

Quarterly Report on Bank Trading and Derivatives Activities

First Quarter 2020

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

June 2020

Contents

About This Report	1
Executive Summary	1
Revenue	2
Insured U.S. Commercial Banks and Savings Associations' Trading Revenue.....	2
Holding Company Trading Revenue	2
Bank Trading Revenue as a Percentage of Consolidated Holding Company Trading Revenue	3
Counterparty Credit Risk	3
Market Risk	8
Value-at-Risk	8
Volatility Index	8
Level 3 Trading Assets	9
Notional Amounts of All Derivative Contracts	10
Credit Derivatives	11
Compression Activity	12
Centrally Cleared Derivative Contracts	13
Glossary of Terms	14
Index of Tables and Figures.....	16
Appendix: Supplementary Graphs and Tables.....	17

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 1,360¹ insured U.S. commercial banks and savings associations reported trading and derivatives activities at the end of the first 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 first quarter of 2020, four large commercial banks represented 86.7 percent of the total banking industry notional amounts and 77.3 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 98th 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 the OCC by email: QuarterlyDerivatives@occ.treas.gov.

Executive Summary

- Insured U.S. commercial banks and savings associations (collectively, banks) reported trading revenue of \$6.7 billion in the first quarter of 2020, \$505.0 million less (7.0 percent) than in the previous quarter and \$3.3 billion less (33.4 percent) than a year earlier (see table 1).
- Credit exposure from derivatives increased in the first quarter of 2020 compared with the fourth quarter of 2019. NCCE increased \$227.0 billion, or 61.7 percent, to \$594.0 billion (see table 5).
- Derivative notional amounts increased in the first quarter of 2020 by \$26.0 trillion, or 15.2 percent, to \$197.5 trillion (see table 10).
- Derivative contracts remained concentrated in interest rate products, which totaled \$146.0 trillion or 73.9 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 \$6.7 billion in trading revenue in the first quarter of 2020, \$505.0 million less (7.0 percent) than in the previous quarter and \$3.3 billion less (33.4 percent) than a year earlier (see table 1). The year-over-year decrease in trading revenue was primarily driven by decreases in equity derivatives and credit derivatives. 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

	1Q 2020	4Q 2019	Q/Q Change	Q/Q % Change	1Q 2019	Y/Y Change	Y/Y % Change
Interest rate and foreign exchange	\$7,116	\$5,133	\$1,983	38.6%	\$6,332	\$785	12.4%
Equity	-\$1,040	\$1,427	-\$2,467	-172.9%	\$2,895	-\$3,935	-135.9%
Commodity and other	\$646	\$600	\$47	7.7%	\$323	\$323	100.0%
Credit	-\$35	\$34	-\$69	-201.6%	\$485	-\$520	-107.1%
Total trading revenue	\$6,688	\$7,194	-\$505	-7.0%	\$10,035	-\$3,347	-33.4%

Source: Call reports, Schedule RI

Holding Company Trading Revenue

Consolidated bank holding company (BHC) trading performance provides a more complete picture of trading revenue in the banking system. As shown in table 2, consolidated holding company trading revenue of \$9.0 billion in the first quarter of 2020 was \$6.4 billion (41.4 percent) lower than in the previous quarter. The quarter-over-quarter decrease in trading revenue was driven by a decrease in equity derivatives. Year-over-year holding company trading revenue decreased by \$15.8 billion (63.6 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

	1Q 2020	4Q 2019	Q/Q change	Q/Q % change	1Q 2019	Y/Y change	Y/Y % change
Interest rate and foreign exchange	\$11,660	\$6,893	\$4,767	69.2%	\$11,440	\$220	1.9%
Equity	-\$4,546	\$7,387	-\$11,933	-161.5%	\$9,215	-\$13,761	-149.3%
Commodity and other	\$1,664	\$981	\$683	69.6%	\$1,298	\$366	28.2%
Credit	\$257	\$159	\$98	61.6%	\$2,903	-\$2,646	-91.1%
Total HC trading revenue	\$9,036	\$15,419	-\$6,384	-41.4%	\$24,856	-\$15,820	-63.6%

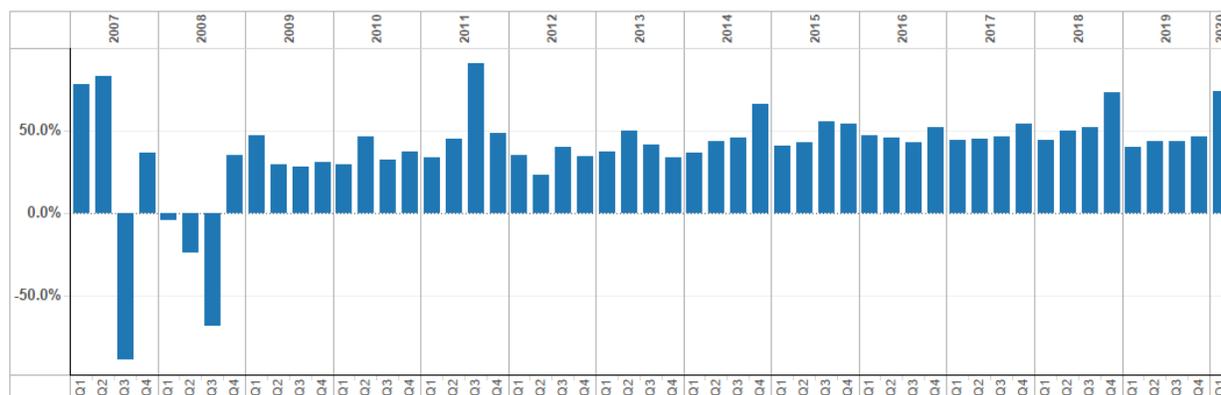
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

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

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

In the first quarter of 2020, banks generated 74.0 percent of consolidated holding company trading revenue, an increase from 46.7 percent in the previous quarter (see figure 1). The increase in the percentage of trading revenue generated by banks resulted from the sharp decline in trading revenue from equity derivatives, which are a much larger component of the consolidated holding company trading revenue.

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



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

Counterparty Credit Risk

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

Credit risk in derivatives differs from credit risk in loans because of the more uncertain nature of the potential credit exposure. Because the credit exposure is a function of movements in market

factors, banks do not know, and can only estimate, how much the value of the derivative contract might be at various points in the future.

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

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

GPFV increased by \$1.0 trillion (54.1 percent) in the first quarter of 2020 to \$3.0 trillion, primarily driven by a \$566 billion (43.7 percent) increase in receivables from interest rate contracts (see table 3). GNFV increased \$1.0 trillion (54.4 percent) to \$2.9 trillion during the quarter, primarily driven by a \$568 billion (45.6 percent) increase in payables on interest rate contracts.

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

	1Q 2020	4Q 2019	Q/Q Change	Q/Q % Change	1Q 2019	Y/Y Change	Y/Y % Change
Interest rate	\$1,863	\$1,296	\$566	43.7%	\$1,130	\$732	64.8%
Foreign exchange	\$752	\$423	\$328	77.5%	\$444	\$308	69.4%
Equity	\$196	\$120	\$76	63.0%	\$117	\$78	66.8%
Commodities	\$104	\$38	\$66	172.7%	\$33	\$71	216.4%
Credit	\$54	\$47	\$7	13.6%	\$43	\$11	24.8%
Gross positive fair value	\$2,968	\$1,925	\$1,043	54.1%	\$1,767	\$1,201	67.9%

	1Q 2020	4Q 2019	Q/Q Change	Q/Q % Change	1Q 2019	Y/Y Change	Y/Y % Change
Interest rate	\$1,814	\$1,246	\$568	45.6%	\$1,076	\$738	68.6%
Foreign exchange	\$768	\$431	\$336	78.0%	\$433	\$335	77.3%
Equity	\$186	\$121	\$65	53.3%	\$118	\$68	58.1%
Commodities	\$94	\$39	\$55	138.8%	\$34	\$61	180.0%
Credit	\$52	\$48	\$3	6.4%	\$45	\$6	14.2%
Gross negative fair value	\$2,914	\$1,887	\$1,027	54.4%	\$1,706	\$1,208	70.8%

Source: Call reports, Schedule RC-L

A legally enforceable netting agreement between a bank and a counterparty creates a single legal obligation for all transactions (called a “netting set”) under the agreement. Therefore, when

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

Table 4: Netting Contract Examples

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

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

NCCE is the primary metric the OCC uses to evaluate credit risk in bank derivative activities. NCCE for insured U.S. commercial banks and savings associations increased by \$227.0 billion (61.7 percent) to \$594.0 billion in the first quarter of 2020 (see table 5).² Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 80.0 percent (\$2.4 trillion) in the first quarter of 2020.

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

	1Q 2020	4Q 2019	Q/Q Change	Q/Q % Change
Gross positive fair value	\$2,968	\$1,925	\$1,042	54.1%
NCCE RC-R	\$594	\$368	\$227	61.7%
Netting benefit RC-R	\$2,374	\$1,558	\$816	52.4%
Netting benefit % RC-R	80.0%	80.9%		-0.9%

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

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.

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. The increase in NCCE since last quarter resulted from the sharp drop in interest rates in March 2020 due to the growing financial impact of the COVID-19 global pandemic. The GPFV from interest rate contracts has fallen from \$5.1 trillion at the end of 2008 to \$1.9 trillion at the end of the first quarter of 2020 (see table 3). In addition, on March 31, 2020, exposure from credit contracts was \$54.0 billion, which is \$1.0 trillion lower (95.1 percent) than the \$1.1 trillion on December 31, 2008 (see table 3).

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 (39.4 percent) and in corporations and other counterparties (50.7 percent) (see table 6). The combined exposure to hedge funds and sovereign governments was small (9.9 percent in total).

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

	Banks and securities firms	Hedge funds	Sovereign governments	Corp and all other counterparties
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%
4Q 2015	53.3%	2.1%	6.0%	38.5%

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 92.6 percent of their total NCCE at the end of the first quarter of 2020, down from 114.5 percent in the fourth quarter of 2019 (see table 7). Collateral held against hedge fund exposures decreased in the first quarter,

but coverage remains very high at 230.8 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 %
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%
4Q 2015	101.6%	435.5%	15.6%	66.2%	89.6%

Source: Call reports, Schedule RC-L

The majority of collateral held by banks against NCCE is very liquid with 67.1 percent held in cash (both U.S. dollar and non-dollar) and an additional 12.3 percent held in U.S. Treasuries and 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. gov. agency	Corp bonds	Equity securities	All other collateral
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%
4Q 2015	43.7%	31.7%	4.6%	1.6%	1.4%	5.3%	11.7%

Source: Call reports, Schedule RC-L

Credit quality metrics for derivative exposures remained relatively stable in the first quarter of 2020, as banks reported net charge-offs of \$82.7 million, compared with net recoveries of \$1.5 million in the fourth quarter of 2019 (see graph 7 in the appendix). The number of banks reporting charge-offs increased from 10 to 14 banks. Net charge-offs in the first quarter of 2020 represented 0.0139 percent of the NCCE from derivative contracts. For comparison purposes, commercial and industrial (C&I) loan net charge-offs increased \$535.5 million, or 24.7 percent, to \$2.7 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
1Q 2020 Average 60 Day VaR	\$254	\$109	\$53	\$176
4Q 2019 Average 60 Day VaR	\$120	\$64	\$71	\$128
Q/Q Change	\$134	\$46	-\$18	\$49
1Q 2020 Total Risk-Based Capital	\$223,578	\$151,654	\$165,532	\$31,099

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
1Q 2020 VaR Capital Requirement	\$762	\$327	\$158	\$529
4Q 2019 VaR Capital Requirement	\$361	\$191	\$212	\$384
Q/Q Change	\$402	\$137	-\$54	\$146
1Q 2020 Total Risk-Based Capital	\$223,578	\$151,654	\$165,532	\$31,099

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. The chart illustrates that

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

there has been an extended period of low volatility since the end of the financial crisis that continued until late in the current quarter. 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 still elevated level at the quarter's end.

Figure 3: Volatility Index (VIX)

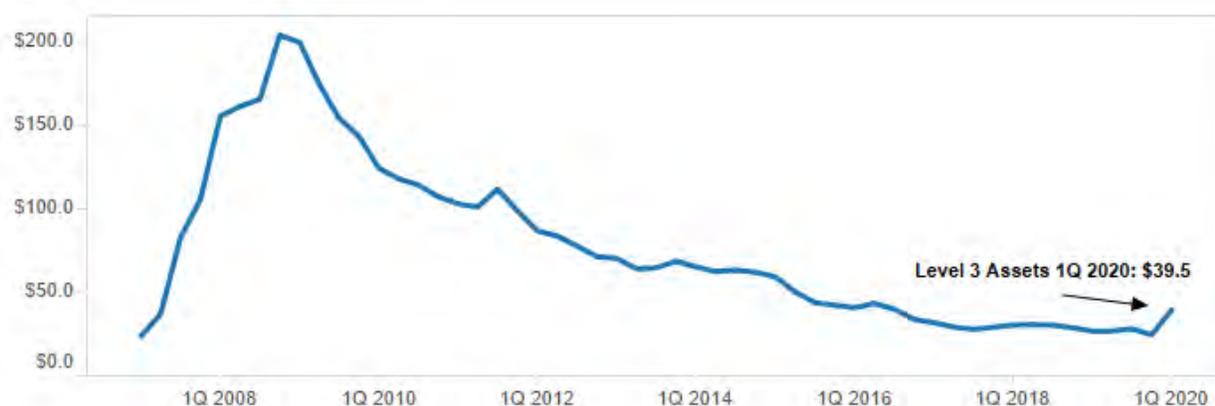


Source: Bloomberg

Level 3 Trading Assets

Another measure used to assess market risk is the volume of and changes in level 3 trading assets. Level 3 trading assets are assets whose fair value cannot be determined by using observable inputs, such as market prices. Since the peak of the financial crisis at the end of 2008, major dealers have reduced the volume of level 3 trading assets. Because banks cannot observe inputs into the models that determine the fair value of these illiquid exposures, banks use their own assumptions in determining their fair values. Level 3 trading assets peaked at \$204.1 billion at the end of 2008 (see figure 4). At the end of the first quarter of 2020, banks held \$39.5 billion of level 3 trading assets, up 61.1 percent from the previous quarter, and 48.0 percent higher than a year ago. Level 3 trading assets are \$164.6 billion (80.6 percent) lower than the peak level from 2008.

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 first quarter increased by \$26.0 trillion (15.2 percent) to \$197.5 trillion from the previous quarter (see table 10). The increase in the notional amount of derivative contracts by underlying risk exposure was driven by increases across the majority of notional classes. Interest rate notional amounts continued to represent the majority of banks' derivative holdings at \$146.0 trillion, or 73.9 percent of total derivatives (see table 10).

The increase in the total notional amount of derivative contracts by contract type was driven by increases across the majority of notional classes (see table 11). Swap contracts remained the leading derivatives contract type at 56.0 percent of all notional amounts.

The four banks with the most derivative activity hold 86.7 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 further information).

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

	1Q 2020	4Q 2019	Q/Q Change	Q/Q % Change	1Q 2019	YY Change	YY % Change
Interest rate	\$146,027	\$125,056	\$20,971	16.8%	\$149,185	-\$3,158	-2.1%
Foreign exchange	\$42,181	\$37,170	\$5,011	13.5%	\$42,899	-\$717	-1.7%
Equity	\$3,662	\$3,796	-\$135	-3.5%	\$3,675	-\$14	-0.4%
Commodity	\$1,644	\$1,495	\$149	9.9%	\$1,377	\$266	19.3%
Credit derivatives	\$3,986	\$3,945	\$42	1.1%	\$4,145	-\$159	-3.8%
Total notional	\$197,500	\$171,462	\$26,038	15.2%	\$201,282	-\$3,781	-1.9%

Source: Call reports, Schedule RC-L

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

	1Q 2020	4Q 2019	Q/Q Change	Q/Q % Change	1Q 2019	YY Change	YY % Change
Futures and forwards	\$46,804	\$34,787	\$12,017	34.5%	\$46,165	\$639	1.4%
Swaps	\$110,599	\$96,614	\$13,985	14.5%	\$106,833	\$3,766	3.5%
Options	\$36,111	\$36,117	-\$6	0.0%	\$44,138	-\$8,027	-18.2%
Credit derivatives	\$3,986	\$3,945	\$42	1.1%	\$4,145	-\$159	-3.8%
Total notional	\$197,500	\$171,462	\$26,038	15.2%	\$201,282	-\$3,781	-1.9%

Source: Call reports, Schedule RC-L

Credit Derivatives

The notional amounts of credit derivatives increased \$42.0 billion (1.1 percent), to \$4.0 trillion, in the first quarter of 2020 (see table 10). Contracts referencing investment-grade firms decreased \$106.0 billion and contracts referencing sub-investment-grade firms increased \$148.0 billion in the first 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 \$3.5 trillion (87.5 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 \$1.8 trillion or 45.1 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are \$2.9 trillion or 72.5 percent of the market (see the chart on the right in figure 5).

Figure 5: 1Q 2020 Credit Derivative Composition, in Billions of Dollars



Source: Call reports, Schedule RC-L

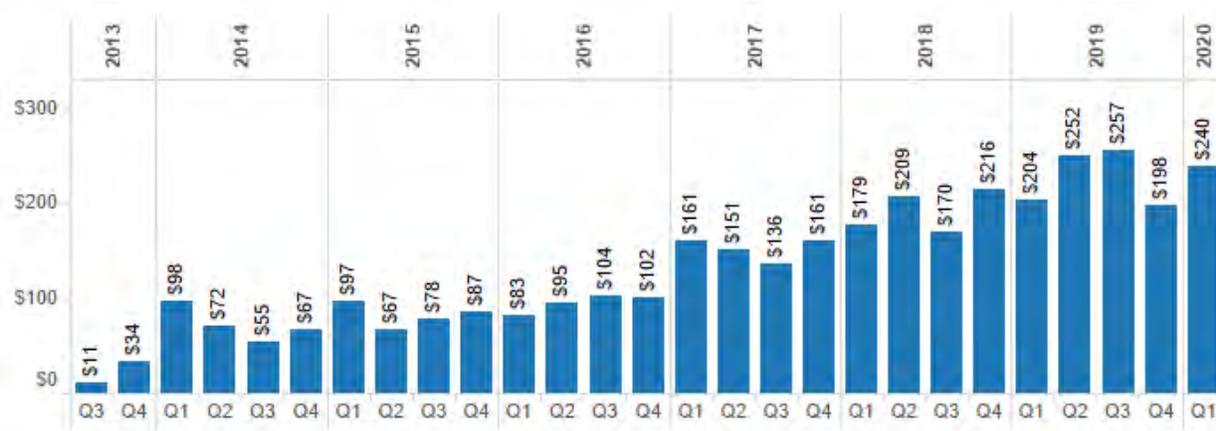
The notional amount for the 88 banks that net sold credit protection (i.e., assumed credit risk) was \$1.9 trillion, up \$26.9 billion (1.4 percent) from the fourth quarter of 2019 (see table 12 in the appendix). The notional amount for the 72 banks that net purchased credit protection (i.e., hedged credit risk) was \$2.1 trillion, \$14.9 billion higher (0.7 percent) than in the fourth quarter of 2019 (see table 12 in the appendix).

Compression Activity

Notional amounts of banks' derivative contracts have generally declined since 2011 because of trade compression efforts, leading to less need for risk management products. Trade compression continues to be a significant factor in reducing the amount of notional derivatives outstanding.

Trade compression aggregates a large number of swap contracts with similar factors, such as risk or cash flows, into fewer trades. Compression removes economic redundancy in a derivative book and reduces operational risk and capital costs for large banks. Trade compression activities increased in the first quarter of 2020, as shown in figure 6.

Figure 6: Quarterly Compression Activity, in Trillions of Dollars



Source: LCH Clearent

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 first quarter of 2020, 42.3 percent of banks' derivative holdings were centrally cleared (see table 12). From a market factor perspective, 52.9 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 34.4 percent of credit derivative transactions were centrally cleared during the first quarter of 2020.

Centrally cleared derivative transactions were heavily concentrated at qualifying central counterparties, with 91.6 percent of notional amounts reflecting the 2 percent risk weight applicable to such counterparties.

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

	Interest rate	Foreign exchange	Equity	Precious metals	Credit	Other	Total
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%
4Q 2018	51.0%	1.2%	25.7%	8.0%	29.3%	17.5%	39.8%

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.

Index of Tables and Figures

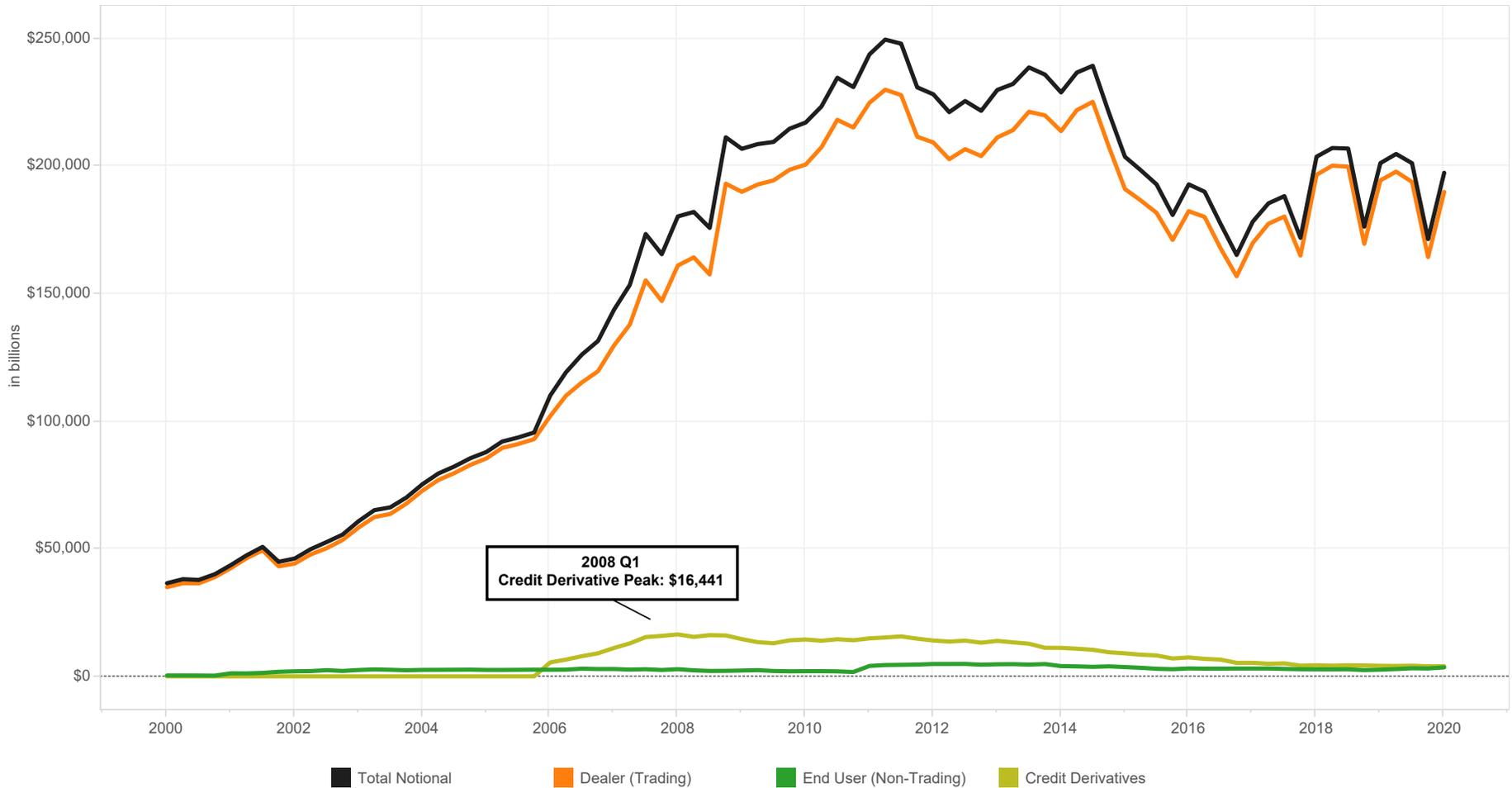
Table 1: Quarterly Bank Trading Revenue, in Millions of Dollars	2
Table 2: Quarterly Holding Company Trading Revenue, in Millions of Dollars.....	2
Figure 1: Bank Trading Revenue as a Percentage of Consolidated Holding Company Trading Revenue	3
Table 3: Gross Positive Fair Values and Gross Negative Fair Values, in Billions of Dollars.....	4
Table 4: Netting Contract Examples.....	5
Table 5: Net Current Credit Exposure, in Billions of Dollars	5
Figure 2: Net Current Credit Exposure, in Billions of Dollars	6
Table 6: NCCE by Counterparty Type as a Percentage of Total NCCE	6
Table 7: Ratio of Fair Value Collateral to Net Current Credit Exposure	7
Table 8: Composition of Collateral.....	7
Table 9a: Value-at-Risk, in Millions of Dollars	8
Table 9b: Value-at-Risk Capital Requirement, in Millions of Dollars	8
Figure 3: Volatility Index (VIX).....	9
Figure 4: Level 3 Trading Assets, in Billions of Dollars	10
Table 10: Derivative Notional Amounts by Underlying Risk Exposure Quarter-Over-Quarter, in Billions of Dollars.....	11
Table 11: Derivative Notional Amounts by Contract Type Quarter-Over-Quarter, in Billions of Dollars.....	11
Figure 5: 1Q 2020 Credit Derivative Composition, in Billions of Dollars.....	12
Figure 6: Quarterly Compression Activity, in Trillions of Dollars	122
Table 12: Centrally Cleared Derivative Contracts as a Percentage of Total Derivative Contracts.....	13

Appendix: Supplementary Graphs and Tables

- Graph 1. Derivative Notional Amounts by Type
- Graph 2. Derivative Contracts by Product
- Graph 3. Derivative Contracts by Type
- Graph 4. Four Banks Dominate in Derivatives
- Graph 5. Credit Exposure to Risk-Based Capital (in Percentage)
- Graph 6. Netting Benefit: Amount of Gross Credit Exposure Eliminated Through Bilateral Netting
- Graph 7. Quarterly Charge-Offs/(Recoveries) From Derivatives—Bank
- Graph 8. Quarterly Charge-Offs/(Recoveries) From Derivatives—Holding Company
- Graph 9a. Quarterly Trading Revenue (Cash and Derivative Positions)—Bank
- Graph 9b. Quarterly Trading Revenue (Cash and Derivative Positions)—Holding Company
- Graph 10. Quarterly Trading Revenue (Cash and Derivative Positions) as a Percentage of Gross Revenue (in Percentage)
- Graph 11. Notional Amounts of Interest Rate and FX + Gold Contracts by Maturity
- Graph 12. Notional Amounts of Precious Metal Contracts by Maturity
- Graph 13. Notional Amounts of Commodity and Equity Contracts by Maturity
- Graph 14. Notional Amounts of Credit Derivative Contracts by Credit Quality and Maturity
- Graph 15. Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts
- Graph 16. Average 60 Day VaR

- Table 1. Notional Amounts of Derivative Contracts
- Table 2. Notional Amounts of Derivative Contracts (Holding Companies)
- Table 3. Distribution of Derivative Contracts
- Table 4. Credit Equivalent Exposures
- Table 5. Notional Amounts of Derivative Contracts Held for Trading
- Table 6. Gross Fair Values of Derivative Contracts
- Table 7. Trading Revenues From Cash Instruments and Derivatives
- Table 8. Notional Amounts of Derivative Contracts by Contract Type and Maturity (Interest Rate, FX, and Gold)
- Table 9. Notional Amounts of Derivative Contracts by Contract Type and Maturity (Precious Metals)
- Table 10. Notional Amounts of Derivative Contracts by Contract Type and Maturity (Other Commodity and Equity)
- Table 11. Notional Amounts of Credit Derivative Contracts by Contract Type and Maturity (Investment Grade and Sub-Investment Grade)
- Table 12. Distribution of Credit Derivative Contracts Held for Trading
- Table 13. Derivatives Data Reported by FFIEC 051 Filers

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

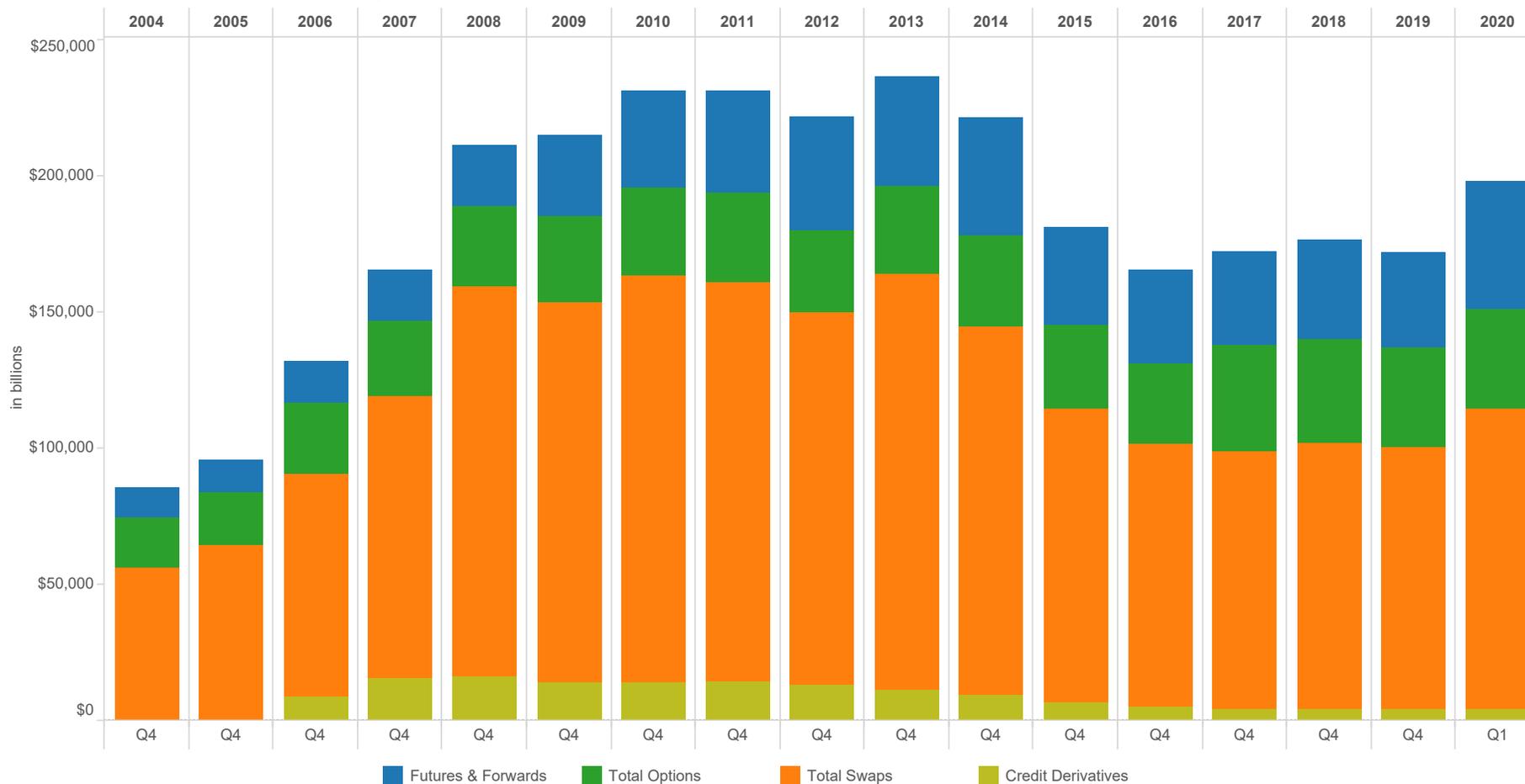


In billions of dollars

	2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1												
Total Notional	\$192,952	\$190,057	\$177,466	\$165,252	\$178,335	\$185,522	\$188,351	\$171,973	\$203,795	\$207,202	\$206,995	\$176,353	\$201,282	\$204,874	\$201,256	\$171,462	\$197,500
Dealer (Trading)	182,437	180,186	167,873	156,901	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
End User (Non-Trading)	3,097	3,018	3,030	3,057	3,061	3,069	2,917	2,785	2,737	2,737	2,763	2,447	2,619	2,850	3,162	3,077	3,518
Credit Derivatives	7,418	6,853	6,562	5,293	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

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

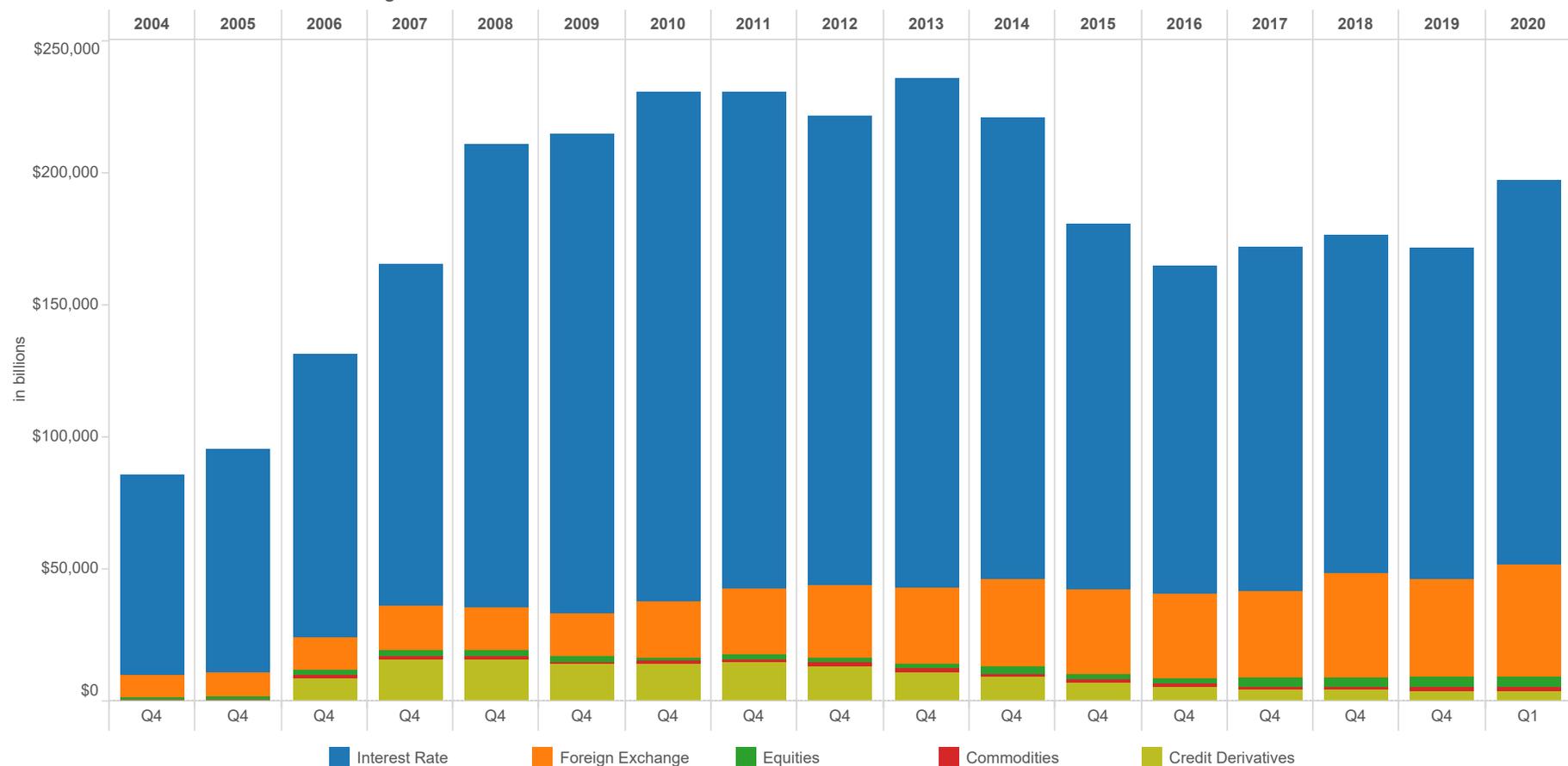


In billions of dollars

	2005 Q4	2006 Q4	2007 Q4	2008 Q4	2009 Q4	2010 Q4	2011 Q4	2012 Q4	2013 Q4	2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4	2019 Q4	2020 Q1
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
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
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
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
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	197,500

*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

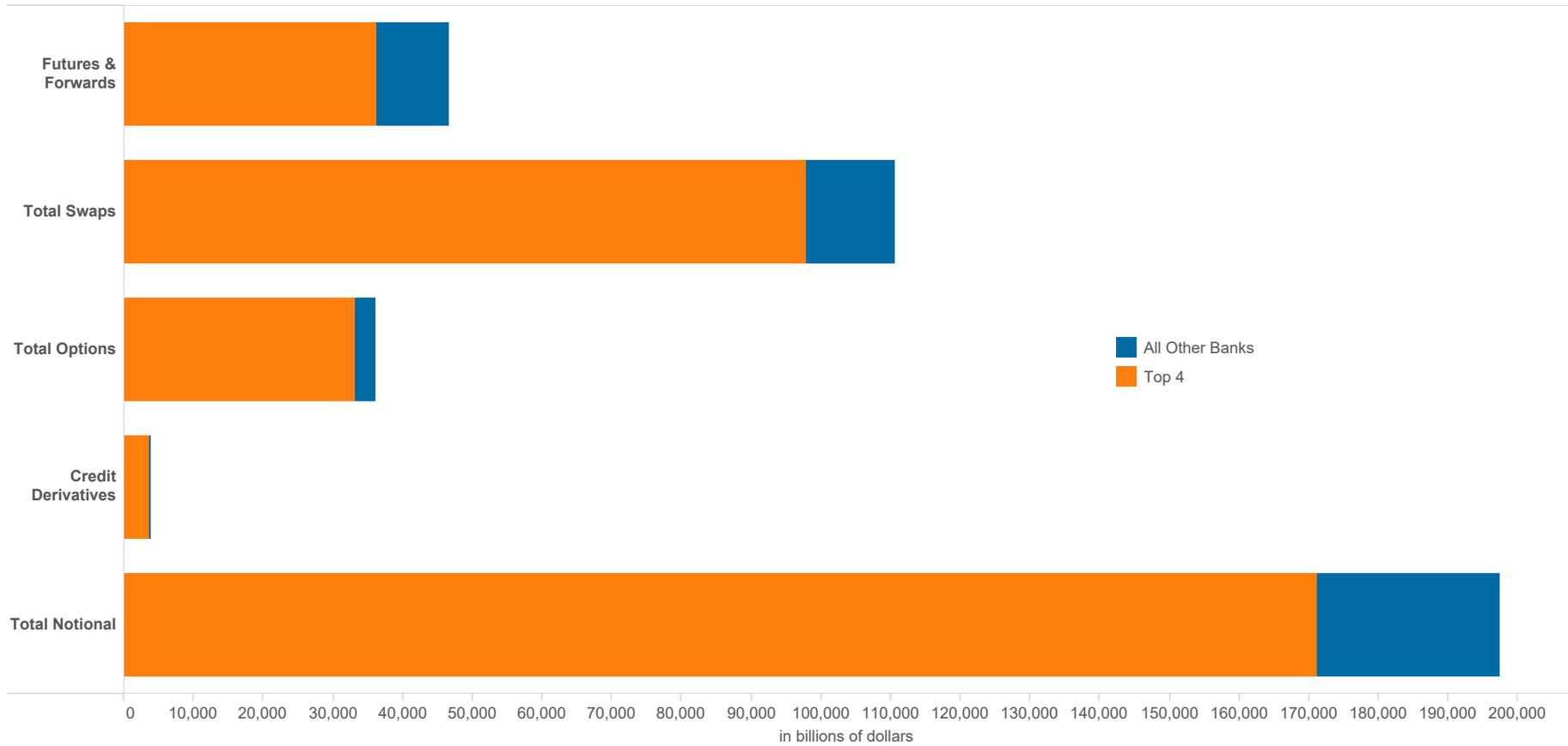


In billions of dollars

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
	Q4	Q1													
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
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
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
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
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
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	197,500

*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

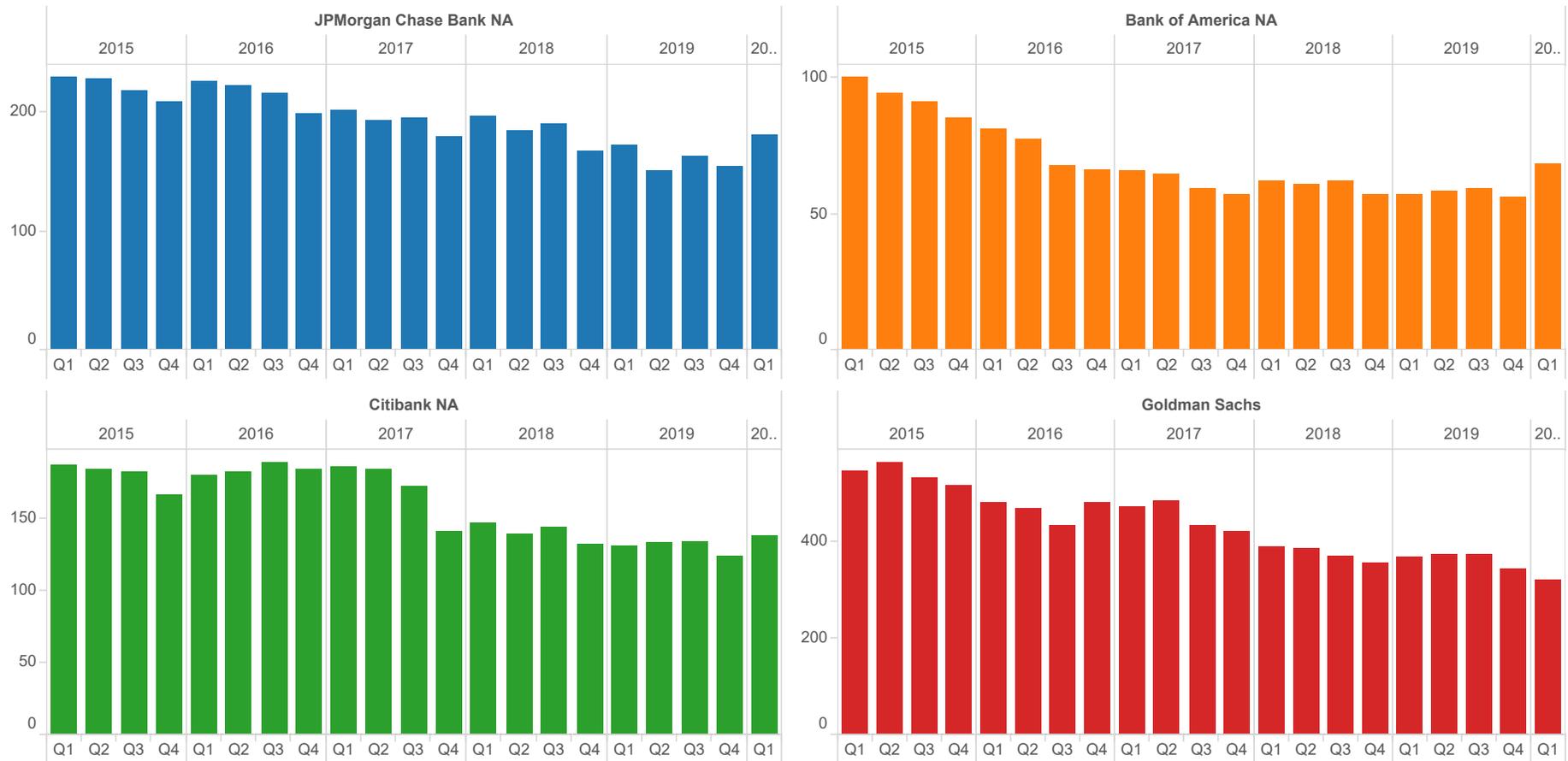


In billions of dollars

	Top 4	All Other Banks	Grand Total
Futures & Forwards	\$36,267	\$10,537	\$46,804
Total Swaps	98,053	12,546	110,599
Total Options	33,263	2,848	36,111
Credit Derivatives	3,721	266	3,986
Total Notional	171,303	26,197	197,500

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

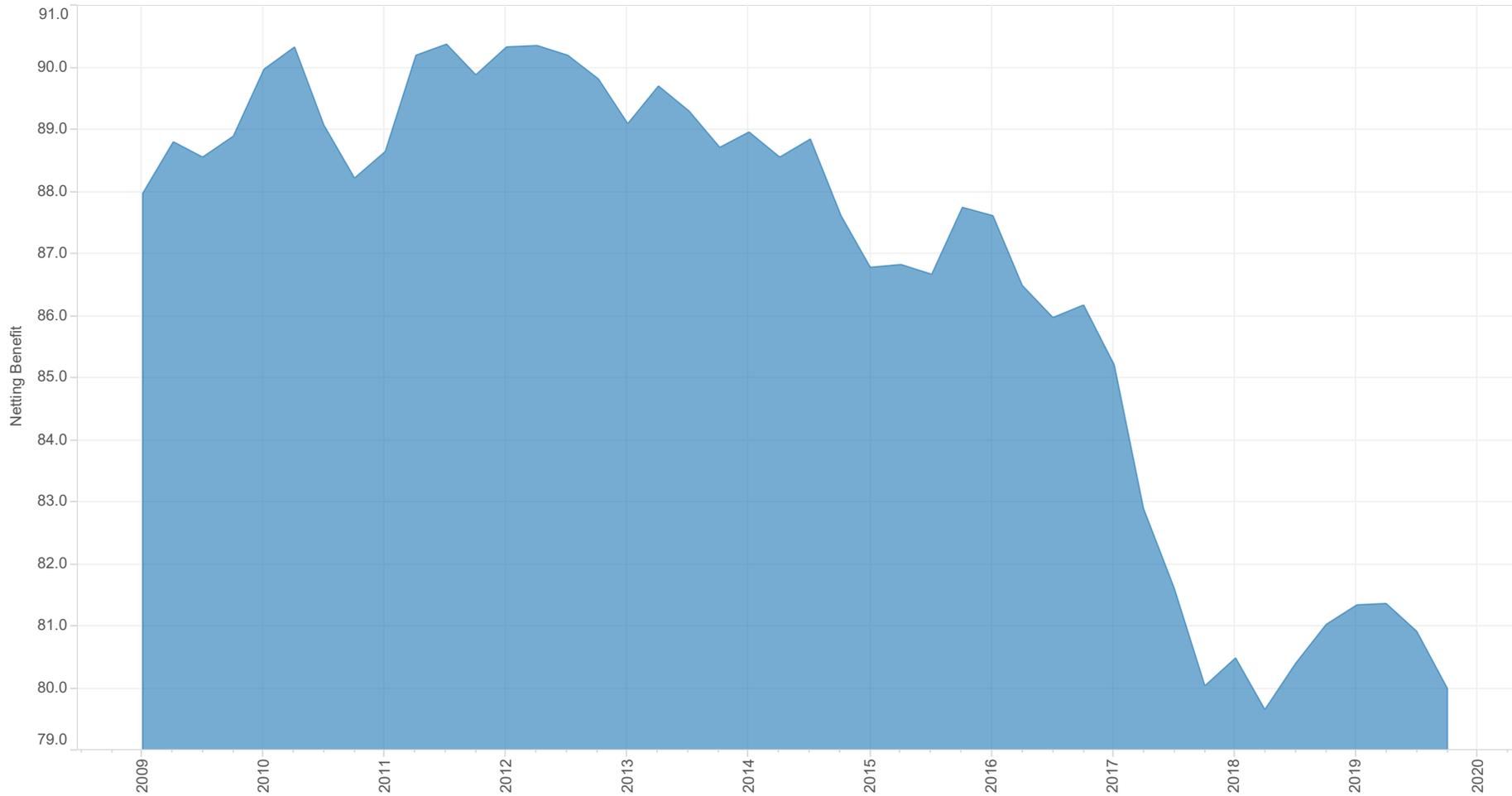
Graph 5
Credit Exposure to Risk-Based Capital (in Percentage)
Top 4 Insured U.S. Commercial Banks and Savings Associations by Derivative Holdings



	2012				2013				2014				2015				2016				2017				2018				2019				20..
	Q1	Q2	Q3	Q4	Q1																												
JPMorgan Chase Bank NA	250	246	247	229	219	216	205	183	183	189	181	177	229	228	219	209	225	221	216	199	201	193	195	179	197	184	190	167	173	150	163	153	181
Bank of America NA	149	141	139	132	129	125	121	117	109	107	107	93	100	95	91	85	81	77	68	66	66	64	59	57	62	61	62	57	58	58	59	56	68
Citibank NA	172	171	170	170	165	164	161	148	147	156	190	173	187	184	181	166	180	181	188	183	186	184	171	140	146	139	144	132	130	132	134	124	138
Goldman Sachs	751	738	727	705	703	693	719	741	689	620	539	516	547	563	530	516	482	467	433	481	472	484	433	420	389	384	371	354	366	372	372	344	319
TOTAL	Q1	Q2	Q3	Q4	Q1																												
	284	282	281	271	261	258	262	262	248	240	224	211	238	242	232	223	226	222	217	220	220	218	205	191	195	187	188	173	178	169	176	164	173

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

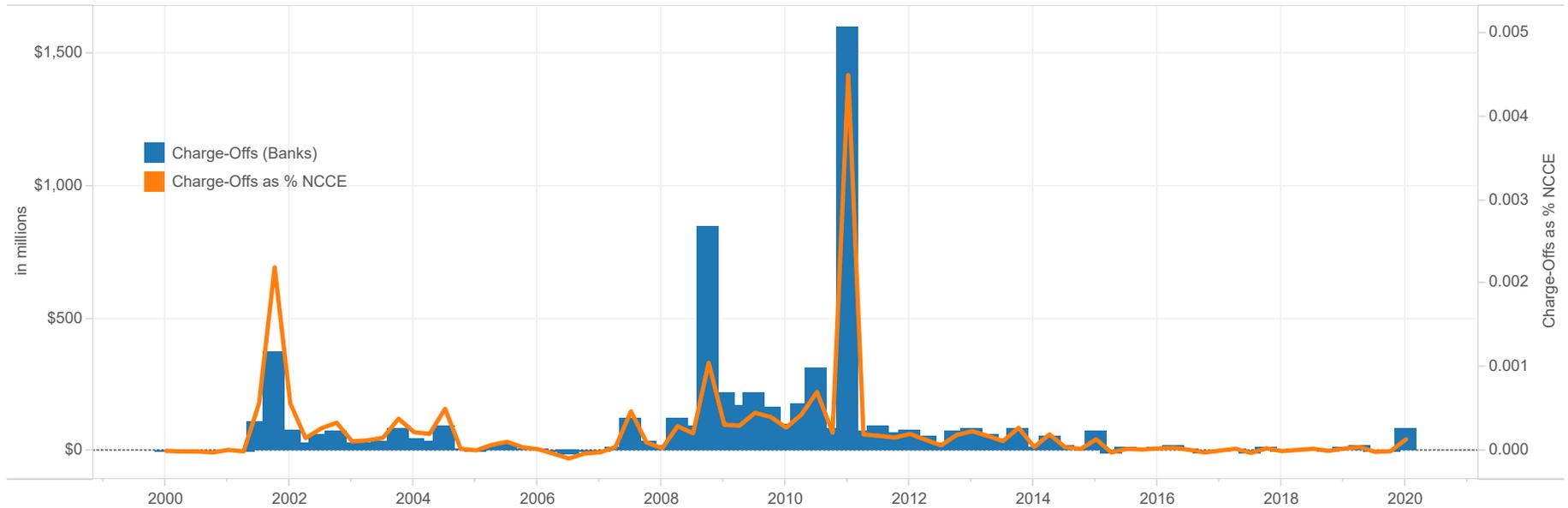


Netting Benefit

2011				2012				2013				2014				2015				2016				2017				2018				2019				20..
Q1	Q2	Q3	Q4	Q1																																
88.2	88.6	90.2	90.4	89.9	90.3	90.3	90.2	89.8	89.1	89.7	89.3	88.7	88.9	88.6	88.8	87.6	86.8	86.8	86.7	87.7	87.6	86.5	86.0	86.2	85.2	82.9	81.6	80.0	80.5	79.7	80.4	81.0	81.3	81.4	80.9	80.0

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

Graph 7
Quarterly Charge-Offs/(Recoveries) From Derivatives - Bank
Insured U.S. Commercial Banks and Savings Associations with Derivatives



In millions of dollars

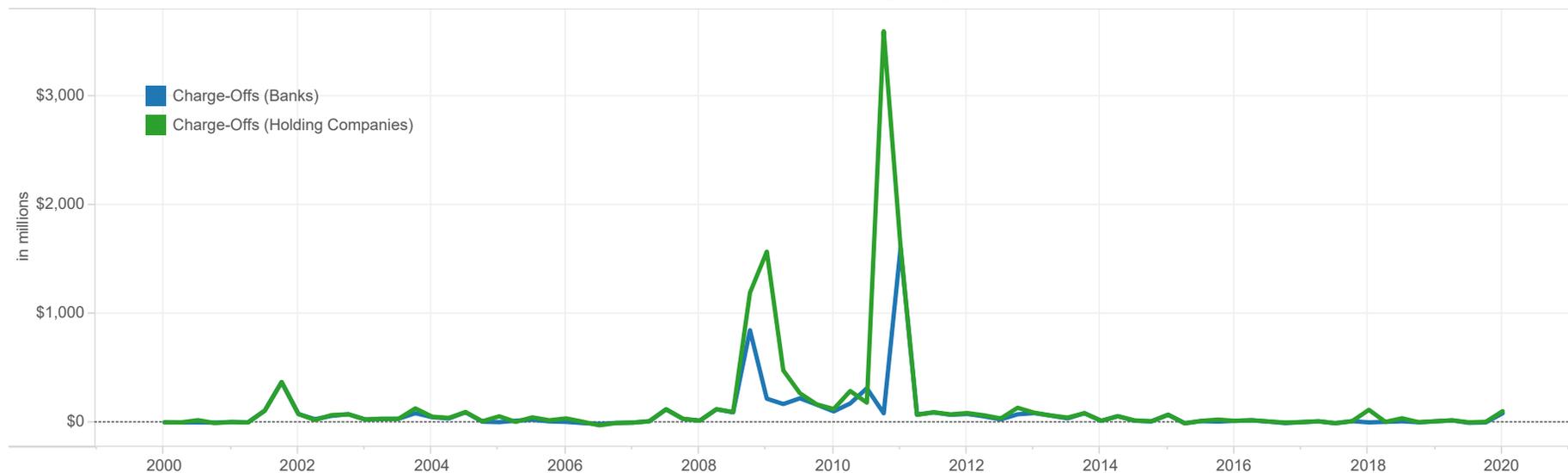
	2000				2001				2002				2003				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Charge-Offs (Banks)	0.0	-1.0	-1.0	-3.0	2.0	-1.0	107.3	370.0	75.8	28.2	59.0	73.7	25.3	29.9	32.3	83.7	
	2004				2005				2006				2007				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Charge-Offs (Banks)	46.7	34.9	92.2	5.4	1.3	14.2	23.0	8.3	3.6	-7.0	-16.0	-5.8	-3.1	9.1	119.5	30.7	
	2008				2009				2010				2011				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Charge-Offs (Banks)	15	120	92	847	217	168	221	162	100	173	313	83	1,601	72	91	69	
	2012				2013				2014				2015				
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	
Charge-Offs (Banks)	76.35	54.34	26.12	73.44	84.28	60.72	35.77	83.45	12.78	55.90	14.53	7.91	69.31	-7.93	10.44	6.40	
	2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
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

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

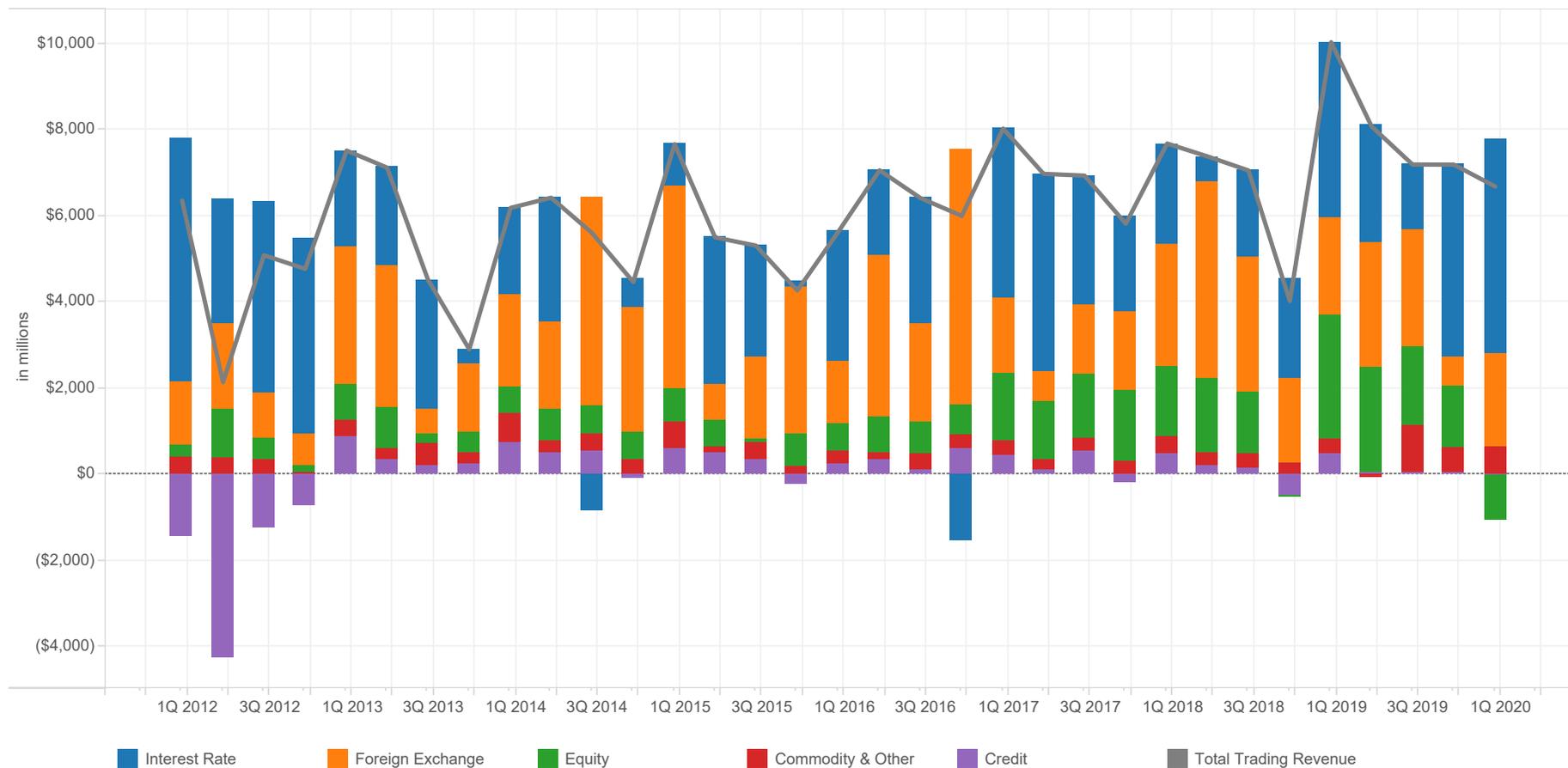


In millions of dollars

	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	313	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
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
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

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

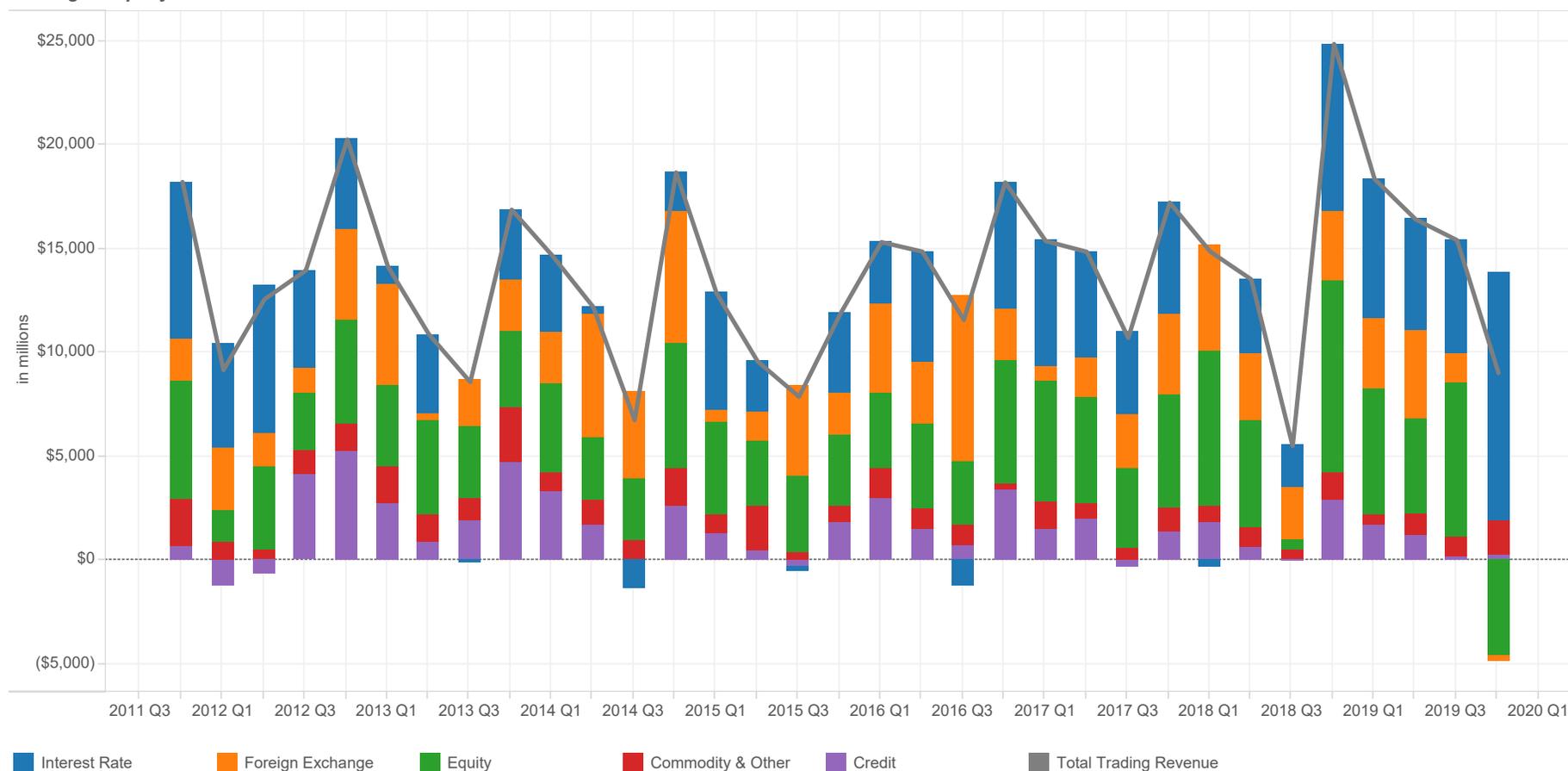


In millions of dollars

	2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Interest Rate	\$3,023	\$1,973	\$2,920	(\$1,547)	\$3,917	\$4,586	\$3,011	\$2,220	\$2,317	\$587	\$1,998	\$2,305	\$4,078	\$2,730	\$1,523	\$4,471	\$4,950
Foreign Exchange	1,424	3,719	2,294	5,941	1,743	697	1,608	1,811	2,861	4,569	3,130	1,971	2,254	2,900	2,718	662	2,167
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
Commodity & Other	271	161	353	296	330	211	300	324	395	286	346	274	323	-43	1,109	600	646
Credit	263	342	118	634	447	128	566	-178	487	215	141	-476	485	30	43	34	-34
Total Trading Revenue	5,650	7,062	6,420	6,006	8,031	6,981	6,940	5,824	7,684	7,384	7,059	4,030	10,035	8,081	7,198	7,194	6,688

*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

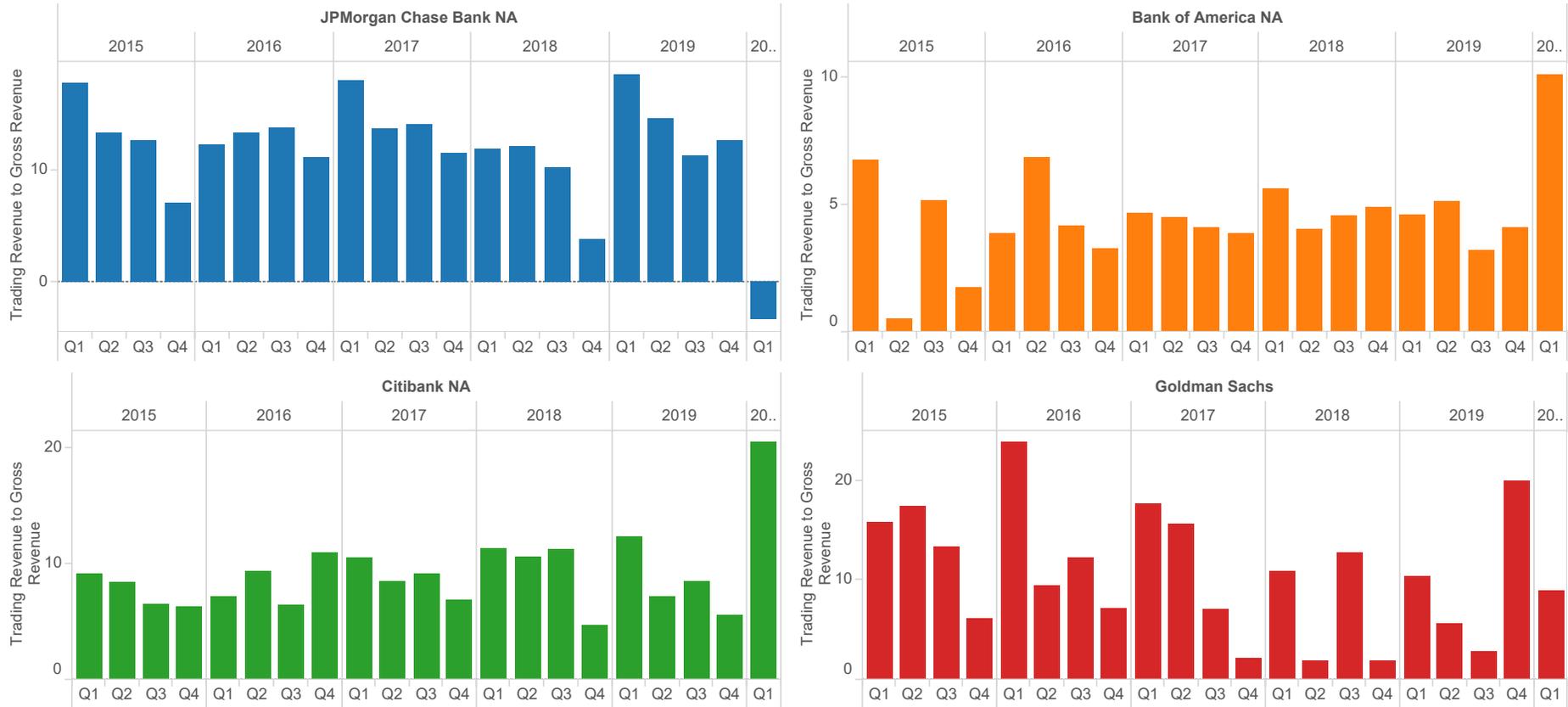


In millions of dollars

	2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
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	\$8,044	\$6,728	\$5,363	\$5,431	\$11,948
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	1,462	-288
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	-4,546
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
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
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	24,856	18,359	16,423	15,419	9,036

*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



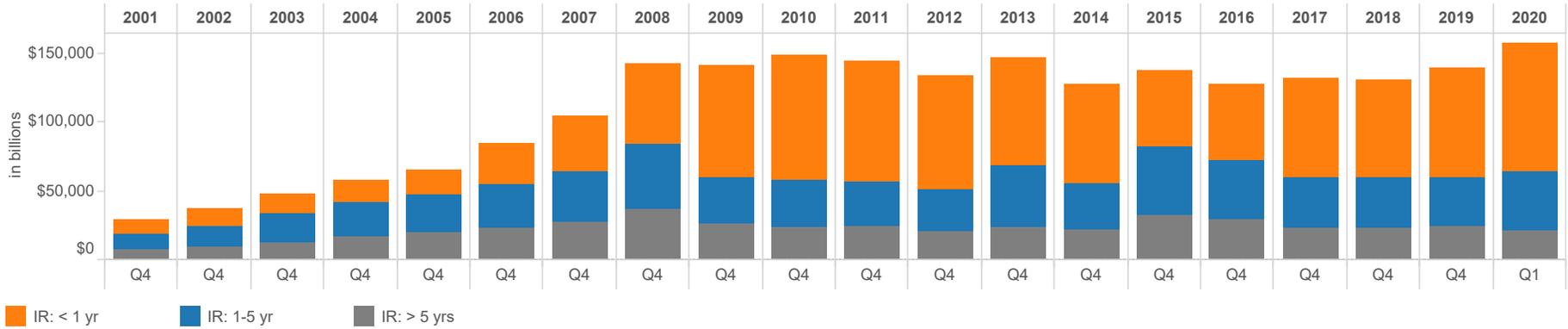
Trading Revenue to Gross Revenue*

	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
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
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
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
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	5.65	2.81	20.02	8.96
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
	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	9.53	7.93	8.77	7.44

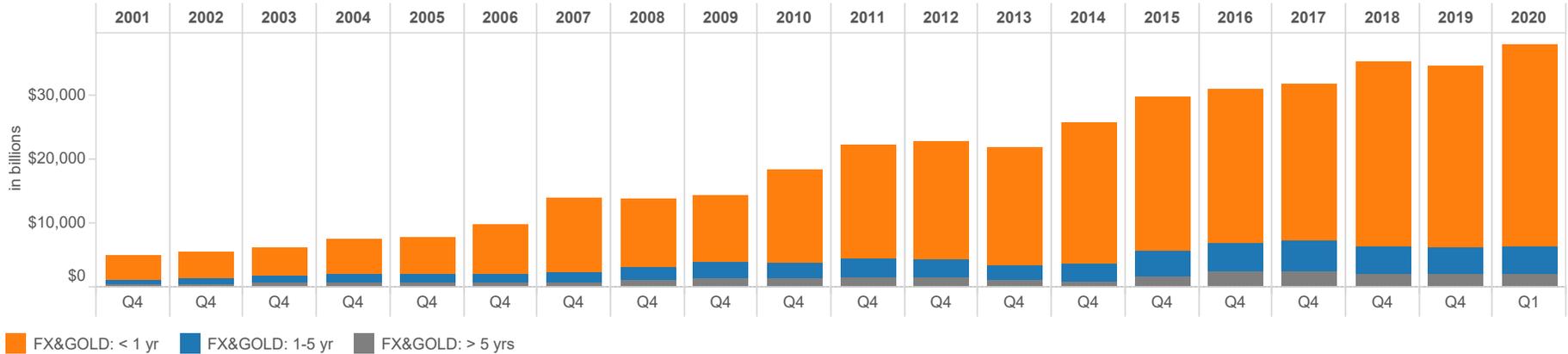
*The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.
 Note: Gross revenue equals interest income plus non-interest income.
 Source: Call reports

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



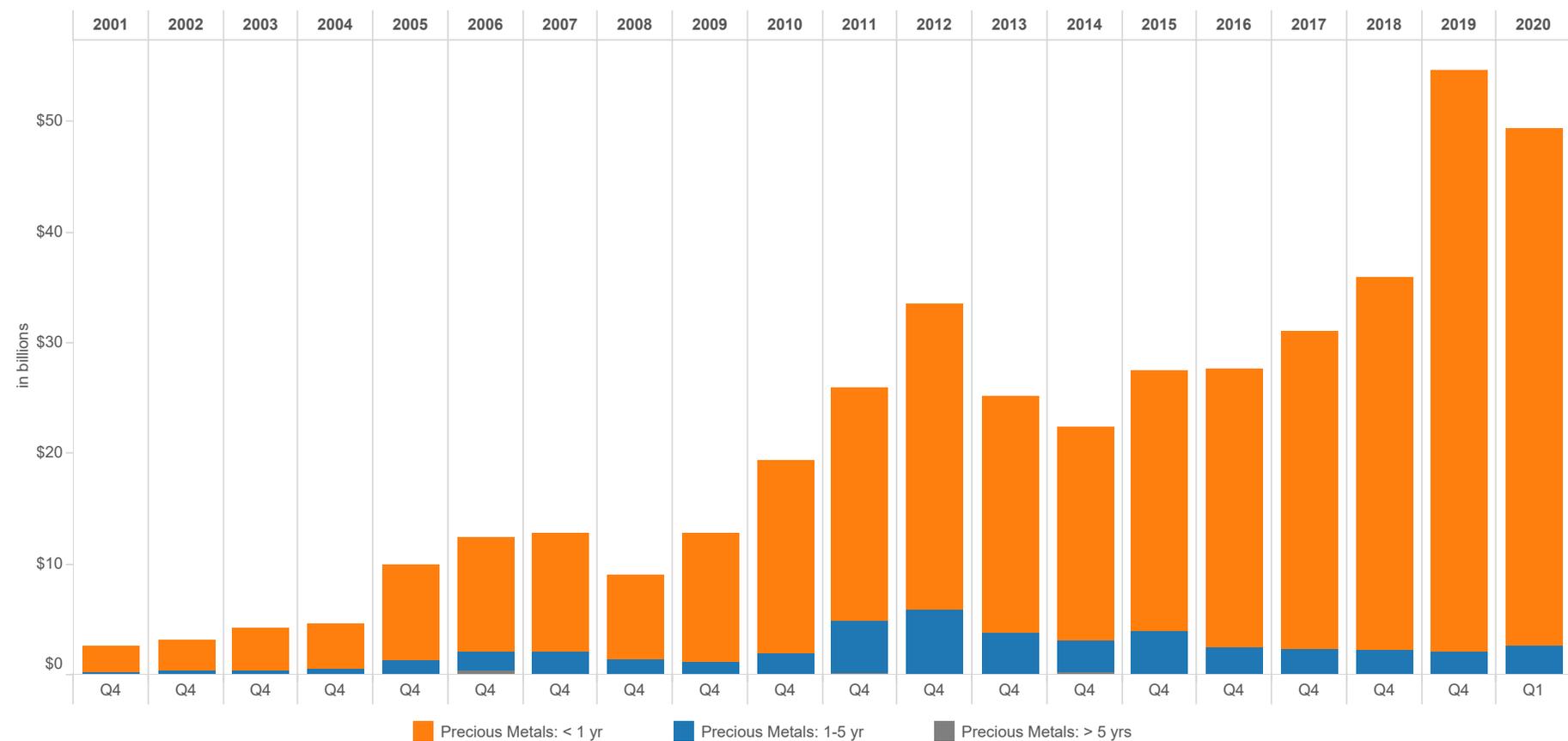
In billions of dollars

	2003 Q4	2004 Q4	2005 Q4	2006 Q4	2007 Q4	2008 Q4	2009 Q4	2010 Q4	2011 Q4	2012 Q4	2013 Q4	2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4	2019 Q4	2020 Q1
IR: < 1 yr	\$13,581	\$15,921	\$18,483	\$29,552	\$39,085	\$58,618	\$81,236	\$90,843	\$87,812	\$82,948	\$77,758	\$71,808	\$55,054	\$55,061	\$72,589	\$71,491	\$79,162	\$92,838
IR: 1-5 yr	20,404	25,893	27,683	31,386	37,222	47,456	33,970	33,497	32,750	30,191	44,157	33,727	49,406	43,261	36,154	36,681	35,822	43,088
IR: > 5 yrs	13,117	16,492	19,825	23,273	27,724	36,868	26,374	24,307	24,168	21,175	24,630	22,214	32,981	29,762	23,565	23,244	24,259	20,987
FX&GOLD: < 1 yr	4,510	5,384	5,728	7,730	11,660	10,640	10,490	14,629	17,632	18,386	18,372	22,145	24,130	23,912	24,380	28,891	28,241	31,570
FX&GOLD: 1-5 yr	1,146	1,317	1,381	1,452	1,639	2,195	2,473	2,462	3,117	2,910	2,341	2,587	3,986	4,454	4,805	4,219	4,052	4,128
FX&GOLD: > 5 yrs	582	762	689	594	622	1,082	1,347	1,290	1,503	1,480	1,029	969	1,648	2,420	2,525	2,096	2,146	2,152

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



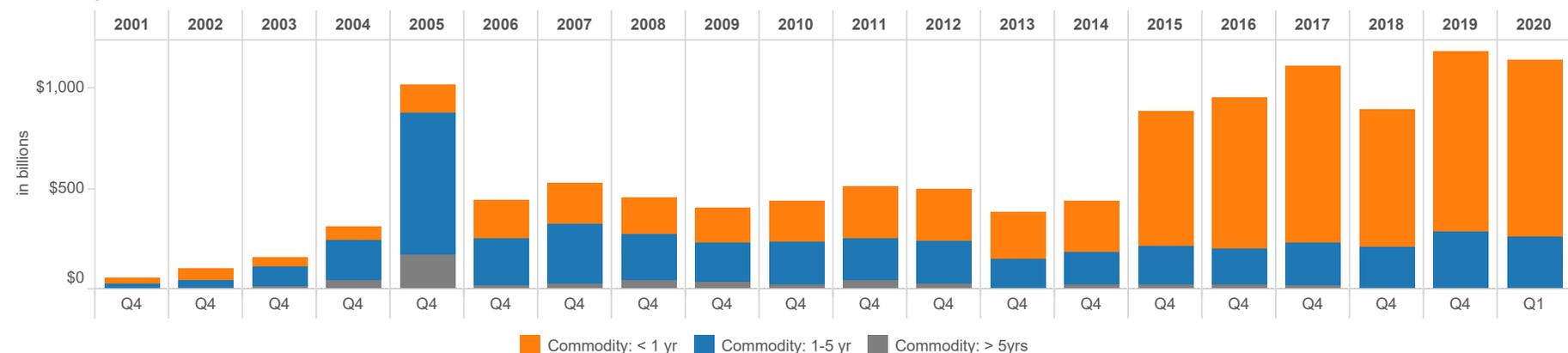
In billions of dollars

	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
Precious Metals: < 1 yr	\$2.72	\$3.87	\$4.04	\$8.59	\$10.35	\$10.72	\$7.55	\$11.55	\$17.47	\$21.12	\$27.68	\$21.41	\$19.29	\$23.51	\$25.07	\$28.62	\$33.62	\$52.58	\$46.74
Precious Metals: 1-5 yr	0.46	0.33	0.51	1.29	1.75	2.10	1.51	1.24	1.89	4.74	5.82	3.80	2.84	3.92	2.49	2.38	2.25	2.06	2.64
Precious Metals: > 5 yrs	0.00	0.00	0.00	0.06	0.33	0.01	0.00	0.00	0.03	0.10	0.03	0.00	0.29	0.07	0.02	0.01	0.01	0.00	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

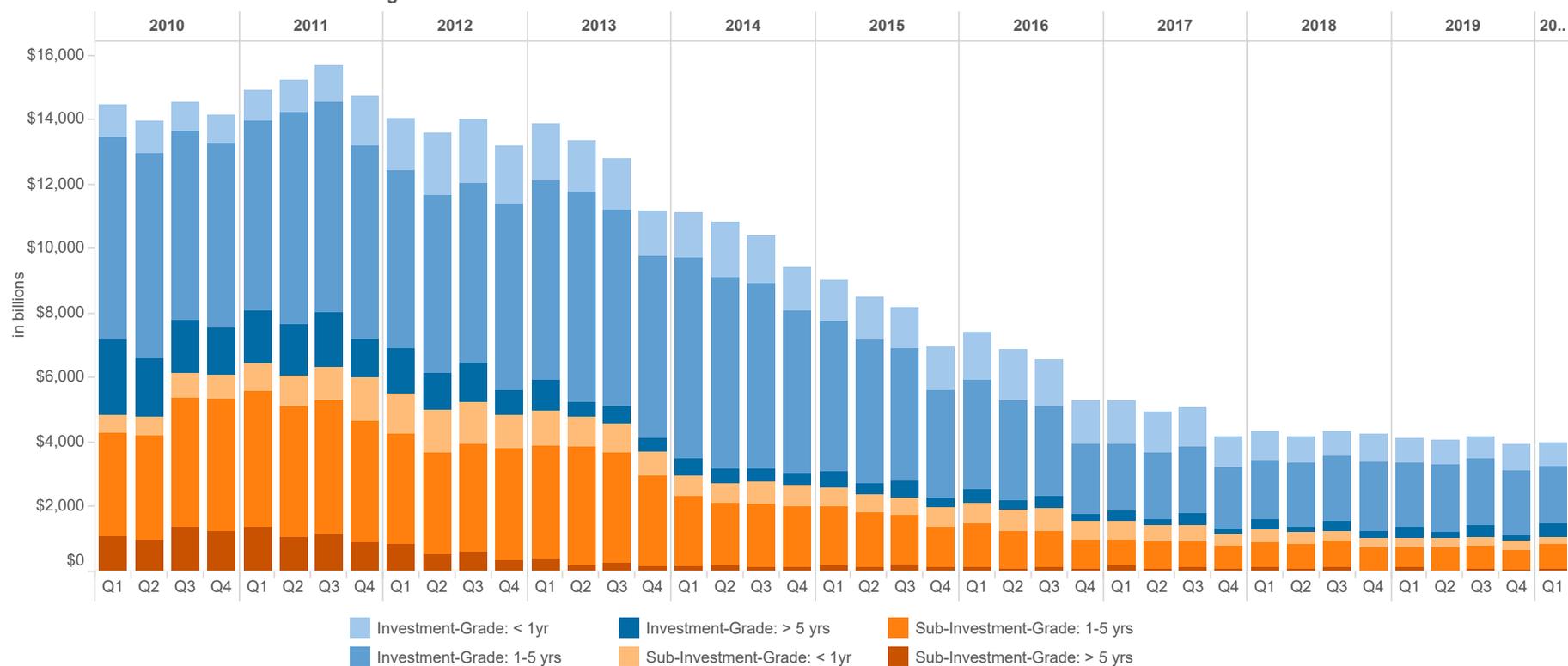


In billions of dollars

	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
Commodity: < 1 yr	\$55	\$43	\$64	\$133	\$185	\$206	\$179	\$176	\$203	\$261	\$261	\$235	\$257	\$668	\$750	\$883	\$688	\$892	\$877
Commodity: 1-5 yr	35	103	205	707	235	297	233	198	209	209	208	144	164	197	179	202	198	278	251
Commodity: > 5 yrs	9	14	40	175	20	25	43	33	25	46	28	6	20	22	23	25	9	10	9
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
Equity: 1-5 yr	249	674	736	1,428	221	297	256	228	191	210	262	291	352	628	677	733	864	844	780
Equity: > 5 yrs	25	84	140	383	45	70	72	82	85	94	82	136	101	130	123	113	139	136	124

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

Graph 14
Notional Amounts of Credit Derivative Contracts by Credit Quality and Maturity
Insured U.S. Commercial Banks and Savings Associations

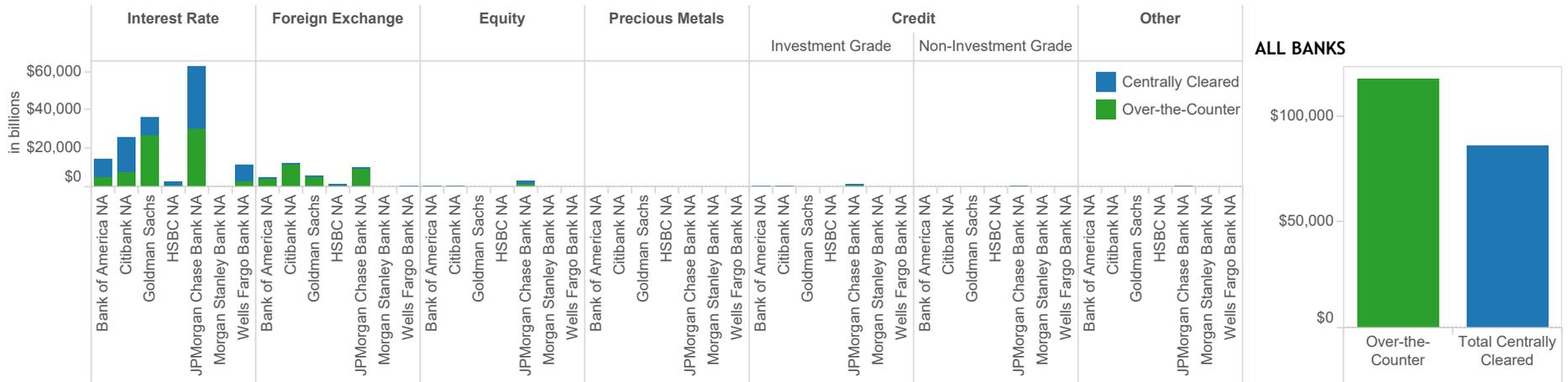


In billions of dollars

	2015				2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1																
Investment-Grade: < 1yr	\$1,256	\$1,292	\$1,270	\$1,380	\$1,471	\$1,549	\$1,451	\$1,348	\$1,343	\$1,234	\$1,216	\$934	\$880	\$805	\$764	\$837	\$763	\$758	\$675	\$781	\$726
Investment-Grade: 1-5 yrs	4,649	4,450	4,108	3,328	3,400	3,101	2,765	2,170	2,072	2,073	2,085	1,897	1,839	1,995	1,988	2,173	1,976	2,083	2,084	2,018	1,799
Investment-Grade: > 5 yrs	508	359	520	281	457	262	385	214	309	195	345	186	331	184	338	204	367	189	330	198	367
Total Investment Grade	\$6,413	\$6,101	\$5,898	\$4,990	\$5,328	\$4,911	\$4,601	\$3,732	\$3,724	\$3,502	\$3,647	\$3,016	\$3,050	\$2,984	\$3,089	\$3,214	\$3,106	\$3,030	\$3,089	\$2,997	\$2,891
	2015				2016				2017				2018				2019				2020
	Q1	Q2	Q3	Q4	Q1																
Sub-Investment-Grade: < 1yr	\$596	\$562	\$569	\$607	\$622	\$683	\$683	\$581	\$582	\$509	\$480	\$375	\$400	\$335	\$318	\$304	\$259	\$283	\$275	\$268	\$247
Sub-Investment-Grade: 1-5 yrs	1,813	1,673	1,518	1,271	1,313	1,159	1,122	869	838	830	814	718	763	791	801	691	661	701	708	624	743
Sub-Investment-Grade: > 5 yrs	194	152	213	119	155	101	157	111	159	93	149	77	133	69	133	61	119	60	111	56	105
Total Sub-Investment Grade	\$2,604	\$2,387	\$2,299	\$1,997	\$2,090	\$1,943	\$1,962	\$1,561	\$1,579	\$1,432	\$1,443	\$1,170	\$1,296	\$1,195	\$1,252	\$1,056	\$1,039	\$1,044	\$1,093	\$947	\$1,095

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
1Q 2020 Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

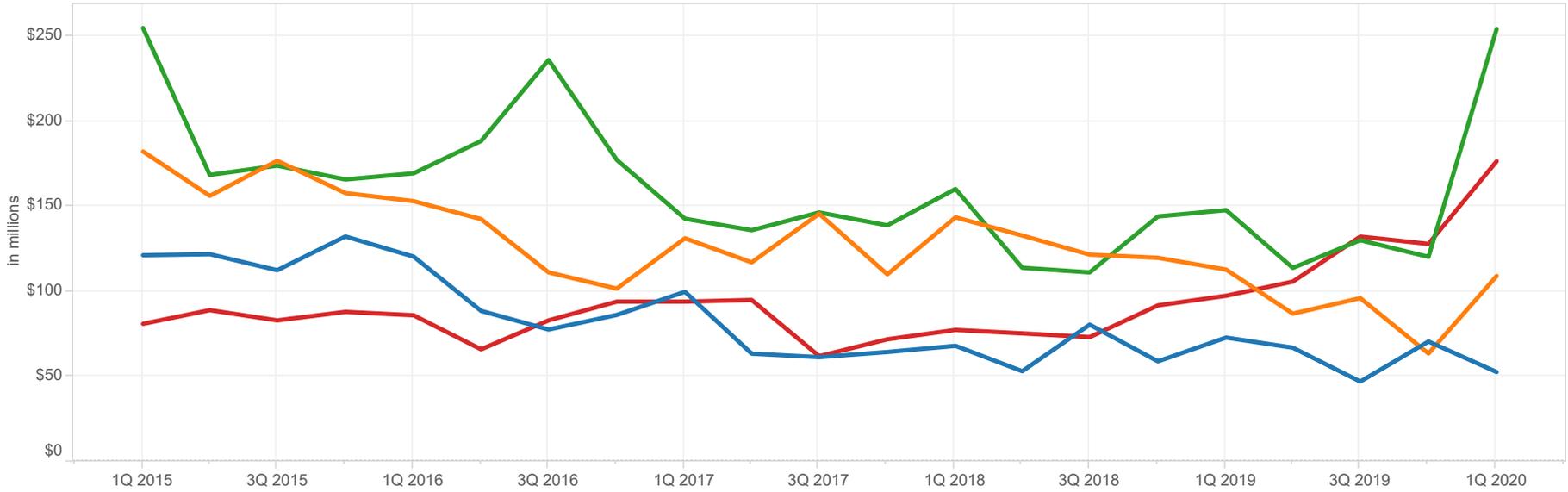
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared	Over-the-Counter	Total Notional
	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter									
									Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter					
JPMorgan Chase Bank NA	32,042	30,326	154	10,135	785	1,750	0	29	613	544	196	253	50	717	33,839	43,754	77,593
Citibank NA	18,247	7,844	317	12,001	70	466	1	6	248	815	63	268	77	101	19,024	21,501	40,525
Bank of America NA	9,818	4,773	114	4,796	118	348	0	0	155	217	62	148	0	26	10,268	10,309	20,577
Goldman Sachs	9,224	26,427	95	5,431	0	32	0	0	0	102	0	95	0	5	9,319	32,092	41,411
HSBC NA	2,293	559	61	1,346	0	90	0	11	2	14	7	28	0	2	2,363	2,050	4,413
Wells Fargo Bank NA	9,272	2,520	0	432	49	127	0	2	0	1	1	25	1	66	9,323	3,171	12,495
Morgan Stanley Bank NA	0	27	0	24	0	1	0	0	0	8	0	4	0	0	0	64	64
Grand Total	80,896	72,475	741	34,164	1,023	2,813	1	48	1,018	1,701	329	821	129	917	84,137	112,940	197,076
ALL OTHER	2,127	1,415	5	2,940	0	28	0	0	1	26	0	20	5	87	2,139	4,515	6,654
TOTAL	83,023	73,890	746	37,104	1,023	2,841	1	48	1,019	1,726	329	841	134	1,003	86,276	117,455	203,730

% of Total

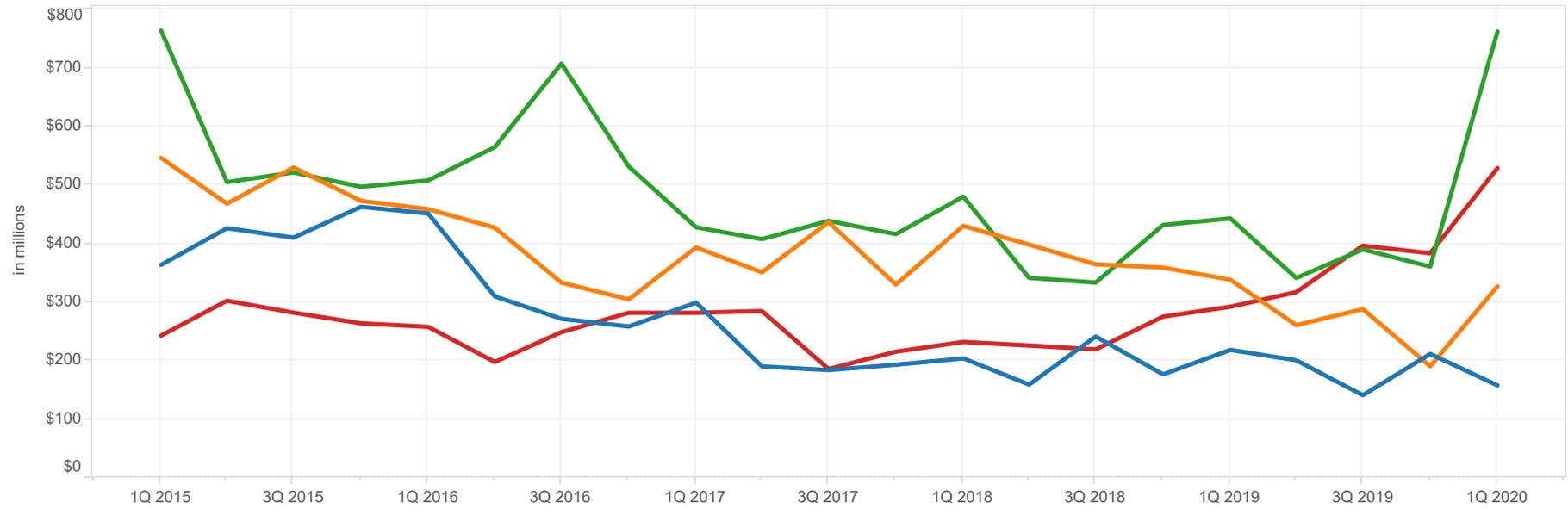
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared as a % of Total Notional	Total Over-the-Counter as a % of Total Notional
	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter								
									Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter				
JPMorgan Chase Bank NA	51%	49%	1%	99%	31%	69%	0%	100%	53%	47%	44%	56%	7%	93%	44%	56%
Citibank NA	70%	30%	3%	97%	13%	87%	14%	86%	23%	77%	19%	81%	43%	57%	47%	53%
Bank of America NA	67%	33%	2%	98%	25%	75%	0%	100%	42%	58%	29%	71%	0%	100%	50%	50%
Goldman Sachs	26%	74%	2%	98%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	23%	77%
HSBC NA	80%	20%	4%	96%	0%	100%	0%	100%	12%	88%	20%	80%	0%	100%	54%	46%
Wells Fargo Bank NA	79%	21%	0%	100%	28%	72%	0%	100%	6%	94%	2%	98%	1%	99%	75%	25%
Morgan Stanley Bank NA	0%	100%	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

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

TABLE 1

NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 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	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	\$1,382,207	\$2,421,660	\$12,515,999	\$32,746,321	\$9,015,121	\$1,530,570	\$727,928
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	1,008,720	2,266,155	7,992,550	26,395,055	9,350,137	205,853	378,921
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	641,531	810,710	6,863,862	28,144,630	6,317,120	1,422,351	460,583
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	247,849	229,961	5,614,258	10,766,862	2,851,887	562,043	339,257
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCUFXT09	1,763,696	13,448,328	377,251	198,752	4,895,587	6,201,356	1,691,012	84,370	6,007
6	HSBC NA	11E8VN30JCEQV1H4R804	201,886	4,560,165	89,612	3,402	1,262,617	2,727,714	381,458	95,363	44,391
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	359,196	2,685,928	2,081	0	2,626,145	26,261	31,441	0	111,613
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	387,037	1,104,939	4,497	41	334,302	736,117	29,817	165	103,572
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	533,129	651,836	26,211	0	116,502	360,947	137,124	11,052	793
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	433,803	490,912	4,337	4,985	40,864	395,116	34,873	10,738	683
11	TRUIST BANK	JJKC32MCHWDI71265Z06	495,079	301,292	3,602	22,851	22,558	185,209	57,140	9,932	420
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	161,164	295,035	0	0	278,106	16,296	634	0	20,286
13	TD BANK NATIONAL ASSN	03D0JEWDFUSOSEEKG89	355,768	228,523	0	0	2,602	224,504	1,416	0	0
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0QKMXLAI1P80	176,633	216,035	1,477	0	25,919	170,025	15,913	2,702	100
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YMOOVDV0K75	339,216	200,126	6,433	0	5,535	180,932	1,509	5,717	82
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	135,038	185,354	3,105	0	78,605	99,183	4,329	132	772
17	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	132,707	138,379	856	30	12,961	96,684	20,850	6,998	10
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	183,724	127,521	1,210	196	8,382	83,485	29,159	5,088	153
19	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,955	119,847	2,053	358	107,755	6,773	2,887	22	0
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	154,994	114,285	1,420	0	7,240	93,988	10,704	934	574
21	MANUFACTURERS&TRADERS TR CO	WWB2VOFCW3AOEE3ZJN75	124,147	98,062	0	0	3,010	91,332	3,721	0	112
22	MORGAN STANLEY BANK NA	G1MLHISON3213QPILB75	178,664	74,590	97	0	17,757	31,108	14,149	11,479	1,103
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	113,764	74,532	62	0	4,296	46,689	20,310	3,175	84
24	BBVA USA	C90VT034M03BN29IRA40	93,020	57,670	2,396	0	2,381	43,084	8,797	1,013	0
25	SANTANDER BANK N A	TR24TWEY5RVRQV65HD49	87,569	48,030	0	0	1,945	38,810	7,111	164	11
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,067,159	\$196,524,802	\$3,807,006	\$5,959,101	\$42,841,739	\$109,908,478	\$30,038,619	\$3,969,860	\$2,197,456
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,145,839	975,447	3,443	758	151,754	690,375	112,498	16,619	2,263
TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	3,810,449	5,959,858	42,993,493	110,598,852	30,151,117	3,986,479	2,199,719

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
MARCH 31, 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.	7H6GLXDRUGOFU57RNE97	\$3,139,431	\$59,495,852	\$1,404,658	\$2,856,018	\$13,246,444	\$31,731,975	\$8,697,257	\$1,559,500	\$712,823
2	GOLDMAN SACHS GROUP, INC., THE	KD3XUN7C6T14HNAYLU02	1,089,759	47,741,370	1,515,056	3,674,461	8,289,503	22,889,611	10,010,422	1,362,317	297,605
3	CITIGROUP INC.	E57ODZWZ7FF32TWEFA76	2,219,770	45,505,022	774,295	2,852,653	8,456,278	25,969,329	6,133,187	1,319,280	462,329
4	BANK OF AMERICA CORPORATION	B4TYDEB6GKMZO031MB27	2,619,954	38,241,252	1,112,532	1,115,659	9,864,796	20,958,413	4,307,581	882,271	318,433
5	MORGAN STANLEY	IGJSJL3JD5P30I6NJZ34	947,795	35,645,329	840,622	1,473,543	5,425,358	18,514,758	8,803,787	587,261	67,099
6	WELLS FARGO & COMPANY	KB1H1DSPRFMYMCFXT09	1,981,349	13,999,826	385,697	229,857	5,598,635	6,025,119	1,687,270	73,248	6,000
7	HSBC NORTH AMERICA HOLDINGS INC.	213800JCL1FHBQK3M654	297,536	6,664,583	296,259	495,372	1,262,617	4,126,254	388,717	95,363	44,385
8	MIZUHO AMERICAS LLC		51,321	6,409,358	26,728	11,091	706,056	5,516,905	143,833	4,745	6,892
9	SMBC AMERICAS HOLDINGS, INC.		25,519	5,031,924	157,161	1,413,556	1,184,409	1,465,240	809,460	2,098	4,857
10	STATE STREET CORPORATION	571474TGEMMWANRLN572	362,528	2,676,967	2,081	0	2,626,145	17,300	31,441	0	111,613
11	BANK OF NEW YORK MELLON CORPORATION, THE	HPFHU00Q28E4NONFVK49	468,155	1,134,126	5,049	141	383,531	715,423	29,817	165	103,674
12	BARCLAYS US LLC	213800H14XVWV87O172	179,955	756,082	20,637	317,208	356,704	15,746	0	45,787	18
13	U.S. BANCORP	6BYL5QZYBDK8S7L73M02	542,909	668,661	26,211	0	117,273	377,001	137,124	11,052	793
14	RBC US GROUP HOLDINGS LLC		137,944	614,635	133,261	269,889	36,232	174,261	566	426	86
15	CREDIT SUISSE HOLDINGS (USA), INC.	549300YHT5NGRKJD1R94	131,778	523,636	5,281	3,813	304,116	115,137	8,653	86,636	219
16	PNC FINANCIAL SERVICES GROUP, INC., THE	AD6GFRVSDT01YPT1CS68	445,568	487,809	4,393	5,143	47,830	384,832	34,873	10,738	683
17	TRUIST FINANCIAL CORPORATION	JJKC32MCHWDI71265Z06	506,229	325,549	3,602	22,851	33,400	197,946	57,140	10,610	420
18	NORTHERN TRUST CORPORATION	6PTKHDJ8HDUF78PFWH30	161,709	293,285	0	0	278,106	14,546	634	0	20,286
19	TD GROUP US HOLDINGS LLC	03D0JEWFDUFUSOSEK89	447,269	287,612	29,713	0	24,711	231,772	1,416	0	0
20	CAPITAL ONE FINANCIAL CORPORATION	ZUE8T73ROZOF6FLBAR73	396,878	270,937	6,433	0	13,355	243,923	1,509	5,717	82
21	CITIZENS FINANCIAL GROUP, INC.	DRMSV1Q0EKMEXLAU1P80	176,981	216,035	1,477	0	25,919	170,025	15,913	2,702	100
22	MUFG AMERICAS HOLDINGS CORPORATION	OX3PU53ZLPQKJ4700D47	165,696	211,077	4,625	1,050	101,678	99,262	4,329	132	772
23	BNP PARIBAS USA, INC.	549300QVEGJN81E8T563	183,085	160,185	0	0	141,862	16,508	1,815	0	9
24	REGIONS FINANCIAL CORPORATION	EQTWLK1G7ODGC2MGLV11	133,638	136,029	856	30	12,961	94,334	20,850	6,998	10
25	AMERIPRISE FINANCIAL, INC.	6ZLKQF7QB6JAEKQS5388	145,691	132,850	9,423	4,560	274	63,542	53,370	1,681	2
TOP 25 HOLDING COMPANIES WITH DERIVATIVES			\$16,958,447	\$267,629,991	\$6,766,050	\$14,746,895	\$58,538,193	\$140,129,163	\$41,380,964	\$6,068,726	\$2,159,191

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

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

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

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

TABLE 3

DISTRIBUTION OF DERIVATIVE CONTRACTS
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 2020, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	PERCENT EXCH TRADED CONTRACTS (%)	PERCENT OTC CONTRACTS (%)	PERCENT INT RATE CONTRACTS (%)	PERCENT FOREIGN EXCH CONTRACTS (%)	PERCENT EQUITY CONTRACTS (%)	PERCENT OTHER CONTRACTS (%)	PERCENT CREDIT DERIVATIVES (%)
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	6.4	93.6	72.4	20.4	3.1	1.6	2.6
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	6.9	93.1	86.9	12.6	0.1	0.0	0.4
3	CITIBANK NATIONAL ASSN	E57ODZ7FF32TWEFA76	1,632,405	44,200,204	3.3	96.7	63.4	30.3	2.0	1.0	3.2
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	2,031,940	20,272,860	2.4	97.6	70.7	24.2	2.3	0.1	2.8
5	WELLS FARGO BANK NA	KB1H1DSRPFMYMUCUFXT09	1,763,696	13,448,328	4.3	95.7	93.3	3.3	2.1	0.6	0.6
6	HSBC NA	11E8VN30JCEQV1H4R804	201,886	4,560,165	2.0	98.0	64.5	30.2	2.0	1.3	2.1
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	359,196	2,685,928	0.1	99.9	1.0	98.0	0.0	1.1	0.0
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4N0NFVK49	387,037	1,104,939	0.4	99.6	24.6	75.3	0.1	0.0	0.0
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	533,129	651,836	4.0	96.0	86.1	11.9	0.0	0.3	1.7
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	433,803	490,912	1.9	98.1	90.6	4.3	1.1	1.9	2.2
11	TRUIST BANK	JJC32MCHWDI71265Z06	495,079	301,292	8.8	91.2	78.4	4.2	13.1	0.9	3.3
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	161,164	295,035	0.0	100.0	5.6	94.3	0.2	0.0	0.0
13	TD BANK NATIONAL ASSN	03D0JEWFDUSOSEEKG89	355,768	228,523	0.0	100.0	98.4	1.6	0.0	0.0	0.0
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	176,633	216,035	0.7	99.3	91.3	7.4	0.0	0.0	1.3
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDV0K75	339,216	200,126	3.2	96.8	87.4	2.0	0.0	7.7	2.9
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	135,038	185,354	1.7	98.3	93.1	6.7	0.1	0.0	0.1
17	REGIONS BANK	EQTW1K1G7ODGC2MGLV11	132,707	138,379	0.6	99.4	92.5	1.3	0.0	1.1	5.1
18	FIFTH THIRD BANK NA	QFROUN1UWUYUODVIWD51	183,724	127,521	1.1	98.9	76.6	10.9	2.1	6.4	4.0
19	BOF NATIONAL ASSN	FU7RSW4CQQY98A207J66	46,955	119,847	2.0	98.0	95.8	0.5	0.1	3.5	0.0
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	154,994	114,285	1.2	98.8	89.6	5.5	0.0	4.0	0.8
21	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	124,147	98,062	0.0	100.0	99.3	0.7	0.0	0.0	0.0
22	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	178,664	74,590	0.1	99.9	41.7	41.6	1.4	0.0	15.4
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	113,764	74,532	0.1	99.9	88.9	2.8	0.5	3.5	4.3
24	BBVA USA	C90VT034M03BN291RA40	93,020	57,670	4.2	95.8	94.3	3.3	0.6	0.0	1.8
25	SANTANDER BANK N A	TR24TWEY5RVROV65HD49	87,569	48,030	0.0	100.0	93.8	5.5	0.3	0.0	0.3
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,067,159	\$196,524,802	\$9,766,106	\$186,758,695	\$145,129,030	\$42,129,549	\$3,658,585	\$1,637,778	\$3,969,860
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,145,839	975,447	4,201	971,246	898,023	51,858	2,993	5,953	16,619
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	9,770,307	187,729,941	146,027,053	42,181,406	3,661,579	1,643,731	3,986,479
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				99.5	4.9	94.6	73.5	21.3	1.9	0.8	2.0
TOTAL FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				0.5	0.0	0.5	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	4.9	95.1	73.9	21.4	1.9	0.8	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
MARCH 31, 2020, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL RISK-BASED CAPITAL	BILATERALLY NETTED CURRENT CREDIT EXPOSURE		TOTAL CREDIT EXPOSURE FROM ALL CONTRACTS		TOTAL CREDIT EXPOSURE TO CAPITAL (%)
						CREDIT EXPOSURE	POTENTIAL FUTURE EXPOSURE	FROM ALL CONTRACTS	TOTAL CREDIT EXPOSURE	
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	\$222,994	\$215,184	\$188,969	\$404,153	181	
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	35,470	72,438	40,549	112,987	319	
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	153,194	112,102	98,732	210,834	138	
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	167,936	59,392	55,159	114,551	68	
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCFXT09	1,763,696	13,448,328	169,846	31,982	19,462	51,444	30	
6	HSBC NA	11E8VN30JCEQV1H4R804	201,886	4,560,165	23,073	12,584	13,912	26,496	115	
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	359,196	2,685,928	18,638	12,748	5,776	18,524	99	
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	387,037	1,104,939	20,541	7,049	5,567	12,616	61	
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	533,129	651,836	50,295	5,987	9,262	15,249	30	
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	433,803	490,912	38,830	9,405	-1,903	7,501	19	
11	TRUIST BANK	JJKC32MCHWDI71265Z06	495,079	301,292	46,535	5,171	4,302	9,473	20	
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	161,164	295,035	10,517	4,412	1,473	5,885	56	
13	TD BANK NATIONAL ASSN	03D0JEWFDUS0SEEG89	355,768	228,523	29,418	237	1,028	1,266	4	
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	176,633	216,035	18,102	1,915	1,477	3,392	19	
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM00VDVOK75	339,216	200,126	30,428	6,087	4,923	11,011	36	
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	135,038	185,354	14,915	2,192	291	2,483	17	
17	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	132,707	138,379	14,078	1,654	625	2,279	16	
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	183,724	127,521	19,305	3,262	1,919	5,181	27	
19	BOF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,955	119,847	3,854	16	22	38	1	
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	154,994	114,285	16,436	2,447	1,224	3,671	22	
21	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	124,147	98,062	12,385	1,212	191	1,404	11	
22	MORGAN STANLEY BANK NA	G1MLHIS0N32I3QPILB75	178,664	74,590	17,349	442	2,423	2,865	17	
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	113,764	74,532	12,241	2,246	840	3,086	25	
24	BBVA USA	C90VT034M03BN291RA40	93,020	57,670	9,563	876	183	1,059	11	
25	SANTANDER BANK N A	TR24TWEY5RVRQV65HD49	87,569	48,030	10,930	1,463	402	1,865	17	
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,067,159	\$196,524,802	\$1,166,874	\$572,504	\$456,808	\$1,029,312	88	
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,145,839	975,447	504,144	21,666	7,474	29,140	6	
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	1,671,018	594,170	464,282	1,058,452	63	

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

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

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

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

Source: Call reports, Schedule RC-R.

TABLE 5

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS HELD FOR TRADING
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 2020, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL HELD FOR TRADING & MTM	% HELD FOR TRADING & MTM	TOTAL NOT FOR TRADING MTM	% NOT FOR TRADING MTM
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	\$57,594,796	99.2	\$486,512	0.8
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	46,985,415	99.9	27,202	0.1
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	42,640,672	99.7	137,181	0.3
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	19,079,757	96.8	631,060	3.2
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$166,300,640	99.2	\$1,281,955	0.8
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	23,694,679	91.4	2,236,496	8.6
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	189,995,319	98.2	3,518,451	1.8

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
MARCH 31, 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	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	\$833,356	\$823,043	\$4,417	\$3,926	\$18,188	\$18,985
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	908,818	902,434	560	439	4,952	4,785
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	616,996	604,130	3,902	3,902	17,217	15,552
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	251,089	245,368	26,573	30,462	7,356	6,799
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$2,610,259	\$2,574,975	\$35,452	\$38,729	\$47,713	\$46,121
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	240,686	225,411	27,573	23,065	6,136	5,402
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	2,850,945	2,800,386	63,025	61,794	53,849	51,523

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
MARCH 31, 2020, MILLIONS OF DOLLARS
NOTE: REVENUE FIGURES ARE FOR THE QUARTER (NOT YEAR-TO-DATE)

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL TRADING REV FROM CASH & OFF BAL SHEET POSITIONS	TRADING REV FROM INT RATE POSITIONS	TRADING REV FROM FOREIGN EXCH POSITIONS	TRADING REV FROM EQUITY POSITIONS	TRADING REV FROM COMMOD & OTH POSITIONS	TRADING REV FROM CREDIT POSITIONS
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	(\$940)	\$643	\$1,261	(\$2,411)	\$389	(\$822)
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	232	907	(749)	(147)	0	221
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	3,880	709	1,342	874	96	859
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	2,031,940	20,272,860	1,994	751	714	501	6	22
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$5,166	\$3,010	\$2,568	(\$1,183)	\$491	\$280
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	1,522	1,940	(401)	143	155	(314)
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	6,688	4,950	2,167	(1,040)	646	(34)

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

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

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

Source: Call reports, Schedule RI

TABLE 8

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (INTEREST RATE, FX AND GOLD)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 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	\$2,690,959	\$59,611,878	\$35,239,356	\$22,117,716	\$5,010,678	\$62,367,750	\$7,227,683	\$2,053,572	\$1,007,192	\$10,288,447
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	21,816,239	7,161,975	6,672,839	35,651,053	4,202,988	736,900	586,008	5,525,896
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,632,405	44,200,204	19,969,190	3,359,342	2,762,538	26,091,070	11,549,272	562,369	206,109	12,317,750
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	6,625,994	4,905,598	3,059,150	14,590,742	4,228,869	457,878	223,463	4,910,210
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$83,650,779	\$37,544,631	\$17,505,205	\$138,700,615	\$27,208,812	\$3,810,719	\$2,022,772	\$33,042,303
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	9,186,919	5,543,761	3,482,076	18,212,756	4,361,251	316,928	129,665	4,807,844
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	92,837,698	43,088,392	20,987,281	156,913,371	31,570,063	4,127,647	2,152,437	37,850,147

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

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

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

Source: Call reports, Schedule RC-R

TABLE 9

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE & MATURITY (PRECIOUS METALS)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 2020, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	PREC METALS MATURITY < 1 YR	PREC METALS MATURITY 1 - 5 YRS	PREC METALS MATURITY > 5 YRS	PREC METALS ALL MATURITIES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$2,690,959	\$59,611,878	\$27,887	\$1,483	\$0	\$29,370
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	0	0	0	0
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	7,149	357	0	7,506
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	173	0	0	173
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$35,209	\$1,840	\$0	\$37,049
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	11,527	798	0	12,325
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	46,736	2,638	0	49,374

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

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

Source: Call reports, Schedule RC-R

TABLE 10

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (OTHER COMMODITY AND EQUITY)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 2020, MILLIONS OF DOLLARS**

RANK	BANK NAME	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
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,690,959	\$59,611,878	\$677,019	\$85,378	\$5,144	\$767,541	\$1,941,556	\$494,297	\$98,553	\$2,534,406
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	3,309	1,372	0	4,681	17,130	13,042	1,636	31,808
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	117,389	57,512	3,485	178,386	421,490	107,910	6,741	536,141
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	18,031	7,660	125	25,816	373,471	88,135	5,326	466,932
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$815,748	\$151,922	\$8,754	\$976,424	\$2,753,647	\$703,384	\$112,256	\$3,569,287
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	61,483	99,310	136	160,929	205,806	76,407	12,236	294,449
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	877,231	251,232	8,890	1,137,353	2,959,453	779,791	124,492	3,863,736

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

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

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

Source: Call reports, Schedule RC-R

TABLE 11

**NOTIONAL AMOUNTS OF CREDIT DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (INVESTMENT GRADE AND SUB-INVESTMENT GRADE)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
MARCH 31, 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	7H6GLXDRUGOFU57RNE97	\$2,690,959	\$59,611,878	\$1,530,570	\$243,614	\$754,741	\$168,611	\$1,166,966	\$84,828	\$235,727	\$43,049	\$363,604
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	205,853	16,966	66,418	23,983	107,367	10,538	74,218	13,730	98,486
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,632,405	44,200,204	1,422,351	257,974	713,449	117,035	1,088,458	80,970	237,598	15,325	333,893
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,031,940	20,272,860	562,043	164,941	200,702	37,622	403,265	56,611	90,934	11,233	158,778
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$6,609,972	\$171,303,412	\$3,720,817	\$683,495	\$1,735,310	\$347,251	\$2,766,056	\$232,947	\$638,477	\$83,337	\$954,761
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			11,603,026	26,196,837	265,662	42,072	63,469	19,901	125,442	14,206	104,744	21,271	140,220
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	3,986,479	725,567	1,798,779	367,152	2,891,498	247,153	743,221	104,608	1,094,981

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
MARCH 31, 2020, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL CREDIT DERIVATIVES	TOTAL CREDIT DERIVATIVES				PURCHASED				SOLD			
						PURCHASED	SOLD	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT OPTIONS	OTHER CREDIT DERIVATIVES	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT OPTIONS	OTHER CREDIT DERIVATIVES		
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGOFU57RNE97	\$2,690,959	\$59,611,878	\$1,530,570	\$779,403	\$751,167	\$710,758	\$19,034	\$45,531	\$4,080	\$691,910	\$7,801	\$51,409	\$47		
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	254,668	47,218,470	205,853	120,221	85,632	103,478	5,063	3,195	8,485	80,696	2,763	1,814	359		
3	CITIBANK NATIONAL ASSN	E570DZWZ7FF32TWEFA76	1,632,405	44,200,204	1,422,351	740,520	681,831	704,914	14,812	20,794	0	657,431	5,130	19,270	0		
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	2,031,940	20,272,860	562,043	290,148	271,895	223,083	9,470	57,595	0	205,249	12,031	54,615	0		
5	WELLS FARGO BANK NA	KB1H1DSPPRFMYMCFXT09	1,763,696	13,448,328	84,370	41,390	42,980	6,460	14,290	400	20,240	4,989	26,152	0	11,839		
6	HSBC NA	11E8VN30JCEQV1H4R804	201,886	4,560,165	95,363	54,327	41,036	42,885	11,442	0	0	39,780	1,255	0	0		
7	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	359,196	2,685,928	0	0	0	0	0	0	0	0	0	0	0		
8	BANK OF NEW YORK MELLON	HPFHU0028E4N0NFVK49	387,037	1,104,939	165	165	0	165	0	0	0	0	0	0	0		
9	U S BANK NATIONAL ASSN	6BYL5OZYBDK8S7L3M02	533,129	651,836	11,052	3,862	7,190	1,216	0	0	2,646	75	0	0	7,115		
10	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	433,803	490,912	10,738	3,252	7,486	0	0	0	3,252	0	0	0	7,486		
11	TRUIST BANK	JJKC32MCHWDI71265Z06	495,079	301,292	9,932	4,366	5,566	1,032	1,924	0	1,410	147	0	0	5,419		
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	161,164	295,035	0	0	0	0	0	0	0	0	0	0	0		
13	TD BANK NATIONAL ASSN	03D0JEWFDJUS0SEKGG9	355,768	228,523	0	0	0	0	0	0	0	0	0	0	0		
14	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	176,633	216,035	2,702	0	2,702	0	0	0	0	0	0	0	2,702		
15	CAPITAL ONE NATIONAL ASSN	207ALC1P1YMO0VDV0K75	339,216	200,126	5,717	2,156	3,561	0	0	0	2,156	0	0	0	3,561		
16	MUFG UNION BANK NA	OX3PUS32LPQKJ4700D47	135,038	185,354	132	132	0	132	0	0	0	0	0	0	0		
17	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	132,707	138,379	6,998	2,568	4,430	42	0	0	2,526	42	0	0	4,388		
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	183,724	127,521	5,088	1,395	3,693	0	0	0	1,395	0	0	0	3,693		
19	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,955	119,847	22	4	18	4	0	0	0	18	0	0	0		
20	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	154,994	114,285	934	439	495	439	0	0	0	402	93	0	0		
21	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	124,147	98,062	0	0	0	0	0	0	0	0	0	0	0		
22	MORGAN STANLEY BANK NA	G1MLHISON3213QPILB75	178,664	74,590	11,479	9,409	2,070	8,930	0	479	0	2,070	0	0	0		
23	HUNTINGTON NATIONAL BANK	2WHM8VNUH63UN14QL754	113,764	74,532	3,175	2,386	789	0	0	0	2,386	0	0	0	789		
24	BBVA USA	C90VTO34M03BN291RA40	93,020	57,670	1,013	7	1,005	7	0	0	0	1,005	0	0	0		
25	SANTANDER BANK N A	TR24TWEY5RVROV65HD49	87,569	48,030	164	11	153	11	0	0	0	153	0	0	0		
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$13,067,159	\$196,524,802	\$3,969,860	\$2,056,162	\$1,913,698	\$1,803,557	\$76,035	\$127,994	\$48,576	\$1,683,967	\$55,225	\$127,108	\$47,398		
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			5,145,839	975,447	16,619	8,191	8,428	355	3,385	0	4,450	1,090	2	0	7,337		
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			18,212,998	197,500,249	3,986,479	2,064,352	1,922,127	1,803,912	79,420	127,994	53,026	1,685,057	55,227	127,108	54,735		
TOP 25 COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)		
OTHER COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					99.6	51.6	48.0	45.2	1.9	3.2	1.2	42.2	1.4	3.2	1.2		
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					0.4	0.2	0.2	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	51.8	48.2	45.3	2.0	3.2	1.3	42.3	1.4	3.2	1.4		

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
MARCH 31, 2020, MILLIONS OF DOLLARS

Call Report Schedule SU	1Q20	4Q19	3Q19	2Q19	1Q19	4Q18	3Q18	2Q18	1Q18	4Q17	3Q17	2Q17	1Q17
A. Gross Notional Amount of Derivatives													
Total gross notional amount of interest rate derivatives held for trading	\$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	\$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	\$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	\$1,171	\$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	\$12,435	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		\$18		\$4	\$5	\$3	\$4	\$5	\$429	\$0	\$0	\$0	\$0
c. Credit (investment grade reference asset)		\$166		\$39	\$41	\$35	\$17	\$14	\$14	\$13	\$14	\$8	\$4
d. Credit (non-investment grade reference asset)		\$61		\$25	\$25	\$12	\$12	\$12	\$11	\$11	\$11	\$11	\$11
e. Equity		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
q. Other		\$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
B. Notional principal amounts of centrally cleared derivative contracts covered by the regulatory capital rules:													
a. Interest rate		\$161		\$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
c. Credit (investment grade reference asset)		\$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
e. Equity		\$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
q. Other		\$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		\$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.