

Quarterly Report on Bank Trading and Derivatives Activities

Second Quarter 2021

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

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About This Report

The Office of the Comptroller of the Currency's (OCC) quarterly report on bank trading and derivatives activities is based on call report information provided by all insured U.S. commercial banks and savings associations; reports filed by U.S. financial holding companies; and other published data. A total of 1,372 insured U.S. national and state commercial banks and savings associations reported trading and derivatives activities at the end of the second quarter of 2021.¹ A small group of large financial institutions continues to dominate trading and derivatives activity in the U.S. commercial banking system. During the second quarter of 2021, four large commercial banks represented 88.7 percent of the total banking industry notional amounts and 77.8 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 103rd edition of the OCC's *Quarterly Report on Bank Trading and Derivatives Activities*. The first report was published in 1995. Please send any comments or feedback on the structure and content of this report to QuarterlyDerivatives@occ.treas.gov.

Executive Summary

- Insured U.S. commercial banks and savings associations (collectively, banks) reported trading revenue of \$8.1 billion in the second quarter of 2021, \$2.4 billion less (22.9 percent) than in the previous quarter and \$5.6 billion less (40.9 percent) than a year earlier (see table 1).
- Credit exposure from derivatives decreased in the second quarter of 2021 compared with the first quarter of 2021. NCCE decreased \$5.0 billion, or 1.1 percent, to \$441.0 billion (see table 5).
- Derivative notional amounts decreased in the second quarter of 2021 by \$5.5 trillion, or 2.9 percent, to \$183.5 trillion (see table 10).
- Derivative contracts remained concentrated in interest rate products, which totaled \$133.3 trillion or 72.6 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 \$8.1 billion in trading revenue in the second quarter of 2021, \$2.4 billion less (22.9 percent) than in the previous quarter and \$5.6 billion less (40.9 percent) than a year earlier (see table 1). The quarter-over-quarter decrease in trading revenue was due to decreases across all trading instruments except interest rate contracts. 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

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change	2Q 2020	Y/Y Change	Y/Y % Change
Interest Rate	\$3,369	-\$42	\$3,411	8055.1%	\$4,634	-\$1,265	-27.3%
Foreign Exchange	\$1,547	\$6,343	-\$4,797	-75.6%	\$3,841	-\$2,294	-59.7%
Equity	\$2,384	\$2,388	-\$4	-0.2%	\$3,139	-\$754	-24.0%
Commodity & Other	\$549	\$623	-\$73	-11.8%	\$905	-\$356	-39.3%
Credit	\$217	\$1,151	-\$934	-81.1%	\$1,130	-\$912	-80.8%
Total Trading Revenue	\$8,066	\$10,462	-\$2,396.2	-22.9%	\$13,648	-\$5,582	-40.9%

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 \$23.6 billion in the second quarter of 2021 was \$3.4 billion (12.7 percent) lower than in the previous quarter. The quarter-over-quarter decrease in trading revenue was due to decreases across all trading instruments except interest rate contracts. Year-over-year holding company trading revenue decreased by \$12.1 billion (34.0 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

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change	2Q 2020	Y/Y Change	Y/Y % Change
Interest Rate	\$4,968	-\$1,792	\$6,760	377.2%	\$7,801	-\$2,833	-36.3%
Foreign Exchange	\$2,732	\$8,051	-\$5,319	-66.1%	\$6,374	-\$3,642	-57.1%
Equity	\$12,409	\$13,698	-\$1,289	-9.4%	\$12,604	-\$195	-1.5%
Commodity & Other	\$1,802	\$2,665	-\$863	-32.4%	\$2,486	-\$684	-27.5%
Credit	\$1,657	\$4,382	-\$2,725	-62.2%	\$6,431	-\$4,773	-74.2%
Total HC Trading Revenue	\$23,568	\$27,003	-\$3,435	-12.7%	\$35,696	-\$12,128	-34.0%

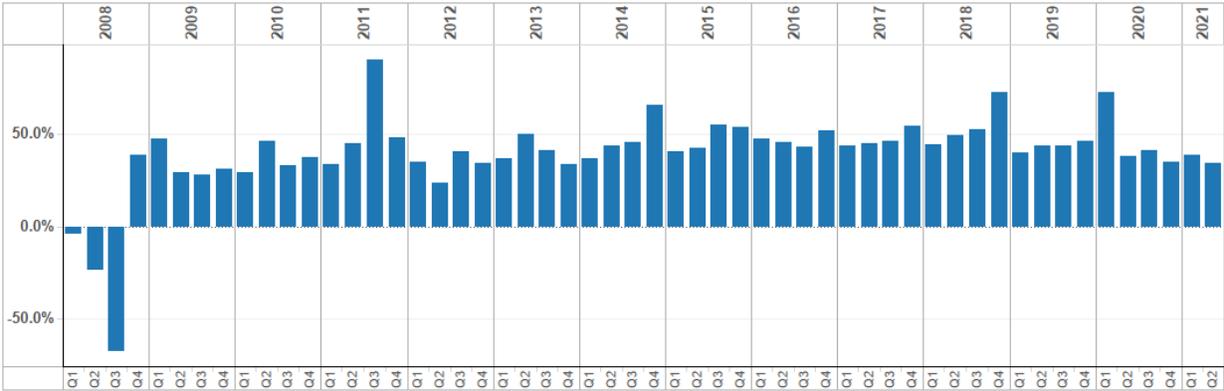
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

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

Before the 2008 financial crisis, trading revenue at banks typically ranged from 60 percent to 80 percent of consolidated BHC trading revenue. Since the 2008 financial crisis and the adoption of bank charters by the former investment banks, the percentage of bank trading revenue to consolidated BHC trading revenue has fallen and is now typically between 30 percent and 50 percent. This decline reflects the significant amount of trading activity by the former investment banks that, while included in BHC results, remains outside insured commercial banks. More generally, insured U.S. commercial banks and savings associations have more limited legal authorities than their holding companies, particularly in the trading of commodity and equity products.

In the second quarter of 2021, banks generated 34.2 percent of consolidated holding company trading revenue, a decrease from 38.7 percent in the previous quarter (see figure 1).

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



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

Counterparty Credit Risk

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

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

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

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

GPFV decreased by \$130.3 billion (5.8 percent) in the second quarter of 2021 to \$2.1 trillion, primarily driven by a \$51.0 billion (3.5 percent) decrease in receivables from interest rate contracts and a \$94.0 billion (17.2 percent) decrease in FX contracts (see table 3). GNFV decreased \$114.3 billion (5.3 percent) to \$2.1 trillion during the quarter, driven by a \$44.9 billion (3.3 percent) decrease in payables on interest rate contracts, a \$90.5 billion (16.9 percent) decrease in payables on FX contracts, and a \$1.7 billion (4.8 percent) decrease in credit contracts.

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

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change	1Q 2020	Y/Y Change	Y/Y % Change
Interest rate	\$1,390	\$1,440	-\$51	-3.5%	\$1,880	-\$490	-26.1%
FX	\$454	\$548	-\$94	-17.2%	\$506	-\$52	-10.2%
Equity	\$175	\$176	-\$1	-0.6%	\$144	\$31	21.4%
Commodities	\$75	\$55	\$20	35.1%	\$55	\$20	36.0%
Credit	\$30	\$34	-\$4	-12.7%	\$34	-\$4	-12.9%
Gross positive fair value	\$2,123	\$2,253	-\$130.3	-5.8%	\$2,618	-\$496	-18.9%

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change	1Q 2020	Y/Y Change	Y/Y % Change
Interest rate	\$1,326	\$1,371	-\$44.9	-3.3%	\$1,820	-\$494	-27.2%
FX	\$444	\$534	-\$90.5	-16.9%	\$525	-\$82	-15.5%
Equity	\$188	\$182	\$5.5	3.0%	\$145	\$43	29.6%
Commodities	\$69	\$51	\$17.3	33.6%	\$59	\$10	16.8%
Credit	\$34	\$36	-\$1.7	-4.8%	\$37	-\$3	-8.0%
Gross negative fair value	\$2,060	\$2,174	-\$114.3	-5.3%	\$2,586	-\$526	-20.3%

Source: Call reports, Schedule RC-L

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

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

Table 4: Netting Contract Examples

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

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

NCCE is the primary metric the OCC uses to evaluate credit risk in bank derivative activities. NCCE for insured U.S. commercial banks and savings associations decreased by \$5.0 billion (1.1 percent) to \$441.0 billion in the second quarter of 2021 (see table 5).² Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 79.2 percent (\$1.7 trillion) in the second quarter of 2021.

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

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change
Gross positive fair value	\$2,123	\$2,253	-\$130	-5.8%
NCCE RC-R	\$441	\$446	-\$5.0	-1.1%
Netting benefit RC-R	\$1,682	\$1,807	-\$125	-6.9%
Netting benefit % RC-R	79.2%	80.2%		-1.0%

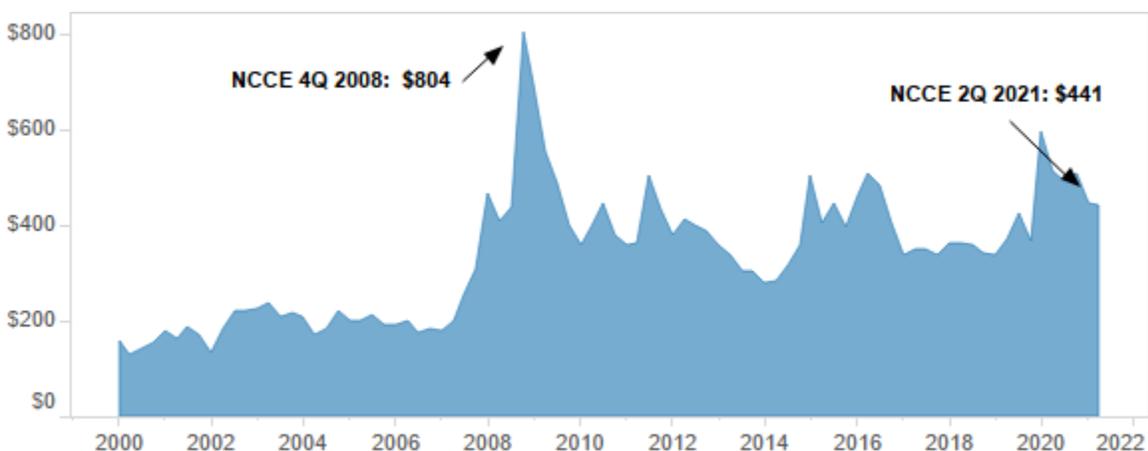
Source: Call reports, Schedules RC-L and RC-R

NCCE peaked at \$804.0 billion at the end of 2008, during the financial crisis, when interest rates had plunged and credit spreads were very high (see figure 2). The decline in NCCE since 2008 has largely resulted from declines in the GPFV of interest rate and credit contracts. After a large

² Banks report NCCE on two different schedules (RC-R and RC-L) of the call report, and the amounts reported are not the same because of differences in the scope of coverage. Neither measure comprehensively captures NCCE. RC-L includes exposure only from OTC derivative transactions; it excludes exchange-traded transactions. RC-R excludes transactions not subject to capital requirements. This report uses RC-R to measure NCCE.

increase in NCCE during the first quarter of 2020 as markets responded to the financial impact of the COVID-19 global pandemic, NCCE ended the second quarter of 2021 lower at \$441.0 billion as more normal market activity resumed.

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 (34.6 percent) and in corporations and other counterparties (56.0 percent) (see table 6). The combined exposure to hedge funds and sovereign governments was small (9.4 percent in total).

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

	Banks and securities firms	Hedge funds	Sovereign governments	Corporate and all other counterparties
2Q 2021	34.6%	2.7%	6.7%	56.0%
1Q 2021	37.5%	2.3%	6.7%	53.5%
4Q 2020	39.8%	2.2%	8.2%	49.9%
4Q 2019	44.2%	2.5%	9.2%	44.1%
4Q 2018	41.7%	5.0%	10.0%	43.2%
4Q 2017	41.7%	3.1%	7.9%	47.3%
4Q 2016	48.4%	2.0%	6.5%	43.0%

Source: Call reports, Schedule RC-L

A more risk-sensitive measure of credit exposure would consider the value of collateral held against counterparty exposures. Reporting banks held collateral valued at 92.7 percent of their total NCCE at the end of the second quarter of 2021, up from 91.0 percent in the first quarter of 2021 (see table 7). Collateral held against hedge fund exposures increased in the second quarter to 514.0 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.

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 %
2Q 2021	119.8%	514.0%	59.3%	59.7%	92.7%
1Q 2021	110.9%	490.2%	57.1%	63.8%	91.0%
4Q 2020	107.5%	467.6%	52.1%	59.5%	86.9%
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 66.7 percent held in cash (both U.S. dollar and Cash other currencies) and an additional 8.7 percent held in U.S. Treasuries and U.S. government agency securities (see table 8). Supervisors assess changes in the quality and liquidity of collateral held as a key early indicator of potential easing in credit terms. Examiners review the collateral management practices of derivative dealers as a regular part of their supervision activities.

Table 8: Composition of Collateral

	Cash U.S. \$	Cash other currencies	U.S. Treasury securities	U.S. government agency	Corp bonds	Equity securities	All other collateral
2Q 2021	42.0%	24.7%	7.3%	1.4%	1.4%	7.6%	15.6%
1Q 2021	41.3%	26.5%	6.6%	1.4%	1.6%	7.8%	14.8%
4Q 2020	39.5%	28.6%	7.8%	1.7%	1.1%	7.2%	14.1%
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

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 daily 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
2Q 2021 Average 60 Day VaR	\$163	\$167	\$68	\$220
1Q 2021 Average 60 Day VaR	\$306	\$127	\$57	\$173
Q/Q Change	-\$143	\$40	\$11	\$48
2Q 2021 Total Risk-Based Capital	\$269,803	\$165,462	\$184,226	\$38,741

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
2Q 2021 VaR Capital Requirement	\$489	\$500	\$204	\$660
1Q 2021 VaR Capital Requirement	\$917	\$380	\$171	\$518
Q/Q Change	-\$429	\$120	\$33	\$143
2Q 2021 Total Risk-Based Capital	\$269,803	\$165,462	\$184,226	\$38,741

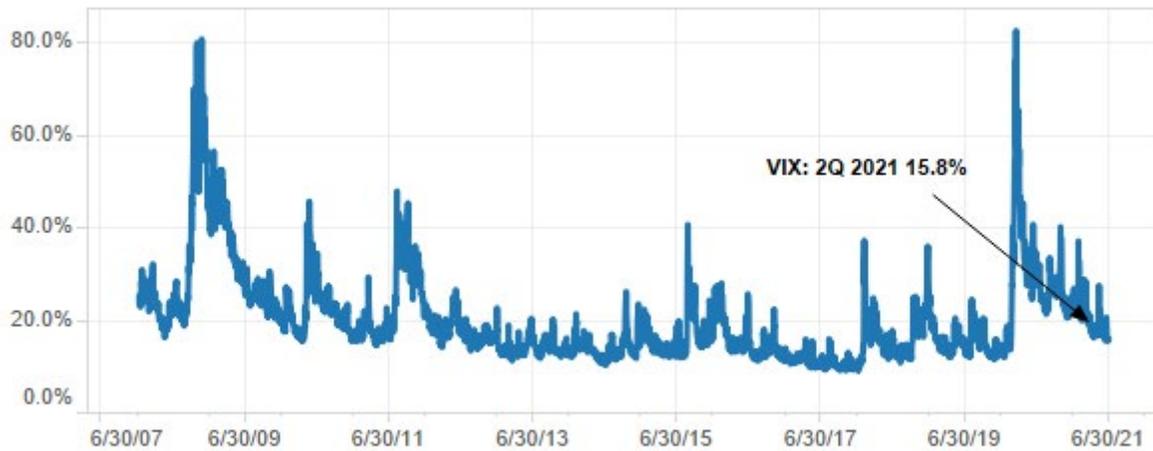
Source: Market Risk Regulatory Report for Institutions Subject to the Market Risk Capital Rule—FFIEC 102

Volatility Index

Figure 3 shows the VIX, a volatility index,³ which measures the market's expectation of stock market volatility in the S&P 500 index over the next 30-day period. Higher volatility as represented by the VIX is associated with increased equity trading volume, which drives increased bank and holding company equity trading revenue. The figure illustrates that there was an extended period of low volatility following the end of the 2008 financial crisis that continued until late in the first quarter of 2020. In mid-March 2020 volatility spiked as financial markets reacted to fears over the potential impact of the COVID-19 global pandemic. The VIX exceeded its previous high from the 2008 financial crisis before settling back to a more normal level of 15.8 percent at the end of the second quarter of 2021.

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

Figure 3: Volatility Index (VIX)

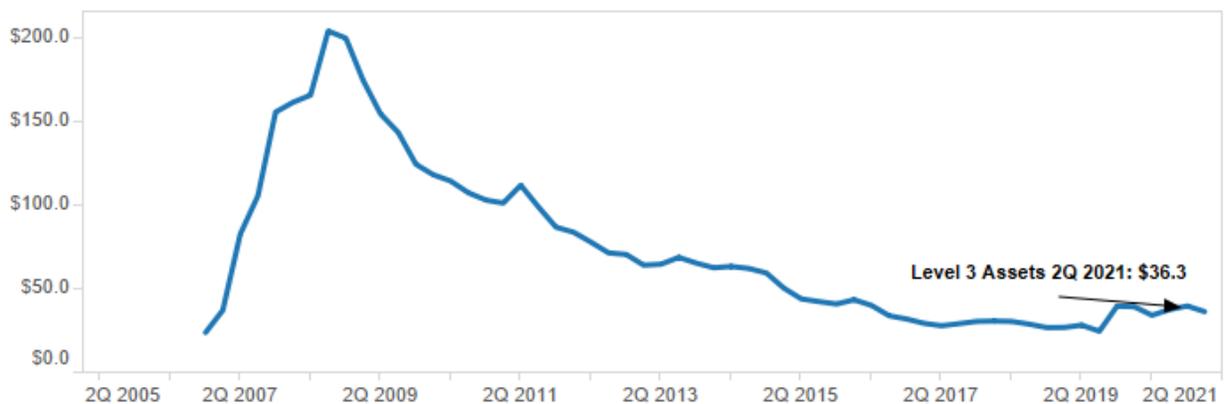


Source: Bloomberg

Level 3 Trading Assets

Another measure used to assess market risk is the volume of and changes in level 3 trading assets. Level 3 trading assets are assets whose fair value cannot be determined by using observable inputs, such as market prices. Since the peak of the financial crisis at the end of 2008, major dealers have reduced the volume of level 3 trading assets. Because the model inputs that determine the fair value of these exposures are not derived from observable market transactions, banks use their own model assumptions in determining their fair values. Level 3 trading assets peaked at \$204.1 billion at the end of 2008 (see figure 4). At the end of the second quarter of 2021, banks held \$36.3 billion of level 3 trading assets, down 8.5 percent from the previous quarter, and 7.4 percent lower than a year ago. Level 3 trading assets are \$167.8 billion (82.2 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 second quarter decreased by \$5.5 trillion (2.9 percent) to \$183.5 trillion from the previous quarter (see table 10). The decrease in the notional amount of derivative contracts by underlying risk exposure was primarily driven by decreases in interest rate and FX contracts. Interest rate notional amounts continued to represent the majority of banks' derivative holdings at \$133.3 trillion, or 72.6 percent of total derivatives (see table 10).

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

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change	2Q 2020	Y/Y Change	Y/Y % Change
Interest rate	\$133,298	\$137,433	-\$4,136	-3.0%	\$132,061	\$1,236	0.9%
FX	\$41,210	\$42,609	-\$1,399	-3.3%	\$39,191	\$2,019	5.2%
Equity	\$4,255	\$4,005	\$250	6.2%	\$3,574	\$681	19.0%
Commodity	\$1,632	\$1,582	\$50	3.1%	\$1,491	\$141	9.4%
Credit derivatives	\$3,106	\$3,361	-\$255	-7.6%	\$3,255	-\$148	-4.6%
Total notional	\$183,501	\$188,990	-\$5,489	-2.9%	\$179,573	\$3,928	2.2%

Source: Call reports, Schedule RC-L

The decrease in the total notional amount of derivative contracts by contract type was primarily driven by decreases in future and forward contracts and option contracts (see table 11). Swap contracts remained the leading derivatives contract type at 58.3 percent of all notional amounts.

The four banks with the most derivative activity hold 88.7 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 more information).

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

	2Q 2021	1Q 2021	Q/Q Change	Q/Q % Change	2Q 2020	Y/Y Change	Y/Y % Change
Futures and forwards	\$37,584	\$40,934	-\$3,350	-8.2%	\$41,020	-\$3,436	-8.4%
Swaps	\$106,971	\$107,720	-\$749	-0.7%	\$101,734	\$5,237	5.1%
Options	\$35,840	\$36,975	-\$1,135	-3.1%	\$33,564	\$2,275	6.8%
Credit derivatives	\$3,106	\$3,361	-\$255	-7.6%	\$3,255	-\$148	-4.6%
Total notional	\$183,501	\$188,990	-\$5,489	-2.9%	\$179,573	\$3,928	2.2%

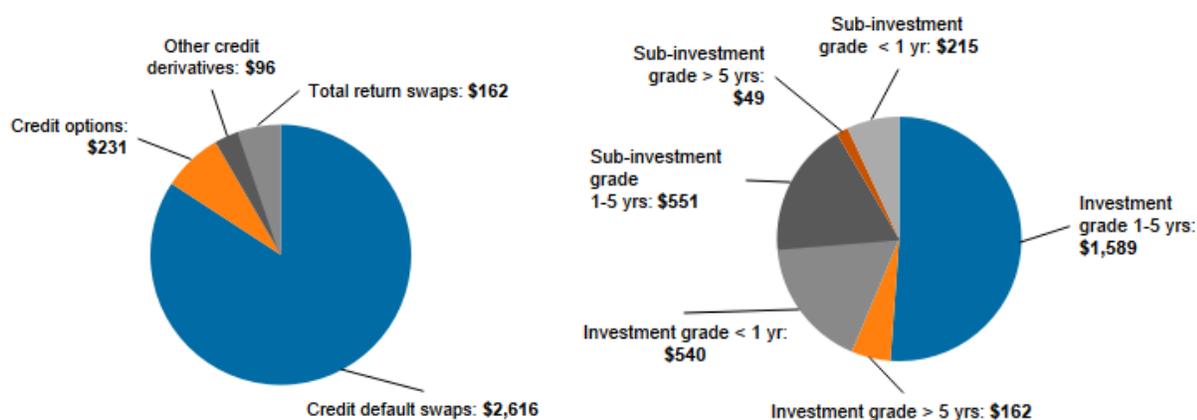
Source: Call reports, Schedule RC-L

Credit Derivatives

The notional amounts of credit derivatives decreased \$255.0 billion (7.6 percent), to \$3.1 trillion, in the second quarter of 2021 (see table 10). Contracts referencing investment-grade firms decreased \$135.0 billion and contracts referencing sub-investment-grade firms decreased \$120.0 billion in the second 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 \$2.6 trillion (84.3 percent) of all credit derivative notional amounts.

Credit derivative contracts referencing investment-grade entities with maturities from one to five years represented the largest segment of the market at \$1.6 trillion or 51.2 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are \$2.3 trillion or 73.8 percent of the market (see the chart on the right in figure 5).

Figure 5: 2Q 2021 Credit Derivative Composition, in Billions of Dollars



Source: Call reports, Schedule RC-L

The notional amount for the 102 banks that net sold credit protection (i.e., assumed credit risk) was \$1.5 trillion, down \$136.5 billion (8.5 percent) from the first quarter of 2021 (see table 12 in the appendix). The notional amount for the 76 banks that net purchased credit protection (i.e., hedged credit risk) was \$1.6 trillion, \$118.1 billion lower (6.7 percent) than in the first quarter of 2021 (see table 12 in the appendix).

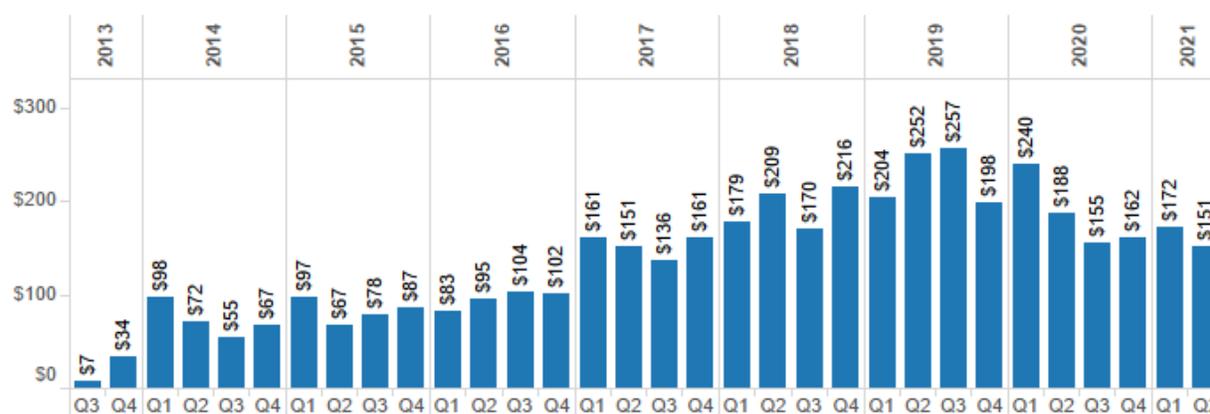
Compression Activity

Notional amounts of banks' derivative contracts have generally declined since 2013 because of trade compression efforts, leading to less need for risk management products. Trade compression continues to be a significant factor in reducing the amount of notional derivatives outstanding.

Trade compression aggregates a large number of swap contracts with similar factors, such as risk or cash flows, into fewer trades. Compression removes economic redundancy in a derivative

book and reduces operational risk and capital costs for large banks. Trade compression activities decreased in the second quarter of 2021, as shown in figure 6.

Figure 6: Quarterly Compression Activity, in Trillions of Dollars



Source: LCH Cleamnet

Centrally Cleared Derivative Contracts

In the first quarter of 2015, banks began reporting their volumes of cleared and uncleared derivative transactions, as well as risk weights for counterparties in each of these categories. In the second quarter of 2021, 39.5 percent of banks' derivative holdings were centrally cleared (see table 12). From a market factor perspective, 50.7 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 35.3 percent of credit derivative transactions were centrally cleared during the second quarter of 2021.

Centrally cleared derivative transactions were heavily concentrated at qualifying central counterparties, with 92.4 percent of notional amounts reflecting the 2 percent risk weight applicable to such counterparties.

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

	Interest rate	FX	Equity	Precious metals	Credit	Other	Total
2Q 2021	50.7%	2.0%	22.1%	3.3%	35.3%	14.1%	39.5%
1Q 2021	48.6%	2.0%	24.3%	2.9%	39.3%	12.3%	38.2%
4Q 2020	45.3%	1.9%	24.3%	2.1%	36.8%	12.4%	35.0%
3Q 2020	49.2%	1.9%	24.9%	2.8%	39.2%	12.9%	38.9%
2Q 2020	50.7%	1.9%	25.7%	2.0%	36.0%	12.0%	40.3%
1Q 2020	52.9%	2.0%	26.5%	2.1%	34.4%	11.8%	42.3%
4Q 2019	46.7%	1.7%	24.8%	2.8%	26.4%	11.5%	37.1%
3Q 2019	55.1%	1.5%	26.8%	6.5%	28.3%	15.2%	43.0%

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 organized exchanges.

Potential future exposure (PFE): An estimate of what the CCE could be over time, based on a supervisory formula in the agencies' risk-based capital rules. PFE is generally determined by multiplying the notional amount of the contract by a credit conversion factor that is based on the underlying market factor (e.g., interest rates, commodity prices, or equity prices) and the contract's remaining maturity. The risk-based capital rules, however, permit banks to adjust the formulaic PFE measure by the net-to-gross ratio, which proxies the risk-reduction benefits attributable to a valid bilateral netting contract. PFE data in this report use the amounts on which banks hold risk-based capital.

Qualifying central counterparties (QCCP): QCCPs are defined in 12 CFR 3.2 as a CCP either that the Financial Stability Oversight Council has designated systemically important under title VIII of the Dodd–Frank Wall Street Reform and Consumer Protection Act or that meets a series of standards. See 12 CFR 3.2 for a full definition.

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

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

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

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

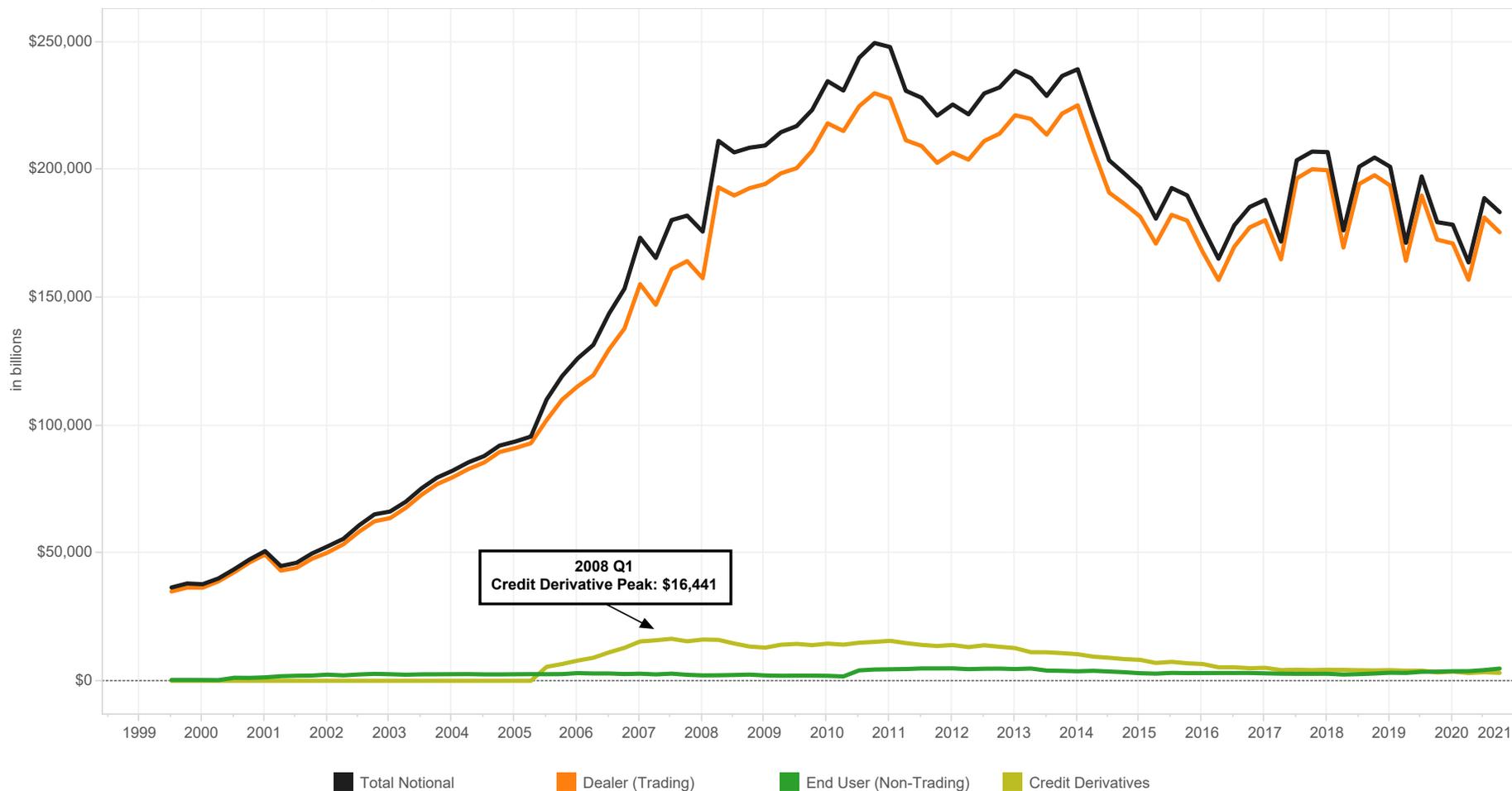
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Graph 1
Derivative Notional Amounts by Type
Insured U.S. Commercial Banks and Savings Associations

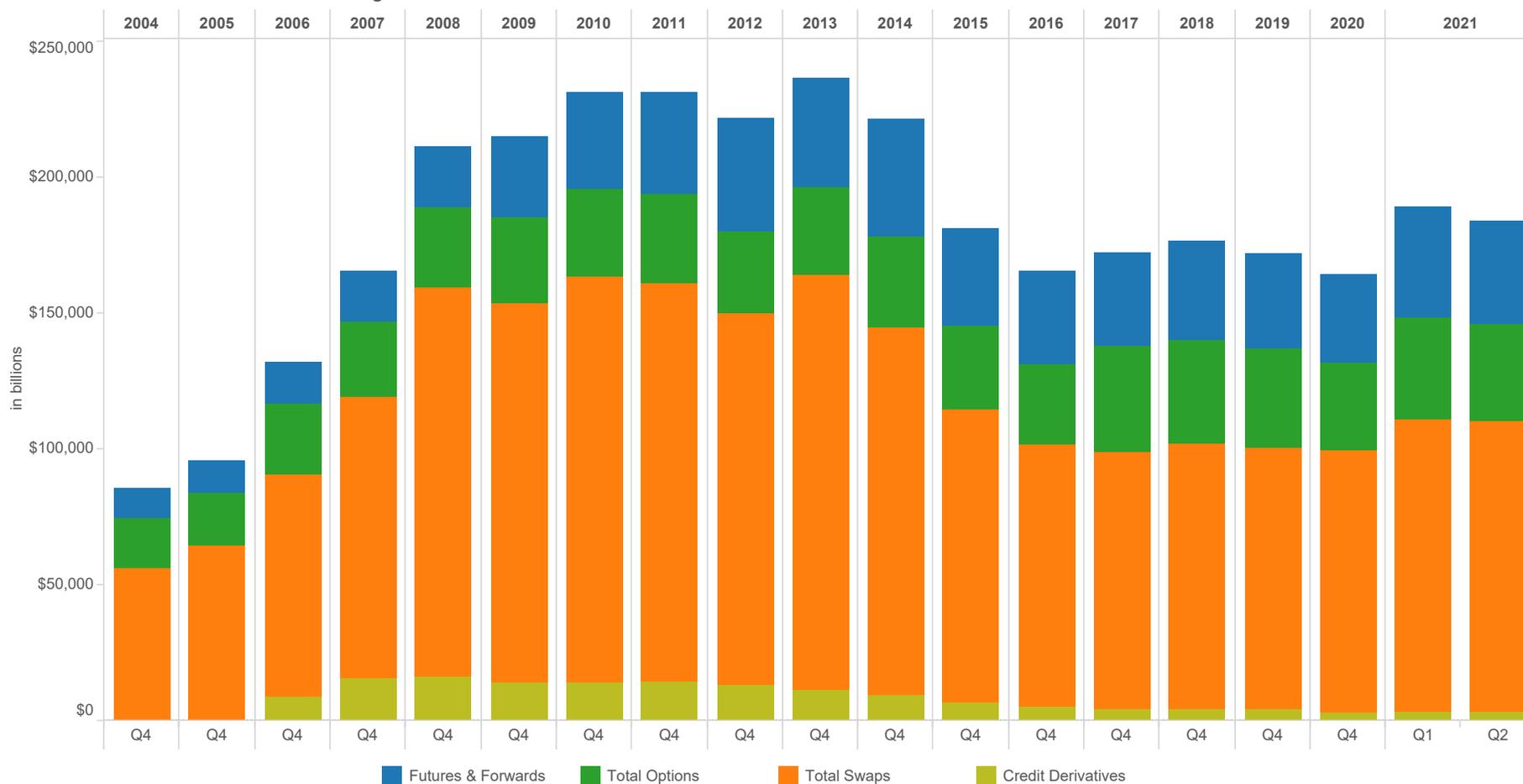


In billions of dollars

	2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2												
Total Notional	\$178,335	\$185,522	\$188,352	\$171,974	\$203,796	\$207,203	\$206,996	\$176,354	\$201,283	\$204,876	\$201,258	\$171,465	\$197,504	\$179,573	\$178,579	\$163,799	\$188,990	\$183,501
Dealer (Trading)	169,971	177,519	180,344	165,002	196,712	200,286	199,891	169,636	194,518	197,950	193,912	164,441	189,995	172,723	171,242	156,997	181,421	175,609
End User (Non-Trading)	3,061	3,069	2,918	2,786	2,738	2,738	2,764	2,448	2,620	2,852	3,163	3,079	3,522	3,595	3,757	3,768	4,208	4,786
Credit Derivatives	5,304	4,935	5,090	4,186	4,345	4,179	4,342	4,270	4,145	4,074	4,183	3,945	3,986	3,255	3,581	3,034	3,361	3,106

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, Schedule RC-L

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



In billions of dollars

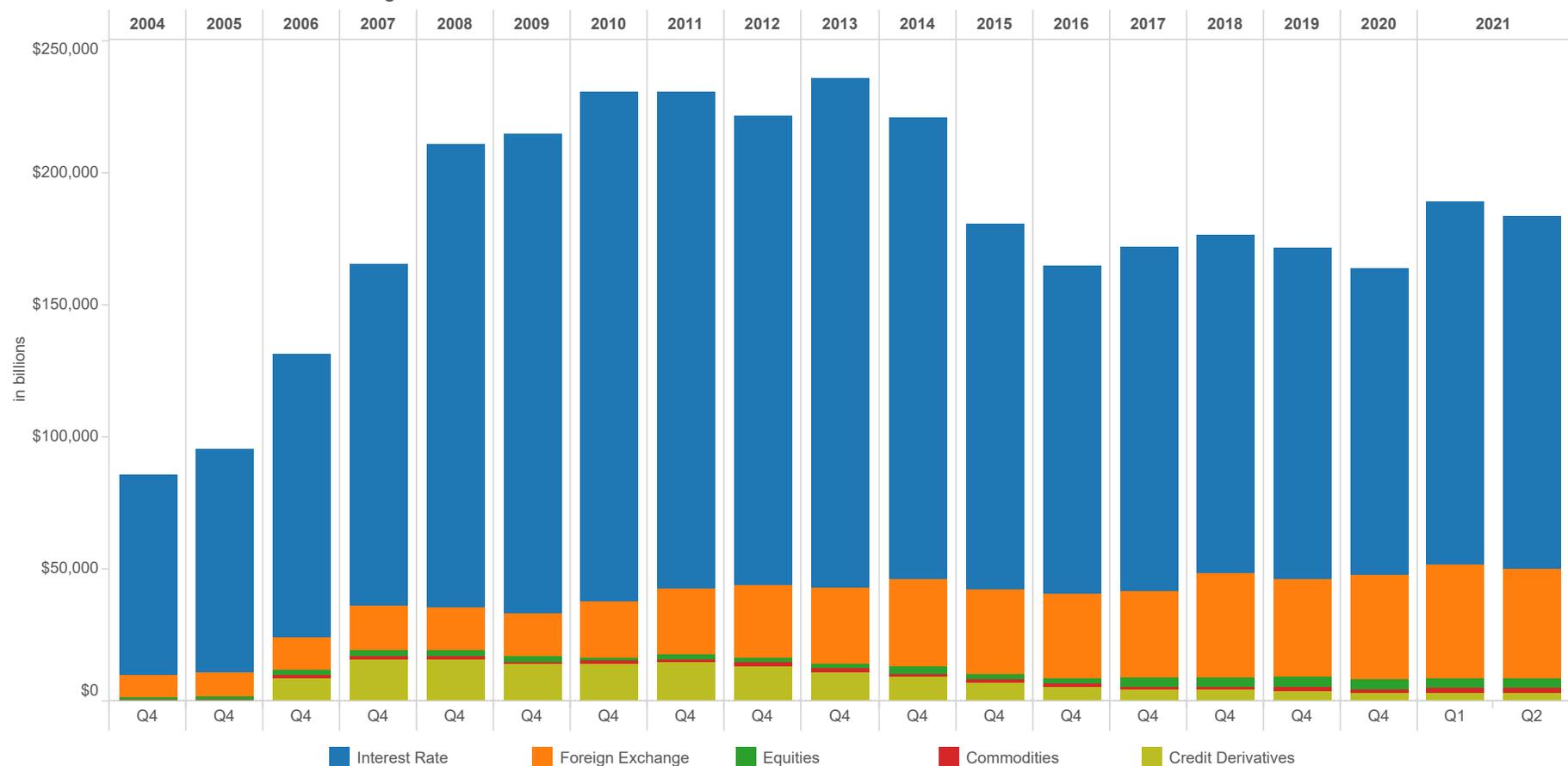
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
	Q4	Q1	Q2														
Futures & Forwards	\$14,882	\$18,867	\$22,529	\$29,652	\$35,539	\$37,469	\$41,621	\$40,027	\$43,380	\$35,691	\$34,201	\$34,162	\$36,145	\$34,789	\$32,350	\$40,934	\$37,584
Total Options	26,277	27,727	29,747	31,884	32,078	32,505	30,375	32,305	33,081	30,889	29,373	38,841	38,009	36,117	31,991	36,975	35,840
Total Swaps	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	96,423	107,720	106,971
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	3,034	3,361	3,106
Total Notional	131,519	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,974	176,354	171,465	163,799	188,990	183,501

*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, Schedule RC-L

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

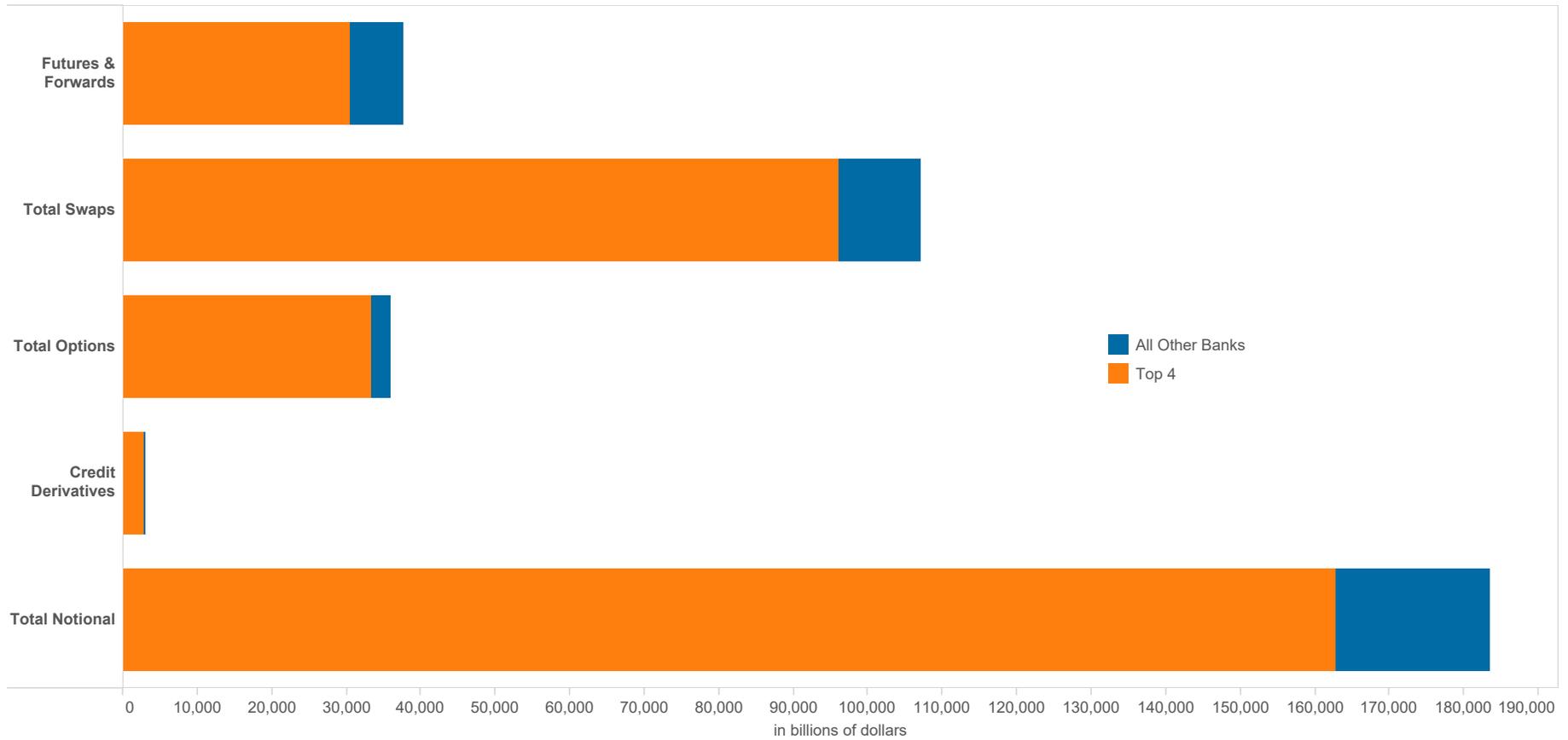


In billions of dollars

	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 Q4	2021 Q1 Q2	
Interest Rate	\$129,491	\$175,895	\$181,454	\$193,399	\$187,866	\$177,650	\$193,084	\$174,687	\$138,369	\$124,488	\$130,417	\$128,175	\$125,065	\$116,000	\$137,433	\$133,298
Foreign Exchange	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	39,596	42,609	41,210
Equities	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	3,775	4,005	4,255
Commodities	1,067	1,061	979	1,195	1,330	1,397	1,209	1,222	1,108	1,257	1,388	1,315	1,488	1,395	1,582	1,632
Credit Derivatives	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	3,034	3,361	3,106
Total Notional	165,559	211,416	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,974	176,354	171,465	163,799	188,990	183,501

*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, Schedule RC-L

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

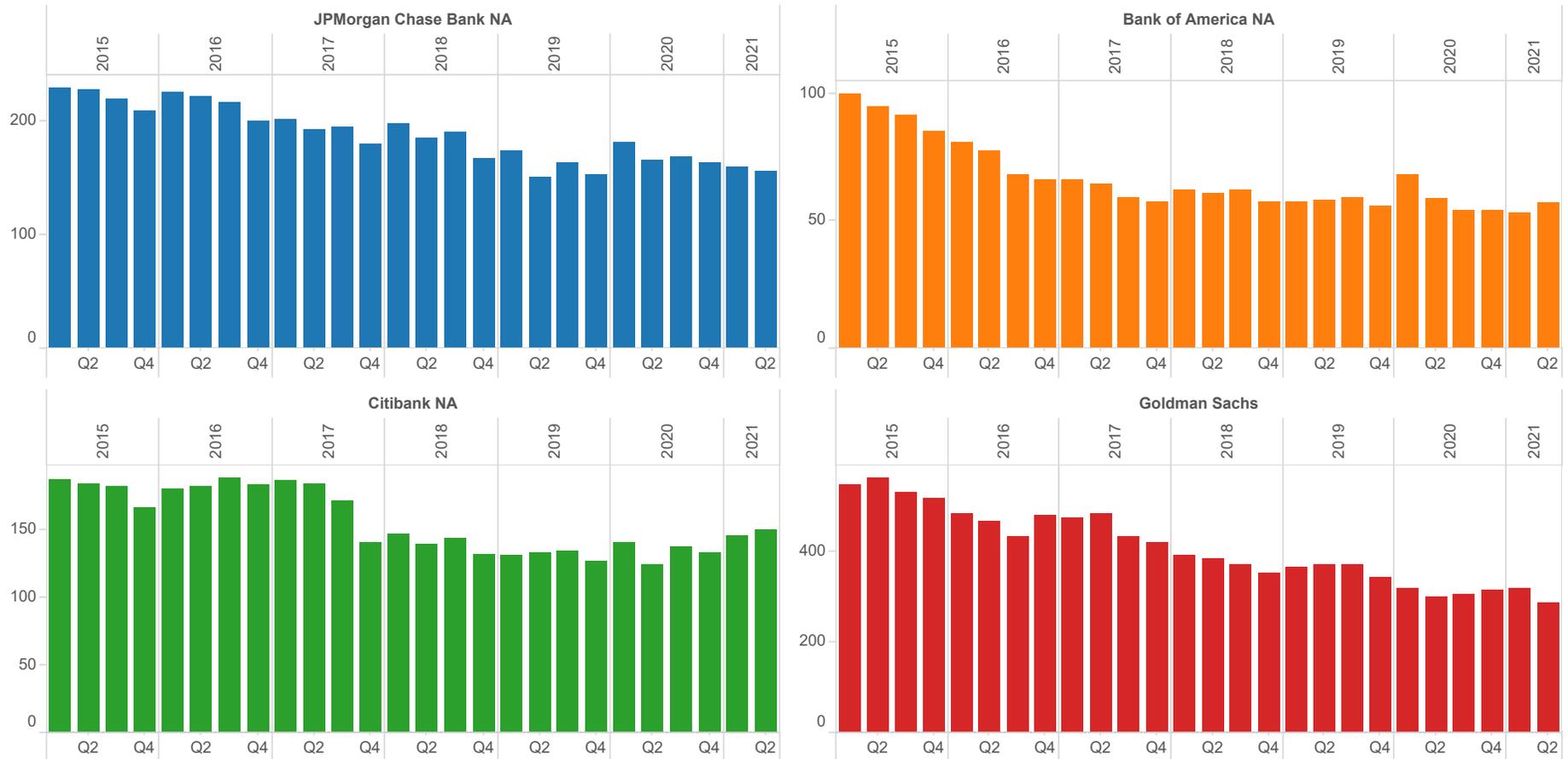


In billions of dollars

	Top 4	All Other Banks	Grand Total
Futures & Forwards	\$30,442	\$7,142	\$37,584
Total Swaps	96,060	10,911	106,971
Total Options	33,401	2,438	35,840
Credit Derivatives	2,912	194	3,106
Total Notional	162,816	20,685	183,501

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

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



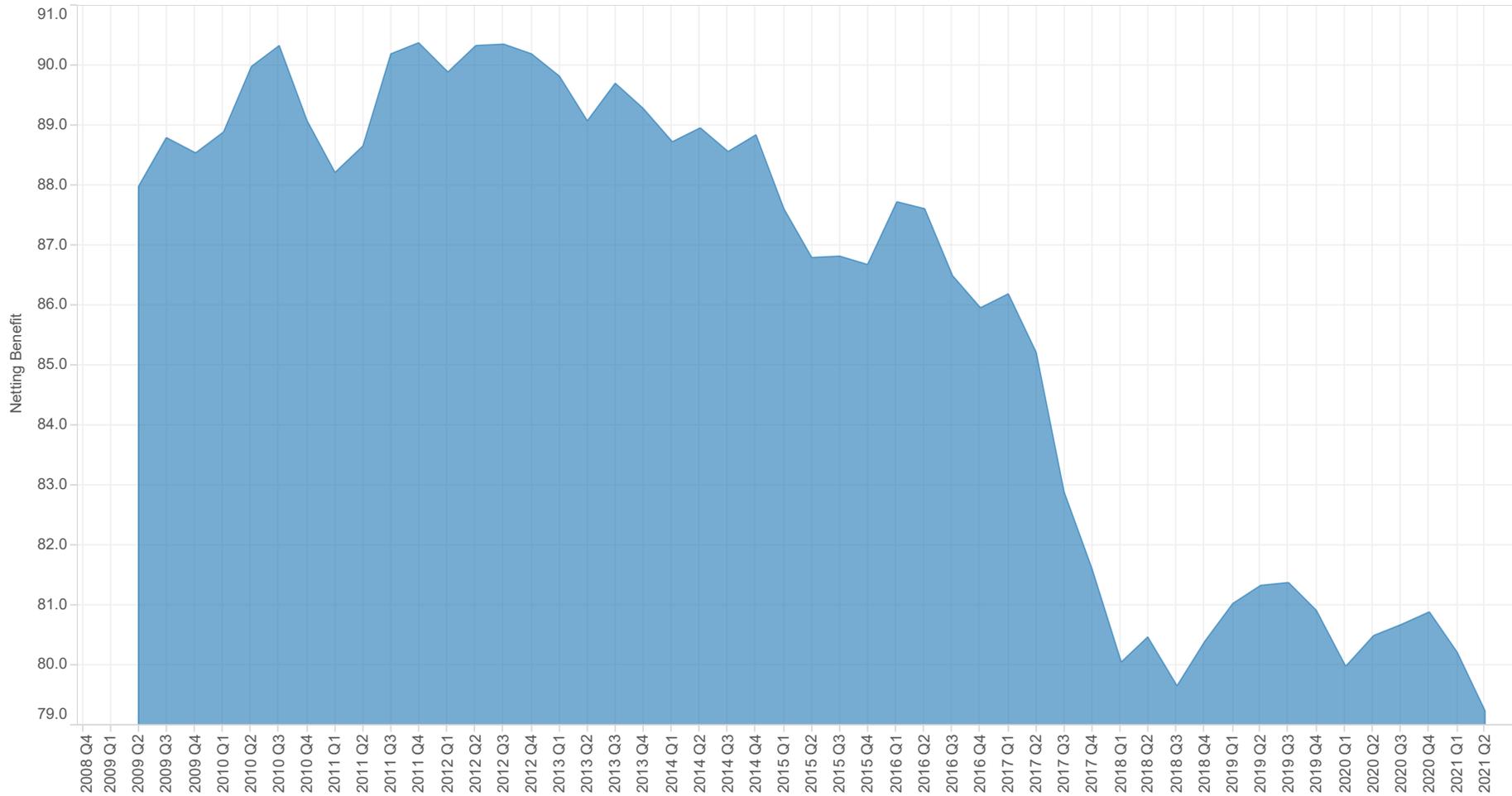
	2014				2015				2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2																								
JPMorgan Chase Bank NA	183	189	181	177	229	228	219	209	225	221	216	199	201	193	195	179	197	184	190	167	173	150	163	153	181	165	168	163	159	155
Bank of America NA	109	107	107	93	100	95	91	85	81	77	68	66	66	64	59	57	62	61	62	57	58	58	59	56	68	59	54	54	53	57
Citibank NA	147	156	190	173	187	184	181	166	180	181	188	183	186	184	171	140	146	139	144	132	130	132	134	126	140	125	137	132	145	150
Goldman Sachs	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	299	304	314	316	285
TOTAL	Q1	Q2	Q3	Q4	Q1	Q2																								
	248	240	224	211	238	242	232	223	226	222	217	220	220	218	205	191	195	187	188	173	178	169	176	164	174	160	165	163	165	158

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, Schedule RC-R

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

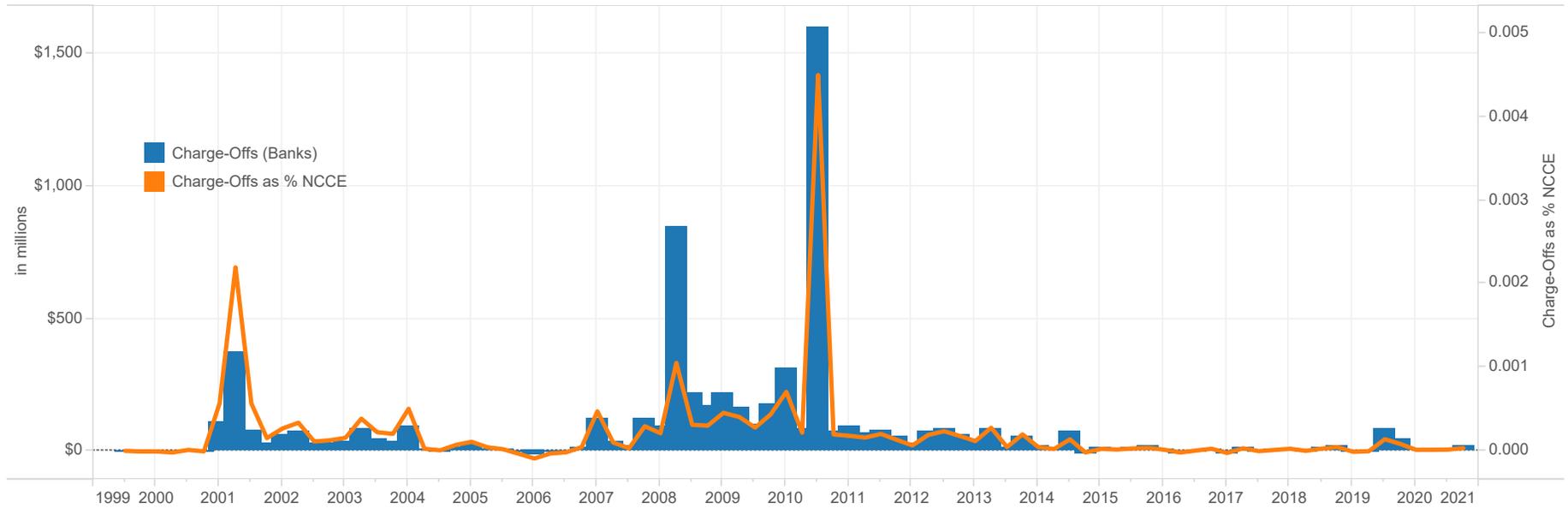


Netting Benefit

2013				2014				2015				2016				2017				2018				2019				2020				2021	
Q1	Q2	Q3	Q4	Q1	Q2																												
89.8	89.1	89.7	89.3	88.7	88.9	88.6	88.8	87.6	86.8	86.8	86.7	87.7	87.6	86.5	86.0	86.2	85.2	82.9	81.6	80.0	80.5	79.7	80.4	81.0	81.3	81.4	80.9	80.0	80.5	80.7	80.9	80.2	79.2

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

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



In millions of dollars

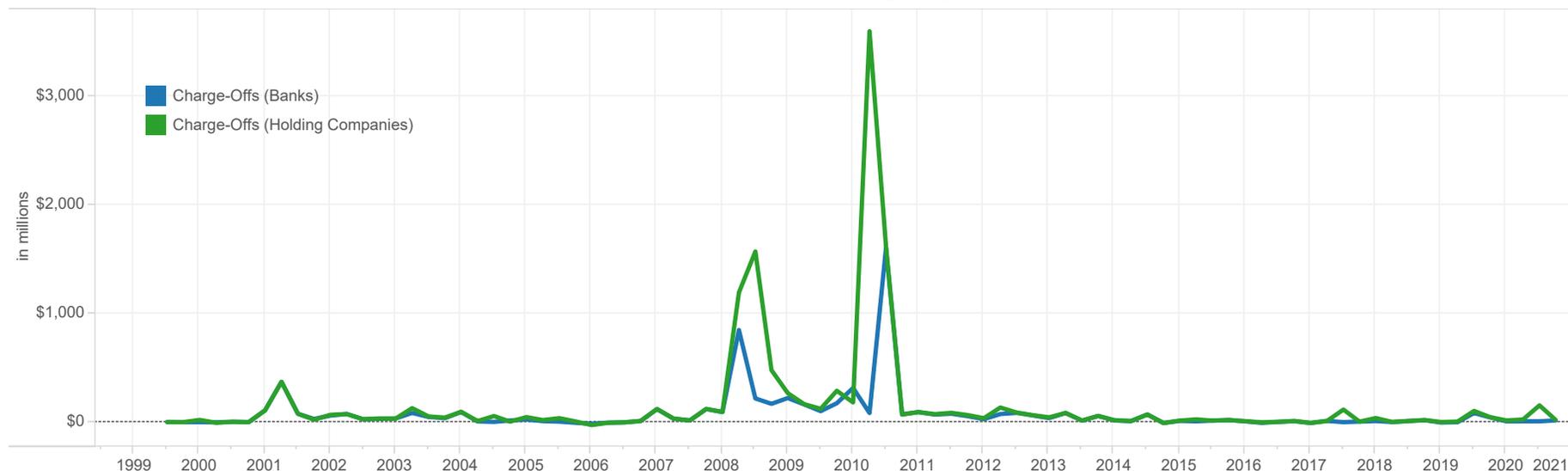
	2000				2001				2002				2003									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
Charge-Offs (Banks)	0.0	-1.0	-1.0	-3.0	2.0	-1.0	107.3	370.0	75.8	28.2	59.0	73.7	25.3	29.9	32.3	83.7						
	2004				2005				2006				2007									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
Charge-Offs (Banks)	46.7	34.9	92.2	5.4	1.3	14.2	23.0	8.3	3.6	-7.0	-16.0	-5.8	-3.1	9.1	119.5	30.7						
	2008				2009				2010				2011									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
Charge-Offs (Banks)	15	120	92	847	217	168	221	162	100	173	314	83	1,601	72	91	69						
	2012				2013				2014				2015									
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4						
Charge-Offs (Banks)	76.35	54.34	26.12	73.44	84.28	60.72	35.77	83.45	12.78	55.90	14.53	7.91	69.31	-7.93	10.44	6.40						
	2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Charge-Offs (Banks)	13.30	18.56	6.48	-7.84	1.22	8.71	-8.77	10.26	-1.14	3.97	8.80	0.06	9.11	17.23	-4.78	-1.45	82.70	42.08	5.98	6.62	6.77	14.70

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

Graph 8

Quarterly Charge-Offs/(Recoveries) From Derivatives - Holding Company

Insured U.S. Commercial Banks and Savings Associations with Derivatives Compared with Holding Companies

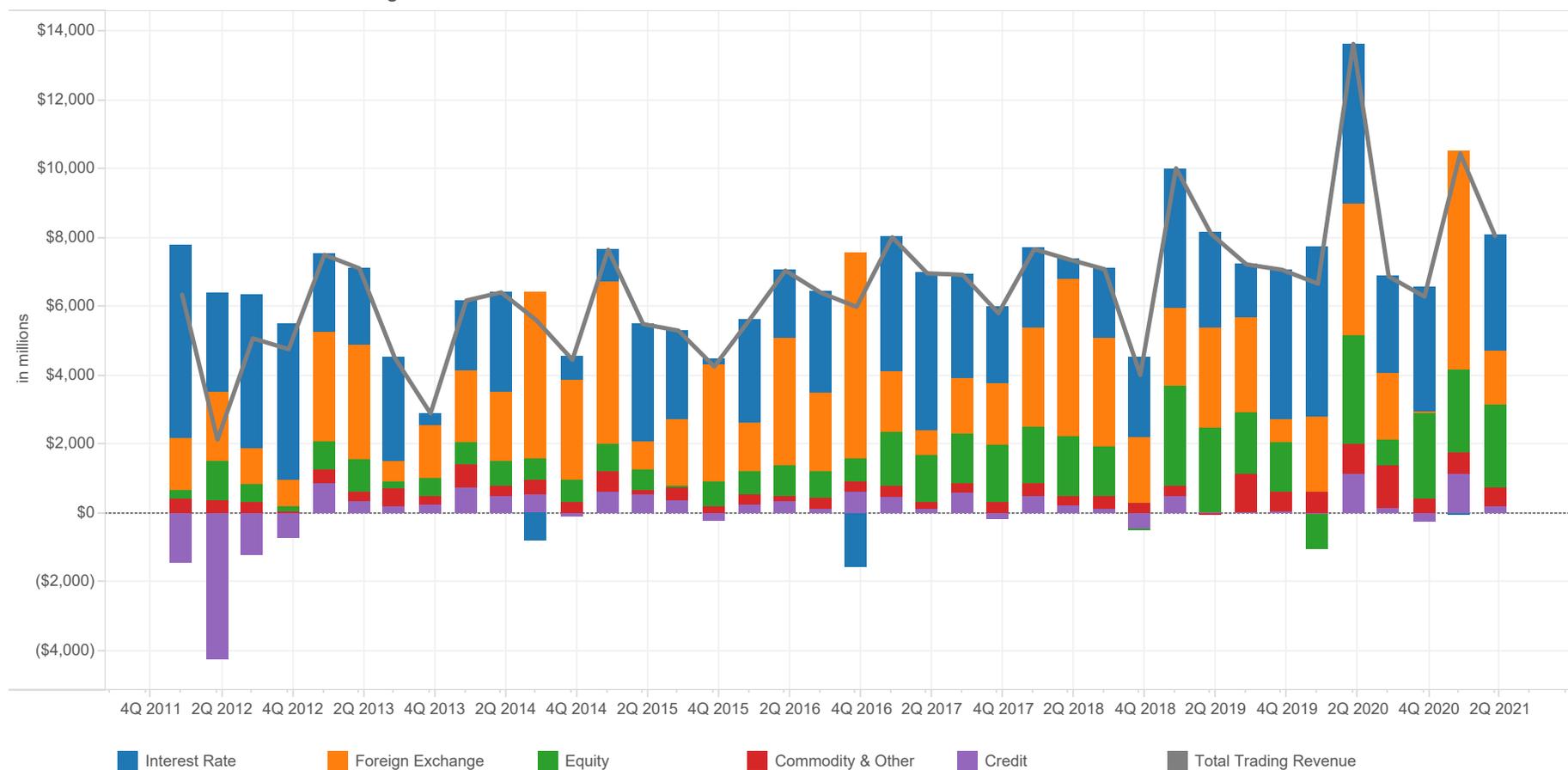


In millions of dollars

	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				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Charge-Offs (Banks)	100	173	314	83	1,601	72	91	69	76	54	26	73	84	61	36	83	13	56	15	8	69	-8	10	6
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	69	-10	13	24
	2016				2017				2018				2019				2020				2021			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2		
Charge-Offs (Banks)	13.3	18.6	6.5	-7.8	1.2	8.7	-8.8	10.3	-1.1	4.0	8.8	0.1	9.1	17.2	-4.8	-1.5	82.7	42.1	6.0	6.6	6.8	14.7		
Charge-Offs (Holding Companies)	12.8	18.0	7.5	-2.5	1.4	8.9	-8.3	9.6	114.5	3.5	36.6	0.1	9.5	17.9	-0.3	4.1	102.1	44.2	14.6	23.3	153.3	19.7		

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

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

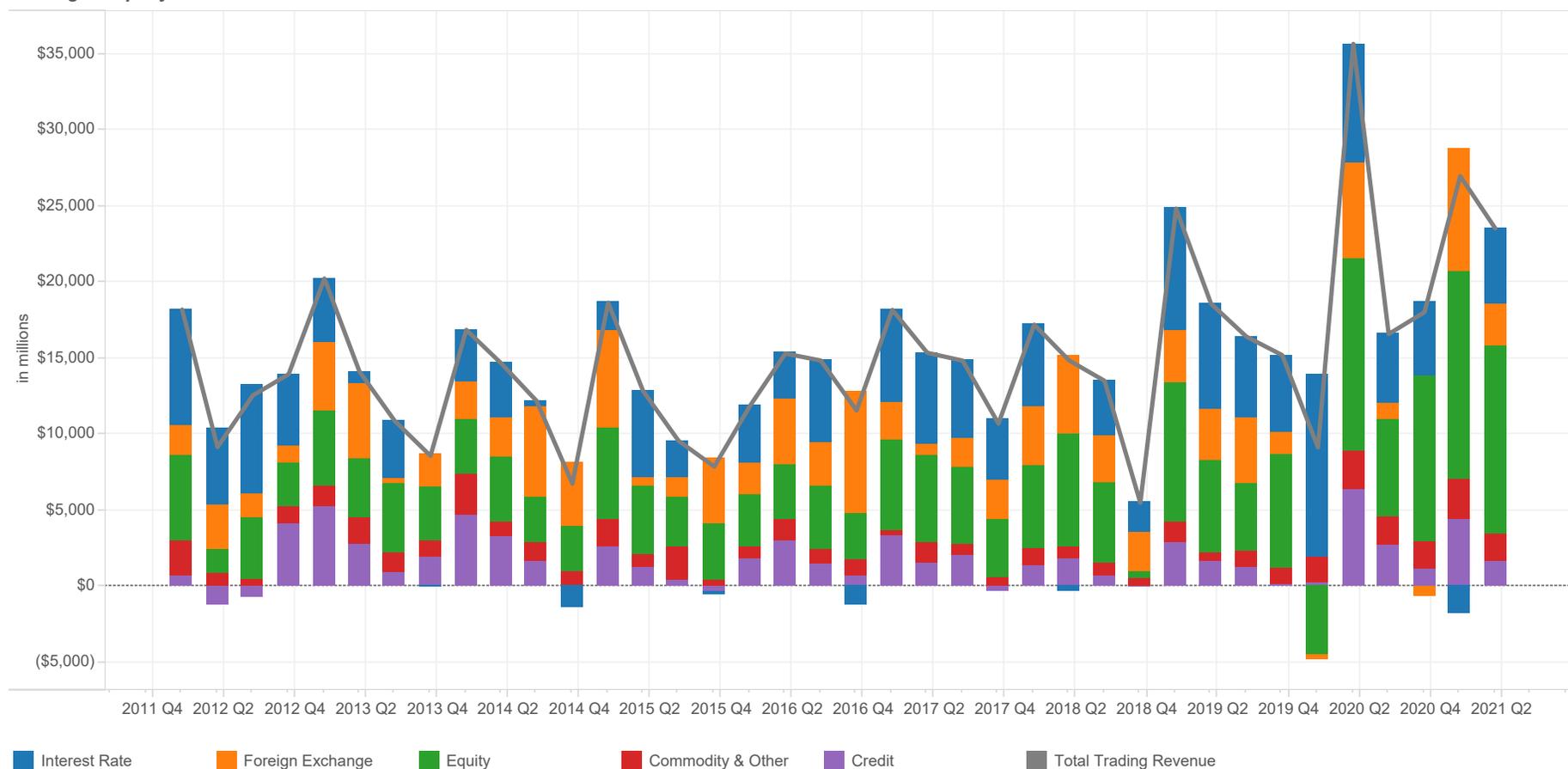


In millions of dollars

	2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Interest Rate	\$3,917	\$4,586	\$3,011	\$2,220	\$2,317	\$587	\$2,020	\$2,305	\$4,078	\$2,780	\$1,567	\$4,361	\$4,942	\$4,634	\$2,821	\$3,616	(\$42)	\$3,369
Foreign Exchange	1,743	697	1,608	1,811	2,861	4,569	3,149	1,971	2,254	2,900	2,718	662	2,167	3,841	1,942	18	6,343	1,546
Equity	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	3,139	750	2,480	2,388	2,384
Commodity & Other	330	211	300	324	395	286	349	274	323	-43	1,109	600	646	905	1,226	434	622	549
Credit	447	128	566	-178	487	215	141	-476	485	30	43	34	-34	1,129	154	-243	1,151	217
Total Trading Revenue	8,031	6,981	6,940	5,824	7,684	7,384	7,103	4,030	10,035	8,131	7,242	7,083	6,681	13,648	6,893	6,305	10,462	8,066

*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, Schedule RI

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

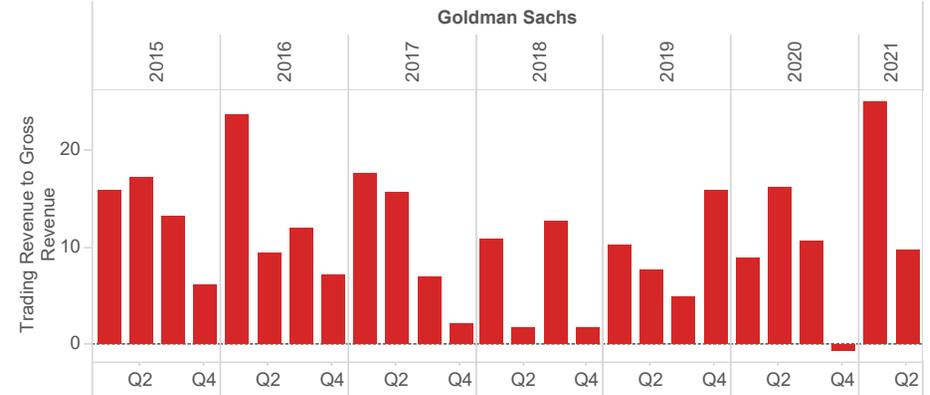
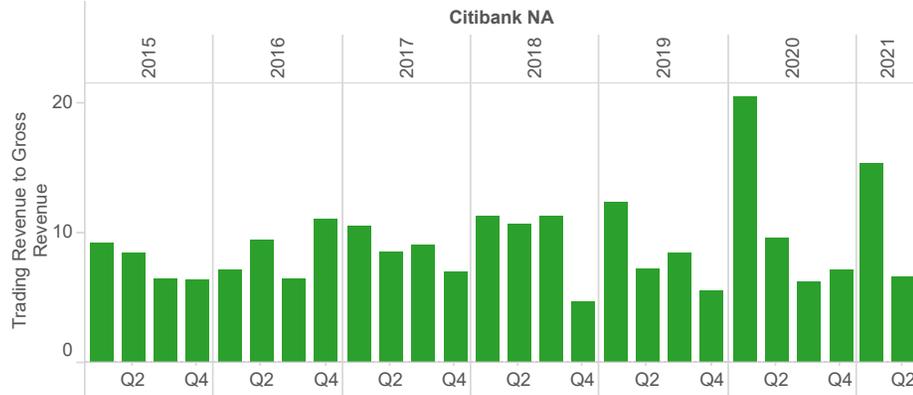
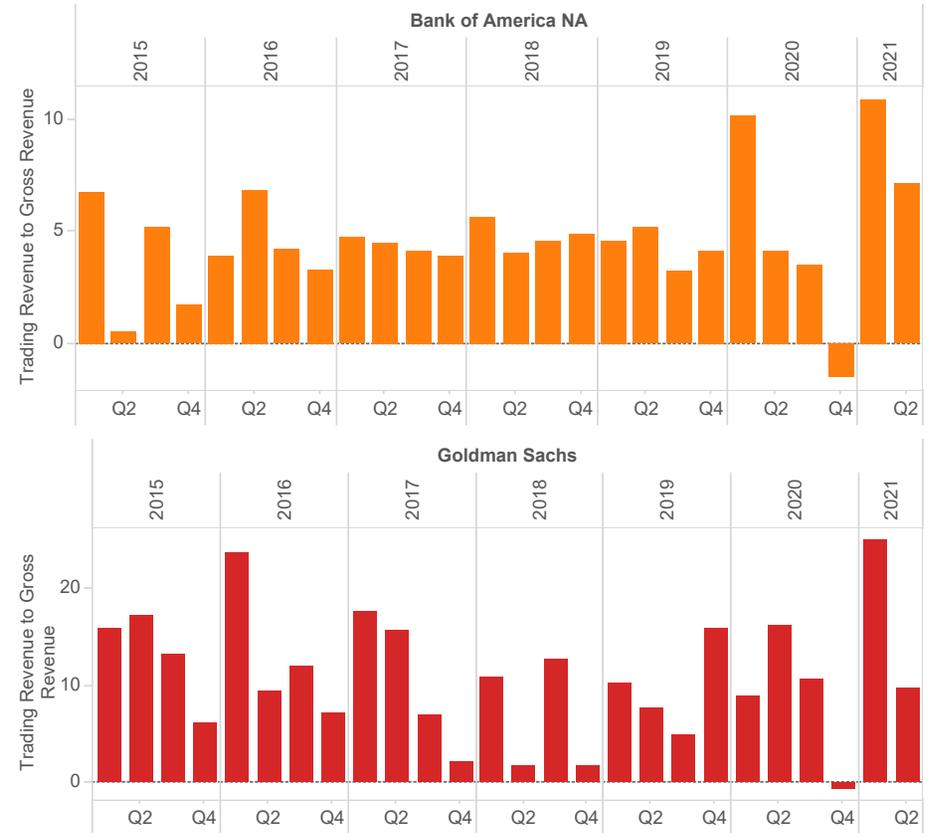


In millions of dollars

	2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Interest Rate	\$6,055	\$6,019	\$5,124	\$4,006	\$5,361	(\$336)	\$3,550	\$1,997	\$8,050	\$6,973	\$5,377	\$5,075	\$12,036	\$7,801	\$4,582	\$4,867	(\$1,792)	\$4,968
Foreign Exchange	2,524	733	1,848	2,589	3,900	5,133	3,222	2,530	3,396	3,351	4,241	1,463	-302	6,374	1,037	-628	8,051	2,732
Equity	5,939	5,783	5,123	3,867	5,431	7,445	5,222	502	9,215	6,083	4,548	7,546	-4,499	12,604	6,424	10,826	13,698	12,409
Commodity & Other	299	1,317	769	568	1,177	779	874	508	1,298	512	1,045	981	1,664	2,486	1,912	1,804	2,665	1,802
Credit	3,381	1,523	1,996	-310	1,359	1,848	666	-25	2,903	1,684	1,226	159	257	6,431	2,654	1,181	4,382	1,657
Total Trading Revenue	18,198	15,376	14,861	10,721	17,229	14,870	13,534	5,513	24,862	18,604	16,437	15,223	9,157	35,696	16,610	18,049	27,003	23,568

*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, Schedule HI

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



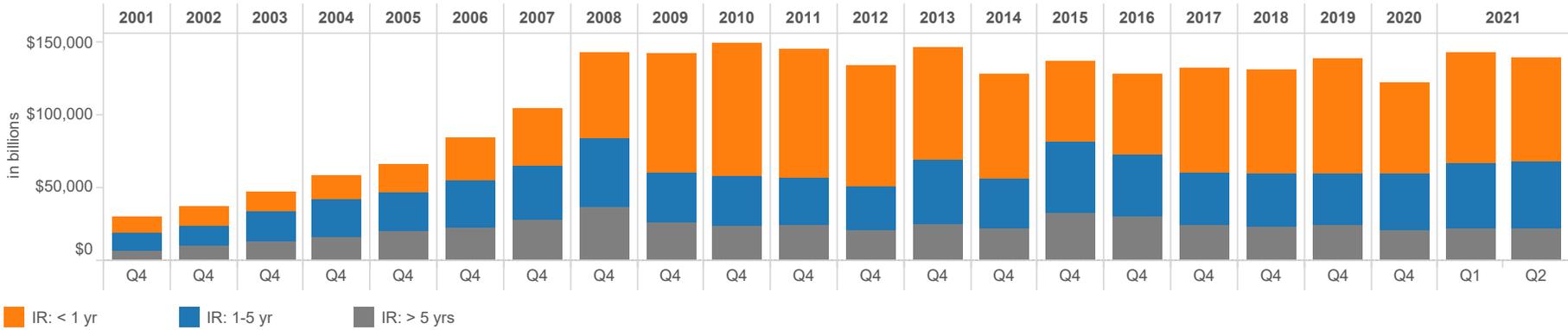
Trading Revenue to Gross Revenue*

	2015				2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
JPMorgan Chase Bank NA	17.73	13.25	12.65	7.03	12.26	13.34	13.83	11.17	17.98	13.66	14.01	11.52	11.90	12.19	10.26	3.92	18.57	14.57	11.30	12.62	-3.33	30.88	14.83	16.96	16.12	17.50
Bank of America NA	6.78	0.49	5.19	1.72	3.90	6.87	4.18	3.28	4.70	4.49	4.09	3.87	5.62	4.04	4.54	4.90	4.60	5.14	3.20	4.09	10.13	4.14	3.55	-1.52	10.89	7.10
Citibank NA	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	9.63	6.27	7.08	15.35	6.63
Goldman Sachs	15.85	17.32	13.32	6.16	23.78	9.54	12.16	7.22	17.71	15.66	7.10	2.15	10.85	1.84	12.77	1.86	10.31	7.78	4.98	15.90	8.96	16.21	10.68	-0.56	25.05	9.89
TOTAL	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
	11.68	7.62	8.41	5.03	8.45	10.14	8.51	8.51	11.68	9.32	9.39	7.55	9.77	8.95	8.82	4.36	12.43	9.60	8.01	8.61	7.44	18.00	9.49	8.91	14.87	11.87

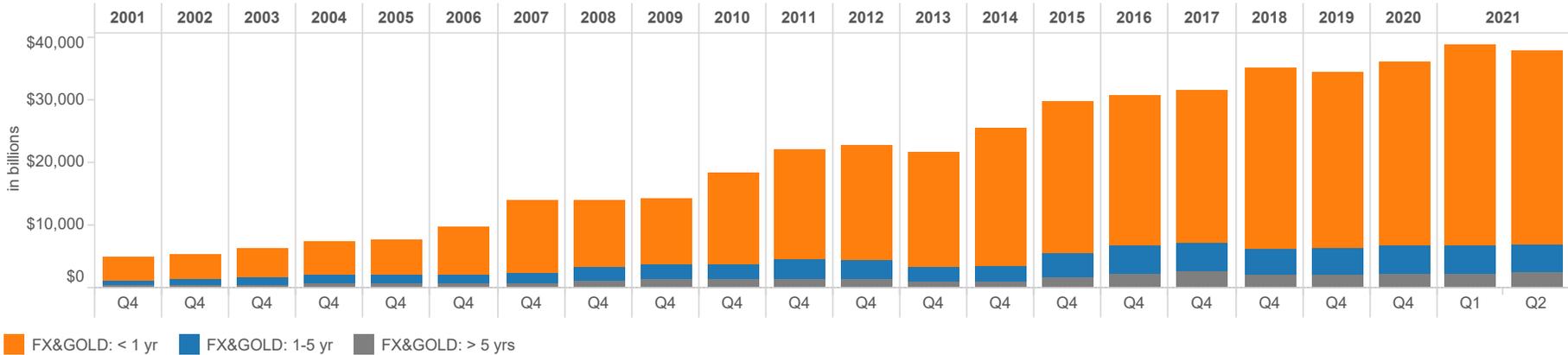
*The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.
 Note: Gross revenue equals interest income plus non-interest income.
 Source: Call reports, Schedule RI

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

Interest Rate



FX & Gold



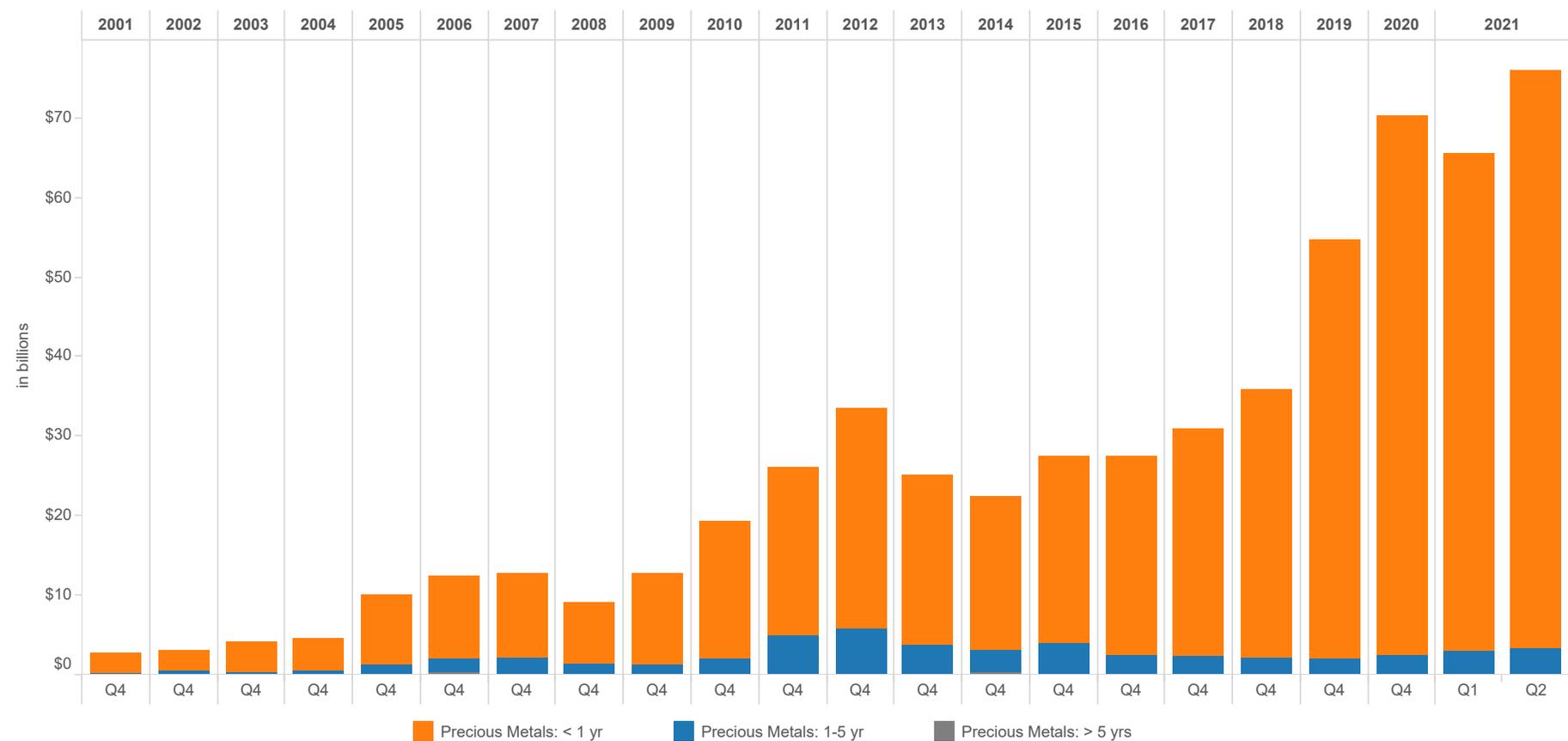
In billions of dollars

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
	Q4	Q1	Q2																
IR: < 1 yr	\$15,921	\$18,483	\$29,552	\$39,085	\$58,618	\$81,236	\$90,843	\$87,812	\$82,948	\$77,758	\$71,808	\$55,054	\$55,061	\$72,589	\$71,492	\$79,132	\$62,444	\$76,502	\$71,252
IR: 1-5 yr	25,893	27,683	31,386	37,222	47,456	33,970	33,497	32,750	30,191	44,157	33,727	49,406	43,261	36,154	36,681	35,854	39,198	44,408	45,944
IR: > 5 yrs	16,492	19,825	23,273	27,724	36,868	26,374	24,307	24,168	21,175	24,630	22,214	32,981	29,762	23,565	23,244	24,259	20,838	22,231	22,273
FX&GOLD: < 1 yr	5,384	5,728	7,730	11,660	10,640	10,490	14,629	17,632	18,386	18,372	22,145	24,130	23,912	24,380	28,891	28,241	29,434	32,130	30,840
FX&GOLD: 1-5 yr	1,317	1,381	1,452	1,639	2,195	2,473	2,462	3,117	2,910	2,341	2,587	3,986	4,454	4,805	4,219	4,052	4,404	4,336	4,558
FX&GOLD: > 5 yrs	762	689	594	622	1,082	1,347	1,290	1,503	1,480	1,029	969	1,648	2,420	2,525	2,096	2,146	2,402	2,405	2,503

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, Schedule RC-R

Graph 12
Notional Amounts of Precious Metal Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations

Precious Metals



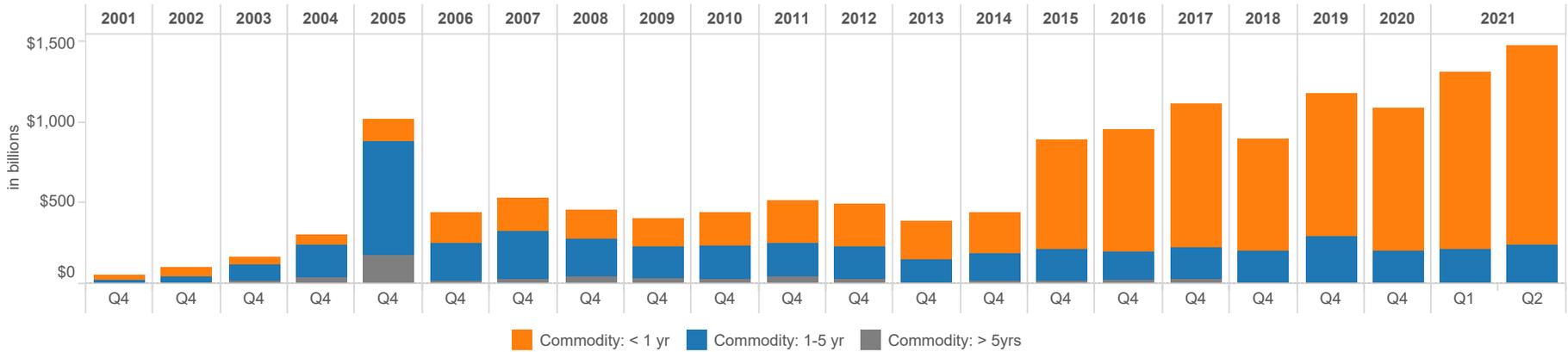
In billions of dollars

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
Precious Metals: < 1 yr	\$3.87	\$4.04	\$8.59	\$10.35	\$10.72	\$7.55	\$11.55	\$17.47	\$21.12	\$27.68	\$21.41	\$19.29	\$23.51	\$25.07	\$28.62	\$33.62	\$52.58	\$67.80	\$62.60	\$72.78
Precious Metals: 1-5 yr	0.33	0.51	1.29	1.75	2.10	1.51	1.24	1.89	4.74	5.82	3.80	2.84	3.92	2.49	2.38	2.25	2.06	2.53	3.03	3.23
Precious Metals: > 5 yrs	0.00	0.00	0.06	0.33	0.01	0.00	0.00	0.03	0.10	0.03	0.00	0.29	0.07	0.02	0.01	0.01	0.00	0.00	0.00	0.00

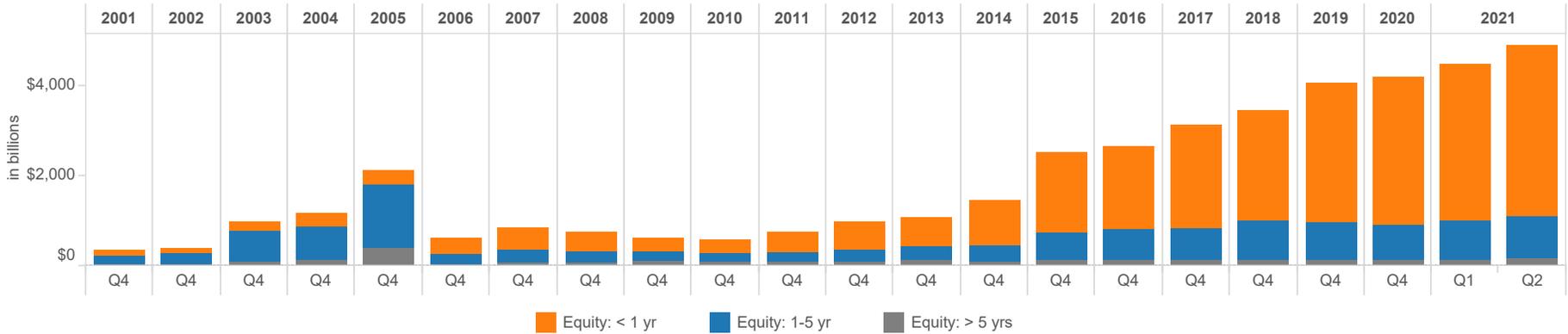
Note: Figures exclude FX contracts with an original maturity of 14 days or less, written options, basis swaps, and any other contracts not subject to risk-based capital requirements.
 Source: Call reports, Schedule RC-R

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

Commodity



Equity

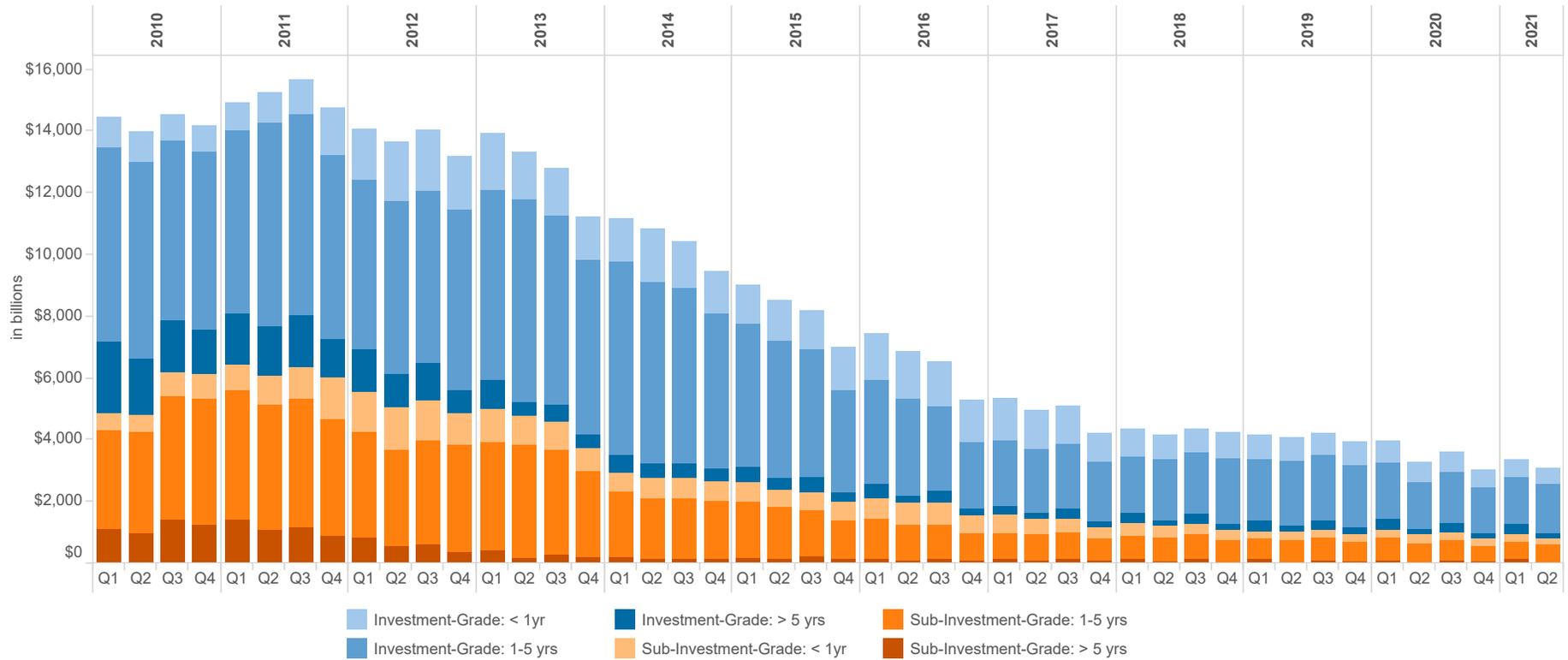


In billions of dollars

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
Commodity: < 1 yr	\$55	\$43	\$64	\$133	\$185	\$206	\$179	\$176	\$203	\$261	\$261	\$235	\$257	\$668	\$750	\$883	\$688	\$884	\$879	\$1,098	\$1,225
Commodity: 1-5 yr	35	103	205	707	235	297	233	198	209	209	208	144	164	197	179	202	198	286	198	201	236
Commodity: > 5yrs	9	14	40	175	20	25	43	33	25	46	28	6	20	22	23	25	9	10	9	10	10
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	3,287	3,504	3,807
Equity: 1-5 yr	249	674	736	1,428	221	297	256	228	191	210	262	291	352	628	677	733	864	844	771	871	957
Equity: > 5 yrs	25	84	140	383	45	70	72	82	85	94	82	136	101	130	123	113	139	136	139	124	153

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, Schedule RC-R

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

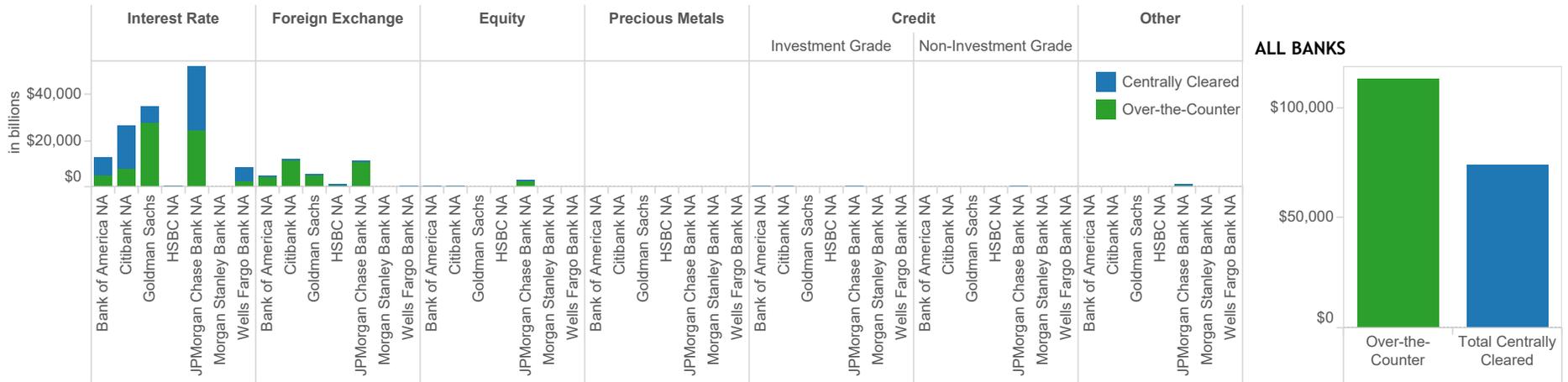


In billions of dollars

	2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2																
Investment-Grade: < 1yr	\$1,471	\$1,549	\$1,451	\$1,348	\$1,343	\$1,234	\$1,216	\$934	\$880	\$805	\$764	\$837	\$763	\$758	\$675	\$781	\$726	\$619	\$648	\$554	\$547	\$540
Investment-Grade: 1-5 yrs	3,400	3,101	2,765	2,170	2,072	2,073	2,085	1,897	1,839	1,995	1,988	2,173	1,976	2,083	2,084	2,018	1,799	1,523	1,637	1,521	1,545	1,589
Investment-Grade: > 5 yrs	457	262	385	214	309	195	345	186	331	184	338	204	367	189	330	198	367	171	336	160	334	162
Total Investment Grade	\$5,328	\$4,911	\$4,601	\$3,732	\$3,724	\$3,502	\$3,647	\$3,016	\$3,050	\$2,984	\$3,089	\$3,214	\$3,106	\$3,030	\$3,089	\$2,997	\$2,891	\$2,313	\$2,622	\$2,235	\$2,426	\$2,291
	2016				2017				2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2																
Sub-Investment-Grade: < 1yr	\$622	\$683	\$683	\$581	\$582	\$509	\$480	\$375	\$400	\$335	\$318	\$304	\$259	\$283	\$275	\$268	\$247	\$278	\$233	\$218	\$245	\$215
Sub-Investment-Grade: 1-5 yrs	1,313	1,159	1,122	869	838	830	814	718	763	791	801	691	661	701	708	624	743	608	618	533	570	551
Sub-Investment-Grade: > 5 yrs	155	101	157	111	159	93	149	77	133	69	133	61	119	60	111	56	105	56	108	48	119	49
Total Sub-Investment Grade	\$2,090	\$1,943	\$1,962	\$1,561	\$1,579	\$1,432	\$1,443	\$1,170	\$1,296	\$1,195	\$1,252	\$1,056	\$1,039	\$1,044	\$1,093	\$947	\$1,095	\$942	\$959	\$799	\$935	\$815

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, Schedule RC-L

Graph 15
2Q 2021 Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

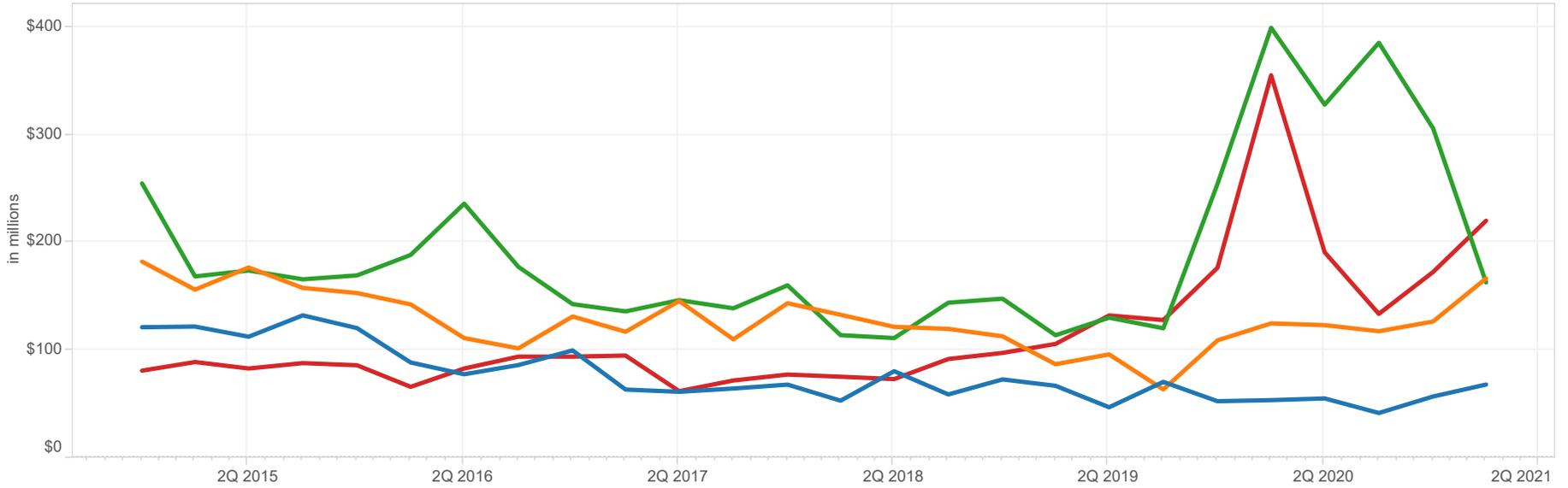
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared	Over-the-Counter	Total Notional
	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter									
JPMorgan Chase Bank NA	27,281	24,806	169	11,012	826	2,293	0	38	440	403	158	200	105	1,002	28,978	39,755	68,732
Citibank NA	18,860	7,523	327	11,524	45	690	2	10	239	603	51	239	91	105	19,615	20,694	40,309
Bank of America NA	8,348	4,536	116	4,518	166	570	0	10	142	180	41	83	0	19	8,813	9,916	18,729
Goldman Sachs	7,048	27,868	113	5,338	0	15	0	0	0	105	0	65	0	4	7,161	33,396	40,557
HSBC NA	71	253	40	1,121	0	31	0	12	0	3	1	3	0	0	112	1,422	1,534
Wells Fargo Bank NA	6,451	2,158	0	517	51	161	0	2	0	4	0	20	1	58	6,504	2,921	9,424
Morgan Stanley Bank NA	0	41	0	19	0	38	0	0	0	5	0	3	0	0	0	105	106
Grand Total	68,059	67,184	764	34,049	1,088	3,797	3	73	822	1,303	251	613	196	1,189	71,183	108,209	179,392
ALL OTHER	2,646	1,578	5	3,081	0	32	0	0	1	26	0	24	10	75	2,664	4,817	7,480
TOTAL	70,706	68,763	770	37,130	1,088	3,829	3	73	823	1,329	251	636	207	1,264	73,847	113,026	186,873

% of Total

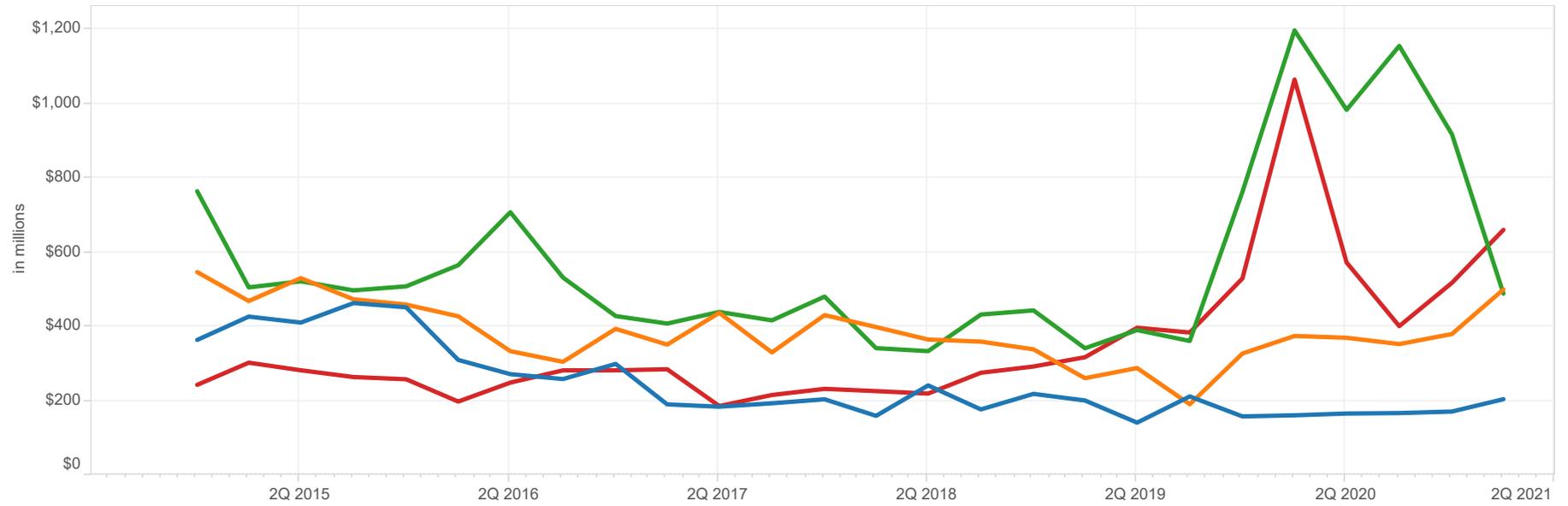
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared as a % of Total Notional	Total Over-the-Counter as a % of Total Notional
	Centrally Cleared	Over-the-Counter	Investment Grade		Non-Investment Grade		Centrally Cleared	Over-the-Counter								
JPMorgan Chase Bank NA	52%	48%	2%	98%	26%	74%	0%	100%	52%	48%	44%	56%	9%	91%	42%	58%
Citibank NA	71%	29%	3%	97%	6%	94%	19%	81%	28%	72%	18%	82%	47%	53%	49%	51%
Bank of America NA	65%	35%	2%	98%	23%	77%	1%	99%	44%	56%	33%	67%	0%	100%	47%	53%
Goldman Sachs	20%	80%	2%	98%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	18%	82%
HSBC NA	22%	78%	3%	97%	0%	100%	0%	100%	0%	100%	17%	83%	0%	100%	7%	93%
Wells Fargo Bank NA	75%	25%	0%	100%	24%	76%	0%	100%	6%	94%	2%	98%	1%	99%	69%	31%
Morgan Stanley Bank NA	1%	99%	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
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$1,449,946	\$1,519,384	\$10,196,877	\$30,362,848	\$8,522,574	\$1,130,495	\$783,114
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	1,128,678	1,935,808	5,605,320	26,429,592	12,493,250	175,849	567,250
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	557,829	474,240	6,988,846	28,831,718	5,302,921	1,163,724	408,865
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	210,783	202,461	4,303,725	10,436,117	2,950,692	442,108	455,509
5	WELLS FARGO BANK NA	KB1H1DSRPFMYMCFXT09	1,776,718	10,290,242	259,395	184,677	1,965,812	6,229,606	1,552,072	98,680	11,779
6	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	322,958	2,672,492	5,651	0	2,614,538	19,617	32,686	0	115,547
7	HSBC NA	1E8VN30JCEQV1H4R804	194,764	1,581,606	35,616	610	578,001	850,852	104,672	11,856	50,688
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4NONFVK49	384,538	1,066,224	13,492	60	277,135	750,472	24,900	165	93,839
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	547,853	703,849	12,824	800	100,905	387,038	191,765	10,517	3,341
10	WESTERN ALLIANCE BANK		49,069	504,466	478,999	650	19,553	1,510	3,753	0	0
11	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	453,974	478,410	4,795	2,003	26,636	390,426	42,979	11,571	1,053
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	171,870	313,743	0	0	294,925	18,331	487	0	19,615
13	TRUIST BANK	JJKC32MCHWDI71265Z06	510,294	311,596	14,408	17,666	21,928	204,193	43,425	9,976	531
14	TD BANK NATIONAL ASSN	03D0JEWFDUS0SEEK89	415,513	294,404	0	0	2,667	289,669	2,068	0	1
15	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	185,036	210,997	1,036	0	23,875	167,358	16,374	2,354	87
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	133,207	169,349	2,383	0	46,851	114,569	5,545	1	814
17	CAPITAL ONE NATIONAL ASSN	207ALC1P1YMOOVDVOK75	369,047	167,626	9,323	0	4,863	147,265	583	5,593	135
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	203,979	153,600	1,806	158	7,611	99,610	39,362	5,053	318
19	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,910	131,798	2,849	1,099	113,704	9,022	5,111	13	0
20	REGIONS BANK	EQTWLKG7ODGC2MGLV11	154,735	128,352	920	12	3,150	97,923	19,783	6,564	21
21	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	178,936	126,811	1,500	0	6,110	104,188	14,647	366	714
22	MORGAN STANLEY BANK NA	G1MLHIS0N32I3QPILB75	173,043	111,888	8	350	31,597	65,928	6,330	7,675	724
23	HUNTINGTON NATIONAL BANK	2WHM8VNHJ63UN140L754	174,866	77,094	229	0	6,167	54,177	12,482	4,040	23
24	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	150,228	73,743	0	0	4,143	66,610	2,990	0	122
25	SANTANDER BANK N A	TR24TWEY5VRVQ65HD49	95,193	54,113	0	0	1,995	46,357	5,657	103	103
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$14,277,514	\$182,438,189	\$4,192,470	\$4,339,978	\$33,246,935	\$106,174,997	\$31,397,107	\$3,086,702	\$2,514,194
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			6,204,372	1,062,969	3,151	722	141,428	795,999	101,957	19,712	4,274
TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	4,195,620	4,340,701	33,388,364	106,970,995	31,499,064	3,106,414	2,518,468

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

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

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

Source: Call reports, Schedule RC-L

TABLE 2

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS (HOLDING COMPANIES)
TOP 25 HOLDING COMPANIES IN DERIVATIVES
JUNE 30, 2021, 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.	815DZWZKVSZ11NUHU748	\$3,684,256	\$52,821,719	\$1,515,631	\$2,021,665	\$10,705,962	\$29,226,001	\$8,209,093	\$1,143,367	\$767,260
2	CITIGROUP INC.	6SHG14ZSSLCXQSB395	2,327,868	43,924,333	583,079	2,228,214	8,006,614	26,873,238	5,036,842	1,196,346	407,110
3	GOLDMAN SACHS GROUP, INC., THE	784F5XWPLTWKTBV3E584	1,387,925	43,238,352	1,807,787	3,295,245	6,176,476	19,950,835	10,857,053	1,150,956	372,548
4	BANK OF AMERICA CORPORATION	9DJT3UXIJIZI4WYO774	3,029,894	35,064,406	838,219	1,035,148	8,089,892	19,985,905	4,275,320	839,922	347,550
5	MORGAN STANLEY	IGJSJL3JD5P30I6NJZ34	1,161,805	34,270,117	750,660	1,713,377	4,217,753	19,311,780	7,648,109	628,438	69,192
6	WELLS FARGO & COMPANY	PBLD0EJDB5FWOLXP3B76	1,945,996	10,613,842	267,011	208,001	2,470,785	6,040,480	1,549,359	78,206	11,773
7	MIZUHO AMERICAS LLC		47,371	6,417,748	25,039	18,875	523,723	5,655,525	188,588	5,998	2,110
8	SMBC AMERICAS HOLDINGS, INC.		23,647	5,173,326	169,966	1,586,122	692,889	1,822,463	900,706	1,180	2,085
9	HSBC NORTH AMERICA HOLDINGS INC.	213800JCL1FHBQK3M654	245,440	3,588,835	257,923	589,594	578,001	2,040,022	111,439	11,856	50,688
10	STATE STREET CORPORATION	549300ZFEEJ2IP5VME73	326,528	2,668,442	5,651	0	2,614,538	15,567	32,686	0	115,547
11	BANK OF NEW YORK MELLON CORPORATION, THE	WFLPEPC7FZXENRZV188	466,963	1,052,967	14,567	365	291,565	721,405	24,900	165	93,830
12	RBC US GROUP HOLDINGS LLC		158,067	1,013,101	231,855	518,703	19,595	241,968	410	569	222
13	U.S. BANCORP	N1GZ7BBF3NP8GI976H15	558,886	709,205	12,824	800	101,404	391,895	191,765	10,517	3,341
14	BARCLAYS US LLC	213800H14XVWV087OI72	174,104	584,320	14,646	208,914	312,646	9,947	0	38,167	51
15	PNC FINANCIAL SERVICES GROUP, INC., THE	CFGNEKW0P8842LEUIA51	554,776	512,671	4,910	2,003	33,324	412,165	47,672	12,597	1,071
16	WESTERN ALLIANCE BANCORPORATION	5493003VJXZ5JXT9S762	49,069	504,641	478,999	650	19,553	1,685	3,753	0	0
17	TD GROUP US HOLDINGS LLC	549300ARWZ5E3L64UH29	514,168	331,910	22,109	0	13,372	294,361	2,068	0	1
18	TRUIST FINANCIAL CORPORATION	549300DRQI75D2JP341	521,964	315,393	14,408	17,666	25,754	204,164	43,425	9,976	531
19	NORTHERN TRUST CORPORATION	549300GLF98S992BC502	172,291	310,993	0	0	294,925	15,581	487	0	19,615
20	CREDIT SUISSE HOLDINGS (USA), INC.	549300YHT5NGRKJD1R94	103,653	300,909	5,510	3,062	173,142	53,567	12,710	52,918	2
21	CAPITAL ONE FINANCIAL CORPORATION	ZUE8T73ROZOF6FLBAR73	423,420	233,197	9,323	0	12,615	205,084	583	5,593	135
22	CITIZENS FINANCIAL GROUP, INC.	2138004JDDA4ZQUPFW65	185,541	210,997	1,036	0	23,875	167,358	16,374	2,354	87
23	MUFG AMERICAS HOLDINGS CORPORATION	5493004K1ECE43Q0BX47	165,296	200,915	3,659	2,130	74,936	114,569	5,545	76	814
24	FIFTH THIRD BANCORP	THRNG6BD57P9QWTQLG42	205,390	154,305	1,806	158	7,611	100,315	39,362	5,053	318
25	AMERIPRISE FINANCIAL, INC.	6ZLKQF7QB6JAEKQSS388	171,709	143,208	9,991	4,789	1,294	72,535	52,865	1,733	2
TOP 25 HOLDING COMPANIES WITH DERIVATIVES			\$18,606,027	\$244,359,850	\$7,046,608	\$13,455,482	\$45,482,245	\$133,928,415	\$39,251,113	\$5,195,987	\$2,265,883

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

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

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

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

TABLE 3

DISTRIBUTION OF DERIVATIVE CONTRACTS
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	5.6	94.4	69.0	23.4	3.8	1.8	2.1
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	6.4	93.6	87.4	12.1	0.1	0.0	0.4
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	2.4	97.6	64.8	29.0	2.6	1.0	2.7
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	2,350,294	18,545,886	2.2	97.8	67.9	25.8	3.7	0.2	2.4
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCFXT09	1,776,718	10,290,242	4.3	95.7	90.3	5.2	2.9	0.7	1.0
6	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	322,958	2,672,492	0.2	99.8	0.8	98.0	0.0	1.2	0.0
7	HSBC NA	11E8VN30JCEQV1H4R804	194,764	1,581,606	2.3	97.7	22.7	71.3	1.9	3.3	0.7
8	BANK OF NEW YORK MELLON	HPFHU0OQ28E4NONFVK49	384,538	1,066,224	1.3	98.7	27.1	72.3	0.6	0.0	0.0
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	547,853	703,849	1.9	98.1	86.6	11.7	0.0	0.3	1.5
10	WESTERN ALLIANCE BANK		49,069	504,466	95.1	4.9	100.0	0.0	0.0	0.0	0.0
11	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	453,974	478,410	1.4	98.6	89.5	4.0	1.6	2.5	2.4
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	171,870	313,743	0.0	100.0	5.7	94.0	0.3	0.0	0.0
13	TRUIST BANK	JJKC32MCHWDI71265Z06	510,294	311,596	10.3	89.7	81.1	4.7	9.7	1.4	3.2
14	TD BANK NATIONAL ASSN	03D0JEWFDUFUS0SEEG89	415,513	294,404	0.0	100.0	96.7	3.3	0.0	0.0	0.0
15	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	185,036	210,997	0.5	99.5	89.1	9.6	0.0	0.2	1.1
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	133,207	169,349	1.4	98.6	90.6	9.3	0.1	0.0	0.0
17	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM00VDV0K75	369,047	167,626	5.6	94.4	87.1	2.7	0.0	6.8	3.3
18	FIFTH THIRD BANK NA	QFROUN1UWUYUODVIWD51	203,979	153,600	1.3	98.7	74.7	12.8	2.5	6.8	3.3
19	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,910	131,798	3.0	97.0	91.4	0.9	0.1	7.7	0.0
20	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	154,735	128,352	0.7	99.3	92.9	1.1	0.0	0.9	5.1
21	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	178,936	126,811	1.2	98.8	84.7	4.8	0.0	10.2	0.3
22	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	173,043	111,888	0.3	99.7	40.6	17.7	34.8	0.0	6.9
23	HUNTINGTON NATIONAL BANK	2WHM8VNH63JUN14OL754	174,866	77,094	0.3	99.7	87.5	4.3	0.8	2.1	5.2
24	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	150,228	73,743	0.0	100.0	99.1	0.9	0.0	0.0	0.0
25	SANTANDER BANK N A	TR24TWEY5RVQV65HD49	95,193	54,113	0.0	100.0	91.5	8.3	0.0	0.0	0.2
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$14,277,514	\$182,438,189	\$8,532,448	\$173,905,741	\$132,336,159	\$41,140,209	\$4,251,889	\$1,623,229	\$3,086,702
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			6,204,372	1,062,969	3,873	1,059,096	961,512	69,958	3,071	8,717	19,712
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	8,536,321	174,964,837	133,297,671	41,210,167	4,254,960	1,631,946	3,106,414
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				99.4	4.6	94.8	72.1	22.4	2.3	0.9	1.7
TOTAL FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES				100.0	4.7	95.3	72.6	22.5	2.3	0.9	1.7

Note: Currently, the call report does not differentiate credit derivatives by over the counter or exchange traded. Credit derivatives have been included in the "over the counter" category as well as in the sum of total derivatives here.

Note: "FX" does not include spot FX.

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

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

Source: Call reports, Schedule RC-L

TABLE 4

CREDIT EQUIVALENT EXPOSURES
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, MILLIONS OF DOLLARS

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL RISK-BASED CAPITAL	BILATERALLY		TOTAL CREDIT EXPOSURE FROM ALL CONTRACTS	TOTAL CREDIT EXPOSURE TO CAPITAL (%)
						NETTED CURRENT CREDIT EXPOSURE	POTENTIAL FUTURE EXPOSURE		
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$3,190,100	\$53,182,124	\$269,803	\$178,103	\$240,339	\$418,442	155
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	38,741	49,575	60,787	110,362	285
3	CITIBANK NATIONAL ASSN	E57ODZVWZ7FF32TWEFA76	1,693,227	43,319,278	165,462	74,392	174,210	248,602	150
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	184,226	41,071	63,990	105,061	57
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCFXT09	1,776,718	10,290,242	174,641	30,667	23,187	53,854	31
6	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	322,958	2,672,492	18,730	9,317	9,239	18,556	99
7	HSBC NA	1IE8VN30JCEQV1H4R804	194,764	1,581,606	23,142	5,057	5,571	10,628	46
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4N0NFVK49	384,538	1,066,224	22,455	6,206	4,277	10,483	47
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	547,853	703,849	53,759	3,875	6,229	10,105	19
10	WESTERN ALLIANCE BANK		49,069	504,466	4,367	12	52	64	1
11	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	453,974	478,410	43,100	6,330	87	6,417	15
12	NORTHERN TRUST CO	6PTKHDJ8HDUF78PFWH30	171,870	313,743	11,244	2,125	2,635	4,760	42
13	TRUIST BANK	JJKC32MCHWDI71265Z06	510,294	311,596	47,871	3,263	3,022	6,285	13
14	TD BANK NATIONAL ASSN	03D0JEWDFJUS0SEEKG89	415,513	294,404	35,166	144	1,305	1,449	4
15	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	185,036	210,997	19,216	1,570	1,304	2,874	15
16	MUFG UNION BANK NA	OX3PU53ZLPQKJ4700D47	133,207	169,349	15,707	1,413	550	1,963	12
17	CAPITAL ONE NATIONAL ASSN	207ALC1P1YM0OVDV0K75	369,047	167,626	30,819	3,633	3,044	6,676	22
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	203,979	153,600	19,070	2,779	2,293	5,072	27
19	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,910	131,798	4,271	1,563	897	2,460	58
20	REGIONS BANK	EQTWLK1G7ODGC2MGLV11	154,735	128,352	15,290	884	552	1,436	9
21	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	178,936	126,811	17,138	2,072	1,846	3,918	23
22	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	173,043	111,888	18,644	238	4,558	4,796	26
23	HUNTINGTON NATIONAL BANK	2WHM8VNJH63UN14OL754	174,866	77,094	16,389	1,667	781	2,447	15
24	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	150,228	73,743	13,828	677	154	832	6
25	SANTANDER BANK N A	TR24TWEY5RVRQV65HD49	95,193	54,113	11,344	847	417	1,264	11
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$14,277,514	\$182,438,189	\$1,274,423	\$427,479	\$611,327	\$1,038,806	82
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			6,204,372	1,062,969	602,078	13,534	9,173	22,707	4
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	1,876,501	441,014	620,499	1,061,513	57

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

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

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

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

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

TABLE 5

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS HELD FOR TRADING
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$51,566,459	99.1	\$485,170	0.9
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	47,563,407	99.9	29,241	0.1
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	42,002,568	99.6	152,986	0.4
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	16,662,132	92.0	1,441,646	8.0
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$157,794,566	98.7	\$2,109,043	1.3
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	17,814,062	86.9	2,677,073	13.1
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	175,608,628	97.3	4,786,116	2.7

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
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$648,921	\$614,896	\$3,491	\$2,940	\$9,126	\$10,630
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	661,422	653,689	130	139	3,628	4,725
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	425,294	419,545	2,270	2,304	11,676	11,872
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	157,069	159,318	28,143	28,608	3,913	4,495
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$1,892,706	\$1,847,448	\$34,034	\$33,991	\$28,343	\$31,722
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	148,156	129,199	18,069	15,334	1,281	2,152
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	2,040,862	1,976,647	52,103	49,325	29,624	33,874

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

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

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

Source: Call reports, Schedule RC-L

TABLE 7

TRADING REVENUES FROM CASH INSTRUMENTS AND DERIVATIVES
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$4,775	\$936	\$652	\$2,448	\$287	\$452
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	206	1,626	(1,214)	(105)	2	(103)
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	907	276	870	(226)	130	(143)
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	1,160	233	568	258	(1)	102
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$7,048	\$3,071	\$876	\$2,375	\$418	\$308
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	1,018	298	670	9	131	(91)
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	8,066	3,369	1,546	2,384	549	217

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

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

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

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

TABLE 8

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (INTEREST RATE, FX AND GOLD)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$22,111,505	\$24,341,273	\$5,634,000	\$52,086,778	\$7,581,983	\$2,392,768	\$1,206,704	\$11,181,455
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	19,056,334	8,274,843	7,584,709	34,915,886	3,962,601	809,020	679,511	5,451,132
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWFA76	1,693,227	43,319,278	19,664,024	3,751,587	2,966,642	26,382,253	10,998,907	625,672	225,876	11,850,455
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	4,255,499	4,796,683	3,831,475	12,883,657	3,879,359	451,330	303,235	4,633,924
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$65,087,362	\$41,164,386	\$20,016,826	\$126,268,574	\$26,422,850	\$4,278,790	\$2,415,326	\$33,116,966
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	6,164,265	4,779,296	2,256,136	13,199,697	4,416,656	279,063	87,328	4,783,047
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	71,251,627	45,943,682	22,272,962	139,468,271	30,839,506	4,557,853	2,502,654	37,900,013

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-L and RC-R

TABLE 9

**NOTIONAL AMOUNTS OF DERIVATIVE CONTRACTS BY CONTRACT TYPE & MATURITY (PRECIOUS METALS)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$36,711	\$1,578	\$0	\$38,289
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	0	0	0	0
3	CITIBANK NATIONAL ASSN	E570DZWZ7FF32TWEFA76	1,693,227	43,319,278	12,569	312	0	12,881
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	9,716	524	0	10,240
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$58,996	\$2,414	\$0	\$61,410
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	13,783	814	0	14,597
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	72,779	3,228	0	76,007

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 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
JUNE 30, 2021, 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	\$3,190,100	\$53,182,124	\$999,091	\$100,728	\$6,646	\$1,106,465	\$2,458,328	\$541,176	\$119,582	\$3,119,086
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	3,898	569	0	4,467	4,137	10,389	852	15,378
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	144,621	48,561	2,859	196,041	575,573	149,950	9,749	735,272
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	16,028	3,376	0	19,404	580,095	138,666	16,806	735,567
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$1,163,638	\$153,234	\$9,505	\$1,326,377	\$3,618,133	\$840,181	\$146,989	\$4,605,303
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	61,641	82,652	477	144,770	188,697	116,971	6,382	312,050
TOTAL FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	1,225,279	235,886	9,982	1,471,147	3,806,830	957,152	153,371	4,917,353

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

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

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

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

TABLE 11

**NOTIONAL AMOUNTS OF CREDIT DERIVATIVE CONTRACTS BY CONTRACT TYPE AND MATURITY (INVESTMENT GRADE AND SUB-INVESTMENT GRADE)
TOP 4 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL CREDIT DERIVATIVES	CREDIT DERIVATIVES INVESTMENT GRADE				CREDIT DERIVATIVES SUB-INVESTMENT GRADE			
						MATURITY < 1 YR	MATURITY 1 - 5 YRS	MATURITY > 5 YRS	ALL MATURITIES	MATURITY < 1 YR	MATURITY 1 - 5 YRS	MATURITY > 5 YRS	ALL MATURITIES
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$3,190,100	\$53,182,124	\$1,130,495	\$224,619	\$582,953	\$64,180	\$871,752	\$60,541	\$187,139	\$11,063	\$329,850
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	175,849	22,830	73,615	12,292	108,737	11,798	44,597	10,717	63,044
3	CITIBANK NATIONAL ASSN	E57ODZWZ7FF32TWEFA76	1,693,227	43,319,278	1,163,724	147,752	670,974	50,383	869,109	102,184	185,423	7,008	317,741
4	BANK OF AMERICA NA	B4TYDEB6GKMZO031MB27	2,350,294	18,545,886	442,108	105,164	190,074	19,456	314,694	32,141	88,416	6,857	134,132
TOP 4 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$7,584,784	\$162,815,785	\$2,912,176	\$500,365	\$1,517,616	\$146,311	\$2,164,292	\$206,664	\$505,575	\$35,645	\$844,767
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			12,897,102	20,685,373	194,238	39,480	71,591	15,610	126,681	8,801	45,491	13,266	90,291
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	3,106,414	539,845	1,589,207	161,921	2,290,973	215,465	551,066	48,911	935,058

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

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

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

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

TABLE 12

**DISTRIBUTION OF CREDIT DERIVATIVE CONTRACTS HELD FOR TRADING
TOP 25 COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, MILLIONS OF DOLLARS**

RANK	BANK NAME	LEGAL ENTITY IDENTIFIER	TOTAL ASSETS	TOTAL DERIVATIVES	TOTAL CREDIT DERIVATIVES	PURCHASED				SOLD					
						TOTAL CREDIT DERIVATIVES	TOTAL CREDIT DERIVATIVES	TOTAL CREDIT DERIVATIVES	TOTAL CREDIT DERIVATIVES	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS	CREDIT OPTIONS	OTHER CREDIT DERIVATIVES	CREDIT DEFAULT SWAPS	TOTAL RETURN SWAPS
1	JPMORGAN CHASE BANK NA	7H6GLXDRUGQFU57RNE97	\$3,190,100	\$53,182,124	\$1,130,495	\$592,272	\$538,223	\$504,227	\$28,199	\$54,933	\$4,913	\$485,085	\$13,164	\$39,970	\$4
2	GOLDMAN SACHS BANK USA	KD3XUN7C6T14HNAYLU02	351,163	47,768,497	175,849	109,953	65,896	99,454	2,434	6,217	1,848	60,974	2,434	2,420	68
3	CITIBANK NATIONAL ASSN	E570DZWW7FF32TWEFA76	1,693,227	43,319,278	1,163,724	610,823	552,901	564,795	16,280	29,748	0	517,102	6,042	29,757	0
4	BANK OF AMERICA NA	B4TYDEB6GKMZ0031MB27	2,350,294	18,545,886	442,108	226,038	216,070	180,289	10,079	35,670	0	166,443	17,613	32,014	0
5	WELLS FARGO BANK NA	KB1H1DSPRFMYMCFXT09	1,776,718	10,290,242	98,680	59,357	39,323	8,351	34,699	0	16,307	6,376	23,384	0	9,563
6	STATE STREET BANK&TRUST CO	571474TGEMMWANRLN572	322,958	2,672,492	0	0	0	0	0	0	0	0	0	0	0
7	HSBC NA	1IE8VN30JCEQV1H4R804	194,764	1,581,606	11,856	9,464	2,392	5,399	4,065	0	0	2,166	226	0	0
8	BANK OF NEW YORK MELLON	HPFHU00Q28E4N0NFVK49	384,538	1,066,224	165	165	0	165	0	0	0	0	0	0	0
9	U S BANK NATIONAL ASSN	6BYL5QZYBDK8S7L73M02	547,853	703,849	10,517	3,824	6,693	963	0	0	2,861	0	0	0	6,693
10	WESTERN ALLIANCE BANK		49,069	504,466	0	0	0	0	0	0	0	0	0	0	0
11	PNC BANK NATIONAL ASSN	AD6GFRVSDT01YPT1CS68	453,974	478,410	11,571	4,532	7,039	615	0	0	3,917	0	0	0	7,039
12	NORTHERN TRUST CO	6PTKHDJ8HDJF78PFVH30	171,870	313,743	0	0	0	0	0	0	0	0	0	0	0
13	TRUIST BANK	JJKC32MCHWDI71265Z06	510,294	311,596	9,976	3,387	6,589	765	1,359	0	1,263	0	0	0	6,589
14	TD BANK NATIONAL ASSN	03D0JEWFDJFUS0SEK89	415,513	294,404	0	0	0	0	0	0	0	0	0	0	0
15	CITIZENS BANK NATIONAL ASSN	DRMSV1Q0EKMEXLAU1P80	185,036	210,997	2,354	0	2,354	0	0	0	0	0	0	0	2,354
16	MUFG UNION BANK NA	OX3PUS3ZLPQKJ4700D47	133,207	169,349	1	1	0	1	0	0	0	0	0	0	0
17	CAPITAL ONE NATIONAL ASSN	207ALC1P1YMO0VDV0K75	369,047	167,626	5,593	2,314	3,279	0	0	0	2,314	0	0	0	3,279
18	FIFTH THIRD BANK NA	QFROUN1UWUYU0DVIWD51	203,979	153,600	5,053	1,605	3,448	0	0	0	1,605	0	0	0	3,448
19	BOKF NATIONAL ASSN	FU7RSW4CQQY98A2O7J66	46,910	131,798	13	2	11	2	0	0	0	11	0	0	0
20	REGIONS BANK	EQ7WLK1G7ODGCMGLV11	154,735	128,352	6,564	2,373	4,191	7	0	0	2,366	7	0	0	4,184
21	KEYBANK NATIONAL ASSN	HUX2X73FUCYHUVH1BK78	178,936	126,811	366	113	253	113	0	0	0	160	93	0	0
22	MORGAN STANLEY BANK NA	G1MLHISON32I3QPILB75	173,043	111,888	7,675	7,010	665	6,452	0	558	0	665	0	0	0
23	HUNTINGTON NATIONAL BANK	2WHM8VNDH63UN14QL754	174,866	77,094	4,040	2,923	1,117	0	0	0	2,923	0	0	0	1,117
24	MANUFACTURERS&TRADERS TR CO	WWB2V0FCW3A0EE3ZJN75	150,228	73,743	0	0	0	0	0	0	0	0	0	0	0
25	SANTANDER BANK N A	TR24TWEY5VRQV65HD49	95,193	54,113	103	10	93	10	0	0	0	93	0	0	0
TOP 25 COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			\$14,277,514	\$182,438,189	\$3,086,702	\$1,636,165	\$1,450,537	\$1,371,608	\$97,115	\$127,126	\$40,316	\$1,239,081	\$62,956	\$104,161	\$44,339
OTHER COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			6,204,372	1,062,969	19,712	8,168	11,544	1,487	2,394	0	4,287	3,989	2	0	7,553
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES			20,481,886	183,501,158	3,106,414	1,644,333	1,462,081	1,373,095	99,509	127,126	44,602	1,243,070	62,958	104,161	51,892
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					99.4	52.7	46.7	44.2	3.1	4.1	1.3	39.9	2.0	3.4	1.4
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					0.6	0.3	0.4	0.0	0.1	0.0	0.1	0.1	0.0	0.0	0.2
TOTAL AMOUNT FOR COMMERCIAL BANKS, SAs & TCs: % OF TOTAL COMMERCIAL BANKS, SAs & TCs WITH DERIVATIVES					100.0	52.9	47.1	44.2	3.2	4.1	1.4	40.0	2.0	3.4	1.7

Note: Credit derivatives have been excluded from the sum of total derivatives here.
Note: Numbers may not add up to total due to rounding.
Source: Call reports, Schedule RC-L

TABLE 13

DERIVATIVES DATA REPORTED BY FFIEC 051 FILERS*
COMMERCIAL BANKS, SAVINGS ASSOCIATIONS AND TRUST COMPANIES IN DERIVATIVES
JUNE 30, 2021, MILLIONS OF DOLLARS

Call Report Schedule SU	2021	1Q21	4Q20	3Q20	2Q20	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	\$5,173	\$5,291	\$5,819	\$6,236	\$5,183	\$4,476	\$2,203	\$2,206	\$913	\$1,131	\$623	\$751	\$726	\$694	\$542	\$729	\$749	\$525
Total gross notional amount of all other derivatives held for trading	\$172	\$20	\$19	\$53	\$34	\$48	\$33	\$30	\$37	\$24	\$2	\$2	\$5	\$7	\$5	\$5	\$6	\$2
Total gross notional amount of interest rate derivatives not held for trading	\$31,975	\$38,839	\$52,867	\$57,459	\$52,779	\$37,572	\$20,044	\$18,527	\$11,135	\$9,020	\$8,452	\$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	\$1,336	\$1,269	\$1,137	\$1,202	\$1,302	\$1,171	\$631	\$546	\$273	\$242	\$160	\$2,754	\$3,133	\$531	\$86	\$89	\$89	\$80
Call Report Schedule RC-R**																		
A. Notional principal amounts of over-the-counter derivative contracts covered by the regulatory capital rules:																		
a. Interest rate	\$17,688	Data Not Report	\$22,947	Data Not Report	\$33,122	Data Not Report	\$12,478	Data Not Report	\$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	\$3		\$84		\$19		\$18		\$4	\$5	\$3	\$4	\$5	\$429	\$0	\$0	\$0	\$0
c. Credit (investment grade reference asset)	\$196		\$217		\$199		\$166		\$39	\$41	\$35	\$17	\$14	\$14	\$13	\$14	\$8	\$4
d. Credit (non-investment grade reference asset)	\$154		\$143		\$138		\$61		\$25	\$25	\$12	\$12	\$12	\$11	\$11	\$11	\$11	\$11
e. Equity	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
q. Other	\$1		\$20		\$25		\$9		\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5	\$5
f. Precious metals (except gold)	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
B. Notional principal amounts of centrally cleared derivative contracts covered by the regulatory capital rules:																		
a. Interest rate	\$193		\$250		\$299		\$96		\$168	\$686	\$1,937	\$2,731	\$3,169	\$129	\$249	\$343	\$178	\$158
b. Foreign exchange rate and gold	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
c. Credit (investment grade reference asset)	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4
d. Credit (non-investment grade reference asset)	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
e. Equity	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
f. Precious metals (except gold)	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
q. Other	\$0		\$0		\$0		\$0		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
C. Current credit exposure across all derivative contracts covered by the regulatory capital rules	\$287		\$449		\$504		\$140		\$95	\$59	\$49	\$76	\$119	\$62	\$44	\$57	\$49	\$39

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

*Beginning DECEMBER 31, 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 DECEMBER 31, 2019, banks filing the FFIEC 051 Call Report complete this information from schedule RC-R in the June and December reports only.