.0	1.5	4.0	0.7	43.1	1.1	3.8	0.7
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					0.2	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
					100.0	51.2	48.8	45.0	1.5	4.0	0.8	43.1	1.1	3.8	0.8

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
JUNE 30, 2018, MILLIONS OF DOLLARS**

Call Report Schedule SU						
A. Gross Notional Amount of Derivatives	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17
Total gross notional amount of interest rate derivatives held for trading	\$794	\$729	\$542	\$729	\$749	\$655
Total gross notional amount of all other derivatives held for trading	\$5	\$7	\$5	\$5	\$6	\$2
Total gross notional amount of interest rate derivatives not held for trading	\$7,638	\$8,473	\$6,092	\$7,731	\$8,259	\$7,154
Total gross notional amount of all other derivatives not held for trading	\$3,125	\$530	\$86	\$89	\$89	\$80

Call Report Schedule RC-R						
A. Notional principal amounts of over-the-counter derivative contracts covered by the regulatory capital rules:						
a. Interest rate	\$4,584	\$4,476	\$3,847	\$4,657	\$5,024	\$4,758
b. Foreign exchange rate and gold	\$5	\$429	\$0	\$0	\$0	\$0
c. Credit (investment grade reference asset)	\$14	\$14	\$13	\$14	\$8	\$4
d. Credit (non-investment grade reference asset)	\$12	\$11	\$11	\$11	\$11	\$11
e. Equity	\$0	\$0	\$0	\$0	\$0	\$0
g. Other	\$5	\$5	\$5	\$5	\$5	\$5
f. Precious metals (except gold)	\$0	\$0	\$0	\$0	\$0	\$0
B. Notional principal amounts of centrally cleared derivative contracts covered by the regulatory capital rules:						
a. Interest rate	\$3,169	\$129	\$249	\$343	\$178	\$158
b. Foreign exchange rate and gold	\$0	\$0	\$0	\$0	\$0	\$0
c. Credit (investment grade reference asset)	\$0	\$0	\$0	\$0	\$0	\$4
d. Credit (non-investment grade reference asset)	\$0	\$0	\$0	\$0	\$0	\$0
e. Equity	\$0	\$0	\$0	\$0	\$0	\$0
f. Precious metals (except gold)	\$0	\$0	\$0	\$0	\$0	\$0
g. Other	\$0	\$0	\$0	\$0	\$0	\$0
C. Current credit exposure across all derivative contracts covered by the regulatory capital rules	\$119	\$63	\$44	\$57	\$49	\$39

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