

Quarterly Report on Bank Trading and Derivatives Activities

Third Quarter 2020

Office of the Comptroller of the Currency
Washington, D.C.

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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 and savings associations; reports filed by U.S. financial holding companies; and other published data. A total of 1,371¹ insured U.S. commercial banks and savings associations reported trading and derivatives activities at the end of the third quarter of 2020. A small group of large financial institutions continues to dominate trading and derivatives activity in the U.S. commercial banking system. During the third quarter of 2020, four large commercial banks represented 87.3 percent of the total banking industry notional amounts and 77.7 percent of industry net current credit exposure (NCCE) (see tables 1 and 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 100th edition of the OCC's *Quarterly Report on Bank Trading and Derivatives Activities*. The first report was published in 1995. Please send any comments or feedback on the structure and content of this report to QuarterlyDerivatives@occ.treas.gov.

Executive Summary

- Insured U.S. commercial banks and savings associations (collectively, banks) reported trading revenue of \$9.0 billion in the third quarter of 2020, \$5.7 billion less (38.9 percent) than in the previous quarter and \$1.7 billion more (23.5 percent) than a year earlier (see table 1).
- Credit exposure from derivatives decreased in the third quarter of 2020 compared with the second quarter of 2020. NCCE decreased \$21.0 billion, or 4.1 percent, to \$490.0 billion (see table 5).
- Derivative notional amounts decreased in the third quarter of 2020 by \$992.0 billion, or 0.6 percent, to \$178.6 trillion (see table 10).
- Derivative contracts remained concentrated in interest rate products, which totaled \$129.8 trillion or 72.7 percent of total derivative notional amounts (see table 10).

¹ Institutions with total assets of less than \$5 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.

Revenue

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

Insured U.S. commercial banks and savings associations reported \$9.0 billion in trading revenue in the third quarter of 2020, \$5.7 billion less (38.9 percent) than in the previous quarter and \$1.7 billion more (23.5 percent) than a year earlier (see table 1). The quarter-over-quarter decrease in trading revenue was due to decreases in interest rate, foreign exchange (FX), equity, and credit trading instruments. 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

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change	3Q 2019	Y/Y Change	Y/Y % Change
Interest rate and FX	\$4,747	\$8,483	-\$3,736	-44.0%	\$4,296	\$452	10.5%
Equity	\$2,826	\$4,148	-\$1,322	-31.9%	\$1,805	\$1,021	56.6%
Commodity and other	\$1,226	\$905	\$321	35.4%	\$1,109	\$117	10.5%
Credit	\$154	\$1,130	-\$975	-86.3%	\$43	\$112	261.1%
Total trading revenue	\$8,954	\$14,666	-\$5,712	-38.9%	\$7,253	\$1,701	23.5%

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 \$15.7 billion in the third quarter of 2020 was \$21.0 billion (57.2 percent) lower than in the previous quarter. The quarter-over-quarter decrease in trading revenue was due to decreases across all trading revenue products as markets returned to a more normal level of activity after last quarter's pandemic response. Year-over-year holding company trading revenue decreased by \$851.0 million (5.2 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

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change	3Q 2019	Y/Y Change	Y/Y % Change
Interest rate and FX	\$5,589	\$14,192	-\$8,603	-60.6%	\$9,685	-\$4,096	-42.3%
Equity	\$5,397	\$13,600	-\$8,203	-60.3%	\$4,548	\$849	18.7%
Commodity and other	\$1,912	\$2,486	-\$574	-23.1%	\$1,045	\$867	83.0%
Credit	\$2,754	\$6,331	-\$3,577	-56.5%	\$1,226	\$1,528	124.6%
Total HC trading revenue	\$15,653	\$36,609	-\$20,956	-57.2%	\$16,504	-\$851	-5.2%

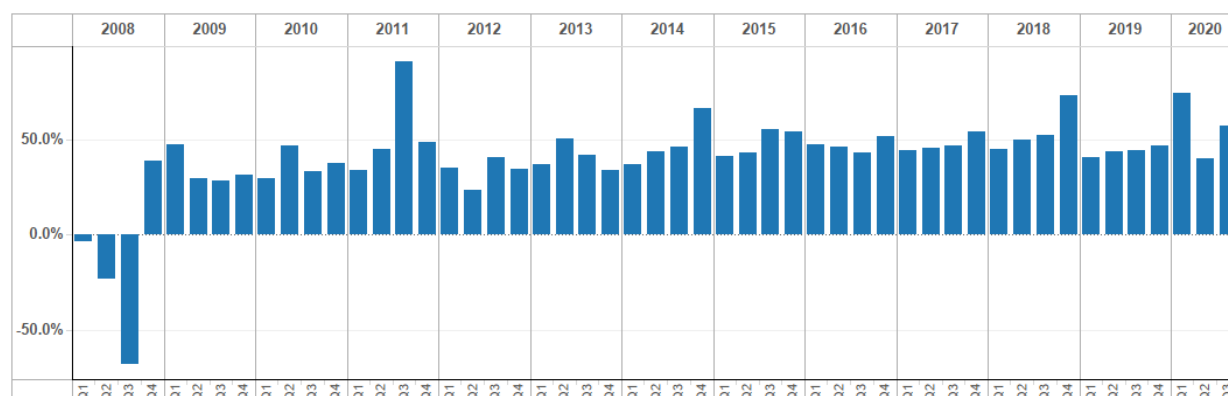
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

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

Before the 2008 financial crisis, trading revenue at banks typically ranged from 60 percent to 80 percent of consolidated BHC trading revenue. Since the 2008 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 third quarter of 2020, banks generated 57.2 percent of consolidated holding company trading revenue, an increase from 40.1 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 decreased by \$83.0 billion (3.2 percent) in the third quarter of 2020 to \$2.5 trillion, primarily driven by a \$33.0 billion (1.7 percent) decrease in receivables from interest rate contracts and a \$57.0 billion (11.3 percent) decrease in FX contracts (see table 3). GNFV decreased \$111.0 billion (4.3 percent) to \$2.5 trillion during the quarter, primarily driven by a \$46.0 billion (2.5 percent) decrease in payables on interest rate contracts and a \$69.0 billion (13.2 percent) decrease in payables on FX contracts.

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

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change	3Q 2019	Y/Y Change	Y/Y % Change
Interest rate	\$1,847	\$1,880	-\$33	-1.7%	\$1,563	\$284	18.2%
FX	\$449	\$506	-\$57	-11.3%	\$506	-\$58	-11.4%
Equity	\$157	\$144	\$14	9.4%	\$115	\$42	36.3%
Commodities	\$48	\$55	-\$7	-13.1%	\$47	\$0	0.8%
Credit	\$34	\$34	\$0	0.3%	\$47	-\$13	-27.4%
Gross positive fair value	\$2,535	\$2,619	-\$83	-3.2%	\$2,279	\$256	11.2%

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change	3Q 2019	Y/Y Change	Y/Y % Change
Interest rate	\$1,774	\$1,820	-\$46	-2.5%	\$1,509	\$265	17.6%
FX	\$456	\$525	-\$69	-13.2%	\$503	-\$48	-9.5%
Equity	\$158	\$145	\$13	9.0%	\$114	\$44	38.9%
Commodities	\$49	\$59	-\$10	-16.8%	\$52	-\$3	-5.1%
Credit	\$37	\$37	\$1	1.8%	\$50	-\$12	-24.3%
Gross negative fair value	\$2,475	\$2,586	-\$111	-4.3%	\$2,228	\$247	11.1%

Source: Call reports, Schedule RC-L

A legally enforceable netting agreement between a bank and a counterparty creates a single legal obligation for all transactions (called a “netting set”) under the agreement. Therefore, when banks have such agreements with their counterparties, contracts with negative values (an amount

a bank would pay to its counterparty) can offset contracts with positive values (an amount owed by the counterparty to the bank), leaving an NCCE as shown in table 4.

Table 4: Netting Contract Examples

Bank A portfolio with Counterparty B	Number of contracts	Value of contracts	Credit measure/metric
Contracts with positive value to Bank A	6	\$500	Gross positive fair value
Contracts with negative value to Bank A	4	-\$350	Gross negative fair value
Total contracts	10	\$150	NCCE to Bank A from Counterparty B

Most 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 \$21.0 billion (4.1 percent) to \$490.0 billion in the third quarter of 2020 (see table 5).² Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 80.7 percent (\$2.0 trillion) in the third quarter of 2020.

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

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change
Gross positive fair value	\$2,535	\$2,619	-\$83	-3.2%
NCCE RC-R	\$490	\$511	-\$21	-4.1%
Netting benefit RC-R	\$2,045	\$2,108	-\$62	-3.0%
Netting benefit % RC-R	80.7%	80.5%		0.2%

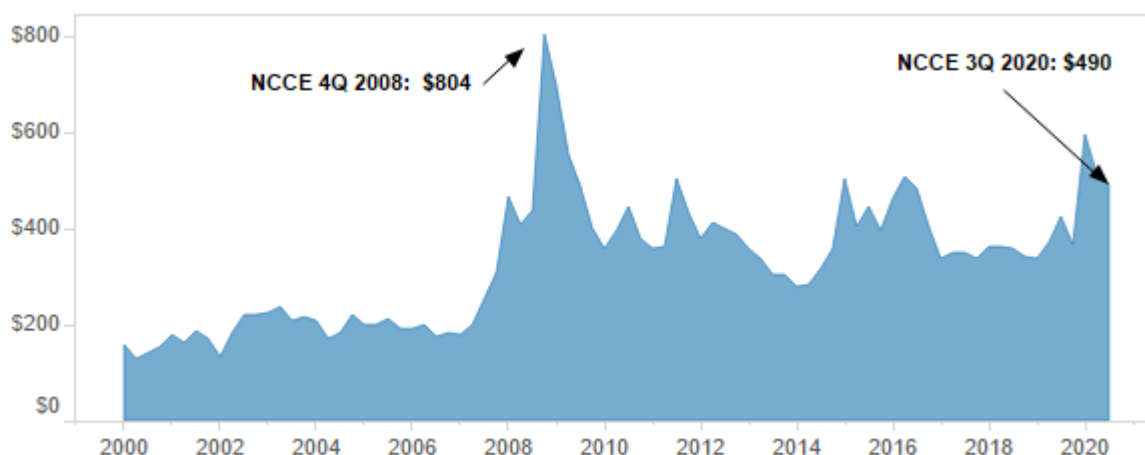
Source: Call reports, Schedules RC-L and RC-R

NCCE peaked at \$804.0 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 decline in NCCE since 2008 has largely resulted from declines in the GPFV of interest rate and credit contracts. After a large

² 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.

increase in the first quarter of 2020 as markets responded to the financial impact of the COVID-19 global pandemic, NCCE decreased this quarter as more normal market activity resumed. The GPFV from interest rate contracts has fallen from \$5.1 trillion at the end of 2008 to \$1.8 trillion at the end of the third quarter of 2020 (see table 3). In addition, on September 30, 2020, exposure from credit contracts was \$34.0 billion, which is \$1.1 trillion lower (96.9 percent) than the \$1.1 trillion on December 31, 2008.

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



Source: Call reports, Schedule RC-R

The bulk of NCCE in the financial system is concentrated in banks and securities firms (38.7 percent) and in corporations and other counterparties (51.1 percent) (see table 6). The combined exposure to hedge funds and sovereign governments was small (10.1 percent in total).

Table 6: NCCE by Counterparty Type as a Percentage of Total NCCE

	Banks and securities firms	Hedge funds	Sovereign governments	Corporate and all other counterparties
3Q 2020	38.7%	2.1%	8.0%	51.1%
2Q 2020	40.7%	2.1%	7.5%	49.8%
1Q 2020	39.4%	3.5%	6.4%	50.7%
4Q 2019	44.2%	2.5%	9.2%	44.1%
4Q 2018	41.7%	5.0%	10.0%	43.2%
4Q 2017	41.7%	3.1%	7.9%	47.3%
4Q 2016	48.4%	2.0%	6.5%	43.0%

Source: Call reports, 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 89.7 percent of their total NCCE at the end of the third quarter of 2020, down from 96.3 percent in the second quarter of 2020 (see table 7). Collateral held against hedge fund exposures increased in the third quarter and remains high at 477.4 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 and securities firms	FV hedge funds	FV sovereign governments	FV corporate and all other counterparties	FV/NCCE %
3Q 2020	113.7%	477.4%	54.3%	60.7%	89.7%
2Q 2020	124.3%	404.1%	51.3%	67.1%	96.3%
1Q 2020	121.3%	230.8%	51.7%	65.8%	92.6%
4Q 2019	130.0%	485.9%	48.3%	91.8%	114.5%
4Q 2018	128.9%	308.0%	47.1%	91.8%	113.7%
4Q 2017	124.4%	495.5%	25.1%	89.8%	111.5%
4Q 2016	119.1%	491.5%	34.2%	67.0%	98.5%

Source: Call reports, Schedule RC-L

The majority of collateral held by banks against NCCE is very liquid with 69.1 percent held in cash (both U.S. dollar and Cash other currencies) and an additional 10.2 percent held in U.S. Treasuries and U.S. government agency securities (see table 8). Supervisors assess changes in the quality and liquidity 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. \$	Cash other currencies	U.S. Treasury securities	U.S. government agency	Corp bonds	Equity securities	All other collateral
3Q 2020	41.2%	27.9%	8.3%	1.9%	1.4%	6.3%	13.1%
2Q 2020	39.3%	23.8%	11.6%	2.3%	2.1%	5.9%	14.9%
1Q 2020	44.6%	22.5%	10.7%	1.6%	1.9%	4.3%	14.4%
4Q 2019	34.4%	24.5%	11.6%	1.7%	2.3%	7.6%	17.7%
4Q 2018	37.2%	23.3%	10.8%	2.2%	2.1%	7.1%	17.2%
4Q 2017	37.6%	25.5%	10.3%	1.9%	2.5%	5.7%	16.5%
4Q 2016	40.1%	31.5%	8.1%	1.7%	1.6%	5.0%	12.0%

Source: Call reports, Schedule RC-L

Credit quality metrics for derivative exposures remained relatively stable in the third quarter of 2020, as banks reported net charge-offs of \$6.0 million, compared with \$42.1 million in the second quarter of 2020 (see graph 7 in the appendix). The number of banks reporting charge-offs decreased from 16 to 14 banks. Net charge-offs in the third quarter of 2020 represented 0.001 percent of the NCCE from derivative contracts. For comparison purposes, commercial and industrial (C&I) loan net charge-offs decreased \$994.5 million, or 24.3 percent, to \$3.1 billion

during the quarter and were 0.1 percent of total C&I loans. Charge-offs of derivative exposures typically are associated with problem commercial lending exposures, in which the borrower has an associated swap transaction.

Market Risk

Value-at-Risk

Banks primarily control market risk in trading operations by establishing limits against potential losses. Banks use value-at-risk (VaR) to quantify the maximum expected loss over a specified time period and at a certain confidence level under relevant market conditions. Banks subject to the market risk capital rule, 12 CFR 3, subpart F, are required to report their VaR-based measures quarterly on Form FFIEC 102. The VaR measurement is calculated on a daily basis using a one-tail, 99 percent confidence level, and a holding period equivalent to a 10-business-day movement in underlying risk factors, such as rates, spreads and prices. Tables 9a and 9b show the quarter-over-quarter change in VaR, as well as the VaR-based capital charge, for banks most active in trading and derivatives activity. As shown in table 9a, market risk in trading operations, as measured by VaR, is a small proportion of their risk-based capital. Graph 16 in the appendix illustrates the historical trend in VaR measurements for these institutions.

Table 9a: Value-at-Risk, in Millions of Dollars

	JPMorgan Chase Bank, NA	Citibank, NA	Bank of America, NA	Goldman Sachs Bank USA
3Q 2020 average 60-day VaR	\$328	\$123	\$55	\$191
2Q 2020 average 60-day VaR	\$399	\$125	\$54	\$355
Q/Q change	-\$71	-\$2	\$1	-\$164
3Q 2020 total risk-based capital	\$249,933	\$158,530	\$175,181	\$32,082

Source: Market Risk Regulatory Report for Institutions Subject to the Market Risk Capital Rule—FFIEC 102

Table 9b: Value-at-Risk Capital Requirement, in Millions of Dollars

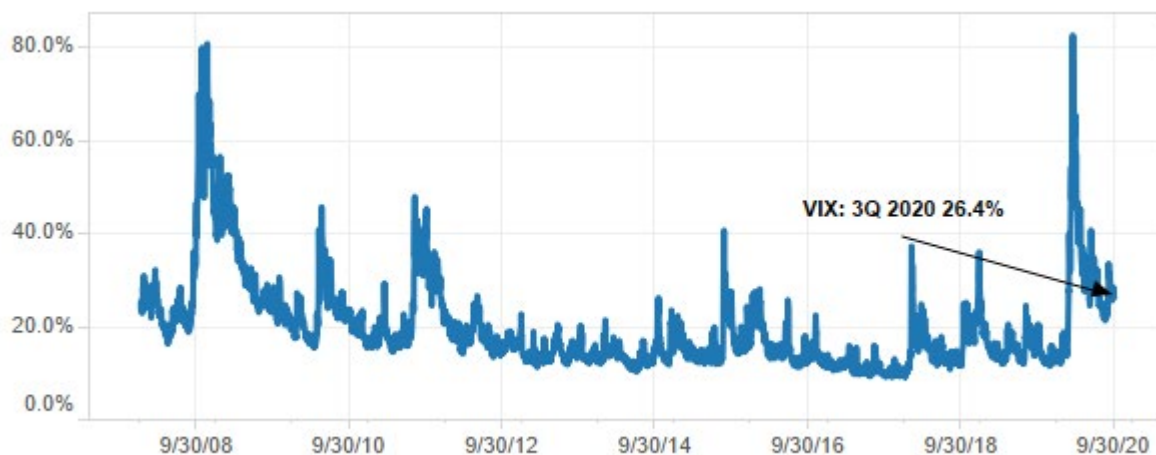
	JPMorgan Chase Bank, NA	Citibank, NA	Bank of America, NA	Goldman Sachs Bank USA
3Q 2020 VaR capital requirement	\$983	\$370	\$166	\$572
2Q 2020 VaR capital requirement	\$1,197	\$374	\$161	\$1,065
Q/Q change	-\$214	-\$4	\$5	-\$493
3Q 2020 total risk-based capital	\$249,933	\$158,530	\$175,181	\$32,082

Source: Market Risk Regulatory Report for Institutions Subject to the Market Risk Capital Rule—FFIEC 102

Volatility Index

Figure 3 shows the VIX, a volatility index,³ which measures the market's expectation of stock market volatility in the S&P 500 index over the next 30-day period. Higher volatility as represented by the VIX is associated with increased equity trading volume, which drives increased bank and holding company equity trading revenue. The figure illustrates that there was an extended period of low volatility following the end of the 2008 financial crisis that continued until late in the first quarter of 2020. In mid-March volatility spiked as financial markets reacted to fears over the potential impact of the COVID-19 global pandemic. The VIX exceeded its previous high from the 2008 financial crisis before settling back to a more normal but still somewhat elevated level of 26.4 percent at the end of the third quarter of 2020.

Figure 3: Volatility Index (VIX)



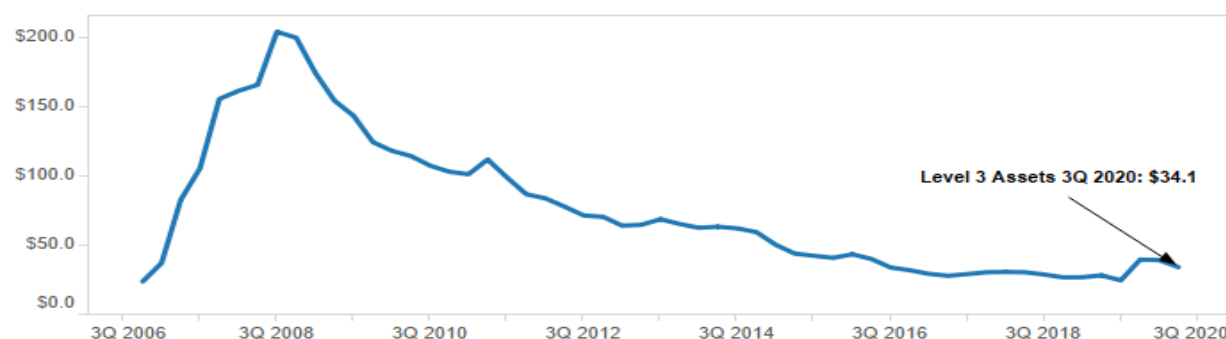
Source: Bloomberg

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 the model inputs that determine the fair value of these exposures are not derived from observable market transactions, banks use their own model assumptions in determining their fair values. Level 3 trading assets peaked at \$204.1 billion at the end of 2008 (see figure 4). At the end of the third quarter of 2020, banks held \$34.1 billion of level 3 trading assets, down 13.0 percent from the previous quarter, and 20.9 percent higher than a year ago. Level 3 trading assets are \$170.0 billion (83.3 percent) lower than the peak level from 2008.

³ VIX is the trademarked ticker symbol for the Chicago Board Options Exchange SPX Volatility Index.

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



Source: Call reports, Schedule RC-Q

Notional Amounts of All Derivative Contracts

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 total notional amount of derivative contracts held by banks in the third quarter decreased by \$992.0 billion (0.6 percent) to \$178.6 trillion from the previous quarter (see table 10). The decrease in the notional amount of derivative contracts by underlying risk exposure was driven by a decrease in interest rate contracts. Interest rate notional amounts continued to represent the majority of banks' derivative holdings at \$129.8 trillion, or 72.7 percent of total derivatives (see table 10).

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

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change	3Q 2019	Y/Y Change	Y/Y % Change
Interest rate	\$129,758	\$132,045	-\$2,287	-1.7%	\$147,166	-\$17,408	-11.8%
FX	\$39,682	\$39,191	\$491	1.3%	\$44,410	-\$4,728	-10.6%
Equity	\$4,023	\$3,574	\$448	12.5%	\$3,835	\$187	4.9%
Commodity	\$1,536	\$1,507	\$29	1.9%	\$1,662	-\$126	-7.6%
Credit derivatives	\$3,581	\$3,255	\$326	10.0%	\$4,183	-\$602	-14.4%
Total notional	\$178,579	\$179,572	-\$992	-0.6%	\$201,256	-\$22,677	-11.3%

Source: Call reports, Schedule RC-L

The decrease in the total notional amount of derivative contracts by contract type was primarily driven by decreases in swaps and futures and forward contracts (see table 11). Swap contracts remained the leading derivatives contract type at 55.8 percent of all notional amounts.

The four banks with the most derivative activity hold 87.3 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 for more information).

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

	3Q 2020	2Q 2020	Q/Q Change	Q/Q % Change	3Q 2019	Y/Y Change	Y/Y % Change
Futures and forwards	\$39,822	\$41,018	-\$1,196	-2.9%	\$47,061	-\$7,239	-15.4%
Swaps	\$99,580	\$101,734	-\$2,154	-2.1%	\$108,936	-\$9,355	-8.6%
Options	\$35,596	\$33,564	\$2,032	6.1%	\$41,077	-\$5,481	-13.3%
Credit derivatives	\$3,581	\$3,255	\$326	10.0%	\$4,183	-\$602	-14.4%
Total notional	\$178,579	\$179,572	-\$992	-0.6%	\$201,256	-\$22,677	-11.3%

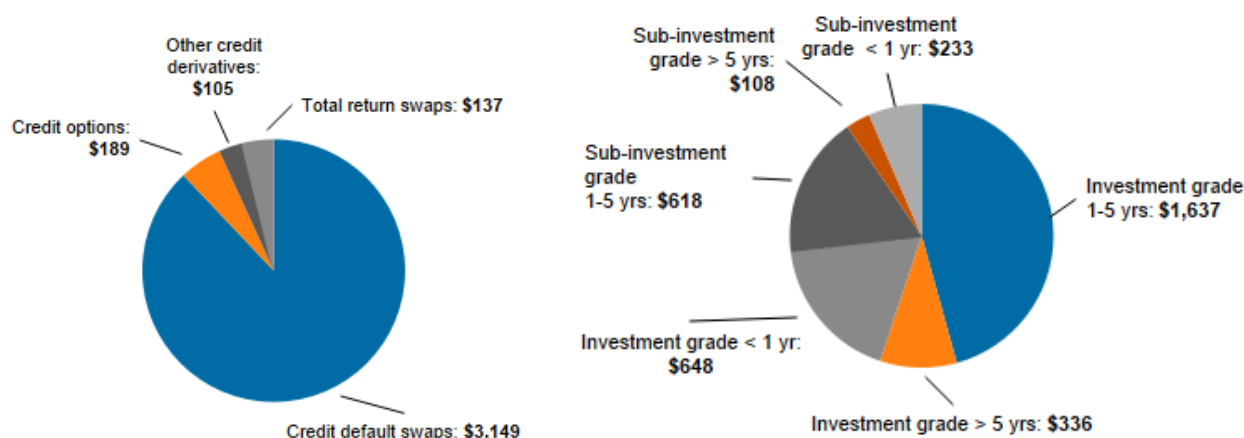
Source: Call reports, Schedule RC-L

Credit Derivatives

The notional amounts of credit derivatives increased \$326.0 billion (10.0 percent), to 3.6 trillion, in the third quarter of 2020 (see table 10). Contracts referencing investment-grade firms increased \$309.0 billion and contracts referencing sub-investment-grade firms increased \$17.0 billion in the third quarter (see graph 14 in the appendix). Credit derivatives outstanding remained well below the peak of \$16.4 trillion in the first quarter of 2008 (see graph 1 in the appendix). As shown in the chart on the left of figure 5, credit default swaps are the dominant product, at \$3.1 trillion (88.0 percent) of all credit derivative notional amounts.

Credit derivative contracts referencing investment-grade entities with maturities from one to five years represented the largest segment of the market at \$1.6 trillion or 45.7 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are \$2.6 trillion or 73.2 percent of the market (see the chart on the right in figure 5).

Figure 5: 3Q 2020 Credit Derivative Composition, in Billions of Dollars



Source: Call reports, Schedule RC-L

The notional amount for the 95 banks that net sold credit protection (i.e., assumed credit risk) was \$1.7 trillion, up \$160.5 billion (10.4 percent) from the second quarter of 2020 (see table 12 in the appendix). The notional amount for the 76 banks that net purchased credit protection (i.e.,

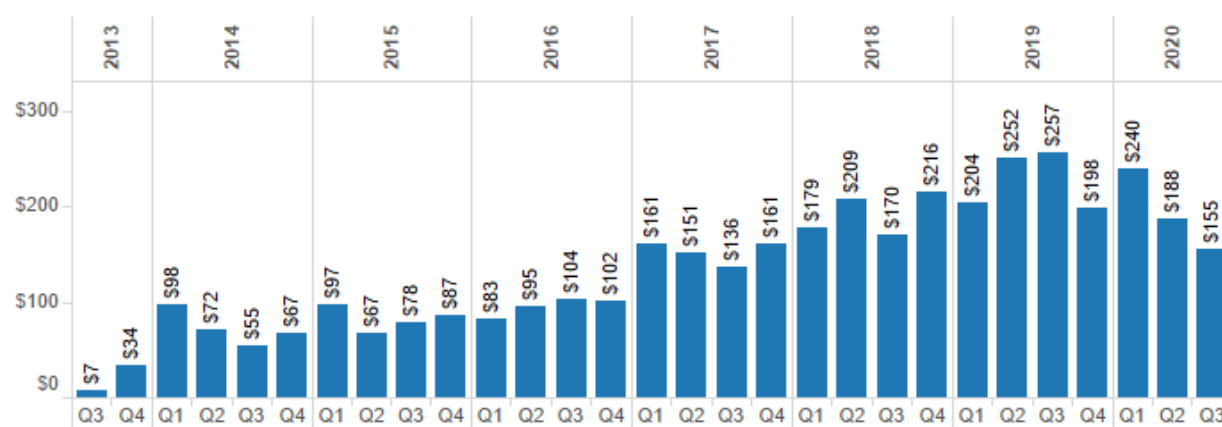
hedged credit risk) was \$1.9 trillion, \$165.5 billion higher (9.7 percent) than in the second quarter of 2020 (see table 12 in the appendix).

Compression Activity

Notional amounts of banks' derivative contracts have generally declined since 2013 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 decreased in the third quarter of 2020, as shown in figure 6.

Figure 6: Quarterly Compression Activity, in Trillions of Dollars



Source: LCH Clearnet

Centrally Cleared Derivative Contracts

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 third quarter of 2020, 38.9 percent of banks' derivative holdings were centrally cleared (see table 12). From a market factor perspective, 49.2 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 39.2 percent of credit derivative transactions were centrally cleared during the third quarter of 2020.

Centrally cleared derivative transactions were heavily concentrated at qualifying central counterparties, with 91.5 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	FX	Equity	Precious metals	Credit	Other	Total
3Q 2020	49.2%	1.9%	24.9%	2.8%	39.2%	12.9%	38.9%
2Q 2020	50.7%	1.9%	25.7%	2.0%	36.0%	12.0%	40.3%
1Q 2020	52.9%	2.0%	26.5%	2.1%	34.4%	11.8%	42.3%
4Q 2019	46.7%	1.7%	24.8%	2.8%	26.4%	11.5%	37.1%
3Q 2019	55.1%	1.5%	26.8%	6.5%	28.3%	15.2%	43.0%
2Q 2019	53.9%	1.4%	26.8%	10.2%	25.9%	15.4%	42.5%
1Q 2019	54.0%	1.3%	26.9%	10.0%	27.7%	16.0%	42.5%

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 netting into account. 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 netting into account. 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.

Qualifying central counterparties (QCCP): QCCPs are defined in 12 CFR 3.2 as a CCP either 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 that meets a series of standards. See 12 CFR 3.2 for a 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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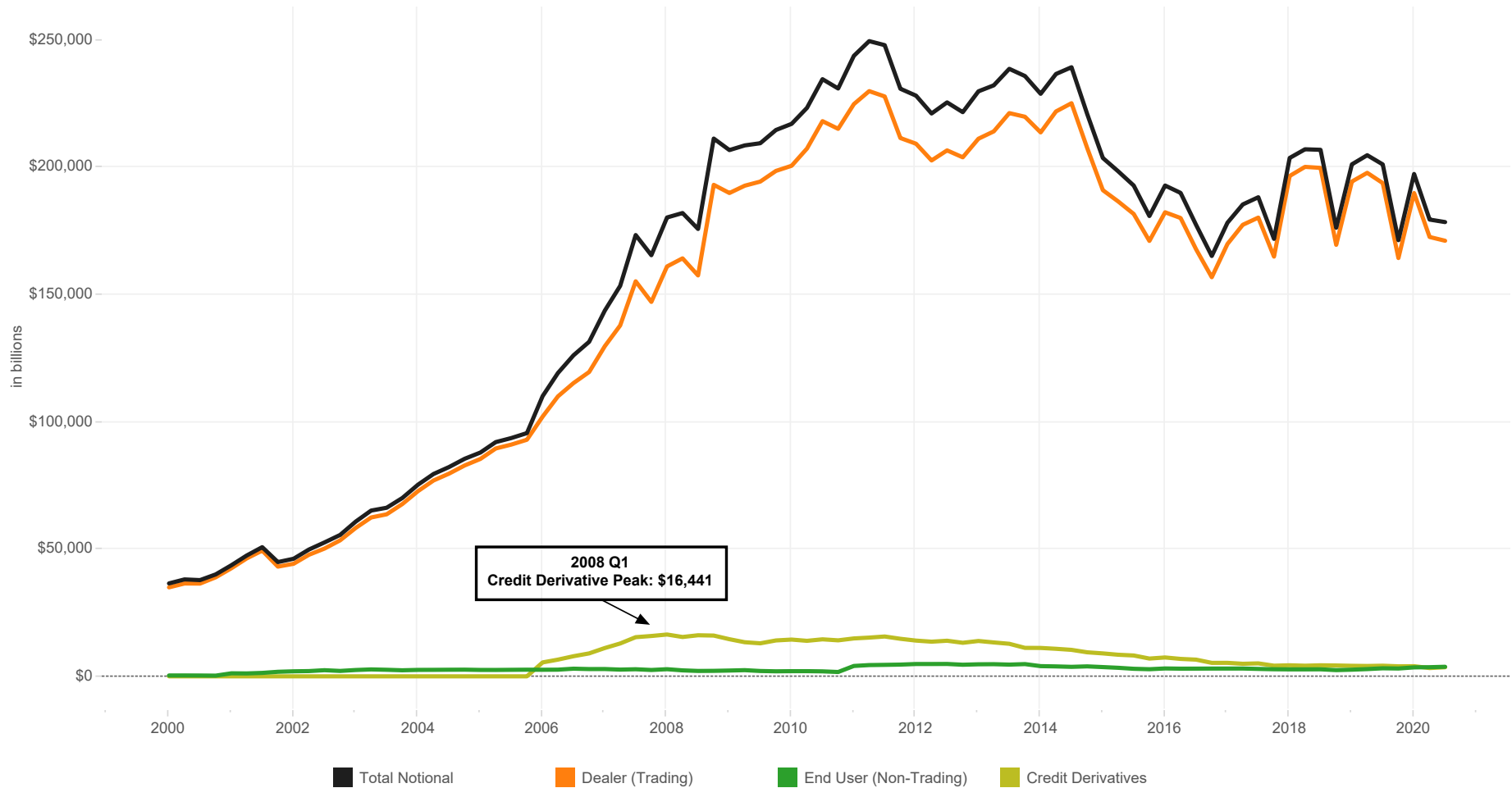
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Graph 1
Derivative Notional Amounts by Type
Insured U.S. Commercial Banks and Savings Associations

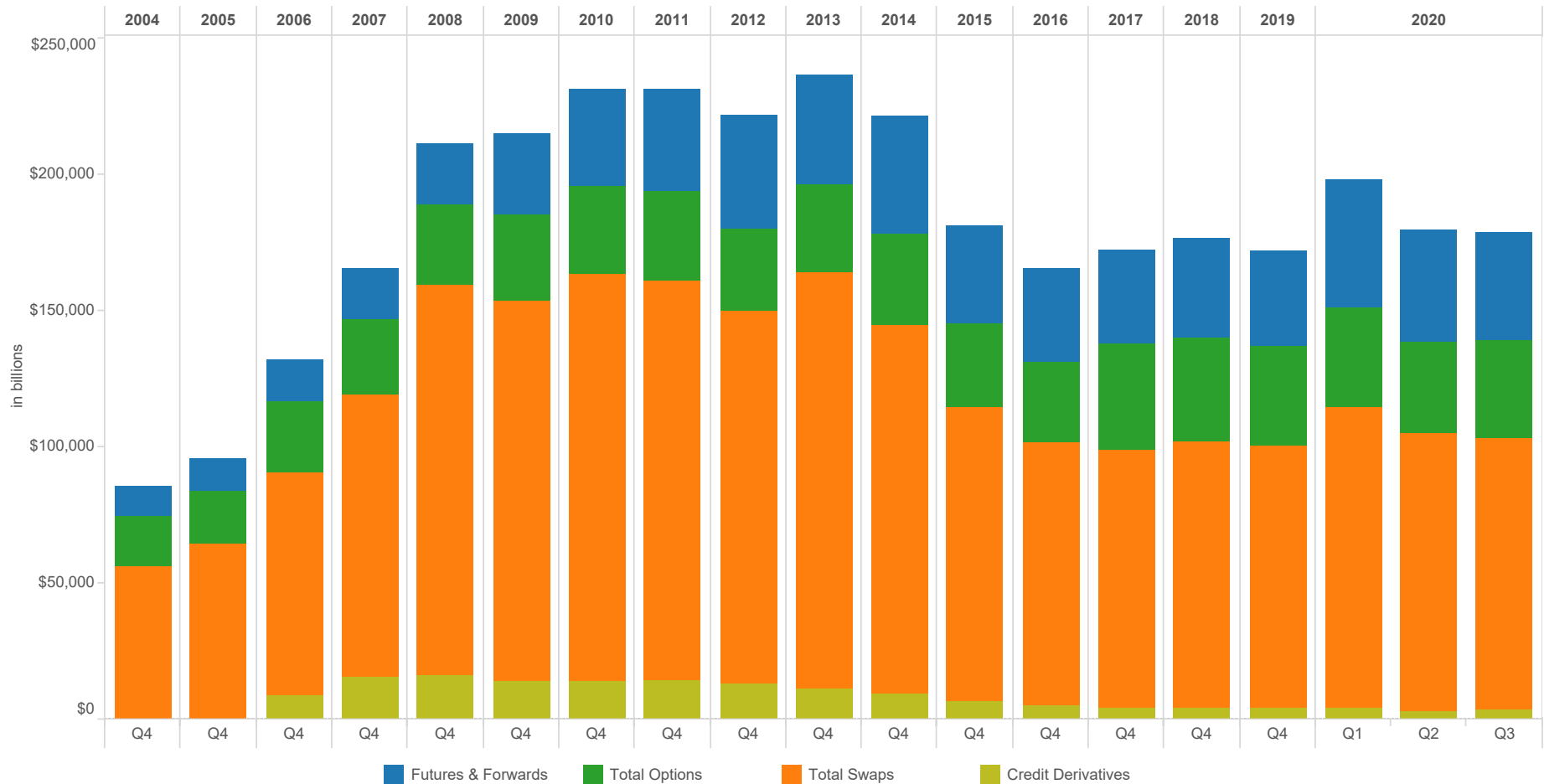


In billions of dollars

	2017				2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Total Notional	\$178,335	\$185,522	\$188,351	\$171,973	\$203,795	\$207,202	\$206,995	\$176,353	\$201,282	\$204,874	\$201,256	\$171,462	\$197,501	\$179,572	\$178,579
Dealer (Trading)	169,971	177,519	180,344	165,002	196,712	200,286	199,891	169,636	194,518	197,950	193,912	164,441	189,995	172,723	171,242
End User (Non-Trading)	3,061	3,069	2,917	2,785	2,737	2,737	2,763	2,447	2,619	2,850	3,162	3,077	3,519	3,594	3,757
Credit Derivatives	5,304	4,935	5,090	4,186	4,345	4,179	4,342	4,270	4,145	4,074	4,183	3,945	3,986	3,255	3,581

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

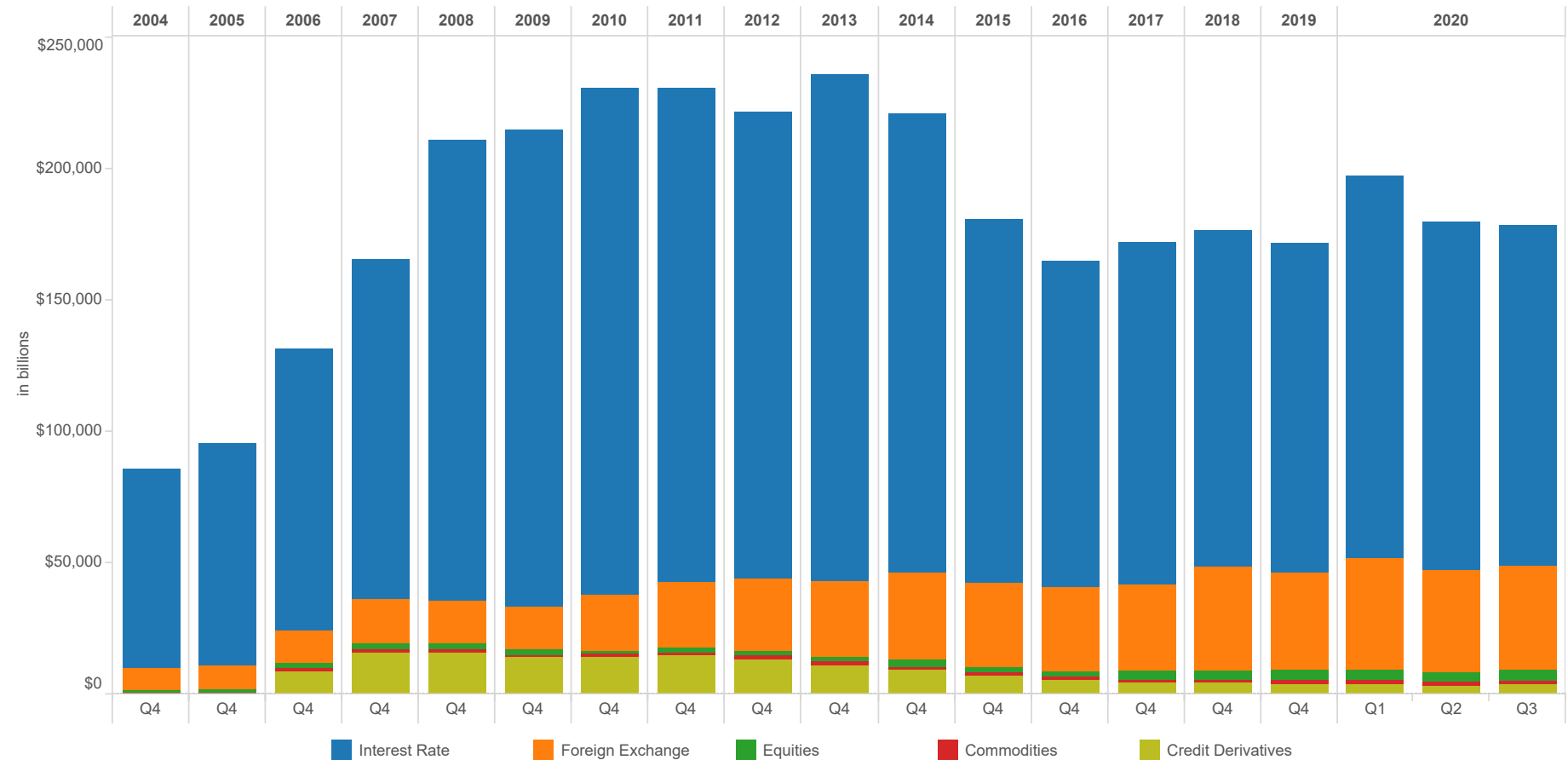
	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3
Futures & Forwards	\$12,057	\$14,882	\$18,867	\$22,529	\$29,652	\$35,539	\$37,469	\$41,621	\$40,027	\$43,380	\$35,691	\$34,201	\$34,162	\$36,144	\$34,787	\$46,804	\$41,018	\$39,822
Total Options	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	38,009	36,117	36,111	33,564	35,596
Total Swaps	64,712	81,340	103,102	143,111	139,138	149,331	146,266	136,608	152,469	135,169	107,392	96,384	94,784	97,930	96,614	110,599	101,734	99,580
Credit Derivatives	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	4,270	3,945	3,986	3,255	3,581
Total Notional	95,627	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,973	176,353	171,462	197,501	179,572	178,579

*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

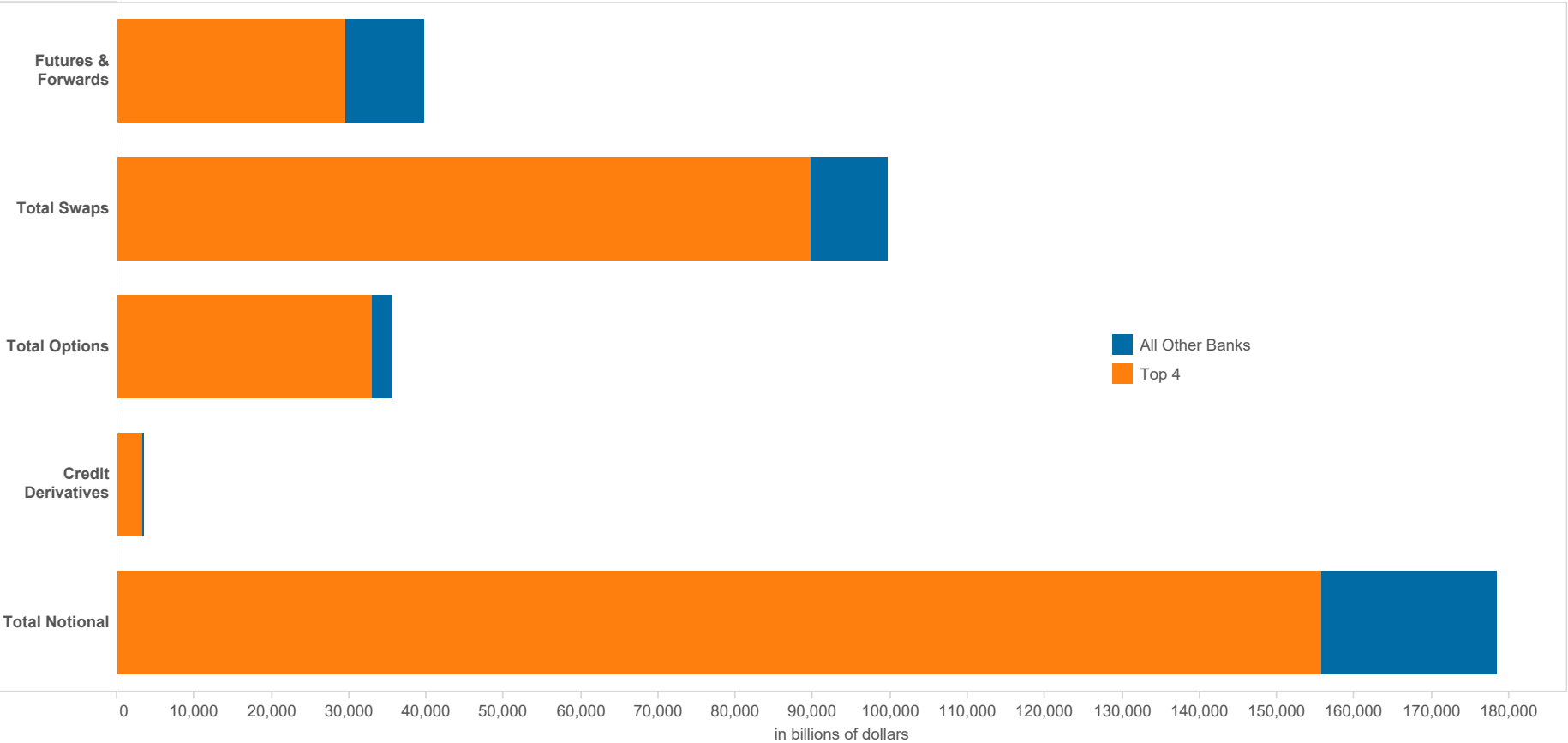


In billions of dollars

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3
Interest Rate	\$107,435	\$129,491	\$175,895	\$181,454	\$193,399	\$187,866	\$177,650	\$193,084	\$174,687	\$138,369	\$124,488	\$130,417	\$128,174	\$125,056	\$146,027	\$132,045	\$129,758
Foreign Exchange	11,900	16,614	16,224	16,555	20,990	25,436	27,587	28,480	33,183	32,100	31,737	32,903	39,220	37,170	42,181	39,191	39,682
Equities	2,271	2,524	2,207	1,685	1,364	1,606	1,970	2,028	2,537	2,395	2,475	3,080	3,374	3,796	3,662	3,574	4,023
Commodities	893	1,067	1,061	979	1,195	1,330	1,397	1,209	1,222	1,108	1,257	1,388	1,315	1,495	1,644	1,507	1,536
Credit Derivatives	9,020	15,863	16,029	14,112	14,151	14,759	13,190	11,191	9,449	6,986	5,293	4,186	4,270	3,945	3,986	3,255	3,581
Total Notional	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,973	176,353	171,462	197,501	179,572	178,579

*Notional amount of total: futures, exchange traded options, over the counter options, forwards, and swaps.
 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	\$29,656	\$10,166	\$39,822
Total Swaps	89,809	9,772	99,580
Total Options	33,031	2,565	35,596
Credit Derivatives	3,320	261	3,581
Total Notional	155,815	22,764	178,579

*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

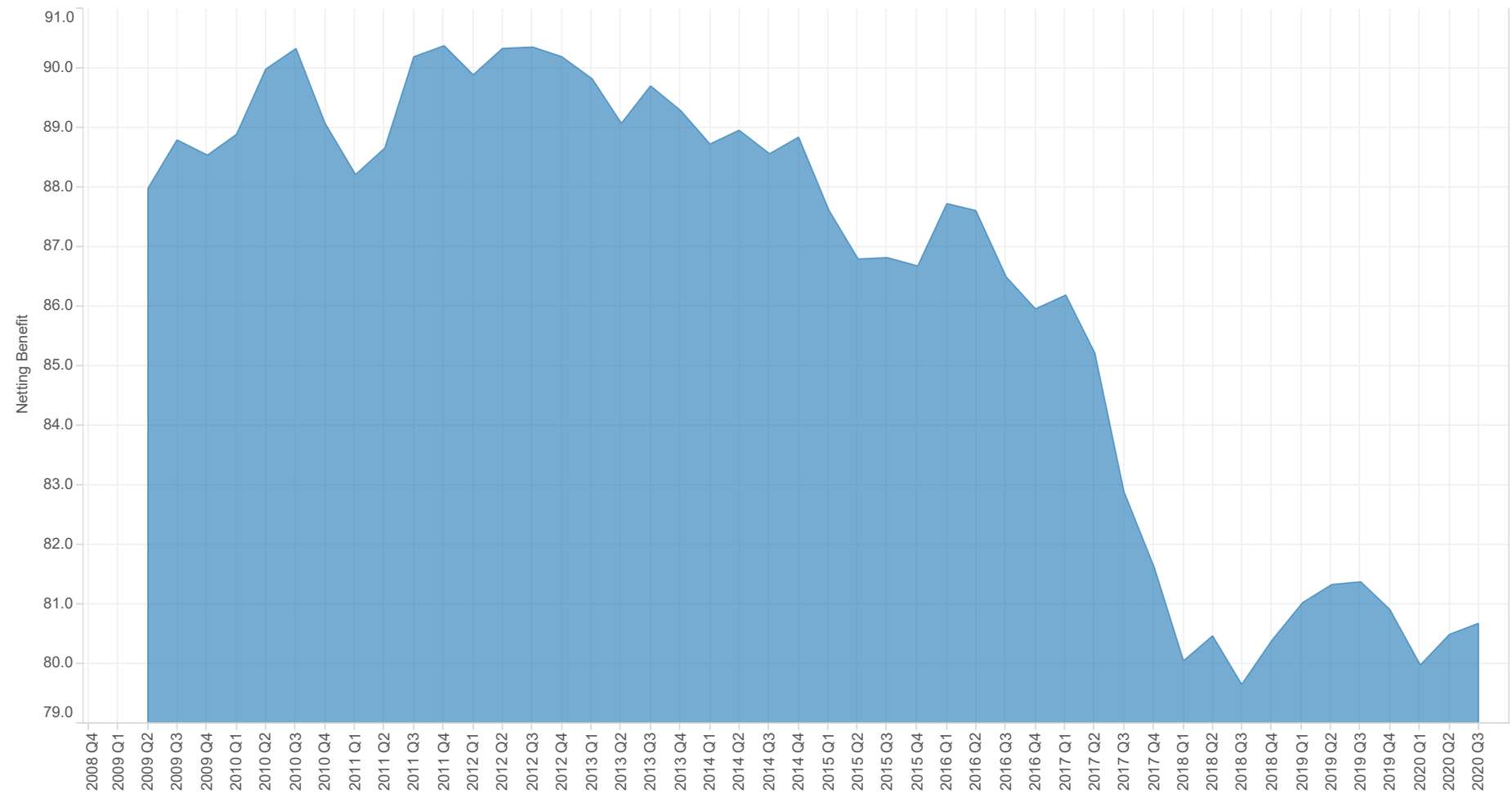


Note: The methodology to calculate the credit risk exposure to capital ratio for the Top 4 category uses a weighted average of total current credit exposure.
Source: Call reports

Graph 6

Netting Benefit*: Amount of Gross Credit Exposure Eliminated Through Bilateral Netting (in Percentage)

Insured U.S. Commercial Banks and Savings Associations by Derivative Holdings



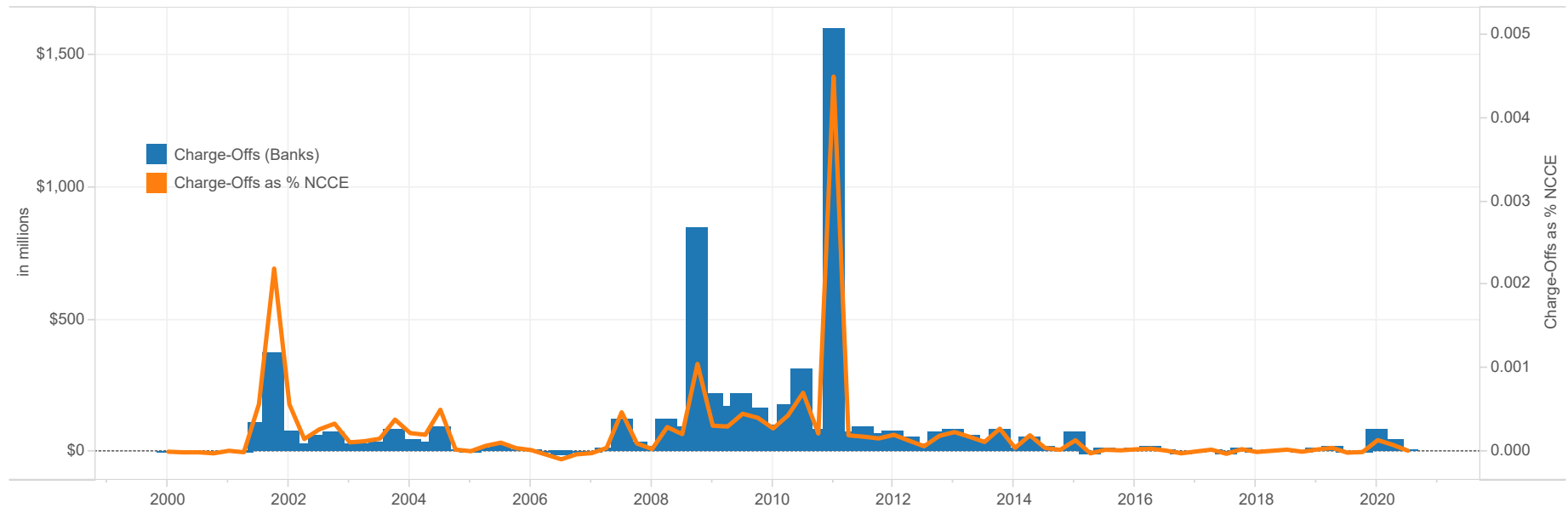
Netting Benefit

2012				2013				2014				2015				2016				2017				2018				2019				2020		
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	Q3	Q4	Q1	Q2	Q3
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	79.7	80.4	81.0	81.3	81.4	80.9	80.0	80.5	80.7

*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	314	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				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Charge-Offs (Banks)	13.30	18.56	6.48	-7.84	1.22	8.71	-8.77	10.26	-1.14	3.97	8.80	0.06	9.11	17.23	-4.78	-1.45	82.70	42.08	5.98

Note: The figures are for each quarter alone, not year-to-date.

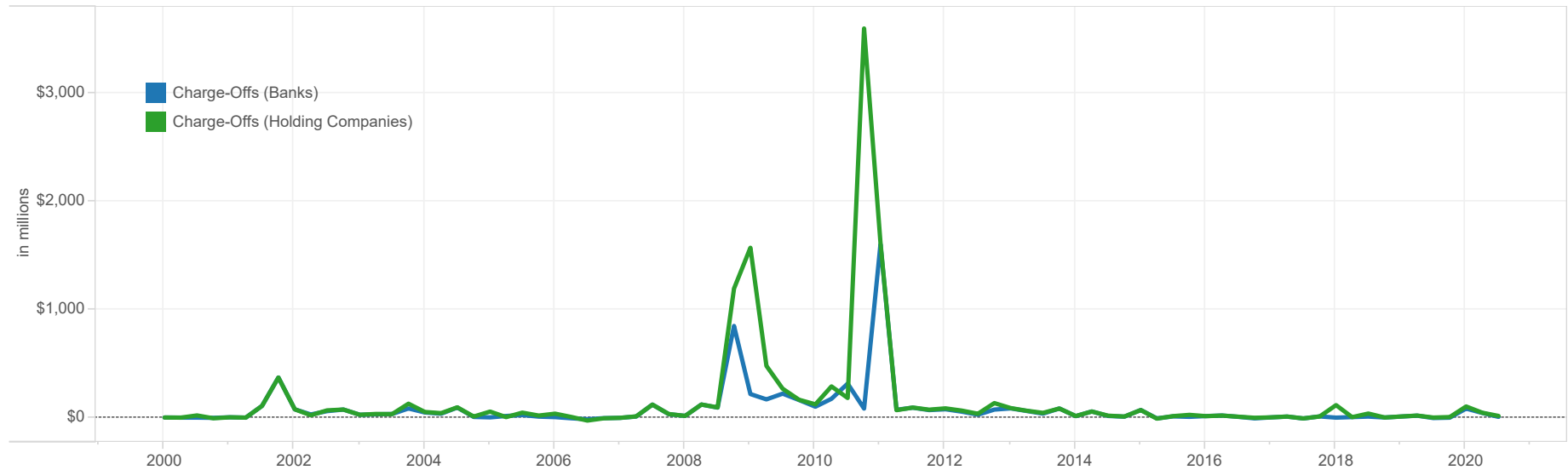
NCCE: Pre 2009 Q2 (RC-R); 2009 Q2 - 2014 Q4 (RC-L); 2015 Q1 onward (RC-R)

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

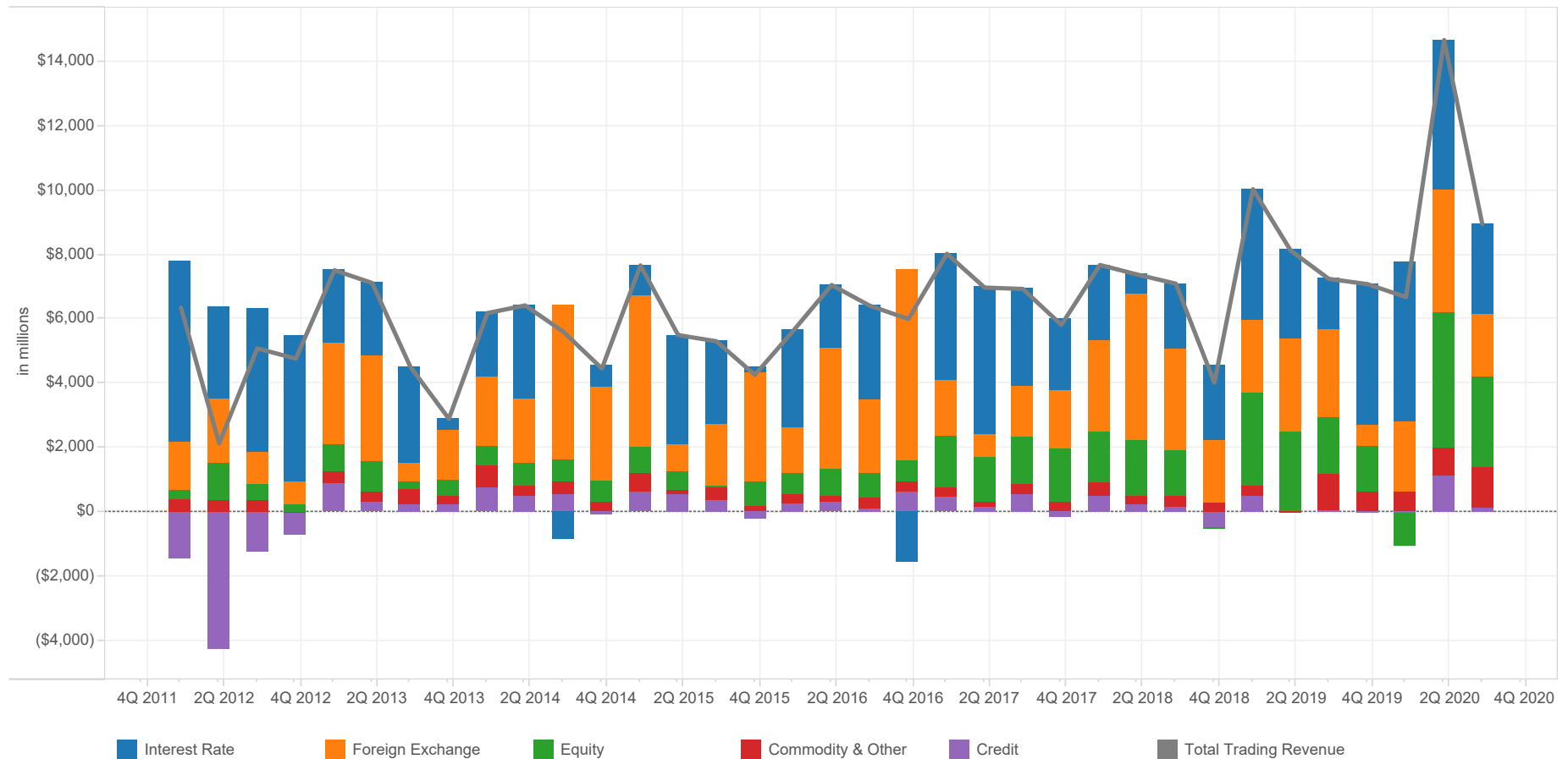
	2000				2001				2002				2003				2004						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Charge-Offs (Banks)	0.0	-1.0	-1.0	-3.0	2.0	-1.0	107.3	370.0	75.8	28.2	59.0	73.7	25.3	29.9	32.3	83.7	46.7	34.9	92.2	5.4			
Charge-Offs (Holding Companies)	0.1	-1.0	19.3	-7.0	2.0	-1.0	107.3	369.6	75.8	21.2	66.0	73.7	25.3	32.9	31.4	127.8	51.2	40.4	94.2	9.0			
	2005				2006				2007				2008				2009						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Charge-Offs (Banks)	1	14	23	8	4	-7	-16	-6	-3	9	119	31	15	120	92	847	217	168	221	162			
Charge-Offs (Holding Companies)	55	4	45	18	35	5	-28	-7	-3	10	119	32	15	120	93	1,192	1,570	477	266	164			
	2010				2011				2012				2013				2014						
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4			
Charge-Offs (Banks)	100	173	314	83	1,601	72	91	69	76	54	26	73	84	61	36	83	13	56	15	8			
Charge-Offs (Holding Companies)	122	288	181	3,598	1,617	68	92	73	85	64	35	133	87	63	43	83	14	56	17	9			
	2015				2016				2017				2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Charge-Offs (Banks)	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	8.8	0.1	9.1	17.2	-4.8	-1.5	82.7	42.1	6.0
Charge-Offs (Holding Companies)	69.0	-10.2	12.9	24.5	12.8	18.0	7.5	-2.5	1.4	8.9	-8.3	9.6	114.5	3.5	36.6	0.1	9.5	17.9	-0.3	4.1	102.1	44.2	14.6

Note: The figures are for each quarter alone, not year-to-date.

Source: Call reports and Y-9

Graph 9a

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



In millions of dollars

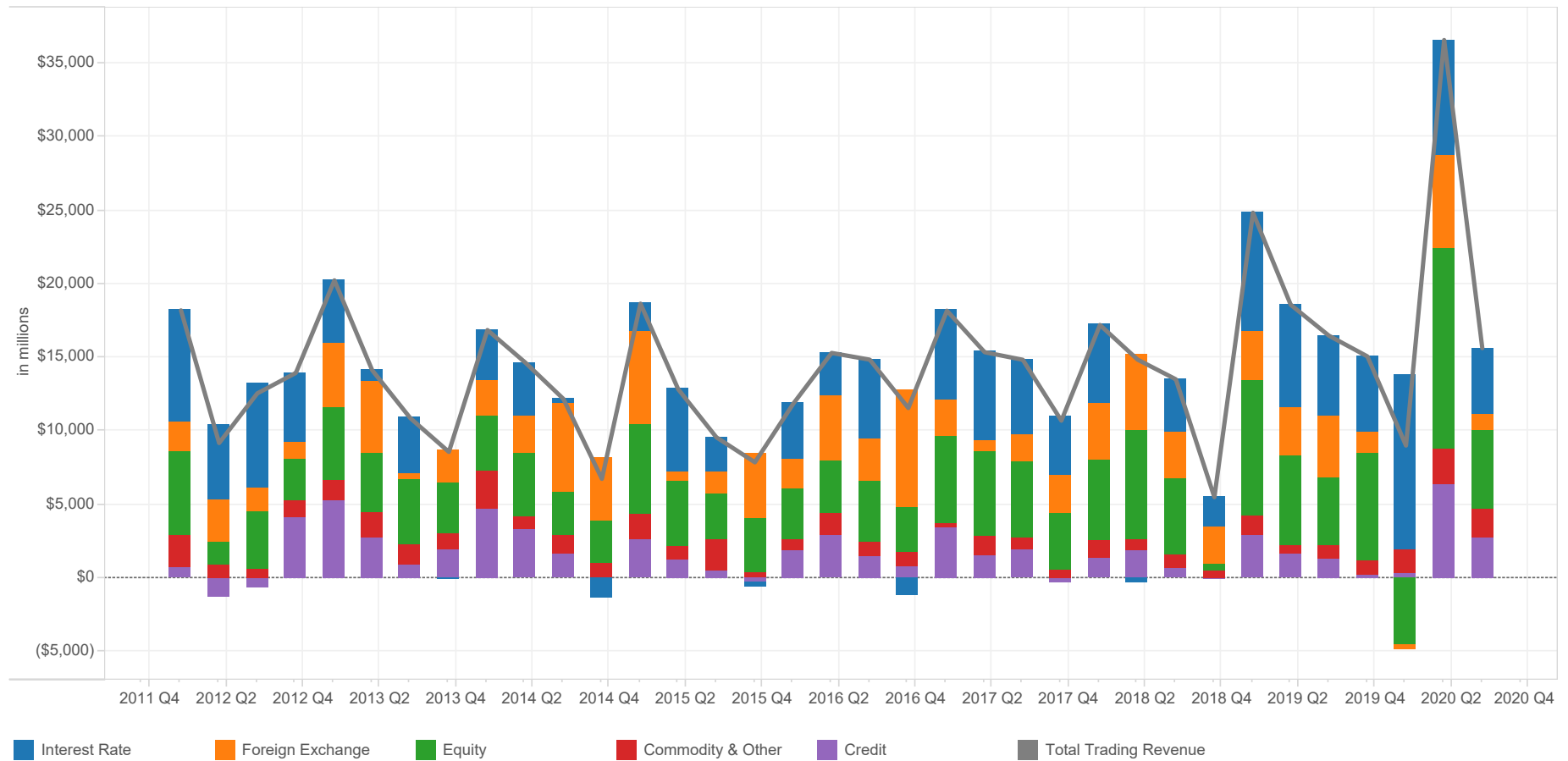
	2016				2017				2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Interest Rate	\$3,023	\$1,973	\$2,920	(\$1,547)	\$3,917	\$4,586	\$3,011	\$2,220	\$2,317	\$587	\$2,020	\$2,305	\$4,078	\$2,780	\$1,578	\$4,366	\$4,950	\$4,643	\$2,805
Foreign Exchange	1,424	3,719	2,294	5,941	1,743	697	1,608	1,811	2,861	4,569	3,149	1,971	2,254	2,900	2,718	662	2,167	3,841	1,942
Equity	668	867	734	681	1,595	1,359	1,454	1,649	1,624	1,727	1,444	-43	2,895	2,464	1,805	1,427	-1,040	4,148	2,826
Commodity & Other	271	161	353	296	330	211	300	324	395	286	349	274	323	-43	1,109	600	646	905	1,226
Credit	263	342	118	634	447	128	566	-178	487	215	141	-476	485	30	43	34	-34	1,129	154
Total Trading Revenue	5,650	7,062	6,420	6,006	8,031	6,981	6,940	5,824	7,684	7,384	7,103	4,030	10,035	8,131	7,253	7,089	6,688	14,666	8,954

*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



In millions of dollars

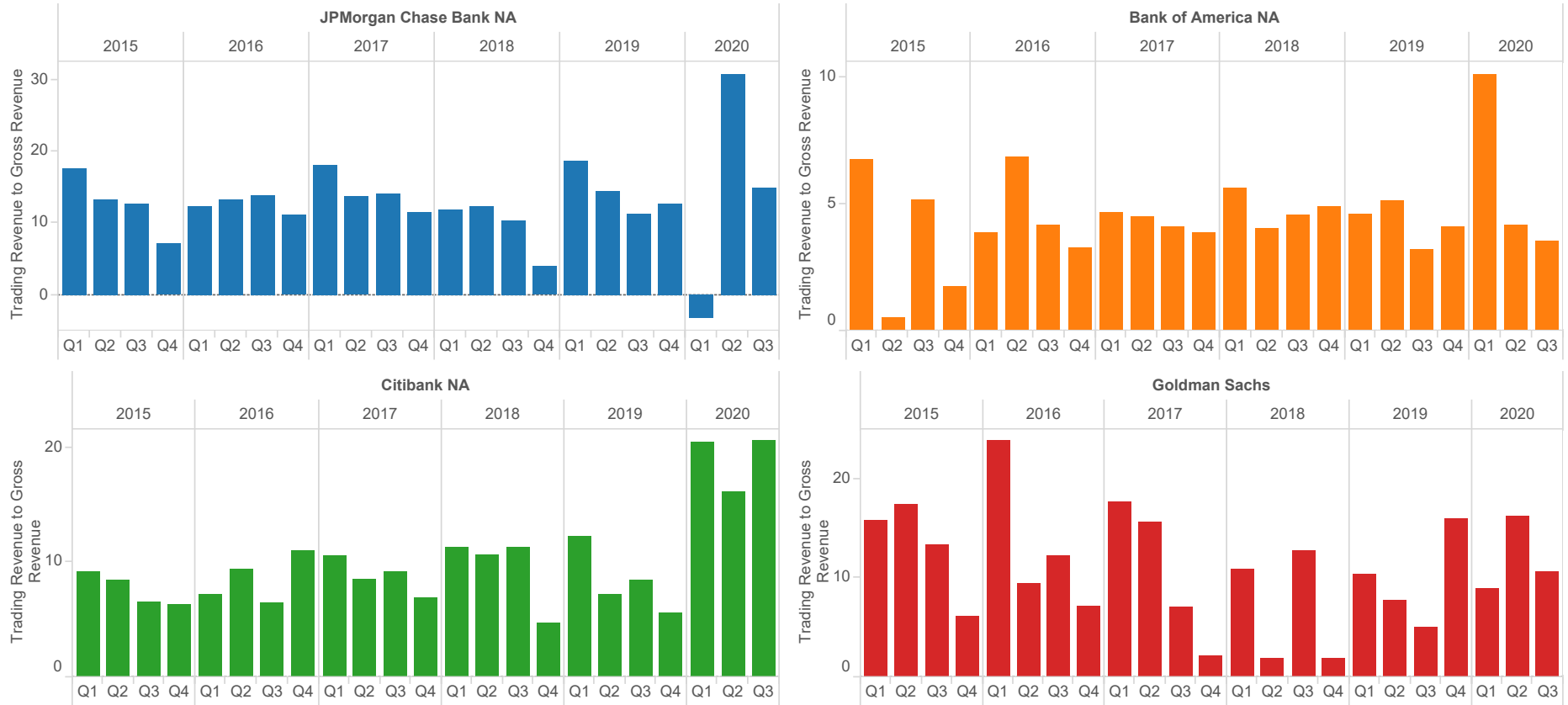
	2016				2017				2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Interest Rate	\$3,808	\$2,965	\$5,359	(\$1,193)	\$6,055	\$6,019	\$5,124	\$4,006	\$5,361	(\$336)	\$3,550	\$1,997	\$8,050	\$6,973	\$5,444	\$5,099	\$11,949	\$7,818	\$4,552
Foreign Exchange	2,025	4,318	2,899	8,007	2,524	733	1,848	2,589	3,900	5,133	3,222	2,530	3,396	3,351	4,241	1,463	-302	6,374	1,037
Equity	3,441	3,612	4,159	3,021	5,939	5,783	5,123	3,867	5,431	7,445	5,222	502	9,215	6,083	4,548	7,387	-4,544	13,600	5,397
Commodity & Other	738	1,491	969	1,003	299	1,317	769	568	1,177	779	874	508	1,298	512	1,045	981	1,664	2,486	1,912
Credit	1,880	2,940	1,482	742	3,381	1,523	1,996	-310	1,359	1,848	666	-25	2,903	1,684	1,226	159	257	6,331	2,754
Total Trading Revenue	11,892	15,327	14,868	11,579	18,198	15,376	14,861	10,721	17,229	14,870	13,534	5,513	24,862	18,604	16,504	15,088	9,025	36,609	15,653

*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*

	2014				2015				2016				2017				2018				2019				2020		
	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
JPMorgan Chase Bank NA	12.63	13.31	13.47	6.97	17.73	13.25	12.65	7.03	12.26	13.34	13.83	11.17	17.98	13.66	14.01	11.52	11.90	12.19	10.26	3.92	18.57	14.57	11.30	12.62	-3.33	30.88	14.83
Bank of America NA	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	4.54	4.90	4.60	5.14	3.20	4.09	10.13	4.14	3.55
Citibank NA	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	11.26	4.66	12.32	7.23	8.48	5.56	20.50	16.05	20.54
Goldman Sachs	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	10.85	1.84	12.77	1.86	10.31	7.78	4.98	15.90	8.96	16.21	10.68
TOTAL	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
	10.06	10.45	8.53	5.35	11.68	7.62	8.41	5.03	8.45	10.14	8.51	8.51	11.68	9.32	9.39	7.55	9.77	8.95	8.82	4.36	12.43	9.60	8.01	8.61	7.44	19.55	13.02

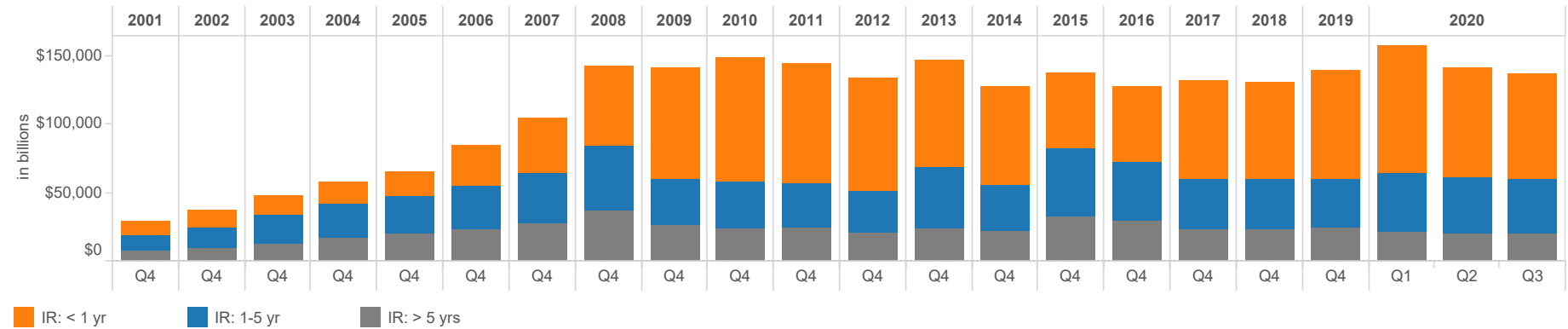
*The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.

Note: Gross revenue equals interest income plus non-interest income.

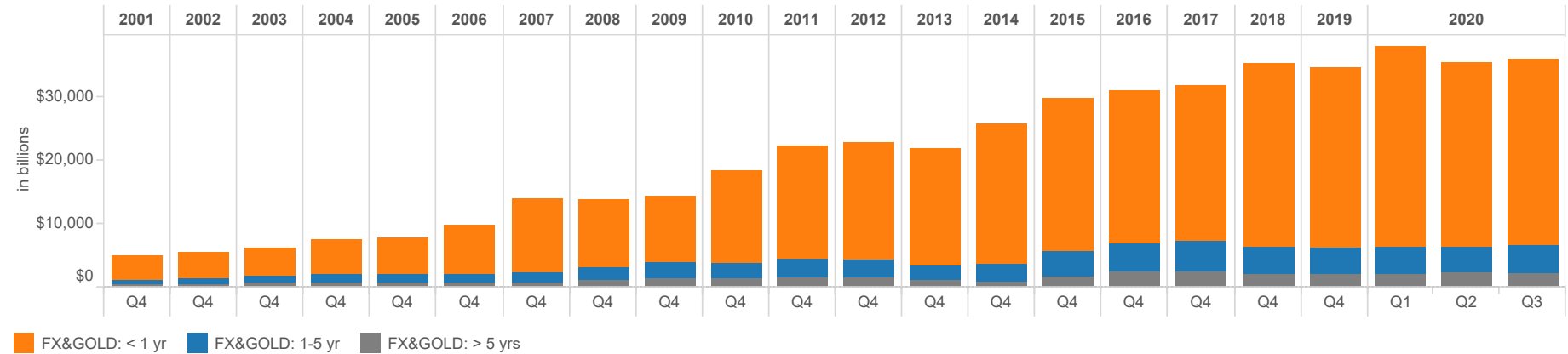
Source: Call reports

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

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3
IR: < 1 yr	\$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	\$71,491	\$79,130	\$92,838	\$80,135	\$76,386
IR: 1-5 yr	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	36,681	35,854	43,089	41,096	39,964
IR: > 5 yrs	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	23,244	24,259	20,987	19,980	20,500
FX&GOLD: < 1 yr	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	28,891	28,241	31,570	29,050	29,396
FX&GOLD: 1-5 yr	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	4,219	4,052	4,128	4,239	4,299
FX&GOLD: > 5 yrs	762	689	594	622	1,082	1,347	1,290	1,503	1,480	1,029	969	1,648	2,420	2,525	2,096	2,146	2,152	2,179	2,299

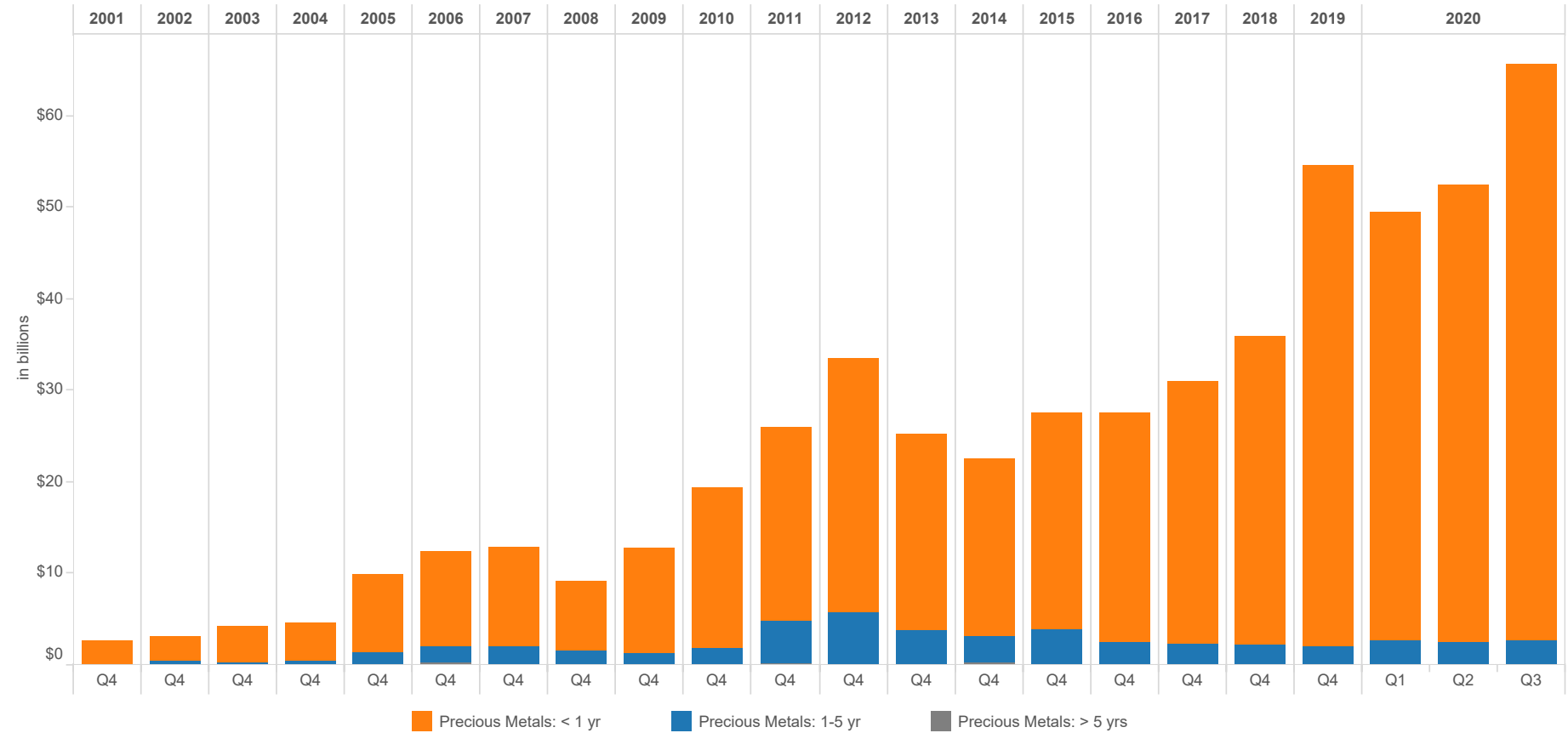
Note: Figures above exclude FX contracts with an original maturity of 14 days or less, written options, basis swaps, and any other contracts not subject to risk-based capital requirements. Effective Q1 2015, the reporting form and call report instructions changed. Schedule RC-R now requires banks to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

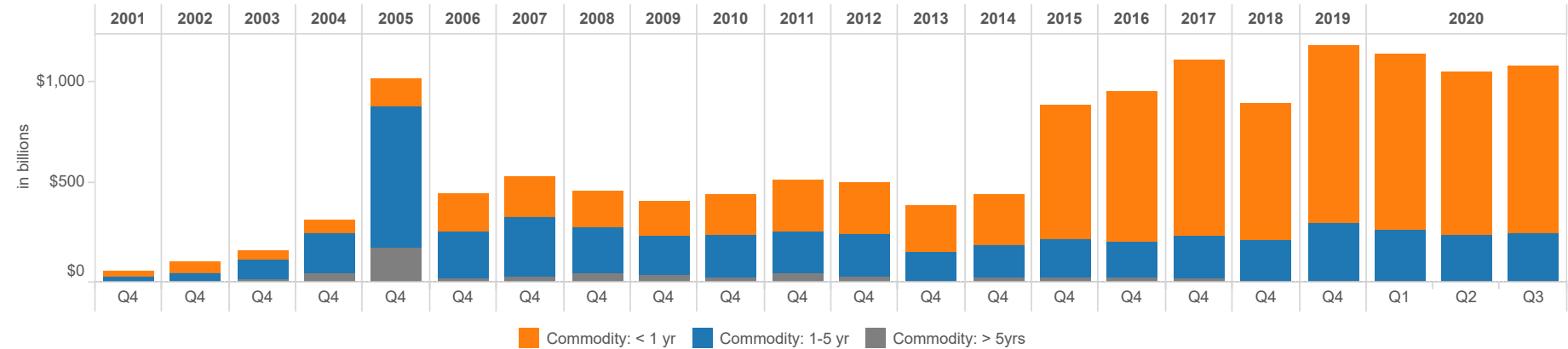
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3
Precious Metals: < 1 yr	\$3.87	\$4.04	\$8.59	\$10.35	\$10.72	\$7.55	\$11.55	\$17.47	\$21.12	\$27.68	\$21.41	\$19.29	\$23.51	\$25.07	\$28.62	\$33.62	\$52.58	\$46.74	\$49.96	\$63.02
Precious Metals: 1-5 yr	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	2.25	2.06	2.64	2.46	2.60
Precious Metals: > 5 yrs	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	0.00	0.00	0.00	0.00

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.

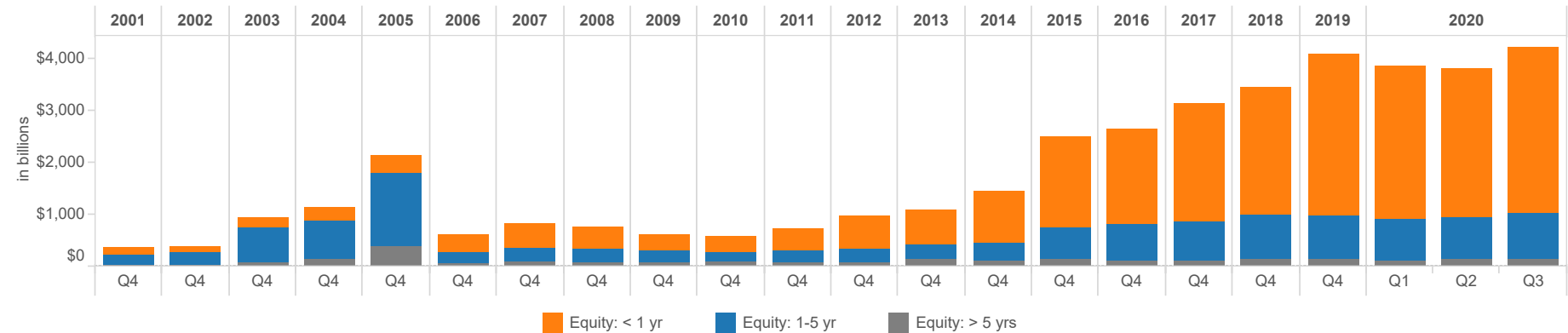
Source: Call reports

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

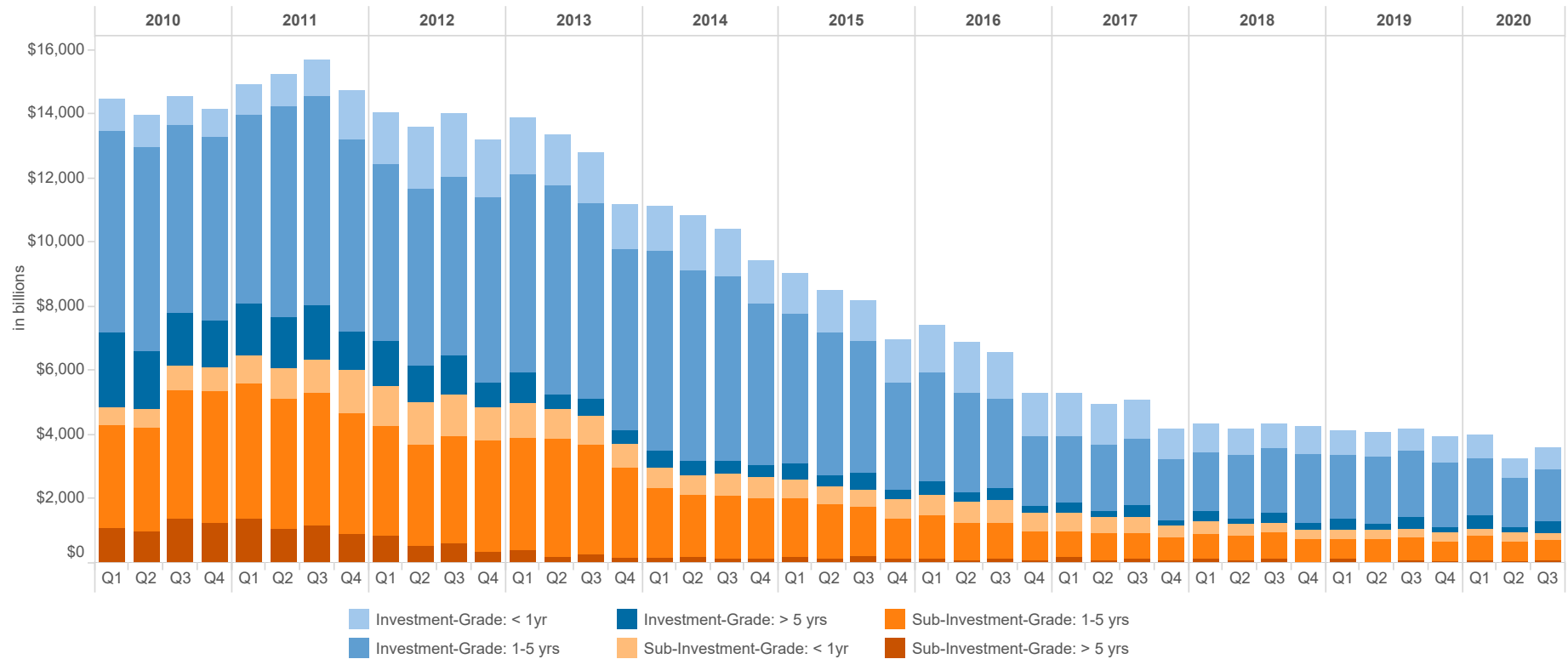
	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020		
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2	Q3
Commodity: < 1 yr	\$55	\$43	\$64	\$133	\$185	\$206	\$179	\$176	\$203	\$261	\$261	\$235	\$257	\$668	\$750	\$883	\$688	\$884	\$877	\$820	\$838
Commodity: 1-5 yr	35	103	205	707	235	297	233	198	209	209	208	144	164	197	179	202	198	286	251	226	234
Commodity: > 5yrs	9	14	40	175	20	25	43	33	25	46	28	6	20	22	23	25	9	10	9	9	11
Equity: < 1 yr	127	197	273	321	341	473	409	312	296	427	627	645	996	1,743	1,842	2,296	2,449	3,084	2,959	2,851	3,210
Equity: 1-5 yr	249	674	736	1,428	221	297	256	228	191	210	262	291	352	628	677	733	864	844	780	826	882
Equity: > 5 yrs	25	84	140	383	45	70	72	82	85	94	82	136	101	130	123	113	139	136	124	129	134

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



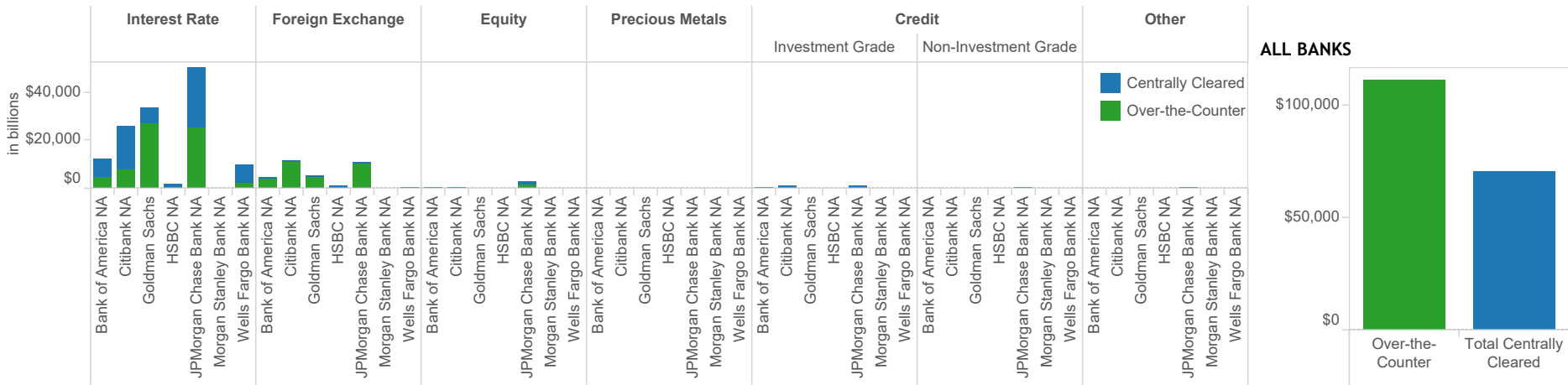
In billions of dollars

	2016				2017				2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Investment-Grade: < 1yr	\$1,471	\$1,549	\$1,451	\$1,348	\$1,343	\$1,234	\$1,216	\$934	\$880	\$805	\$764	\$837	\$763	\$758	\$675	\$781	\$726	\$619	\$648
Investment-Grade: 1-5 yrs	3,400	3,101	2,765	2,170	2,072	2,073	2,085	1,897	1,839	1,995	1,988	2,173	1,976	2,083	2,084	2,018	1,799	1,523	1,637
Investment-Grade: > 5 yrs	457	262	385	214	309	195	345	186	331	184	338	204	367	189	330	198	367	171	336
Total Investment Grade	\$5,328	\$4,911	\$4,601	\$3,732	\$3,724	\$3,502	\$3,647	\$3,016	\$3,050	\$2,984	\$3,089	\$3,214	\$3,106	\$3,030	\$3,089	\$2,997	\$2,891	\$2,313	\$2,622
	2016				2017				2018				2019				2020		
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Sub-Investment-Grade: < 1yr	\$622	\$683	\$683	\$581	\$582	\$509	\$480	\$375	\$400	\$335	\$318	\$304	\$259	\$283	\$275	\$268	\$247	\$278	\$233
Sub-Investment-Grade: 1-5 yrs	1,313	1,159	1,122	869	838	830	814	718	763	791	801	691	661	701	708	624	743	608	618
Sub-Investment-Grade: > 5 yrs	155	101	157	111	159	93	149	77	133	69	133	61	119	60	111	56	105	56	108
Total Sub-Investment Grade	\$2,090	\$1,943	\$1,962	\$1,561	\$1,579	\$1,432	\$1,443	\$1,170	\$1,296	\$1,195	\$1,252	\$1,056	\$1,039	\$1,044	\$1,093	\$947	\$1,095	\$942	\$959

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
3Q 2020 Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

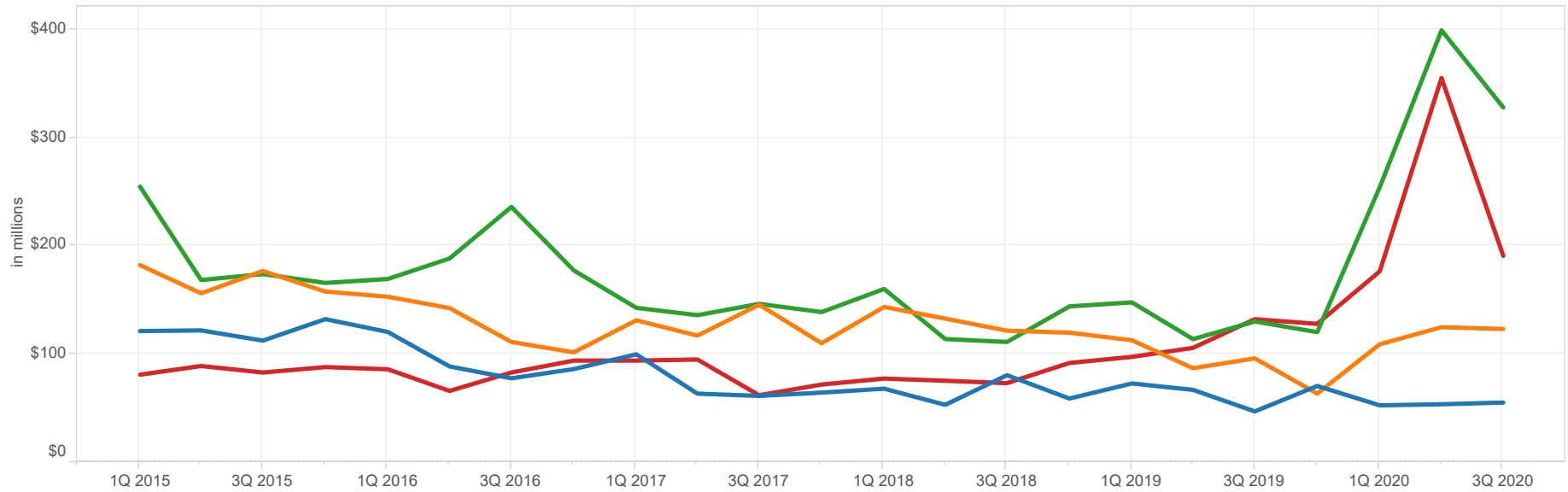
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared	Over-the-Counter	Total Notional
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter			
									Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter					
JPMorgan Chase Bank NA	24,446	25,619	151	10,605	784	1,919	0	39	551	451	233	239	57	703	26,222	39,577	65,799
Citibank NA	17,463	8,310	270	11,002	77	527	2	8	260	626	64	207	75	98	18,211	20,777	38,987
Bank of America NA	7,465	4,719	107	4,287	151	452	0	3	171	201	59	110	0	20	7,953	9,792	17,746
Goldman Sachs	6,714	26,954	109	4,887	0	23	0	0	0	99	0	58	0	4	6,823	32,025	38,848
HSBC NA	1,232	297	43	1,221	0	84	0	12	4	12	11	15	0	3	1,290	1,644	2,934
Wells Fargo Bank NA	7,980	2,081	0	442	40	138	0	2	0	3	1	23	0	56	8,021	2,745	10,766
Morgan Stanley Bank NA	0	28	0	25	0	1	0	0	0	8	0	4	0	0	0	67	67
Grand Total	65,300	68,009	680	32,469	1,052	3,145	2	64	987	1,400	366	657	133	883	68,521	106,626	175,147
ALL OTHER	2,080	1,461	4	2,842	0	29	0	0	1	24	0	25	7	61	2,093	4,441	6,533
TOTAL	67,380	69,470	684	35,311	1,052	3,174	2	64	988	1,424	367	681	140	944	70,613	111,067	181,680

% of Total

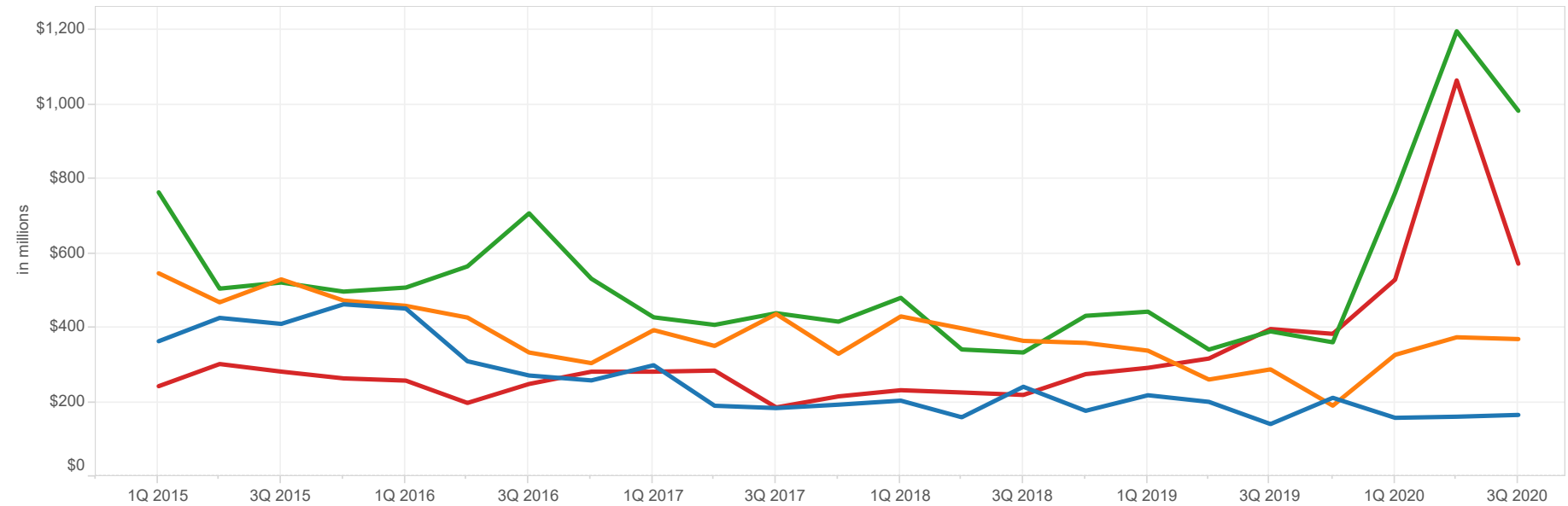
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared as a % of Total Notional	Total Over-the- Counter as a % of Total Notional
	Centrally Cleared	Over-the- Counter	Centrally Cleared	Over-the- Counter	Centrally Cleared	Over-the- Counter	Centrally Cleared	Over-the- Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the- Counter		
									Centrally Cleared	Over-the- Counter	Centrally Cleared	Over-the- Counter				
JPMorgan Chase Bank NA	49%	51%	1%	99%	29%	71%	0%	100%	55%	45%	49%	51%	8%	92%	40%	60%
Citibank NA	68%	32%	2%	98%	13%	87%	18%	82%	29%	71%	24%	76%	43%	57%	47%	53%
Bank of America NA	61%	39%	2%	98%	25%	75%	2%	98%	46%	54%	35%	65%	0%	100%	45%	55%
Goldman Sachs	20%	80%	2%	98%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	18%	82%
HSBC NA	81%	19%	3%	97%	0%	100%	0%	100%	23%	77%	41%	59%	0%	100%	44%	56%
Wells Fargo Bank NA	79%	21%	0%	100%	22%	78%	0%	100%	8%	92%	3%	97%	1%	99%	75%	25%
Morgan Stanley Bank NA	0%	100%	0%	100%	0%	100%			0%	100%	0%	100%	0%	100%	0%	100%

Source: Call reports, Schedule RC-R

Graph 16
Average 60 Day VaR



VaR Capital Requirement



Bank of America, National Association Citibank, N.A. JPMorgan Chase Bank, National Association Goldman Sachs Bank USA

TABLE 1

NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
SEPTEMBER 30, 2020, 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	7H6GLXDRUGQU57RNE97	\$2,869,536	\$50,636,122	\$1,256,092	\$2,123,294	\$9,135,580	\$28,180,479	\$8,512,165	\$1,428,512	\$798,961
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	1,350,039	2,119,527	5,726,808	24,889,162	11,189,571	164,015	524,280
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	556,386	580,962	7,081,374	27,203,841	5,629,335	1,190,918	489,853
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	202,726	177,062	4,347,260	9,535,285	2,698,822	536,115	394,096
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,750,196	11,625,300	270,130	162,028	5,170,999	4,374,242	1,553,779	94,122	4,856
6	HSBC NA	1IE8VN30JCEQV1H4R804	202,543	3,019,035	38,626	2,131	812,210	1,837,445	249,985	78,638	46,425
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	268,733	2,723,221	5,698	0	2,678,578	5,943	33,002	0	100,944
8	BANK OF NEW YORK MELLON	HPFHU0OQ28E4N0NFVK49	349,432	919,428	9,119	45	242,924	641,797	25,378	165	83,531
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	530,497	650,405	14,063	400	108,113	366,537	150,978	10,314	630
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	457,454	478,521	4,039	2,000	26,563	403,174	31,657	11,088	801
11	TRUIST BANK	JJKC32MCHWDI71265Z06	488,016	300,525	4,766	21,766	30,203	180,293	53,319	10,178	267
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	151,629	267,399	0	0	248,246	18,528	626	0	16,681
13	TD BANK NATIONAL ASSN	03D0JEWFDUS0SEEKG89	388,337	253,948	0	0	2,463	249,795	1,689	0	0
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	179,163	215,189	3,078	0	26,170	168,285	15,049	2,607	91
15	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	132,479	210,505	1,386	0	100,644	101,899	6,479	97	894
16	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDV0K75	360,261	171,298	7,849	0	5,341	151,091	1,083	5,934	69
17	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	45,841	146,926	1,856	612	132,020	8,518	3,897	22	0
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	200,454	142,340	1,108	146	6,695	98,512	30,864	5,014	247
19	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	144,473	133,234	1,494	0	3,778	99,133	21,643	7,186	19
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	168,974	123,395	1,871	0	6,320	94,563	20,153	487	376
21	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	138,246	95,476	0	0	3,948	88,167	3,361	0	110
22	MORGAN STANLEY BANK NA	G1MLHIS0N32I3QPILB75	169,782	77,922	0	0	16,982	33,126	15,949	11,865	402
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	120,114	77,678	50	0	5,412	49,371	19,436	3,409	26
24	BBVA USA	C90VT034M03BN29IRA40	102,042	59,501	2,240	0	2,526	45,281	8,401	1,053	0
25	FIRST HORIZON BANK	COOWI3L2W9TPYR3WJX37	82,689	55,691	93	0	31,423	21,443	1,940	791	0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,384,509	\$177,562,265	\$3,732,710	\$5,189,973	\$35,952,581	\$98,845,910	\$30,278,561	\$3,562,531	\$2,463,561
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,600,030	1,017,207	3,249	758	133,900	734,361	126,847	18,093	2,935
TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	3,735,958	5,190,730	36,086,482	99,580,271	30,405,408	3,580,623	2,466,496

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
SEPTEMBER 30, 2020, 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	JPMORGAN CHASE & CO.	7H6GLXDRUGQFU57RNE97	\$3,246,076	\$50,292,543	\$1,275,165	\$2,573,931	\$9,678,282	\$27,148,353	\$8,166,888	\$1,449,924	\$785,583
2	GOLDMAN SACHS GROUP, INC., THE	KD3XUN7C6T14HNAYLU02	1,132,067	43,672,618	1,766,211	3,451,442	5,997,051	19,323,584	11,967,224	1,167,106	376,644
3	CITIGROUP INC.	E57ODZWZ7FF32TWEFA76	2,234,459	42,426,697	652,944	2,428,702	8,068,337	24,542,761	5,412,947	1,321,006	489,567
4	BANK OF AMERICA CORPORATION	B4TYDEB6GKMZO031MB27	2,738,452	34,413,724	1,206,537	1,019,144	8,516,390	18,669,451	4,041,355	960,847	326,287
5	MORGAN STANLEY	IGJSJL3JD5P30I6NJZ34	955,940	31,817,799	773,996	1,470,093	4,823,270	16,469,637	7,731,897	548,906	62,607
6	WELLS FARGO & COMPANY	KB1H1DSPRFMYMCUFXT09	1,922,220	12,056,644	278,270	202,622	5,769,123	4,177,791	1,550,944	77,894	4,848
7	MIZUHO AMERICAS LLC		48,056	6,285,723	22,119	14,495	765,161	5,330,683	147,162	6,103	5,501
8	SMBC AMERICAS HOLDINGS, INC.		24,736	5,086,216	141,304	1,320,616	1,374,171	1,471,468	776,688	1,970	3,349
9	HSBC NORTH AMERICA HOLDINGS INC.	213800JCL1FHBQK3M654	264,462	4,954,381	286,836	478,821	812,570	3,040,039	257,477	78,638	46,425
10	STATE STREET CORPORATION	571474TGEMMWANRLN572	272,083	2,723,222	5,698	0	2,678,578	5,944	33,002	0	100,944
11	BANK OF NEW YORK MELLON CORPORATION, THE	HPFHU0OQ28E4N0NFVK49	428,398	916,243	10,037	299	264,286	616,078	25,378	165	83,556
12	RBC US GROUP HOLDINGS LLC		142,993	687,071	203,574	303,839	35,434	143,194	579	452	61
13	U.S. BANCORP	6BYL5QZYBDK8S7L73M02	540,455	650,442	14,063	400	107,895	366,792	150,978	10,314	630
14	BARCLAYS US LLC	213800H14XVWV87OI72	156,337	608,479	10,685	269,202	275,331	12,410	0	40,851	27
15	PNC FINANCIAL SERVICES GROUP, INC., THE	AD6GFRVSDT01YPT1CS68	461,914	472,752	4,061	2,000	30,444	393,502	31,657	11,088	801
16	CREDIT SUISSE HOLDINGS (USA), INC.	549300YHT5NGRKJD1R94	124,652	391,823	9,943	3,442	217,598	73,365	11,418	76,056	73
17	TRUIST FINANCIAL CORPORATION	JJKC32MCHWDI71265Z06	499,183	303,381	4,766	21,766	33,087	180,265	53,319	10,178	267
18	TD GROUP US HOLDINGS LLC	03D0JEWFDUS0SEEKG89	488,420	302,703	27,527	0	17,876	255,610	1,689	0	0
19	NORTHERN TRUST CORPORATION	6PTKHDJ8HDUF78PFWH30	152,082	264,649	0	0	248,246	15,778	626	0	16,681
20	MUFG AMERICAS HOLDINGS CORPORATION	OX3PU53ZLPQKJ4700D47	164,029	241,084	2,250	1,266	129,059	101,934	6,479	97	894
21	CAPITAL ONE FINANCIAL CORPORATION	ZUE8T73ROZOF6FLBAR73	421,883	240,436	7,849	0	12,779	212,791	1,083	5,934	69
22	CITIZENS FINANCIAL GROUP, INC.	DRMSV1Q0EKMEXLAU1P80	179,583	215,189	3,078	0	26,170	168,285	15,049	2,607	91
23	BOK FINANCIAL CORPORATION		46,086	146,926	1,856	612	132,020	8,518	3,897	22	0
24	FIFTH THIRD BANCORP	THRNG6BD57P9QWTQLG42	201,996	143,045	1,108	146	6,695	99,217	30,864	5,014	247
25	AMERIPRISE FINANCIAL, INC.	6ZLKQF7QB6JAEKQS5388	158,698	140,589	5,398	6,093	328	67,942	58,233	2,594	1
TOP 25 HOLDING COMPANIES WITH DERIVATIVES			\$17,005,261	\$239,454,377	\$6,715,276	\$13,568,931	\$50,020,181	\$122,895,391	\$40,476,832	\$5,777,767	\$2,305,154

Note: Currently, the Y-9 report does not differentiate credit derivatives.

Note: Before 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
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS

		LEGAL ENTITY	TOTAL	TOTAL	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT	PERCENT
		INDENTIFIER	ASSETS	DERIVATIVES	EXCH TRADED	OTC	INT RATE	FOREIGN EXCH	EQUITY	OTHER	CREDIT
RANK	BANK NAME				CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS	CONTRACTS	DERIVATIVES
					(%)	(%)	(%)	(%)	(%)	(%)	(%)
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	6.7	93.3	67.7	23.8	3.9	1.7	2.8
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	7.6	92.4	87.6	11.9	0.1	0.0	0.4
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	2.7	97.3	65.0	28.7	2.4	1.1	2.8
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	2.2	97.8	67.9	25.8	3.1	0.1	3.1
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,750,196	11,625,300	3.7	96.3	92.4	3.9	2.3	0.6	0.8
6	HSBC NA	1IE8VN30JCEQV1H4R804	202,543	3,019,035	1.3	98.7	51.9	41.0	2.8	1.7	2.6
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	268,733	2,723,221	0.2	99.8	0.4	98.5	0.0	1.1	0.0
8	BANK OF NEW YORK MELLON	HPFHU0OQ28E4N0NFVK49	349,432	919,428	1.0	99.0	25.5	74.3	0.2	0.0	0.0
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	530,497	650,405	2.2	97.8	86.5	11.7	0.0	0.3	1.6
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	457,454	478,521	1.3	98.7	90.8	3.7	1.4	1.8	2.3
11	TRUIST BANK	JJKC32MCHWDI71265Z06	488,016	300,525	8.8	91.2	78.9	4.3	12.4	1.0	3.4
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	151,629	267,399	0.0	100.0	6.9	92.8	0.3	0.0	0.0
13	TD BANK NATIONAL ASSN	03D0JEWFDUS0SEEKG89	388,337	253,948	0.0	100.0	97.4	2.6	0.0	0.0	0.0
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	179,163	215,189	1.4	98.6	91.1	7.6	0.0	0.1	1.2
15	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	132,479	210,505	0.7	99.3	92.3	7.6	0.1	0.0	0.0
16	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDV0K75	360,261	171,298	4.6	95.4	86.7	2.1	0.0	7.7	3.5
17	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	45,841	146,926	1.7	98.3	94.8	0.4	0.1	4.6	0.0
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	200,454	142,340	0.9	99.1	79.8	9.2	2.3	5.2	3.5
19	REGIONS BANK	EQTWLK1G7ODGCMGLV11	144,473	133,234	1.1	98.9	92.2	1.4	0.0	1.0	5.4
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	168,974	123,395	1.5	98.5	88.6	4.8	0.0	6.3	0.4
21	MANUFACTURERS&TRADERS TR CO	VWB2V0FCW3A0EE3ZJN75	138,246	95,476	0.0	100.0	99.3	0.7	0.0	0.0	0.0
22	MORGAN STANLEY BANK NA	G1MLHIS0N32I3QPILB75	169,782	77,922	0.0	100.0	42.1	40.2	2.5	0.0	15.2
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	120,114	77,678	0.1	99.9	89.1	3.5	0.6	2.4	4.4
24	BBVA USA	C90VT034M03BN29IRA40	102,042	59,501	3.8	96.2	94.8	3.0	0.4	0.0	1.8
25	FIRST HORIZON BANK	COOWI3L2W9TPYR3WJX37	82,689	55,691	0.2	99.8	98.1	0.0	0.4	0.0	1.4
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,384,509	\$177,562,265	\$8,922,682	\$168,639,583	\$128,819,789	\$39,630,047	\$4,019,755	\$1,530,144	\$3,562,531
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,600,030	1,017,207	4,006	1,013,201	938,230	52,001	2,874	6,010	18,093
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	8,926,689	169,652,784	129,758,019	39,682,048	4,022,629	1,536,154	3,580,623
					(%)	(%)	(%)	(%)	(%)	(%)	(%)
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				99.4	5.0	94.4	72.1	22.2	2.3	0.9	2.0
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				0.6	0.0	0.6	0.5	0.0	0.0	0.0	0.0
TOTAL FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				100.0	5.0	95.0	72.7	22.2	2.3	0.9	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
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL RISK-BASED CAPITAL	BILATERALLY NETTED CURRENT CREDIT EXPOSURE	POTENTIAL FUTURE EXPOSURE	TOTAL CREDIT EXPOSURE FROM ALL CONTRACTS	(%) TOTAL CREDIT EXPOSURE TO CAPITAL
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$242,927	\$199,567	\$209,617	\$409,184	168
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	36,676	66,773	44,876	111,649	304
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	156,721	75,520	135,938	211,458	135
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	176,754	38,704	57,164	95,868	54
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,750,196	11,625,300	163,768	29,374	19,616	48,990	30
6	HSBC NA	1IE8VN30JCEQV1H4R804	202,543	3,019,035	23,220	7,329	12,007	19,336	83
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	268,733	2,723,221	18,700	7,320	8,225	15,545	83
8	BANK OF NEW YORK MELLON	HPFHU0OQ28E4N0NFVK49	349,432	919,428	22,725	5,029	5,101	10,130	45
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	530,497	650,405	52,440	5,338	7,589	12,927	25
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	457,454	478,521	42,895	8,329	-1,507	6,822	16
11	TRUIST BANK	JJKC32MCHWDI71265Z06	488,016	300,525	47,992	4,670	4,806	9,476	20
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	151,629	267,399	11,362	1,432	2,361	3,793	33
13	TD BANK NATIONAL ASSN	03D0JEWFDUS0SEEKG89	388,337	253,948	30,328	156	1,357	1,513	5
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	179,163	215,189	18,831	1,973	1,309	3,282	17
15	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	132,479	210,505	15,461	2,111	488	2,600	17
16	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDV0K75	360,261	171,298	28,463	4,188	3,417	7,605	27
17	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	45,841	146,926	4,091	13	14	27	1
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	200,454	142,340	19,766	2,607	1,878	4,485	23
19	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	144,473	133,234	14,484	1,495	539	2,034	14
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	168,974	123,395	17,011	2,039	1,740	3,778	22
21	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	138,246	95,476	13,187	1,193	183	1,377	10
22	MORGAN STANLEY BANK NA	G1MLHIS0N32I3QPILB75	169,782	77,922	18,442	231	2,752	2,983	16
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	120,114	77,678	12,005	2,043	699	2,742	23
24	BBVA USA	C90VT034M03BN29IRA40	102,042	59,501	9,515	774	179	953	10
25	FIRST HORIZON BANK	COOWI3L2W9TPYR3WJX37	82,689	55,691	7,579	814	279	1,093	14
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,384,509	\$177,562,265	\$1,205,342	\$469,022	\$520,627	\$989,649	82
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,600,030	1,017,207	533,860	20,834	8,290	29,124	5
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	1,739,203	489,856	528,916	1,018,773	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-L and RC-R

TABLE 5

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS HELD FOR TRADING
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS**

		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
RANK	BANK NAME							
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$48,672,201	98.9	\$535,409	1.1
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	45,252,621	100.0	22,486	0.0
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	40,928,309	99.7	123,589	0.3
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	16,047,112	94.6	914,043	5.4
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,953,154	\$155,815,330	\$150,900,243	99.0	\$1,595,527	1.0
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,031,385	22,764,143	20,341,567	90.4	2,161,513	9.6
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	171,241,810	97.9	3,757,040	2.1
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. Note: Numbers may not add up to total due to rounding. Source: Call reports, Schedule RC-L								

TABLE 6

GROSS FAIR VALUES OF DERIVATIVE CONTRACTS
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
SEPTEMBER 30, 2020, 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	7H6GLXDRUGQU57RNE97	\$2,869,536	\$50,636,122	\$719,986	\$690,641	\$2,579	\$2,757	\$13,526	\$14,803
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	883,429	873,218	254	265	3,243	3,760
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	482,734	483,287	2,143	2,610	10,237	10,510
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	193,422	190,677	22,114	26,709	4,754	5,330
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,953,154	\$155,815,330	\$2,279,571	\$2,237,823	\$27,090	\$32,341	\$31,760	\$34,403
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,031,385	22,764,143	172,500	147,920	22,035	18,956	2,368	3,061
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	2,452,071	2,385,743	49,125	51,297	34,128	37,464

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
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS
NOTE: REVENUE FIGURES ARE FOR THE QUARTER (NOT YEAR-TO-DATE)

		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 COMMODO & OTH POSITIONS	TRADING REV FROM CREDIT POSITIONS
RANK	BANK NAME									
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$3,895	\$649	\$719	\$1,481	\$734	\$312
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	193	650	(448)	4	0	(13)
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	2,988	865	934	1,092	316	(219)
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	572	(24)	340	191	6	59
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,953,154	\$155,815,330	\$7,648	\$2,140	\$1,545	\$2,768	\$1,056	\$139
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,031,385	22,764,143	1,306	665	397	58	170	15
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	8,954	2,805	1,942	2,826	1,226	154

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 RC-L and 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
SEPTEMBER 30, 2020, 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	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$25,243,004	\$20,029,428	\$4,793,084	\$50,065,516	\$7,431,661	\$2,215,967	\$1,108,082	\$10,755,710
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	18,699,763	7,610,286	7,358,550	33,668,599	3,622,763	759,821	613,429	4,996,013
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32WEFA76	1,648,667	42,242,816	19,394,522	3,562,447	2,815,297	25,772,266	10,489,446	569,115	213,182	11,271,743
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	4,646,874	4,429,112	3,107,992	12,183,978	3,700,018	444,301	249,783	4,394,102
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,953,154	\$155,815,330	\$67,984,163	\$35,631,273	\$18,074,923	\$121,690,359	\$25,243,888	\$3,989,204	\$2,184,476	\$31,417,568
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,031,385	22,764,143	8,401,420	4,332,824	2,425,429	15,159,673	4,152,535	309,978	114,992	4,577,505
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	76,385,583	39,964,097	20,500,352	136,850,032	29,396,423	4,299,182	2,299,468	35,995,073
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. Note: 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-L and 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
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS

[illegible]

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 DERIVATIVES
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS

		LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	OTHER COMM MATURITY < 1 YR	OTHER COMM MATURITY 1 - 5 YRS	OTHER COMM MATURITY > 5 YRS	OTHER COMM ALL MATURITIES	EQUITY MATURITY < 1 YR	EQUITY MATURITY 1 - 5 YRS	EQUITY MATURITY > 5 YRS	EQUITY ALL MATURITIES
RANK	BANK NAME											
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$665,470	\$88,609	\$6,699	\$760,778	\$2,052,360	\$547,726	\$103,217	\$2,703,303
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	2,412	1,142	0	3,554	12,733	8,819	1,104	22,656
3	CITIBANK NATIONAL ASSN	E57ODZW27FF32TWEFA76	1,648,667	42,242,816	110,295	58,522	3,916	172,733	480,284	116,967	6,279	603,530
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	13,539	6,218	0	19,757	468,007	124,260	11,124	603,391
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,953,154	\$155,815,330	\$791,716	\$154,491	\$10,615	\$956,822	\$3,013,384	\$797,772	\$121,724	\$3,932,880
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,031,385	22,764,143	46,455	79,942	135	126,531	196,682	84,282	12,197	293,161
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	838,171	234,433	10,750	1,083,353	3,210,066	882,054	133,921	4,226,041
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 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
SEPTEMBER 30, 2020, 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	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$1,428,512	\$230,891	\$672,147	\$169,587	\$1,072,625	\$79,918	\$229,171	\$46,798	\$355,887
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	164,015	18,258	69,384	15,382	103,024	9,539	40,951	10,501	60,991
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	1,190,918	230,757	594,634	89,527	914,918	80,496	175,535	19,969	276,000
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,157,008	17,497,270	536,115	124,185	219,157	43,753	387,095	52,286	82,478	14,256	149,020
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,953,154	\$155,815,330	\$3,319,560	\$604,091	\$1,555,322	\$318,249	\$2,477,662	\$222,239	\$528,135	\$91,524	\$841,898
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,031,385	22,764,143	261,063	44,388	81,595	18,137	144,120	11,202	89,508	16,233	116,943
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	3,580,623	648,479	1,636,917	336,386	2,621,782	233,441	617,643	107,757	958,841
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
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS

		LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL CREDIT DERVATIVES	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
RANK	BANK NAME														
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,869,536	\$50,636,122	\$1,428,512	\$736,160	\$692,352	\$663,297	\$19,681	\$49,391	\$3,791	\$644,616	\$8,588	\$39,145	\$3
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	277,943	45,439,122	164,015	98,219	65,796	89,931	2,610	2,498	3,180	60,403	2,610	2,654	129
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,648,667	42,242,816	1,190,918	630,631	560,287	603,179	13,447	14,005	0	549,673	3,990	6,624	0
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	2,157,008	17,497,270	536,115	279,167	256,948	228,885	10,598	39,684	0	208,862	14,021	34,065	0
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,750,196	11,625,300	94,122	46,898	47,224	7,306	19,635	0	19,957	5,242	29,447	0	12,535
6	HSBC NA	1IE8VN30JCEQV1H4R804	202,543	3,019,035	78,638	44,981	33,657	37,032	7,950	0	0	33,417	240	0	0
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	268,733	2,723,221	0	0	0	0	0	0	0	0	0	0	0
8	BANK OF NEW YORK MELLON	HPFHU0OQ28E4N0NFVK49	349,432	919,428	165	165	0	165	0	0	0	0	0	0	0
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK857L73M02	530,497	650,405	10,314	3,590	6,724	1,117	0	0	2,473	0	0	0	6,724
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	457,454	478,521	11,088	3,789	7,299	13	0	0	3,776	0	0	0	7,299
11	TRUIST BANK	JJKC32MCHWDI71265Z06	488,016	300,525	10,178	3,780	6,398	738	1,482	0	1,560	0	0	0	6,398
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	151,629	267,399	0	0	0	0	0	0	0	0	0	0	0
13	TD BANK NATIONAL ASSN	03D0JEWFDFFUS0EEKG89	388,337	253,948	0	0	0	0	0	0	0	0	0	0	0
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	179,163	215,189	2,607	0	2,607	0	0	0	0	0	0	0	2,607
15	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	132,479	210,505	97	97	0	97	0	0	0	0	0	0	0
16	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDV0K75	360,261	171,298	5,934	2,390	3,543	0	0	0	2,390	0	0	0	3,543
17	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	45,841	146,926	22	5	17	5	0	0	0	17	0	0	0
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	200,454	142,340	5,014	1,493	3,521	0	0	0	1,493	0	0	0	3,521
19	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	144,473	133,234	7,186	2,791	4,395	43	0	0	2,748	43	0	0	4,352
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUUVH1BK78	168,974	123,395	487	108	379	108	0	0	0	287	93	0	0
21	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	138,246	95,476	0	0	0	0	0	0	0	0	0	0	0
22	MORGAN STANLEY BANK NA	G1MLHIS0N3Z1QPILB75	169,782	77,922	11,865	9,347	2,518	8,430	0	917	0	2,518	0	0	0
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	120,114	77,678	3,409	2,622	787	0	0	0	2,622	0	0	0	787
24	BBVA USA	C90VT034M03BN29IRA40	102,042	59,501	1,053	0	1,053	0	0	0	0	1,053	0	0	0
25	FIRST HORIZON BANK	COOWI3L2W9TPYR3WJX37	82,689	55,691	791	248	543	248	0	0	0	543	0	0	0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,384,509	\$177,562,265	\$3,562,531	\$1,866,482	\$1,696,049	\$1,640,594	\$75,403	\$106,495	\$43,990	\$1,506,673	\$58,989	\$82,488	\$47,899
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,600,030	1,017,207	18,093	8,262	9,831	319	2,903	0	5,040	1,438	2	0	8,391
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,984,539	178,579,473	3,580,623	1,874,744	1,705,880	1,640,913	78,306	106,495	49,030	1,508,111	58,991	82,488	56,290
					(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					99.5	52.1	47.4	45.8	2.1	3.0	1.2	42.1	1.6	2.3	1.3
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					0.5	0.2	0.3	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					100.0	52.4	47.6	45.8	2.2	3.0	1.4	42.1	1.6	2.3	1.6
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																
SEPTEMBER 30, 2020, MILLIONS OF DOLLARS																
Call Report Schedule SU																
A. Gross Notional Amount of Derivatives																
	3Q20	2Q20	1Q20	4Q19	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17	
Total gross notional amount of interest rate derivatives held for trading	\$6,236	\$5,183	\$4,476	\$2,293	\$2,526	\$913	\$1,131	\$623	\$751	\$736	\$684	\$542	\$729	\$749	\$655	
Total gross notional amount of all other derivatives held for trading	\$53	\$34	\$48	\$33	\$30	\$37	\$24	\$2	\$2	\$5	\$7	\$5	\$5	\$6	\$2	
Total gross notional amount of interest rate derivatives not held for trading	\$57,459	\$52,795	\$37,572	\$20,044	\$18,527	\$11,135	\$9,020	\$8,432	\$6,893	\$7,642	\$8,483	\$6,092	\$7,731	\$8,259	\$7,154	
Total gross notional amount of all other derivatives not held for trading	\$1,202	\$1,302	\$1,171	\$631	\$546	\$273	\$242	\$160	\$2,754	\$3,133	\$531	\$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	Data Not Reported	\$33,122	Data Not Reported	\$12,478	Data Not Reported	\$7,177	\$5,858	\$4,147	\$4,459	\$4,584	\$4,471	\$3,847	\$4,657	\$5,024	\$4,758	
b. Foreign exchange rate and gold		\$19		\$18		\$4	\$5	\$3	\$4	\$5	\$429	\$0	\$0	\$0	\$0	
c. Credit (investment grade reference asset)		\$199		\$166		\$39	\$41	\$35	\$17	\$14	\$14	\$13	\$14	\$8	\$4	
d. Credit (non-investment grade reference asset)		\$138		\$61		\$25	\$25	\$12	\$12	\$12	\$11	\$11	\$11	\$11	\$11	
e. Equity		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
g. Other		\$25		\$9		\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	
f. Precious metals (except gold)		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
B. Notional principal amounts of centrally cleared derivative contracts covered by the regulatory capital rules:																
a. Interest rate		\$299		\$96		\$168	\$686	\$1,937	\$2,731	\$3,169	\$129	\$249	\$343	\$178	\$158	
b. Foreign exchange rate and gold		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
c. Credit (investment grade reference asset)		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4	
d. Credit (non-investment grade reference asset)		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
e. Equity		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
f. Precious metals (except gold)		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
g. Other		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
C. Current credit exposure across all derivative contracts covered by the regulatory capital rules																
		\$504		\$140		\$95	\$59	\$49	\$76	\$119	\$62	\$44	\$57	\$49	\$39	
Source: Call reports, Schedule SU and Schedule RC-R																
**Beginning September 30, 2019, the eligibility to file the FFIEC 051 Call Report expanded from banks with total assets less than \$1 billion to include banks with less than \$5 billion in total assets.																
***Beginning September 30, 2019, banks filing the FFIEC 051 Call Report complete this information from schedule RC-R in the June and December reports only.																