

Quarterly Report on Bank Trading and Derivatives Activities

First Quarter 2024

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.¹ A total of 1,208 insured U.S. national and state commercial banks and savings associations reported trading and derivatives activities at the end of the first quarter of 2024.² A small group of large financial institutions continues to dominate trading and derivatives activity in the U.S. commercial banking system. During the first quarter of 2024, four large commercial banks represented 87.6 percent of the total banking industry notional amounts and 64.5 percent of industry net current credit exposure (NCCE).

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 114th 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 \$15.6 billion in the first quarter of 2024, \$4.0 billion more (34.2 percent) than in the previous quarter and \$2.0 billion less (11.1 percent) than a year earlier (see table 1).
- Credit exposure from derivatives increased in the first quarter of 2024 compared with the fourth quarter of 2023. NCCE increased \$11.0 billion, or 4.6 percent, to \$251.0 billion (see table 5).
- Derivative notional amounts increased in the first quarter of 2024 by \$13.6 trillion, or 7.1 percent, to \$206.1 trillion (see table 10).
- Derivative contracts remained concentrated in interest rate products, which totaled \$144.4 trillion or 70.1 percent of total derivative notional amounts (see table 10).

Revenue

¹ Values in the tables and figures in this report may not add up to the totals because of rounding.

² Institutions with total assets of less than \$5 billion have the option to file the Federal Financial Institutions Examination Council (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 25 in the appendix.

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

Insured U.S. commercial banks and savings associations reported \$15.6 billion in trading revenue in the first quarter of 2024, \$4.0 billion more (34.2 percent) than in the previous quarter and \$2.0 billion less (11.1 percent) than a year earlier (see table 1). The quarter-over-quarter increase in trading revenue was due to increases in revenue from foreign exchange, equity, and credit instruments. For a historical view of quarterly bank trading revenue by instrument, see figure 15a in the appendix.

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

Trading instruments	1Q 2024	4Q 2023	Q/Q change	Q/Q % change	1Q 2023	Y/Y change	Y/Y % change
Interest rate	\$1,817	\$6,016	-\$4,199	-69.8%	\$5,721	-\$3,904	-68.2%
Foreign exchange	\$7,551	\$2,334	\$5,217	223.5%	\$4,439	\$3,111	70.1%
Equity	\$4,814	\$3,603	\$1,211	33.6%	\$5,334	-\$520	-9.7%
Commodity and other	\$504	\$773	-\$269	-34.8%	\$1,570	-\$1,066	-67.9%
Credit	\$944	-\$1,077	\$2,021	187.6%	\$516	\$428	83.0%
Total trading revenue	\$15,630	\$11,649	\$3,981	34.2%	\$17,581	-\$1,951	-11.1%

Source: Call reports, Schedule RI

Holding Company Trading Revenue

Consolidated bank holding company (BHC) trading performance provides a more complete picture of trading revenue in the banking system. As shown in table 2, consolidated holding company trading revenue of \$32.0 billion in the first quarter of 2024 was \$325 million less (1.0 percent) than in the previous quarter. The quarter-over-quarter decrease in trading revenue was due to decreases in revenue from interest rate and equity instruments. Year-over-year holding company trading revenue decreased by \$5.7 billion (15.1 percent). For a historical view of quarterly holding company trading revenue by instrument, see figure 15b in the appendix.

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

Trading instruments	1Q 2024	4Q 2023	Q/Q change	Q/Q % change	1Q 2023	Y/Y change	Y/Y % change
Interest rate	\$4,491	\$14,397	-\$9,907	-68.8%	\$11,955	-\$7,464	-62.4%
Foreign exchange	\$8,638	\$1,768	\$6,870	388.6%	\$5,760	\$2,878	50.0%
Equity	\$13,059	\$14,476	-\$1,417	-9.8%	\$13,714	-\$655	-4.8%
Commodity and other	\$1,990	\$1,607	\$383	23.8%	\$3,471	-\$1,481	-42.7%
Credit	\$3,800	\$53	\$3,746	7017.0%	\$2,770	\$1,030	37.2%
Total BHC trading revenue	\$31,977	\$32,302	-\$325	-1.0%	\$37,670	-\$5,693	-15.1%

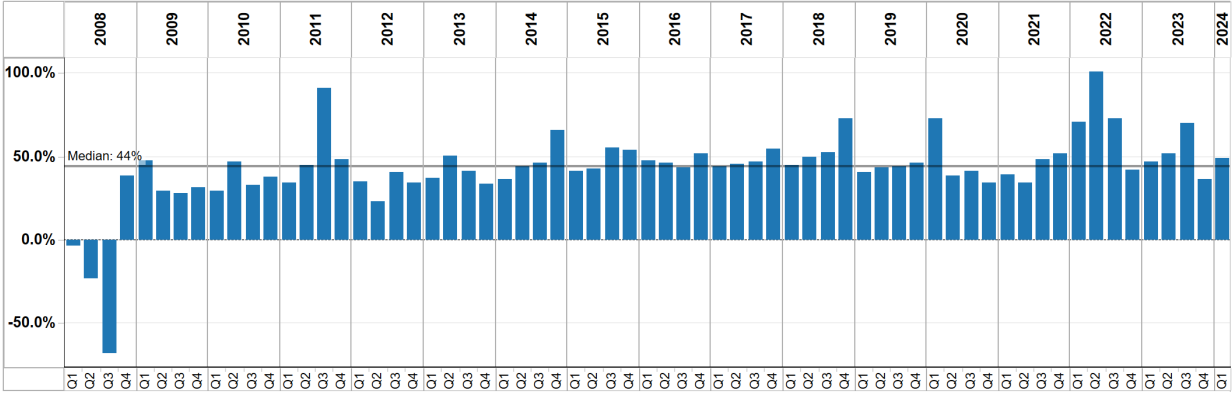
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

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 decreased and is typically between 30 percent and 50 percent. This decline reflects the significant amount of trading activity by the former investment banks that, while included in BHC results, remains outside insured commercial banks. More generally, insured U.S. commercial banks and savings associations have more limited legal authorities than their holding companies, particularly in the trading of commodity and equity products.

In the first quarter of 2024, banks generated 48.9 percent of consolidated holding company trading revenue, an increase from 36.1 percent in the previous quarter (see figure 1).

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



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

Counterparty Credit Risk

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

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

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

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

GPFV decreased by \$69.0 billion (3.2 percent) in the first quarter of 2024 to \$2.1 trillion, primarily driven by a \$98.0 billion (15.9 percent) decrease in receivables from FX contracts and a \$13.0 billion (0.9 percent) decrease in receivables from interest rate contracts (see table 3a). GNFV decreased \$96.0 billion (4.5 percent) to \$2.0 trillion during the quarter, driven by a \$124.0 billion (19.8 percent) decrease in payables on FX contracts and a \$20.0 billion (1.5 percent) decrease in payables from interest rate contracts (see table 3b).

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

Trading instruments	1Q 2024	4Q 2023	Q/Q change	Q/Q % change	1Q 2023	Y/Y change	Y/Y % change
Interest rate	\$1,318	\$1,331	-\$13	-0.9%	\$1,405	-\$87	-6.2%
FX	\$516	\$614	-\$98	-15.9%	\$534	-\$18	-3.3%
Equity	\$183	\$149	\$34	22.7%	\$132	\$50	38.1%
Commodity & other	\$47	\$42	\$5	11.4%	\$57	-\$10	-17.6%
Credit	\$39	\$36	\$3	8.7%	\$40	-\$1	-2.5%
GPFV	\$2,103	\$2,171	-\$69	-3.2%	\$2,168	-\$65	-3.0%

Source: Call reports, Schedule RC-L

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

Trading instruments	1Q 2024	4Q 2023	Q/Q change	Q/Q % change	1Q 2023	Y/Y change	Y/Y % change
Interest rate	\$1,255	\$1,274	-\$20	-1.5%	\$1,341	-\$86	-6.4%
FX	\$504	\$629	-\$124	-19.8%	\$531	-\$26	-5.0%
Equity	\$201	\$158	\$43	27.0%	\$138	\$63	45.4%
Commodity & other	\$45	\$41	\$4	9.4%	\$54	-\$9	-16.2%
Credit	\$43	\$42	\$1	2.9%	\$41	\$1	3.2%
GNFV	\$2,048	\$2,144	-\$96	-4.5%	\$2,105	-\$57	-2.7%

Source: Call reports, Schedule RC-L

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

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	GPFV
Contracts with negative value to Bank A	4	-\$350	GNFV
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 increased by \$11.0 billion (4.6 percent) to \$251.0 billion in the first quarter of 2024 (see table 5).³ Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 88.0 percent (\$1.9 trillion) in the first quarter of 2024.

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

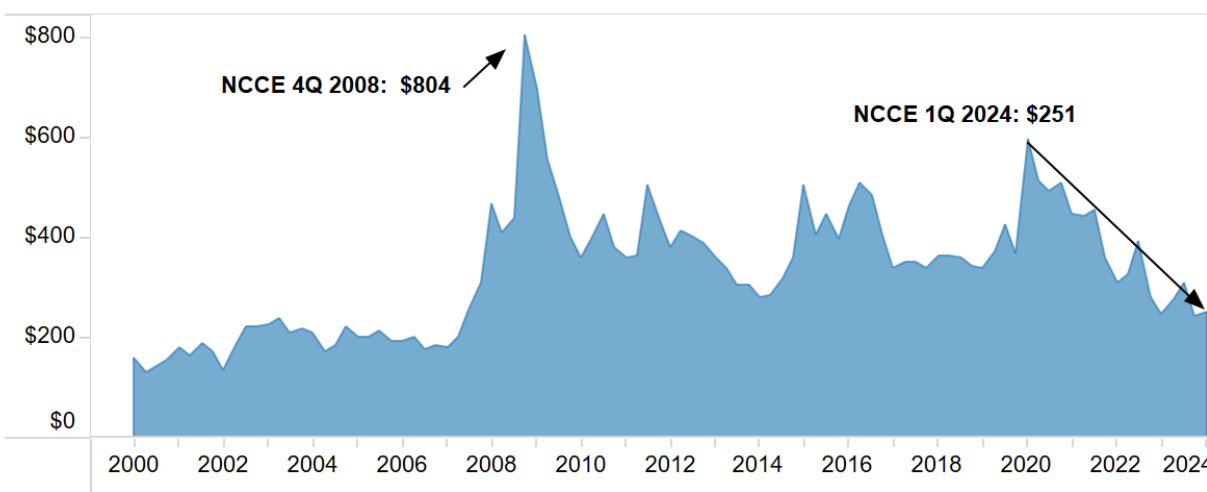
Netting benefit ratio	1Q 2024	4Q 2023	Q/Q change	Q/Q % change
GPFV	\$2,103	\$2,171	-\$68	-3.1%
NCCE RC-R	\$251	\$240	\$11	4.6%
Netting benefit RC-R	\$1,851	\$1,931	-\$80	-4.1%
Netting benefit % RC-R	88.0%	88.9%		-0.9%

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

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

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 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 first quarter of 2024 at \$251.0 billion as more normal market activity resumed.

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



Source: Call reports, Schedule RC-R

The bulk of NCCE in the financial system is concentrated in banks and securities firms (38.9 percent) and in corporations and other counterparties (55.2 percent) (see table 6). The combined exposure to hedge funds and sovereign governments was small (5.9 percent in total).

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

Quarter	Banks and securities firms	Hedge funds	Sovereign governments	Corporate and all other counterparties
1Q 2024	38.9%	1.4%	4.5%	55.2%
4Q 2023	34.6%	2.3%	5.0%	58.1%
4Q 2022	34.5%	2.3%	3.9%	59.2%
4Q 2021	37.9%	2.0%	7.4%	52.6%
4Q 2020	39.1%	2.2%	8.3%	50.4%
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 127.8 percent of their

total NCCE at the end of the first quarter of 2024, up from 118.9 percent in the fourth quarter of 2023 (see table 7). Collateral held against hedge fund exposures increased in the first quarter to 891.9 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 (FV) Collateral to Net Current Credit Exposure

Quarter	FV banks and securities firms	FV hedge funds	FV sovereign governments	FV corporate and all other counterparties	FV/NCCE %
1Q 2024	137.1%	891.9%	87.1%	104.9%	127.8%
4Q 2023	142.0%	574.3%	79.1%	90.8%	118.9%
4Q 2022	111.4%	474.5%	61.5%	75.4%	96.5%
4Q 2021	128.6%	687.6%	69.3%	76.0%	108.0%
4Q 2020	110.6%	467.6%	52.1%	59.5%	87.8%
4Q 2019	130.0%	485.9%	48.3%	91.8%	114.5%
4Q 2018	128.9%	308.0%	47.1%	91.8%	113.7%
4Q 2017	124.4%	495.5%	25.1%	89.8%	111.5%
4Q 2016	119.1%	491.5%	34.2%	67.0%	98.5%

Source: Call reports, Schedule RC-L

The majority of collateral held by banks against NCCE is very liquid with 61.1 percent held in cash (both U.S. dollar and other currencies) and an additional 10.2 percent held in U.S. Treasuries and U.S. government agency securities (see table 8). Supervisors assess changes in the quality and liquidity of collateral held as a key early indicator of potential easing in credit terms. Examiners review the collateral management practices of derivative dealers as a regular part of their supervision activities.

Table 8: Composition of Collateral

Quarter	Cash U.S. \$	Cash other currencies	U.S. Treasury securities	U.S. government agency	Corp bonds	Equity securities	All other collateral
1Q 2024	46.1%	15.0%	9.6%	0.6%	4.8%	6.5%	17.4%
4Q 2023	46.2%	15.1%	10.3%	0.7%	4.1%	6.7%	17.0%
4Q 2022	53.1%	14.9%	8.7%	0.4%	3.8%	5.5%	13.7%
4Q 2021	39.3%	24.5%	8.1%	0.9%	1.6%	8.2%	17.3%
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%

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 Federal Financial Institutions Examination Council (FFIEC) Form 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. Figure 22 in the appendix illustrates the historical trend in VaR measurements for these institutions.

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

Value-at-risk	JPMorgan Chase Bank NA	Citibank NA	Bank of America NA	Goldman Sachs Bank USA
1Q 2024 average 60-day VaR	\$243	\$232	\$92	\$307
4Q 2023 average 60-day VaR	\$180	\$205	\$84	\$344
Q/Q change	\$63	\$27	\$8	-\$37
1Q 2024 total risk-based capital	\$287,922	\$163,065	\$203,699	\$62,441

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

Value-at-risk capital requirement	JPMorgan Chase Bank NA	Citibank NA	Bank of America NA	Goldman Sachs Bank USA
1Q 2024 VaR capital requirement	\$729	\$695	\$276	\$922
4Q 2023 VaR capital requirement	\$540	\$615	\$252	\$1,033
Q/Q change	\$189	\$81	\$24	-\$111
1Q 2024 total risk-based capital	\$287,922	\$163,065	\$203,699	\$62,441

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

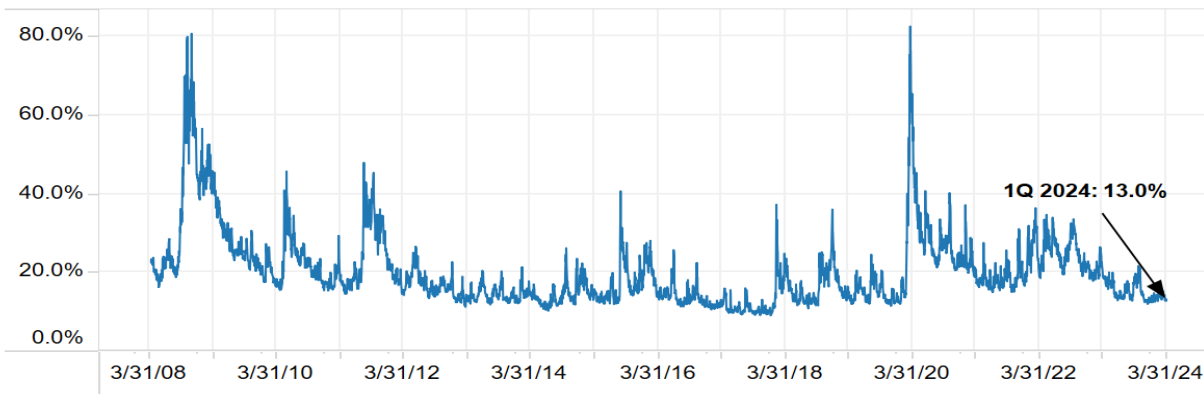
Volatility Index

Figure 3 shows the VIX, a volatility index,⁴ 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

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

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 13.0 percent at the end of the first quarter of 2024.

Figure 3: Volatility Index (VIX)

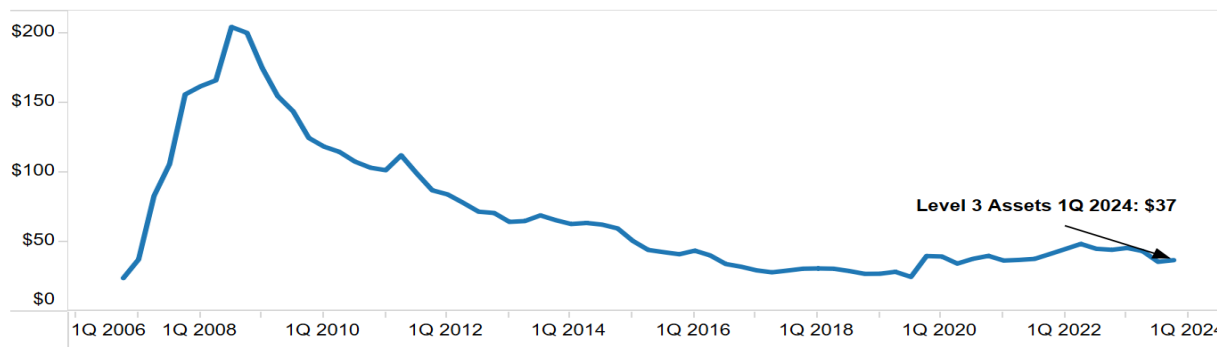


Source: Bloomberg

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 \$204.0 billion at the end of 2008 (see figure 4). At the end of the first quarter of 2024, banks held \$37.0 billion of level 3 trading assets, up 5.7 percent from the previous quarter and 16.9 percent lower than a year ago. Level 3 trading assets are \$167.0 billion (81.9 percent) lower than the peak level from 2008.

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



Source: Call reports, Schedule RC-Q

Notional Amounts of All Derivative Contracts

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

The total notional amount of derivative contracts held by banks in the first quarter increased by \$13.6 trillion (7.1 percent) to \$206.1 trillion from the previous quarter (see table 10). The increase in the notional amount of derivative contracts by underlying risk exposure was driven by increases across all instruments. Interest rate notional amounts continued to represent the majority of banks' derivative holdings at \$144.4 trillion, or 70.1 percent of total derivatives (see table 10).

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

Trading instrument	1Q 2024	4Q 2023	Q/Q change	Q/Q % change	1Q 2023	Y/Y change	Y/Y % change
Interest rate	\$144,427	\$136,274	\$8,153	6.0%	\$160,260	-\$15,833	-9.9%
FX	\$49,856	\$45,278	\$4,578	10.1%	\$45,686	\$4,169	9.1%
Equity	\$6,253	\$5,674	\$579	10.2%	\$5,001	\$1,252	25.0%
Commodity and other	\$1,557	\$1,493	\$65	4.3%	\$1,575	-\$17	-1.1%
Credit derivatives	\$3,999	\$3,746	\$253	6.8%	\$5,079	-\$1,080	-21.3%
Total notional	\$206,091	\$192,463	\$13,628	7.1%	\$217,601	-\$11,510	-5.3%

Source: Call reports, Schedule RC-L

The increase in the total notional amount of derivative contracts by contract type was primarily driven by increases in all derivatives contracts (see table 11). Swaps contracts remained the leading derivatives contract type at 60.6 percent of all notional amounts.

The four banks with the most derivative activity hold 87.6 percent of all bank derivatives, while the largest 25 banks account for nearly 100 percent of all contracts (see tables 15 and 17 and figure 10 in the appendix for more information).

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

Trading instrument	1Q 2024	4Q 2023	Q/Q change	Q/Q % change	1Q 2023	Y/Y change	Y/Y % change
Futures and forwards	\$36,822	\$31,806	\$5,015	15.8%	\$34,502	\$2,320	6.7%
Swaps	\$124,893	\$117,303	\$7,589	6.5%	\$137,730	-\$12,837	-9.3%
Options	\$40,378	\$39,608	\$770	1.9%	\$40,290	\$88	0.2%
Credit derivatives	\$3,999	\$3,746	\$253	6.8%	\$5,079	-\$1,080	-21.3%
Total notional	\$206,091	\$192,463	\$13,628	7.1%	\$217,601	-\$11,510	-5.3%

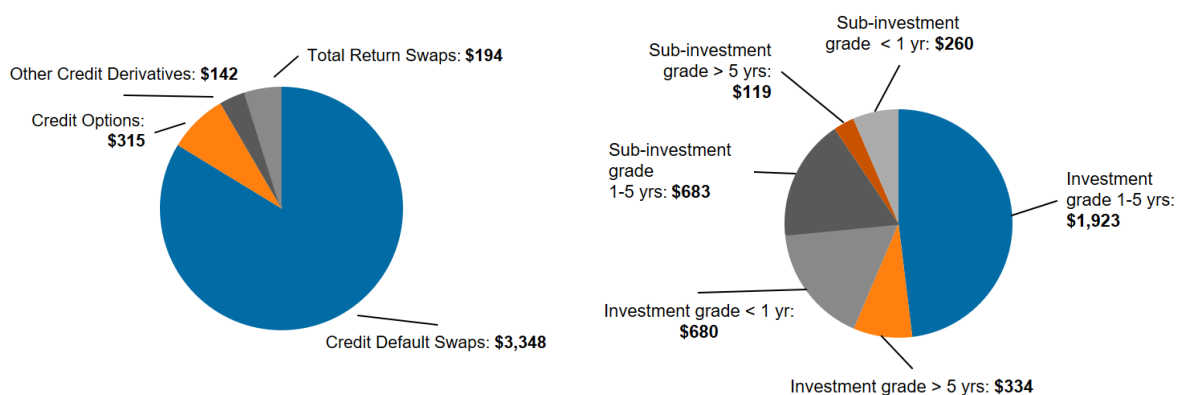
Source: Call reports, Schedule RC-L

Credit Derivatives

The notional amounts of credit derivatives increased \$253.0 billion (6.8 percent) to \$4.0 trillion in the first quarter of 2024 (see table 11). As shown in the chart on the left of figure 5, credit default swaps are the dominant product, at \$3.3 trillion (83.7 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 \$1.9 trillion or 48.1 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are \$2.9 trillion or 73.4 percent of the market (see the chart on the right in figure 5).

Figure 5: Credit Derivative Composition, in Billions of Dollars



Source: Call reports, Schedule RC-L

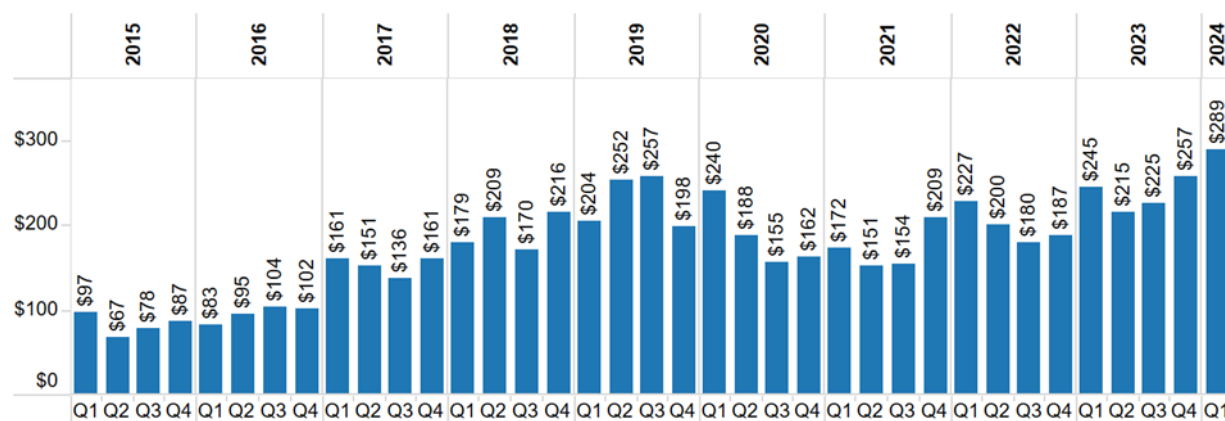
The notional amount for the 116 banks that net sold credit protection (i.e., assumed credit risk) was \$1.9 trillion, up \$128.2 billion (7.3 percent) from the fourth quarter of 2023 (see table 24 in the appendix). The notional amount for the 95 banks that net purchased credit protection (i.e., hedged credit risk) was \$2.1 trillion, \$125.0 billion lower (6.3 percent) than in the fourth quarter of 2023 (see table 24 in the appendix).

Compression Activity

Notional amounts of banks' derivative contracts have generally declined since 2014 because of trade compression efforts, leading to less need for risk management products. Trade compression continues to be a significant factor in reducing the amount of notional derivatives outstanding.

Trade compression aggregates a large number of swap contracts with similar factors, such as risk or cash flows, into fewer trades. Compression removes economic redundancy in a derivative book and reduces operational risk and capital costs for large banks. Trade compression activities increased in the first quarter of 2024, as shown in figure 6.

Figure 6: Quarterly Compression Activity, in Trillions of Dollars



Source: LCH Group

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 first quarter of 2024, 35.9 percent of banks' derivative holdings were centrally cleared (see table 12). From a market factor perspective, 47.9 percent of interest rate derivative contracts' notional amounts outstanding were centrally cleared, while very little of the FX derivative market was centrally cleared. The bank-held credit derivative market remained largely uncleared, as 29.6 percent of credit derivative transactions were centrally cleared during the first quarter of 2024.

Centrally cleared derivative transactions were heavily concentrated at qualifying central counterparties, with 82.0 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

Quarter	Interest rate	FX	Equity	Precious metals	Credit	Other	Total
1Q 2024	47.9%	3.0%	25.2%	6.9%	29.6%	13.2%	35.9%
4Q 2023	44.9%	2.9%	24.0%	6.7%	28.2%	12.9%	33.9%
3Q 2023	49.7%	3.1%	23.4%	6.8%	32.5%	14.0%	37.8%
2Q 2023	52.9%	3.0%	23.5%	7.7%	35.1%	12.5%	41.3%
1Q 2023	52.2%	3.0%	24.7%	7.3%	30.9%	12.6%	40.5%
4Q 2022	49.1%	2.7%	23.8%	8.8%	28.9%	12.2%	37.9%
3Q 2022	54.3%	3.0%	23.9%	6.6%	30.6%	12.9%	41.7%
2Q 2022	55.9%	3.2%	24.8%	5.9%	25.4%	12.3%	43.1%
1Q 2022	56.1%	2.9%	24.3%	6.4%	33.8%	12.4%	43.4%
4Q 2021	51.8%	2.0%	20.6%	3.1%	29.2%	12.3%	39.4%
3Q 2021	50.5%	2.1%	21.4%	2.6%	35.3%	13.2%	39.0%

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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Table 13: Notional Amounts of Derivative Contracts

Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	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
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$1,291,432	\$2,650,095	\$6,381,900	\$34,385,194	\$10,468,266	\$503,632	\$951,854
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	1,162,438	1,171,375	9,902,837	31,774,252	8,781,965	1,225,721	965,825
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	497,116	828,000	6,692,836	32,467,627	7,910,605	1,469,338	442,009
BANK OF AMERICA NA	2,550,363	20,966,095	155,495	413,788	4,288,200	11,844,206	3,737,489	526,917	522,965
WELLS FARGO BANK NA	1,743,283	14,220,852	472,824	545,314	1,721,021	8,335,143	3,018,428	128,122	31,989
STATE STREET BANK&TRUST CO	333,667	2,798,721	29,885	0	2,708,272	30,741	29,823	0	58,137
HSBC NA	163,070	1,260,051	9,039	4,426	491,006	672,546	67,097	15,937	46,209
U S BANK NATIONAL ASSN	669,426	1,207,356	172	600	73,793	921,352	195,929	15,509	5,946
BANK OF NEW YORK MELLON	357,477	1,148,791	11,784	68	316,933	784,403	35,348	255	116,936
PNC BANK NATIONAL ASSN	561,950	682,589	9,967	14,938	23,633	560,214	61,789	12,049	1,780
TD BANK NATIONAL ASSN	369,860	401,188	0	0	1,942	399,175	71	0	0
TRUIST BANK	526,714	396,366	5,633	26,149	23,075	262,974	68,991	9,544	513
CITIZENS BANK NATIONAL ASSN	220,152	312,760	2,545	0	9,116	253,405	45,645	2,049	270
NORTHERN TRUST CO	155,573	299,279	0	0	270,989	27,835	455	0	50,314
MORGAN STANLEY BANK NA	212,723	283,462	1,118	60	27,989	215,994	15,627	22,674	3,531
CAPITAL ONE NATIONAL ASSN	478,877	267,630	25,728	0	13,089	221,301	841	6,671	308
FIFTH THIRD BANK NA	213,681	188,511	2,164	318	6,759	106,324	68,330	4,616	571
REGIONS BANK	153,946	173,998	181	0	3,114	138,753	26,586	5,364	17
BMO BANK NATIONAL ASSN	264,643	155,302	0	0	3,132	149,883	2,286	1	339
KEYBANK NATIONAL ASSN	185,233	134,631	742	0	5,738	110,750	17,287	113	50
HUNTINGTON NATIONAL BANK	192,859	102,732	717	0	5,453	76,268	16,037	4,257	71
MANUFACTURERS&TRADERS TR CO	214,668	78,625	0	0	3,420	70,992	4,214	0	255
COMERICA BANK	79,513	72,723	0	0	2,835	57,446	10,758	1,684	154
BOKF NATIONAL ASSN	49,948	65,295	3,456	3,452	43,332	8,249	6,805	0	0
UBS BANK USA	110,525	61,397	0	0	0	61,397	0	0	0
Top 25 commercial banks, SAs & TCs with derivatives	\$15,559,556	\$204,842,982	\$3,682,436	\$5,658,582	\$33,020,415	\$123,936,423	\$34,590,672	\$3,954,454	\$3,200,043
Other commercial banks, SAs & TCs with derivatives	5,862,117	1,248,469	13,695	1,106	105,053	956,282	127,937	44,397	724
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	3,696,130	5,659,688	33,125,468	124,892,705	34,718,609	3,998,851	3,200,767

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

Source: Call reports, Schedule RC-L

Table 14: Notional Amounts of Derivative Contracts (Holding Companies)
Top 25 Holding Companies in Derivatives, in Millions of Dollars, March 31, 2024

Holding company	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
JPMORGAN CHASE & CO.	\$4,090,727	\$53,615,020	\$1,252,644	\$1,898,538	\$10,324,779	\$30,575,820	\$8,346,912	\$1,216,327	\$955,881
CITIGROUP INC.	2,432,510	48,669,175	690,462	3,883,473	7,757,875	27,786,734	7,448,061	1,102,570	441,000
GOLDMAN SACHS GROUP, INC., THE	1,698,440	44,974,810	1,732,580	4,285,807	6,020,383	21,266,679	10,465,208	1,204,153	349,034
MORGAN STANLEY	1,228,503	37,049,847	954,711	1,550,006	4,438,985	20,372,998	8,952,960	780,187	81,107
BANK OF AMERICA CORPORATION	3,273,803	36,929,690	608,669	1,663,367	7,714,087	21,111,263	4,910,954	921,350	423,184
WELLS FARGO & COMPANY	1,959,160	14,553,156	491,910	621,814	2,150,473	8,161,622	3,014,645	112,692	31,988
MIZUHO AMERICAS LLC	74,925	9,879,814	22,056	35,150	488,934	8,791,433	525,340	16,901	3,625
SMBC AMERICAS HOLDINGS, INC.	33,014	6,313,010	693,164	948,488	279,826	2,713,236	1,675,868	2,428	91
HSBC NORTH AMERICA HOLDINGS INC.	246,728	4,274,278	416,963	741,821	494,142	2,533,382	72,033	15,937	46,209
STATE STREET CORPORATION	338,003	2,790,567	30,030	0	2,708,272	22,441	29,824	0	58,137
U.S. BANCORP	683,606	1,196,131	172	600	73,375	910,546	195,929	15,509	5,946
BANK OF NEW YORK MELLON CORPORATION, THE	434,728	1,130,582	12,511	68	321,681	760,719	35,348	255	116,876
RBC US GROUP HOLDINGS LLC	166,734	784,454	235,851	248,986	12,936	285,746	345	590	155
BARCLAYS US LLC	198,127	730,860	20,405	258,692	415,016	35,842	105	800	6
PNC FINANCIAL SERVICES GROUP, INC., THE	566,181	661,521	10,132	14,938	27,433	535,065	61,789	12,164	1,780
TD GROUP US HOLDINGS LLC	530,324	505,639	37,546	3,727	46,325	417,758	283	0	0
TRUIST FINANCIAL CORPORATION	534,959	382,575	5,633	26,149	23,309	248,389	68,991	10,104	513
CITIZENS FINANCIAL GROUP, INC.	220,862	312,760	2,545	0	9,116	253,405	45,645	2,049	270
CAPITAL ONE FINANCIAL CORPORATION	481,720	303,794	25,728	0	13,195	257,360	841	6,671	308
NORTHERN TRUST CORPORATION	156,111	297,279	0	0	270,989	25,835	455	0	50,314
BMO FINANCIAL CORP.	295,575	257,285	42,229	3,391	57,297	150,647	2,345	1,375	353
FIFTH THIRD BANCORP	214,506	192,716	2,164	318	6,759	110,529	68,330	4,616	571
REGIONS FINANCIAL CORPORATION	155,227	172,623	181	0	3,139	137,353	26,586	5,364	17
KEYCORP	187,531	140,753	742	0	6,764	115,846	17,287	113	50
AMERIPRISE FINANCIAL, INC.	179,843	138,882	6,629	2,555	420	43,405	82,754	3,119	0
Top 25 holding companies with derivatives	\$20,381,846	\$266,257,221	\$7,295,658	\$16,187,888	\$43,665,510	\$147,624,053	\$46,048,838	\$5,435,274	\$2,567,415

Note: Currently, the Y-9 report does not differentiate credit derivatives by contract type. Credit derivatives have been included in the sum of total derivatives. Before the first quarter of 2005, total derivatives included spot FX. Beginning in that quarter, spot FX has been reported separately.

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

Table 15: Distribution of Derivative Contracts

Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank Name	Total assets	Total derivatives	Percent exchange traded contracts	Percent OTC contracts	Percent interest rate contracts	Percent foreign exchange contracts	Percent equity contracts	Percent other contracts	Percent credit derivatives
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	7.1	92.9	84.4	13.4	1.2	0.1	0.9
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	4.3	95.7	65.6	25.9	4.8	1.4	2.3
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	2.7	97.3	64.3	29.1	3.0	0.7	2.9
BANK OF AMERICA NA	2,550,363	20,966,095	2.7	97.3	62.9	29.2	4.9	0.5	2.5
WELLS FARGO BANK NA	1,743,283	14,220,852	7.2	92.8	79.2	16.8	2.5	0.6	0.9
STATE STREET BANK&TRUST CO	333,667	2,798,721	1.1	98.9	2.2	96.8	0.0	1.0	0.0
HSBC NA	163,070	1,260,051	1.1	98.9	10.7	84.5	1.3	2.1	1.3
U S BANK NATIONAL ASSN	669,426	1,207,356	0.1	99.9	88.9	8.9	0.0	0.9	1.3
BANK OF NEW YORK MELLON	357,477	1,148,791	1.0	99.0	20.0	79.6	0.4	0.0	0.0
PNC BANK NATIONAL ASSN	561,950	682,589	3.6	96.4	91.4	3.8	1.3	1.7	1.8
TD BANK NATIONAL ASSN	369,860	401,188	0.0	100.0	99.6	0.4	0.0	0.0	0.0
TRUIST BANK	526,714	396,366	8.0	92.0	78.5	6.2	10.6	2.2	2.4
CITIZENS BANK NATIONAL ASSN	220,152	312,760	0.8	99.2	89.3	9.7	0.0	0.3	0.7
NORTHERN TRUST CO	155,573	299,279	0.0	100.0	9.1	90.5	0.3	0.0	0.0
MORGAN STANLEY BANK NA	212,723	283,462	0.4	99.6	38.0	39.0	15.0	0.0	8.0
CAPITAL ONE NATIONAL ASSN	478,877	267,630	9.6	90.4	84.0	6.1	0.0	7.3	2.5
FIFTH THIRD BANK NA	213,681	188,511	1.3	98.7	66.5	19.2	2.4	9.4	2.4
REGIONS BANK	153,946	173,998	0.1	99.9	93.3	1.3	0.0	2.3	3.1
BMO BANK NATIONAL ASSN	264,643	155,302	0.0	100.0	96.5	2.0	1.5	0.0	0.0
KEYBANK NATIONAL ASSN	185,233	134,631	0.6	99.4	86.8	4.7	0.0	8.4	0.1
HUNTINGTON NATIONAL BANK	192,859	102,732	0.7	99.3	89.8	4.7	0.7	0.6	4.1
MANUFACTURERS&TRADERS TR CO	214,668	78,625	0.0	100.0	98.2	1.8	0.0	0.0	0.0
COMERICA BANK	79,513	72,723	0.0	100.0	74.4	3.9	0.0	19.4	2.3
BOKF NATIONAL ASSN	49,948	65,295	10.6	89.4	76.8	0.2	0.1	23.0	0.0
UBS BANK USA	110,525	61,397	0.0	100.0	100.0	0.0	0.0	0.0	0.0
Top 25 commercial banks, SAs & TCs with derivatives	\$15,559,556	\$204,842,982	\$9,341,018	\$195,501,964	\$143,299,161	\$49,809,171	\$6,251,890	\$1,528,307	\$3,954,454
Other commercial banks, SAs & TCs with derivatives	5,862,117	1,248,469	14,801	1,233,668	1,127,878	46,370	749	29,075	44,397
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	9,355,819	196,735,632	144,427,039	49,855,541	6,252,639	1,557,382	3,998,851
Top 25 Commercial Banks, SAs & TCs with derivatives: percentage of total		99.4	4.5	94.9	69.5	24.2	3.0	0.7	1.9
Other commercial banks, SAs & TCs with derivatives: percentage of total		0.6	0.0	0.6	0.5	0.0	0.0	0.0	0.0
Total all commercial banks, SAs & TCs with derivatives: percentage of total		100.0	4.5	95.5	70.1	24.2	3.0	0.8	1.9

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. "FX" does not include spot FX. "Other" is defined as the sum of commodity and equity contracts.

Source: Call reports, Schedule RC-L

Table 16: Credit Equivalent Exposures

Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank Name	Total assets	Total derivatives	Total risk-based capital	Bilaterally netted current credit exposure	Potential future exposure	Total credit exposure from all contracts	Percent of total credit exposure to capital
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$62,441	\$12,588	\$69,898	\$82,486	132
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	287,922	81,402	236,432	317,834	110
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	163,065	39,028	156,368	195,396	120
BANK OF AMERICA NA	2,550,363	20,966,095	203,699	29,195	60,851	90,046	44
WELLS FARGO BANK NA	1,743,283	14,220,852	166,353	38,053	20,602	58,655	35
STATE STREET BANK&TRUST CO	333,667	2,798,721	18,380	5,476	21,274	26,750	146
HSBC NA	163,070	1,260,051	19,298	2,806	3,216	6,022	31
U S BANK NATIONAL ASSN	669,426	1,207,356	68,892	5,048	9,318	14,367	21
BANK OF NEW YORK MELLON	357,477	1,148,791	21,143	5,481	10,697	16,178	77
PNC BANK NATIONAL ASSN	561,950	682,589	54,542	4,649	-2,159	2,490	5
TD BANK NATIONAL ASSN	369,860	401,188	41,797	24	1,627	1,651	4
TRUIST BANK	526,714	396,366	55,755	417	3,172	3,589	6
CITIZENS BANK NATIONAL ASSN	220,152	312,760	22,574	413	1,782	2,195	10
NORTHERN TRUST CO	155,573	299,279	12,104	1,585	4,785	6,370	53
MORGAN STANLEY BANK NA	212,723	283,462	24,033	294	4,852	5,146	21
CAPITAL ONE NATIONAL ASSN	478,877	267,630	53,384	3,093	6,403	9,496	18
FIFTH THIRD BANK NA	213,681	188,511	22,467	1,713	3,158	4,871	22
REGIONS BANK	153,946	173,998	16,036	422	636	1,058	7
BMO BANK NATIONAL ASSN	264,643	155,302	26,744	353	282	634	2
KEYBANK NATIONAL ASSN	185,233	134,631	20,735	558	588	1,147	6
HUNTINGTON NATIONAL BANK	192,859	102,732	17,908	1,737	928	2,665	15
MANUFACTURERS&TRADERS TR CO	214,668	78,625	20,280	263	249	512	3
COMERICA BANK	79,513	72,723	9,512	593	1,280	1,873	20
BOKF NATIONAL ASSN	49,948	65,295	4,784	826	1,186	2,012	42
UBS BANK USA	110,525	61,397	10,231	0	163	163	2
Top 25 commercial banks, SAs & TCs with derivatives	\$15,559,556	\$204,842,982	\$1,424,080	\$236,017	\$617,587	\$853,605	60
Other commercial banks, SAs & TCs with derivatives	5,862,117	1,248,469	613,995	15,386	9,907	25,293	4
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	2,038,074	251,403	627,494	878,897	43

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. The total credit exposure to capital ratio is calculated using risk-based capital (tier 1 plus tier 2 capital). Currently, the call report does not differentiate credit derivatives by contract type. Credit derivatives have been included in the sum of total derivatives here.

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

Table 17: Notional Amounts of Derivative Contracts Held for Trading

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Total held for trading & MTM	Percent held for trading & MTM	Total not held for trading & MTM	Percent not held for trading & MTM
GOLDMAN SACHS BANK USA	\$521,102	\$549,188	\$55,680,519	\$55,140,000	99.9	\$36,887
JPMORGAN CHASE BANK NA	3,395,126	3,503,360	54,018,588	52,057,376	98.6	735,491
CITIBANK NATIONAL ASSN	1,684,710	1,698,856	49,865,522	48,286,313	99.8	109,871
BANK OF AMERICA NA	2,540,116	2,550,363	20,966,095	18,764,329	91.8	1,674,849
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	\$174,248,018	98.6	\$2,557,098	1.4
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	22,192,065	87.8	3,095,419	12.2
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	196,440,083	97.2	5,652,517	2.8

Note: Currently, the call report does not differentiate between traded and not-traded credit derivatives. Credit derivatives have been excluded from the sum of total derivatives here.

Source: Call reports, Schedule RC-L

Table 18: Gross Fair Values of Derivative Contracts

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Trading gross positive fair value*	Trading gross negative fair value**	Not for trading gross positive fair value*	Not for trading gross negative fair value**	Credit derivatives gross positive fair value	Credit derivatives gross negative fair value**
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$677,859	\$665,280	\$182	\$66	\$6,496	\$7,554
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	581,492	567,293	4,962	1,557	10,762	13,033
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	414,264	402,407	2,009	1,339	16,009	15,890
BANK OF AMERICA NA	2,550,363	20,966,095	153,742	139,030	40,342	45,200	4,273	3,954
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	\$1,827,357	\$1,774,010	\$47,495	\$48,162	\$37,540	\$40,431
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	144,712	145,923	44,042	37,261	1,420	2,396
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	1,972,069	1,919,933	91,537	85,423	38,960	42,827

* 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.

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.

Source: Call reports, Schedule RC-L

Table 19: Trading Revenues From Cash Instruments and Derivatives

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars: Revenue Figures are for the Quarter (Not Year-to-Date), March 31, 2024

Bank name	Total assets	Total derivatives	Total trading revenues from cash & off-balance sheet positions	Trading revenue from interest rate positions	Trading revenue from foreign exchange positions	Trading revenue from equity positions	Trading revenue from commodity & other positions	Trading revenue from credit positions
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	2,267	-1,311	3,008	223	12	335
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	7,500	1,448	1,088	4,200	271	493
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	1,656	1,162	1,263	-813	54	-10
BANK OF AMERICA NA	2,550,363	20,966,095	1,850	530	652	523	96	49
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	13,273	1,829	6,011	4,133	433	867
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	2,357	-12	1,540	681	71	77
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	15,630	1,817	7,551	4,814	504	944

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

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

Table 20: Notional Amounts of Derivative Contracts by Contract Type and Maturity (Interest Rate and Foreign Exchange Rate)

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Interest rate maturity < 1 year	Interest rate maturity 1-5 years	Interest rate maturity > 5 years	Interest rate: all maturities	Foreign exchange rate maturity < 1 year	Foreign exchange rate maturity 1-5 years	Foreign exchange rate maturity > 5 years	Foreign exchange rate: all maturities
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$23,929,422	\$9,145,590	\$8,455,964	\$41,530,976	\$5,972,012	\$1,066,339	\$768,917	\$7,807,268
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	32,978,952	7,413,016	6,480,506	46,872,474	10,205,045	2,647,140	1,291,977	14,144,162
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	21,406,991	4,557,576	3,312,955	29,277,522	10,344,302	2,174,470	1,011,620	13,530,392
BANK OF AMERICA NA	2,550,363	20,966,095	5,442,866	4,907,740	3,124,170	13,474,776	5,092,446	511,464	329,483	5,933,393
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	\$83,758,231	\$26,023,922	\$21,373,595	\$131,155,748	\$31,613,805	\$6,399,413	\$3,401,997	\$41,415,215
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	12,368,629	3,072,757	1,014,923	16,456,309	7,391,420	327,286	83,709	7,802,415
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	96,126,860	29,096,679	22,388,518	147,612,057	39,005,225	6,726,699	3,485,706	49,217,630

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

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

Table 21: Notional Amounts of Derivative Contracts by Contract Type and Maturity (Precious Metals)

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Precious metals maturity < 1 year	Precious metals maturity 1-5 years	Precious metals maturity > 5 years	Precious metals: all maturities
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$132	\$12	\$0	\$144
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	232,730	24,842	18	257,590
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	94,332	7,490	0	101,822
BANK OF AMERICA NA	2,550,363	20,966,095	57,765	10,701	0	68,466
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	\$384,959	\$43,045	\$18	\$428,022
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	9,837	766	0	10,604
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	394,796	43,811	18	438,626

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Under SA-CCR gold derivatives are considered precious metals derivative contracts rather than an exchange rate derivative contract, resulting in an increase in reported precious metals derivative contracts compared with prior quarters. Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

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

Table 22: Notional Amounts of Derivative Contracts by Contract Type and Maturity (Other Commodity and Equity)

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Other commodity maturity < 1 year	Other commodity maturity 1-5 years	Other commodity maturity > 5 years	Other commodity: all maturities	Equity maturity < 1 year	Equity maturity 1-5 years	Equity maturity > 5 years	Equity: all maturities
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$44,464	\$15,558	\$332	\$60,354	\$550,090	\$61,911	\$17,401	\$629,402
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	881,747	131,996	3,352	1,017,095	3,677,469	769,328	54,526	4,501,323
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	130,420	41,585	252	172,257	702,279	144,499	11,055	857,833
BANK OF AMERICA NA	2,550,363	20,966,095	38,447	7,640	311	46,398	772,421	278,502	17,882	1,068,805
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	\$1,095,078	\$196,779	\$4,247	\$1,296,104	\$5,702,259	\$1,254,240	\$100,864	\$7,057,363
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	106,514	90,313	1,909	198,736	344,983	147,014	9,846	501,843
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	1,201,592	287,092	6,156	1,494,840	6,047,242	1,401,254	110,710	7,559,206

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

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

Table 23: Notional Amounts of Credit Derivative Contracts by Contract Type and Maturity (Investment Grade and Sub-Investment Grade)

Top Four Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Total credit derivatives	Investment grade maturity <1 year	Investment grade maturity 1-5 years	Investment grade maturity >5 years	Investment grade all maturities	Sub-investment grade maturity <1 year	Sub-investment grade maturity 1-5 years	Sub-investment grade maturity >5 years	Sub-investment grade all maturities
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$503,632	\$43,375	\$198,464	\$43,763	\$285,602	\$47,611	\$135,848	\$34,571	\$218,030
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	1,225,721	241,682	559,388	140,037	941,107	78,047	167,970	38,597	284,614
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	1,469,338	219,702	852,879	67,728	1,140,309	76,729	228,305	23,995	329,029
BANK OF AMERICA NA	2,550,363	20,966,095	526,917	117,269	205,651	63,775	386,695	45,632	83,679	10,911	140,222
Top four commercial banks, SAs & TCs with derivatives	\$8,301,767	\$180,530,724	\$3,725,608	\$622,028	\$1,816,382	\$315,303	\$2,753,713	\$248,019	\$615,802	\$108,074	\$971,895
Other commercial banks, SAs & TCs with derivatives	13,119,906	25,560,727	273,243	58,384	106,592	18,695	183,672	11,481	66,767	11,323	89,571
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	3,998,851	680,412	1,922,974	333,998	2,937,385	259,500	682,569	119,397	1,061,466

Source: Call reports, Schedule RC-L

Table 24: Distribution of Credit Derivative Contracts Held for Trading

Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

Bank name	Total assets	Total derivatives	Total credit derivatives	Total credit derivatives purchased	Total credit derivatives sold	Purchased credit default swaps	Purchased total return swaps	Purchased credit options	Purchased other credit derivatives	Sold credit default swaps	Sold total return swaps	Sold credit options	Sold other credit derivatives
GOLDMAN SACHS BANK USA	\$549,188	\$55,680,519	\$503,632	\$278,892	\$224,740	\$261,072	\$5,693	\$11,907	\$220	\$208,939	\$3,765	\$11,842	\$194
JPMORGAN CHASE BANK NA	3,503,360	54,018,588	1,225,721	644,951	580,770	536,674	41,034	61,461	5,782	503,221	12,682	64,829	38
CITIBANK NATIONAL ASSN	1,698,856	49,865,522	1,469,338	761,892	707,446	689,831	30,469	41,592	0	650,592	11,222	45,632	0
BANK OF AMERICA NA	2,550,363	20,966,095	526,917	277,993	248,924	220,831	18,362	38,800	0	207,205	3,481	38,236	0
WELLS FARGO BANK NA	1,743,283	14,220,852	128,122	68,993	59,129	10,485	32,841	325	25,342	12,553	29,290	0	17,286
STATE STREET BANK&TRUST CO	333,667	2,798,721	0	0	0	0	0	0	0	0	0	0	0
HSBC NA	163,070	1,260,051	15,937	12,037	3,900	8,885	3,152	0	0	3,900	0	0	0
U S BANK NATIONAL ASSN	669,426	1,207,356	15,509	6,474	9,035	3,331	0	0	3,144	161	0	0	8,874
BANK OF NEW YORK MELLON	357,477	1,148,791	255	255	0	255	0	0	0	0	0	0	0
PNC BANK NATIONAL ASSN	561,950	682,589	12,049	4,975	7,074	100	0	0	4,875	0	0	0	7,074
TD BANK NATIONAL ASSN	369,860	401,188	0	0	0	0	0	0	0	0	0	0	0
TRUIST BANK	526,714	396,366	9,544	3,296	6,248	325	1,592	0	1,379	0	0	0	6,248
CITIZENS BANK NATIONAL ASSN	220,152	312,760	2,049	0	2,049	0	0	0	0	0	0	0	2,049
NORTHERN TRUST CO	155,573	299,279	0	0	0	0	0	0	0	0	0	0	0
MORGAN STANLEY BANK NA	212,723	283,462	22,674	20,732	1,942	20,202	106	424	0	1,902	40	0	0
CAPITAL ONE NATIONAL ASSN	478,877	267,630	6,671	3,828	2,843	0	0	0	3,828	0	0	0	2,843
FIFTH THIRD BANK NA	213,681	188,511	4,616	1,133	3,483	0	0	0	1,133	0	0	0	3,483
REGIONS BANK	153,946	173,998	5,364	1,608	3,756	0	0	0	1,608	0	0	0	3,756
BMO BANK NATIONAL ASSN	264,643	155,302	1	1	0	1	0	0	0	0	0	0	0
KEYBANK NATIONAL ASSN	185,233	134,631	113	18	95	18	0	0	0	2	93	0	0
HUNTINGTON NATIONAL BANK	192,859	102,732	4,257	2,656	1,601	346	0	0	2,310	0	0	0	1,601
MANUFACTURERS&TRADERS TR CO	214,668	78,625	0	0	0	0	0	0	0	0	0	0	0
COMERICA BANK	79,513	72,723	1,684	689	995	689	0	0	0	995	0	0	0
BOKF NATIONAL ASSN	49,948	65,295	0	0	0	0	0	0	0	0	0	0	0
UBS BANK USA	110,525	61,397	0	0	0	0	0	0	0	0	0	0	0
Top 25 commercial banks, SAs & TCs with derivatives	\$15,559,556	\$204,842,982	\$3,954,454	\$2,090,423	\$1,864,031	\$1,753,045	\$133,249	\$154,509	\$49,620	\$1,589,472	\$60,573	\$160,541	\$53,445
Other commercial banks, SAs & TCs with derivatives	5,862,117	1,248,469	44,397	31,390	13,006	2,433	0	0	28,957	2,840	11	0	10,155
Total all commercial banks, SAs & TCs with derivatives	21,421,673	206,091,451	3,998,851	2,121,814	1,877,037	1,755,478	133,249	154,509	78,578	1,592,312	60,584	160,541	63,600
Top 25 commercial banks, SAs & TCs with derivatives: percentage of total			98.9	52.3	46.6	43.8	3.3	3.9	1.2	39.7	1.5	4.0	1.3
Other commercial banks, SAs & TCs with derivatives: percentage of total			1.1	0.8	0.3	0.1	0.0	0.0	0.7	0.1	0.0	0.0	0.3
Total all commercial banks, SAs & TCs with derivatives: percentage of total			100.0	53.1	46.9	43.9	3.3	3.9	2.0	39.8	1.5	4.0	1.6

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

Source: Call reports, Schedule RC-L

Table 25: Derivatives Data Reported by FFIEC 051 Filers*

Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, March 31, 2024

FFIEC 051 Call Report Schedule SU

Gross notional amount of derivatives	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21
Total gross notional amount of interest rate derivatives held for trading	\$5,670	\$5,586	\$5,325	\$5,242	\$5,016	\$4,792	\$4,915	\$4,953	\$4,994	\$5,011	\$5,301	\$5,189
Total gross notional amount of all other derivatives held for trading	\$149	\$149	\$50	\$47	\$51	\$43	\$42	\$35	\$39	\$44	\$14	\$173
Total gross notional amount of interest rate derivatives not held for trading	\$25,430	\$26,068	\$122,763	\$21,050	\$17,819	\$14,395	\$16,786	\$19,499	\$21,308	\$22,545	\$29,991	\$31,949
Total gross notional amount of all other derivatives not held for trading	\$614	\$614	\$845	\$842	\$676	\$1,103	\$1,037	\$1,142	\$1,007	\$1,314	\$1,461	\$1,350

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Notional principal amounts of over-the-counter derivative contracts covered by the regulatory capital rules	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21
Interest rate	Data Not Reported	\$20,246	Data Not Reported	\$20,844	Data Not Reported	\$12,839	Data Not Reported	\$14,092	Data Not Reported	\$14,005	Data Not Reported	\$17,688
Foreign exchange rate	Data Not Reported	\$7	Data Not Reported	\$5	Data Not Reported	\$5	Data Not Reported	\$4	Data Not Reported	\$4	Data Not Reported	\$3
Credit (investment grade reference asset)	Data Not Reported	\$75	Data Not Reported	\$80	Data Not Reported	\$188	Data Not Reported	\$265	Data Not Reported	\$230	Data Not Reported	\$196
Credit (non-investment grade reference asset)	Data Not Reported	\$302	Data Not Reported	\$251	Data Not Reported	\$212	Data Not Reported	\$176	Data Not Reported	\$168	Data Not Reported	\$154
Equity	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0
Precious metals	Data Not Reported	\$4	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$4	Data Not Reported	\$1
Other	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$1

Notional principal amounts of centrally cleared derivative contracts covered by the regulatory capital rules	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21
Interest rate	Data Not Reported	\$69	Data Not Reported	\$90	Data Not Reported	\$79	Data Not Reported	\$108	Data Not Reported	\$21	Data Not Reported	\$193
Foreign exchange rate	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0
Credit (investment grade reference asset)	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0
Credit (non-investment grade reference asset)	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0
Equity	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0
Precious metals	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0
Other	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0	Data Not Reported	\$0

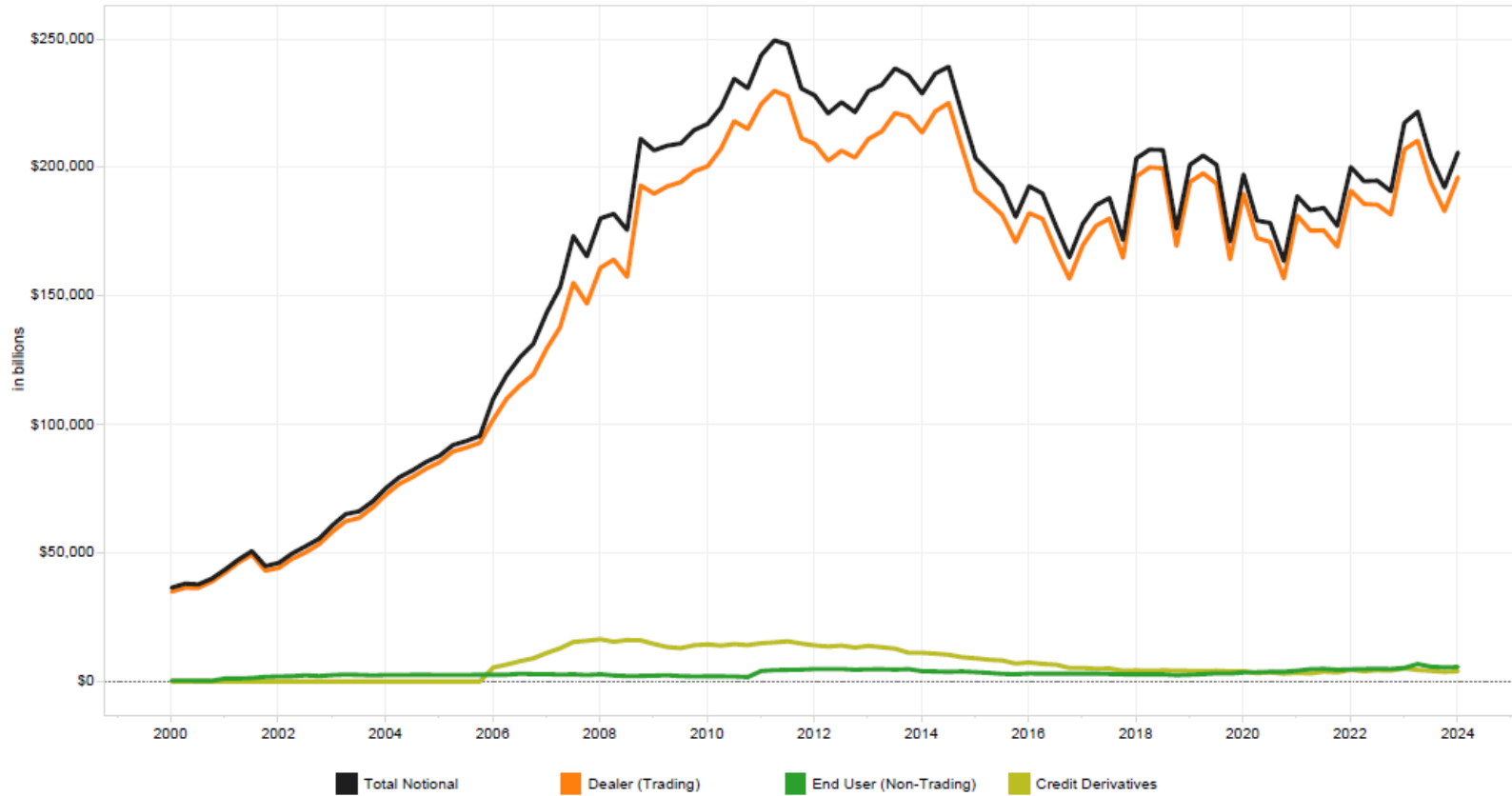
Current Credit Exposure	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21	2Q21
Current credit exposure across all derivative contracts covered by the regulatory capital rules	Data Not Reported	\$354	Data Not Reported	\$455	Data Not Reported	\$493	Data Not Reported	\$363	Data Not Reported	\$233	Data Not Reported	\$287

* Beginning September 30, 2019, the eligibility to file the FFIEC 051 call report expanded from banks with total assets less than \$1 billion to include banks with less than \$5 billion in total assets.

** Beginning September 30, 2019, banks filing the FFIEC 051 call report complete this information from schedule RC-R in the June and December reports only.

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

Figure 7: Derivative Notional Amounts by Type
Insured U.S. Commercial Banks and Savings Associations



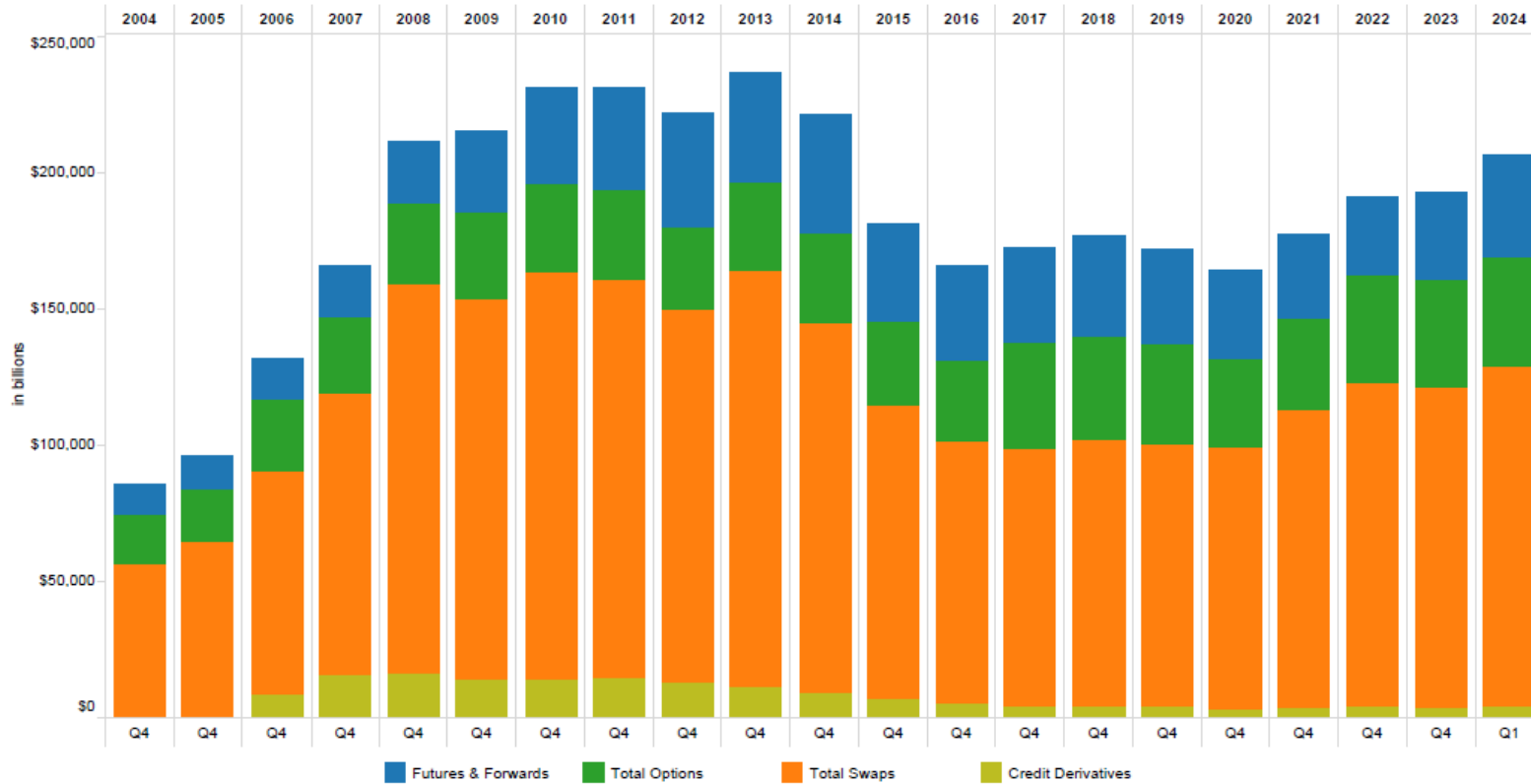
In billions of dollars

	2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Total Notional	\$197,504	\$179,573	\$178,579	\$163,799	\$188,990	\$183,501	\$184,480	\$177,464	\$200,354	\$194,851	\$195,082	\$190,977	\$217,801	\$221,913	\$204,177	\$192,463	\$206,091
Dealer (Trading)	189,995	172,723	171,242	156,997	181,421	175,807	175,895	189,380	191,121	186,018	185,700	181,874	207,221	210,641	194,309	183,202	196,440
End User (Non-Trading)	3,522	3,595	3,757	3,788	4,211	4,791	4,933	4,563	4,729	4,870	4,992	4,861	5,301	6,798	5,752	5,515	5,653
Credit Derivatives	3,986	3,255	3,581	3,034	3,359	3,104	3,852	3,540	4,504	3,966	4,390	4,241	5,079	4,474	4,115	3,746	3,999

Note: Total derivative notionals are now reported including credit derivatives, for which regulatory reporting does not differentiate between trading and nontrading.

Source: Call reports, Schedule RC-L

Figure 8: Derivative Contracts by Product*
Insured U.S. Commercial Banks and Savings Associations



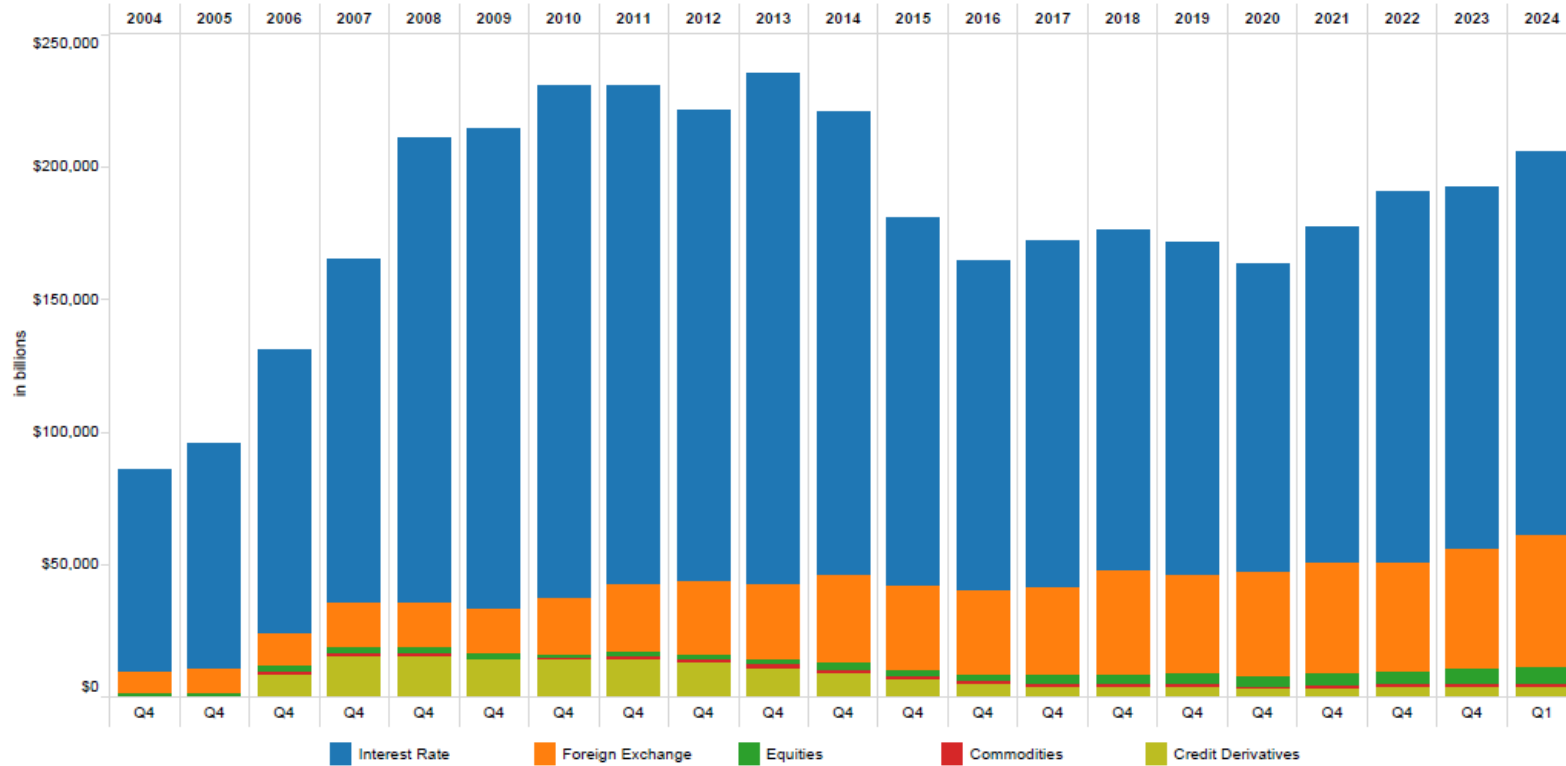
In billions of dollars

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1
Futures & Forwards	\$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	\$31,180	\$28,748	\$31,806	\$36,822
Total Options	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	33,453	39,389	39,608	40,378
Total Swaps	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	109,290	118,598	117,303	124,893
Credit Derivatives	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	3,540	4,241	3,746	3,999
Total Notional	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	177,464	190,977	192,463	208,091

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

Source: Call reports, Schedule RC-L

Figure 9: Derivative Contracts by Type*
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

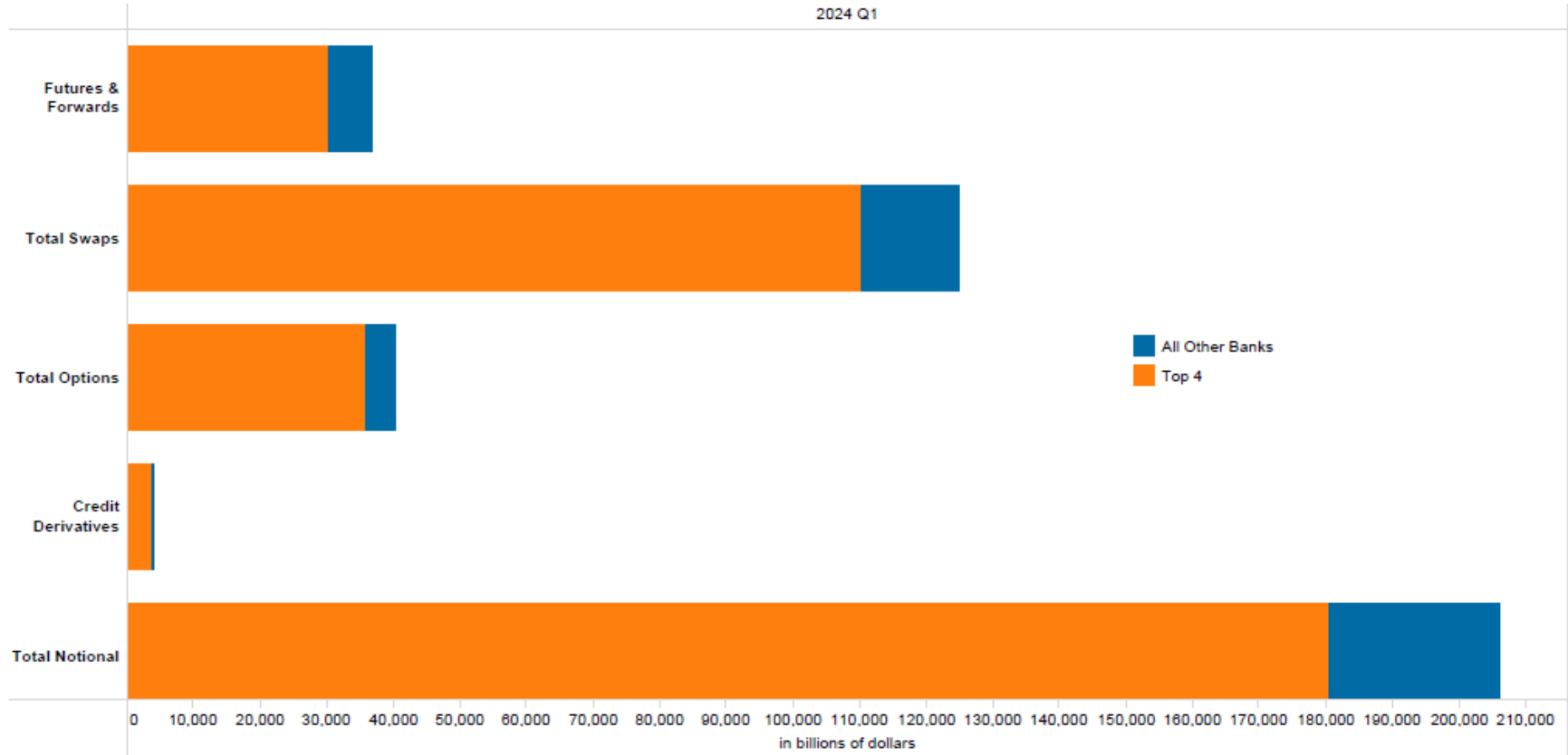
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1
Interest Rate	\$181,454	\$193,399	\$187,866	\$177,650	\$193,084	\$174,687	\$138,369	\$124,488	\$130,417	\$128,175	\$125,065	\$116,000	\$126,236	\$139,755	\$136,274	\$144,427
Foreign Exchange	16,555	20,990	25,436	27,587	28,480	33,183	32,100	31,737	32,903	39,220	37,170	39,596	41,847	41,123	45,278	49,856
Equities	1,685	1,364	1,606	1,970	2,028	2,537	2,395	2,475	3,080	3,374	3,796	3,775	4,256	4,424	5,674	6,253
Commodities	979	1,195	1,330	1,397	1,209	1,222	1,108	1,257	1,388	1,315	1,488	1,395	1,584	1,433	1,493	1,557
Credit Derivatives	14,112	14,151	14,759	13,190	11,191	9,449	6,986	5,293	4,186	4,270	3,945	3,034	3,540	4,241	3,746	3,999
Total Notional	214,786	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,974	176,354	171,465	163,799	177,464	190,977	192,463	206,091

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

Note: As of 2006 Q2 equities and commodities are shown as separate categories. They were previously shown as "Other Derivs."

Source: Call reports, Schedule RC-L

Figure 10: Four Banks Dominate in Derivatives*
 Insured U.S. Commercial Banks and Savings Associations



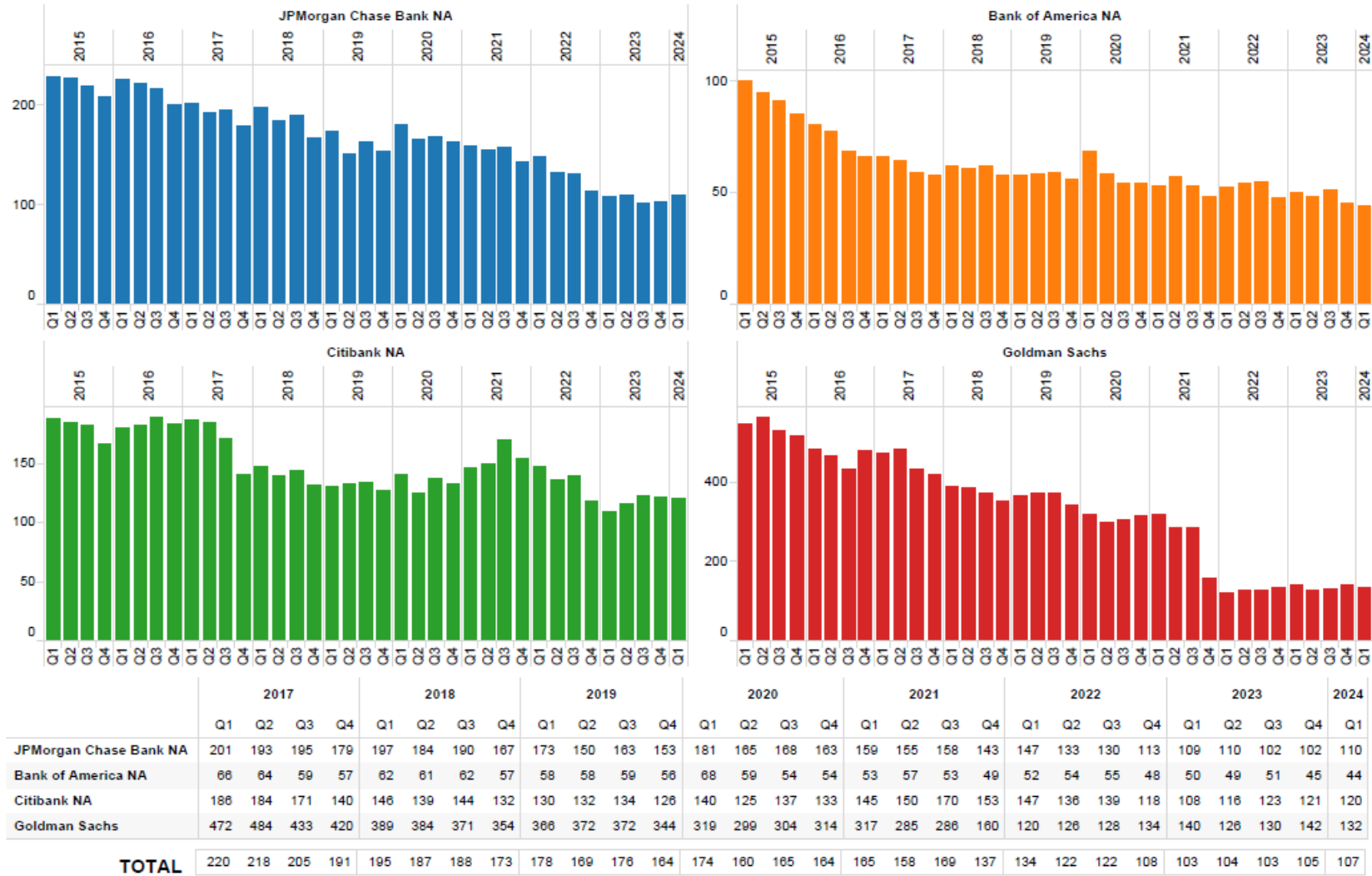
In billions of dollars

	Top 4	All Other Banks	Grand Total
Futures & Forwards	\$30,372	\$6,449	\$36,822
Total Swaps	\$110,471	\$14,421	\$124,893
Total Options	\$35,962	\$4,417	\$40,378
Credit Derivatives	\$3,726	\$273	\$3,999
Total Notional	\$180,531	\$25,561	\$206,091

* Notional amount of total: futures, exchange-traded options, over-the-counter options, forwards, and swaps. See table 13 for a list of the top four banks.

Source: Call reports, Schedule RC-L

Figure 11: Credit Exposure to Risk-Based Capital (in Percentage)
 Top Four Insured U.S. Commercial Banks and Savings Associations by Derivative Holdings

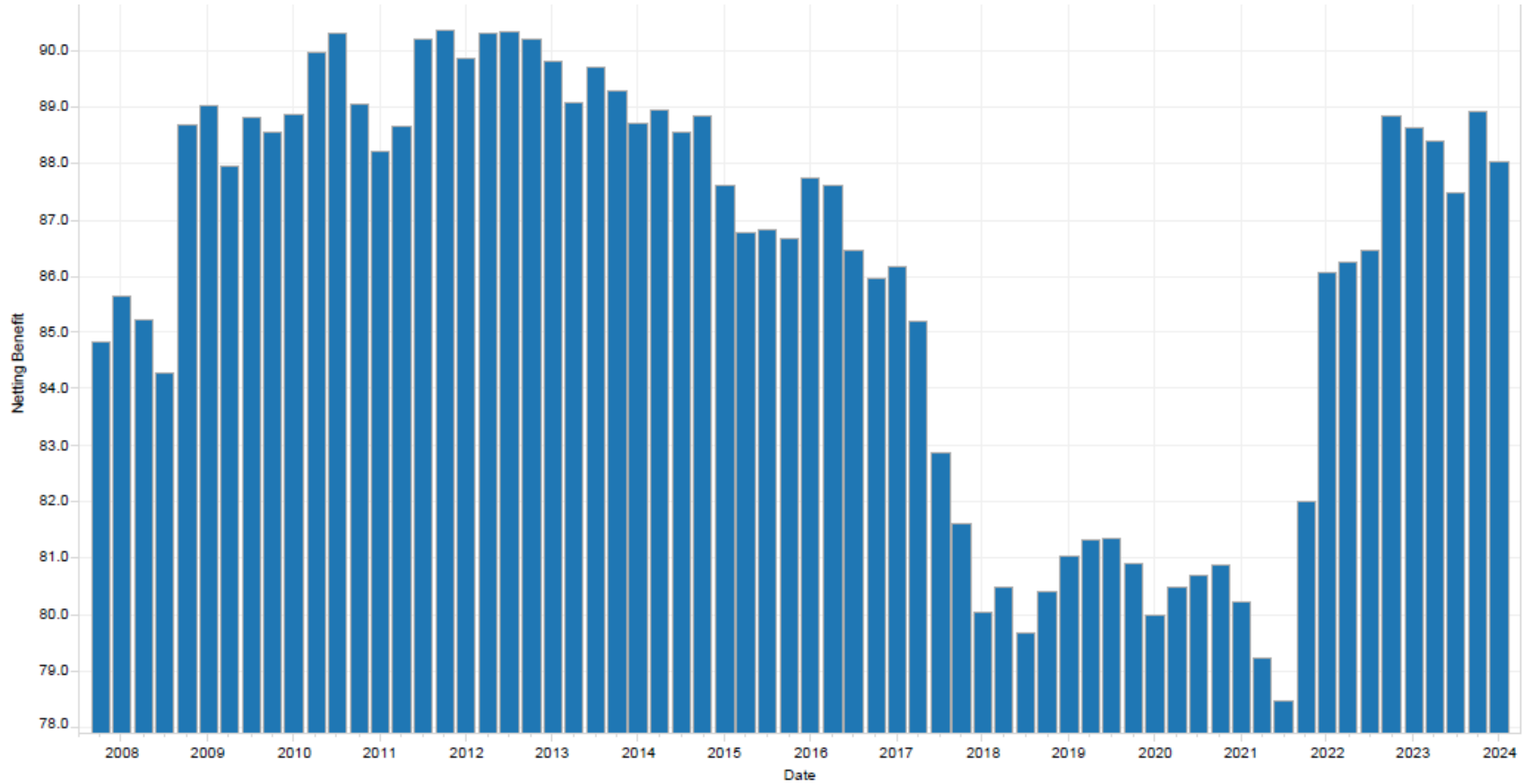


Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

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

Source: Call reports, Schedule RC-R

Figure 12: 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

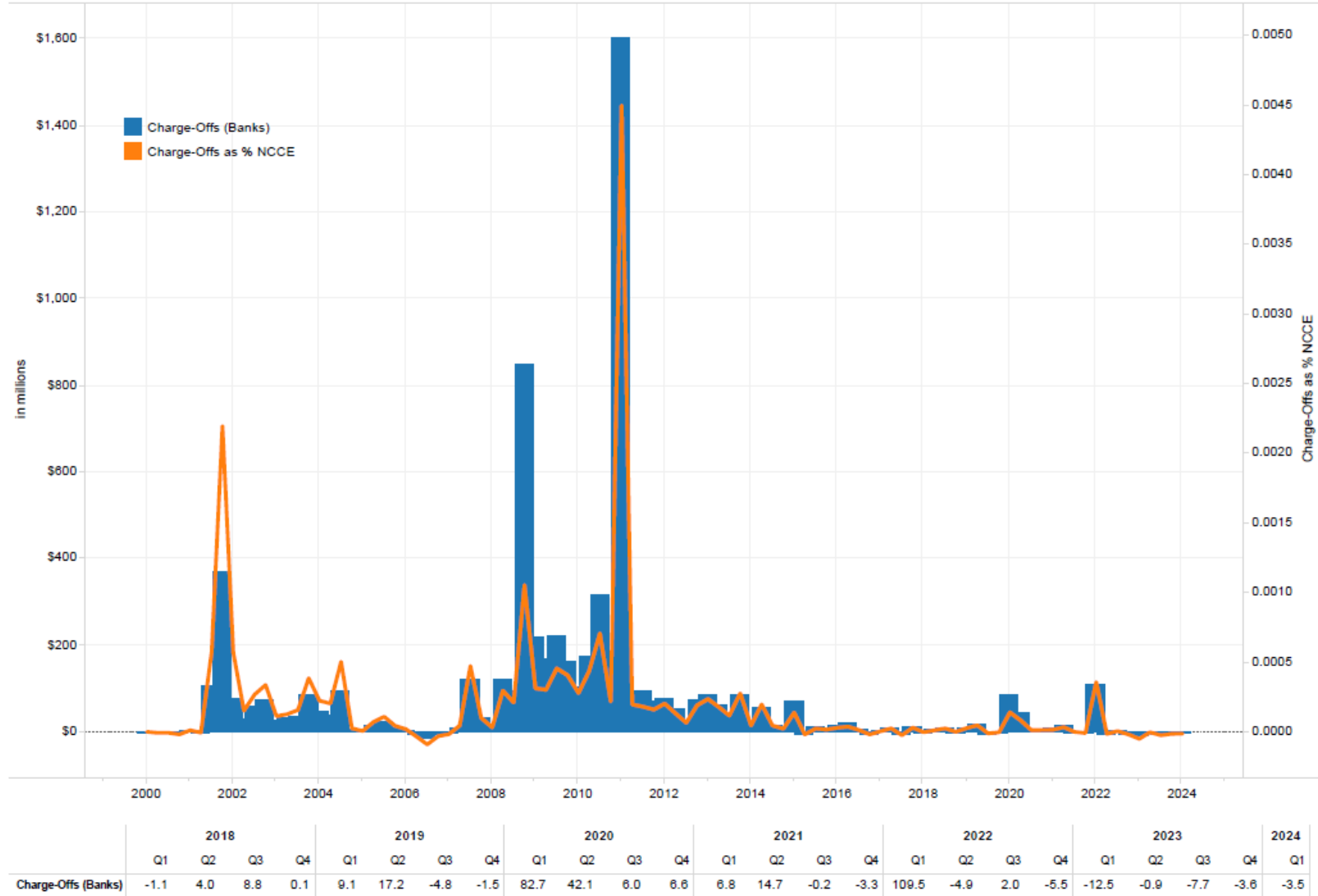
2016				2017				2018				2019				2020				2021				2022				2023				2024
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
87.7	87.6	86.5	86.0	86.2	85.2	82.9	81.6	80.0	80.5	79.7	80.4	81.0	81.3	81.4	80.9	80.0	80.5	80.7	80.9	80.2	79.2	78.5	82.0	86.1	86.3	86.5	88.8	88.6	88.4	87.5	88.9	88.0

* The netting benefit is defined as the GPFV from call report Schedule RC-L minus the Net Current Credit Exposure from call report Schedule RC-R divided by the GPFV.

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

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

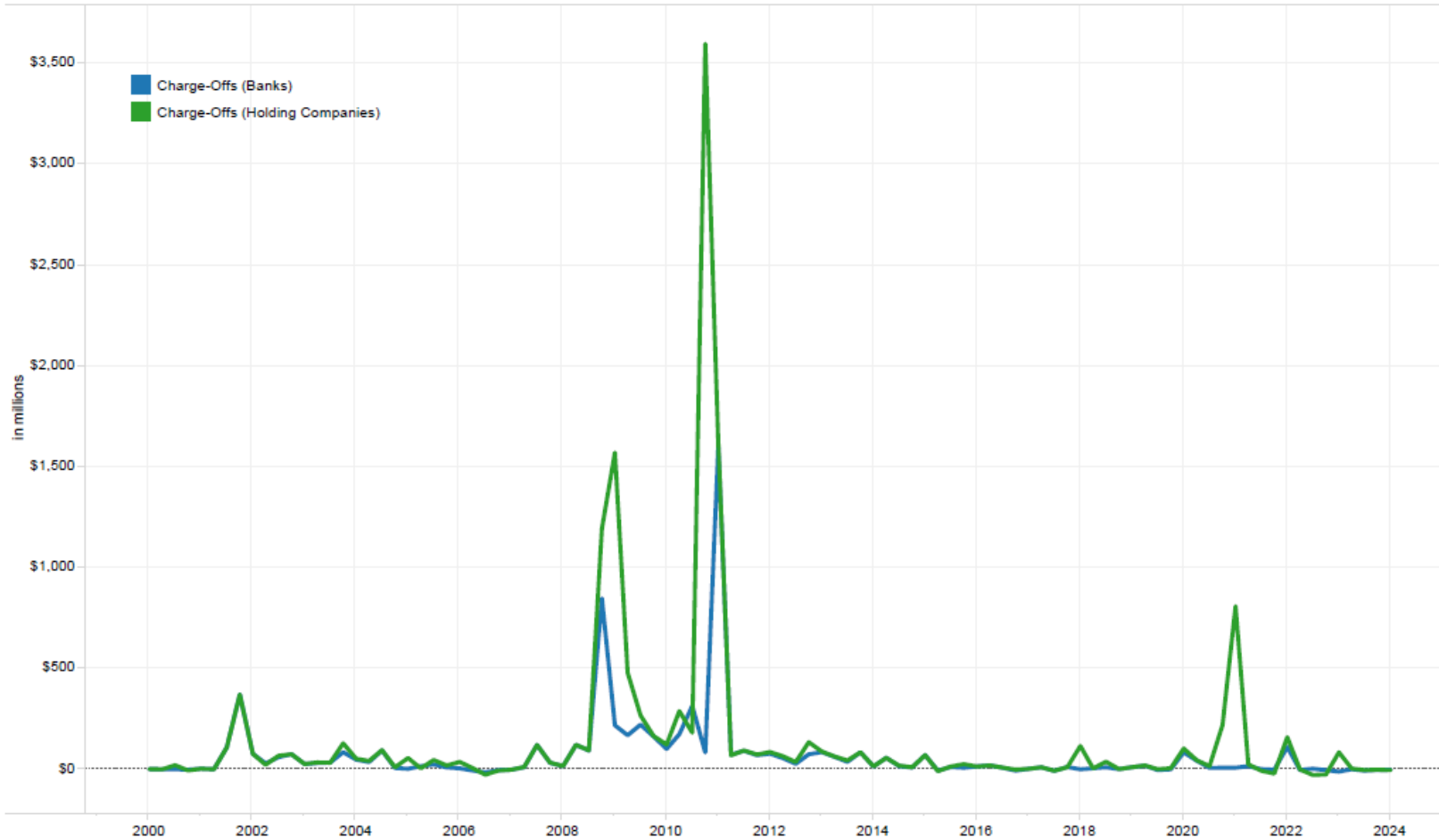
Figure 13: Quarterly Charge-Offs/(Recoveries) From Derivatives—Bank Insured U.S. Commercial Banks and Savings Associations With Derivatives



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)

Figure 14: Quarterly Charge-Offs/(Recoveries) From Derivatives—Holding Company
 Insured U.S. Commercial Banks and Savings Associations With Derivatives Compared With Holding Companies

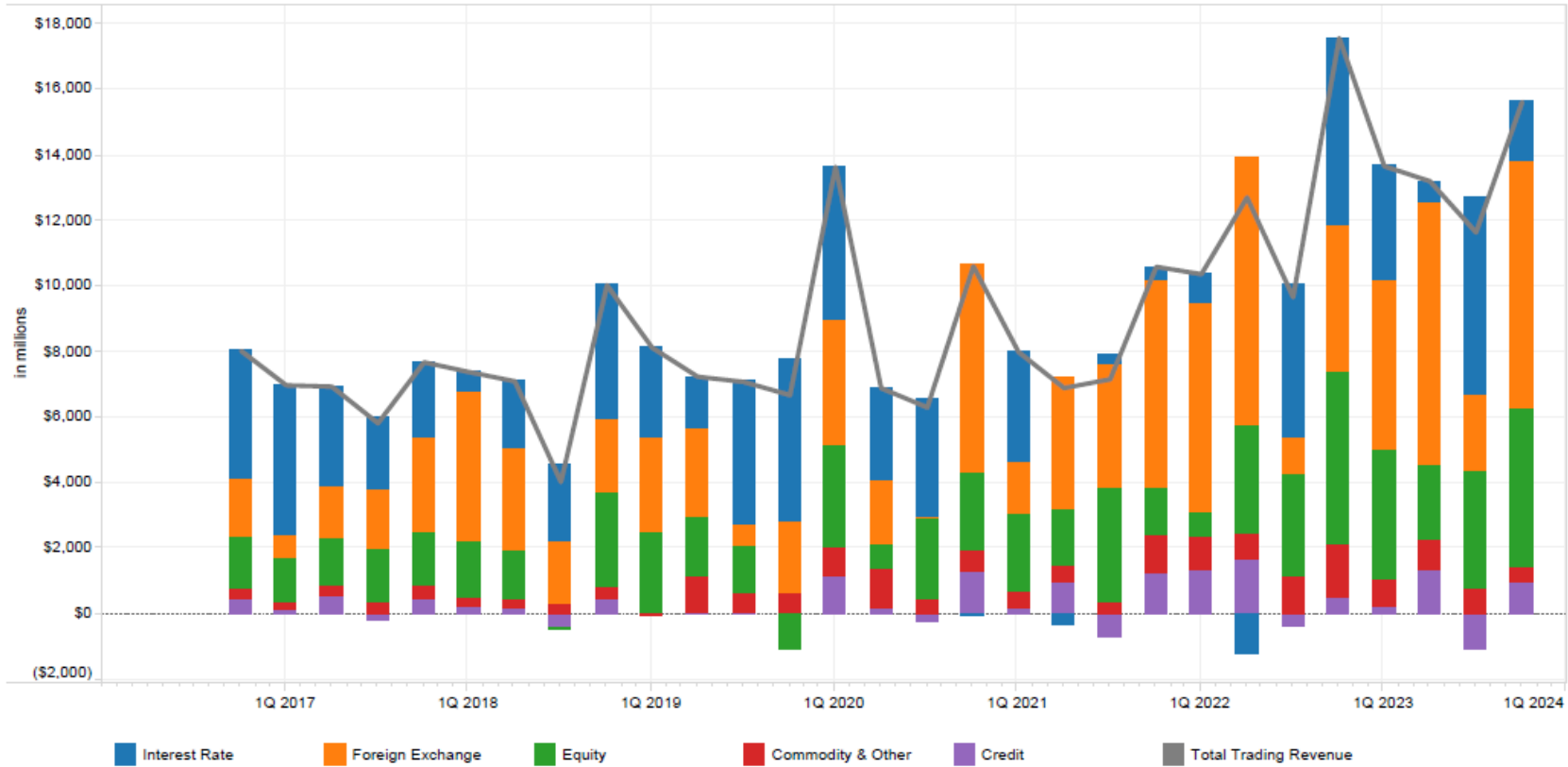


	2018				2019				2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Charge-Offs (Banks)	-1.1	4.0	8.8	0.1	9.1	17.2	-4.8	-1.5	82.7	42.1	6.0	6.6	6.8	14.7	-0.2	-3.3	109.5	-4.9	2.0	-5.5	-12.5	-0.9	-7.7	-3.6	-3.5
Charge-Offs (Holding Companies)	114.5	3.5	36.8	0.1	9.5	17.9	-0.3	4.1	102.1	44.2	14.6	218.3	807.7	23.7	-8.2	-22.5	158.0	-1.8	-29.4	-27.1	83.1	2.5	-4.9	-3.2	-5.1

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

Source: Call reports, Schedule RI and Y-9, Schedule HI

Figure 15a: Quarterly Trading Revenue (Cash and Derivative Positions)*—Bank Insured U.S. Commercial Banks and Savings Associations



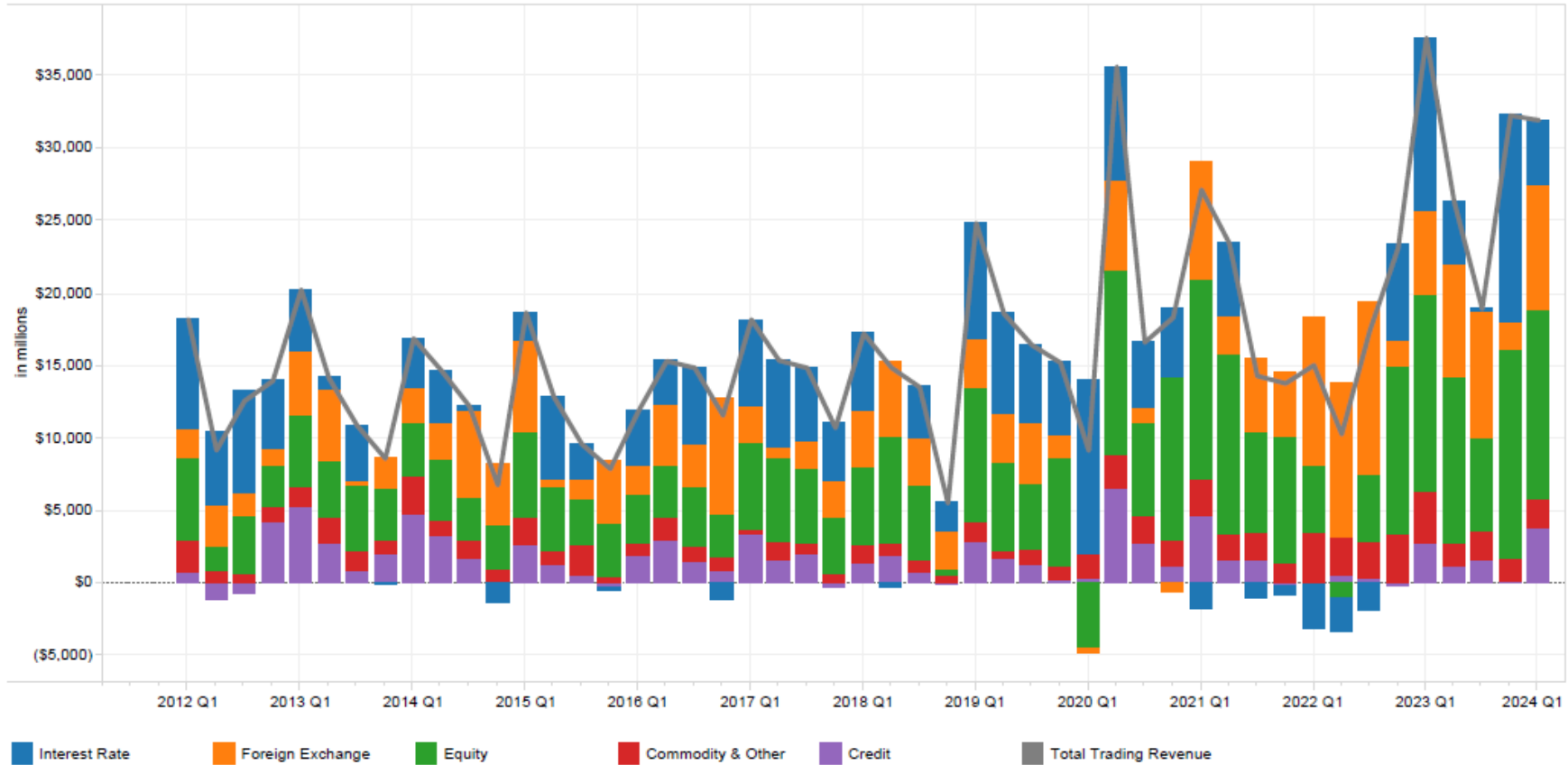
In millions of dollars

	2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Interest Rate	\$4,942	\$4,634	\$2,821	\$3,616	(\$42)	\$3,369	(\$329)	\$273	\$403	\$874	(\$1,197)	\$4,653	\$5,721	\$3,471	\$630	\$6,016	\$1,817
Foreign Exchange	2,167	3,841	1,942	18	6,343	1,546	3,998	3,747	6,341	6,363	8,153	1,134	4,439	5,174	8,036	2,334	7,551
Equity	-1,040	3,139	750	2,480	2,388	2,384	1,729	3,534	1,458	773	3,306	3,100	5,334	3,996	2,262	3,603	4,814
Commodity & Other	646	905	1,226	434	622	549	531	347	1,161	1,029	774	1,153	1,570	824	942	773	504
Credit	-34	1,129	154	-243	1,300	150	967	-737	1,235	1,334	1,678	-368	516	204	1,342	-1,077	944
Total Trading Revenue	6,881	13,648	6,893	6,305	10,611	7,999	6,896	7,164	10,598	10,373	12,714	9,871	17,581	13,668	13,211	11,649	15,630

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

Source: Call reports, Schedule RI

Figure 15b: Quarterly Trading Revenue (Cash and Derivative Positions)*—Holding Company
Bank Holding Companies



In millions of dollars

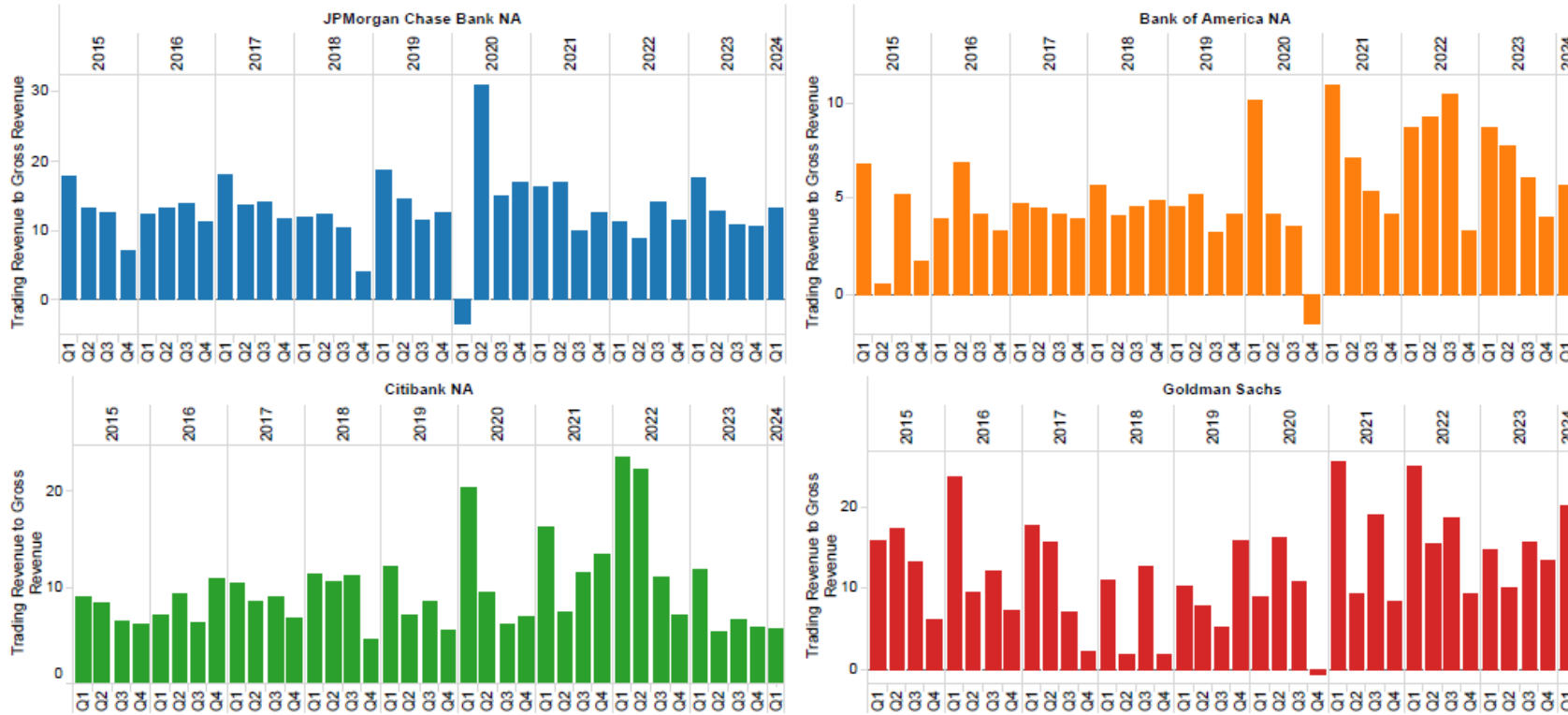
	2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Interest Rate	\$12,036	\$7,801	\$4,582	\$4,855	(\$1,828)	\$5,001	(\$1,182)	(\$569)	(\$3,137)	(\$2,365)	(\$1,976)	\$6,649	\$11,955	\$4,337	\$225	\$14,397	\$4,491
Foreign Exchange	-302	6,374	1,037	-628	8,051	2,732	5,144	4,496	10,267	10,574	11,900	1,810	5,760	7,902	8,752	1,768	8,638
Equity	-4,499	12,604	6,424	11,126	13,753	12,353	6,835	8,745	4,546	-1,063	4,672	11,535	13,714	11,347	6,363	14,476	13,059
Commodity & Other	1,664	2,486	1,912	1,804	2,665	1,802	1,978	1,340	3,498	2,698	2,533	3,378	3,471	1,615	2,025	1,807	1,990
Credit	257	6,410	2,675	1,181	4,531	1,595	1,530	-225	-129	438	286	-249	2,770	1,158	1,577	53	3,800
Total Trading Revenue	9,157	35,676	16,631	18,337	27,172	23,483	14,305	13,786	15,046	10,281	17,417	23,123	37,670	26,359	18,943	32,302	31,977

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

Source: Y9, Schedule HI

Figure 16: Quarterly Trading Revenue (Cash and Derivative Positions) as a Percentage of Gross Revenue (in Percentage)*

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



Trading Revenue to Gross Revenue*

	2018				2019				2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
JPMorgan Chase Bank NA	11.90	12.19	10.26	3.92	18.57	14.57	11.30	12.62	-3.33	30.88	14.83	16.98	16.12	16.90	9.84	12.70	11.13	8.86	14.06	11.38	17.66	12.79	10.83	10.50	13.25
Bank of America NA	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	5.33	4.08	8.74	9.23	10.45	3.30	8.70	7.71	6.09	3.95	5.63
Citibank NA	11.33	10.69	11.26	4.66	12.32	7.23	8.48	5.56	20.50	9.63	6.27	7.08	18.24	7.42	11.57	13.44	23.64	22.30	11.05	7.15	12.01	5.44	6.68	5.77	5.71
Goldman Sachs	10.85	1.84	12.77	1.86	10.31	7.78	4.98	15.90	8.96	16.21	10.68	-0.56	25.61	9.27	19.13	8.19	24.97	15.46	18.52	9.30	14.72	10.12	15.74	13.43	20.25
TOTAL	9.77	8.95	8.82	4.36	12.43	9.60	8.01	8.61	7.44	18.00	9.49	8.91	15.11	11.75	9.49	10.36	14.32	12.72	12.68	8.11	13.78	9.67	9.08	8.01	10.24

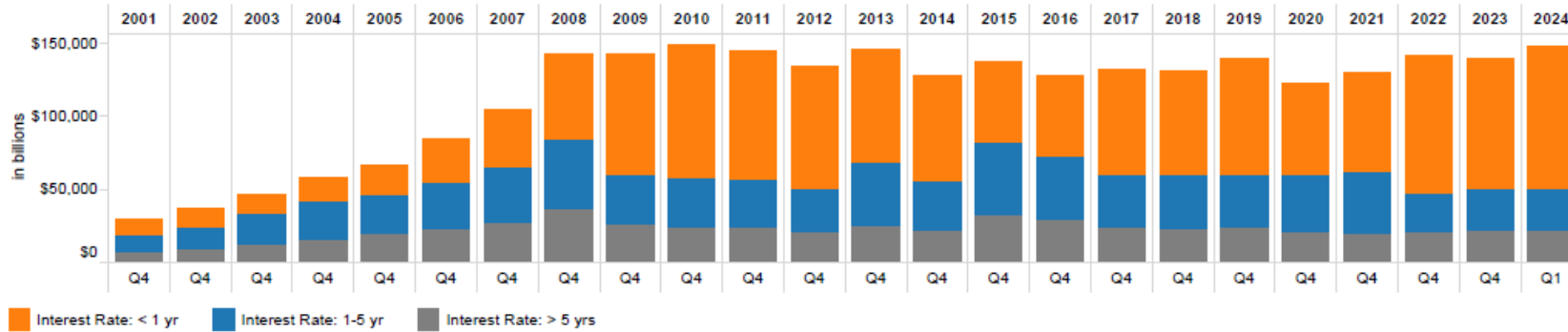
* The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.

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

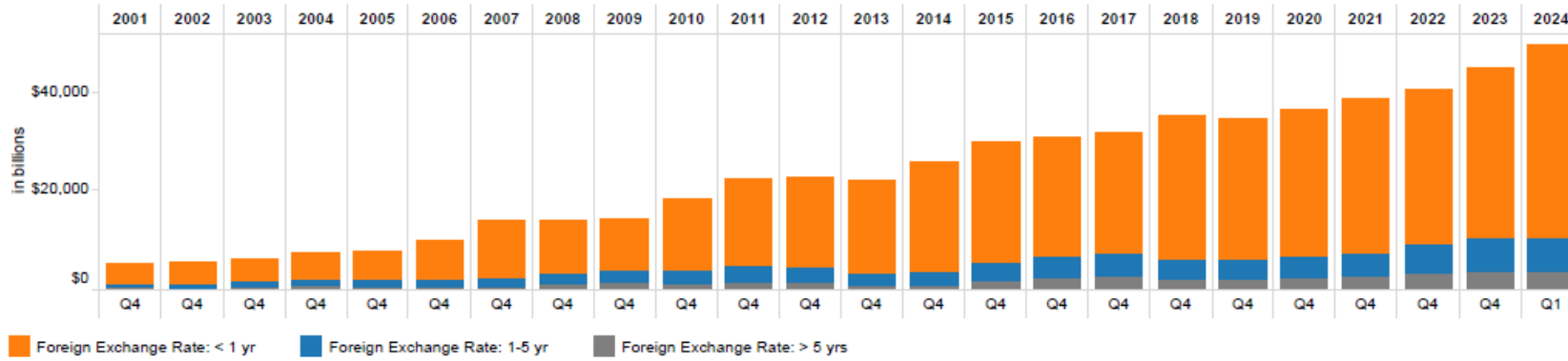
Source: Call reports, Schedule RI

Figure 17: Notional Amounts of Interest Rate and Foreign Exchange Rate Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations

Interest Rate



Foreign Exchange Rate



In billions of dollars

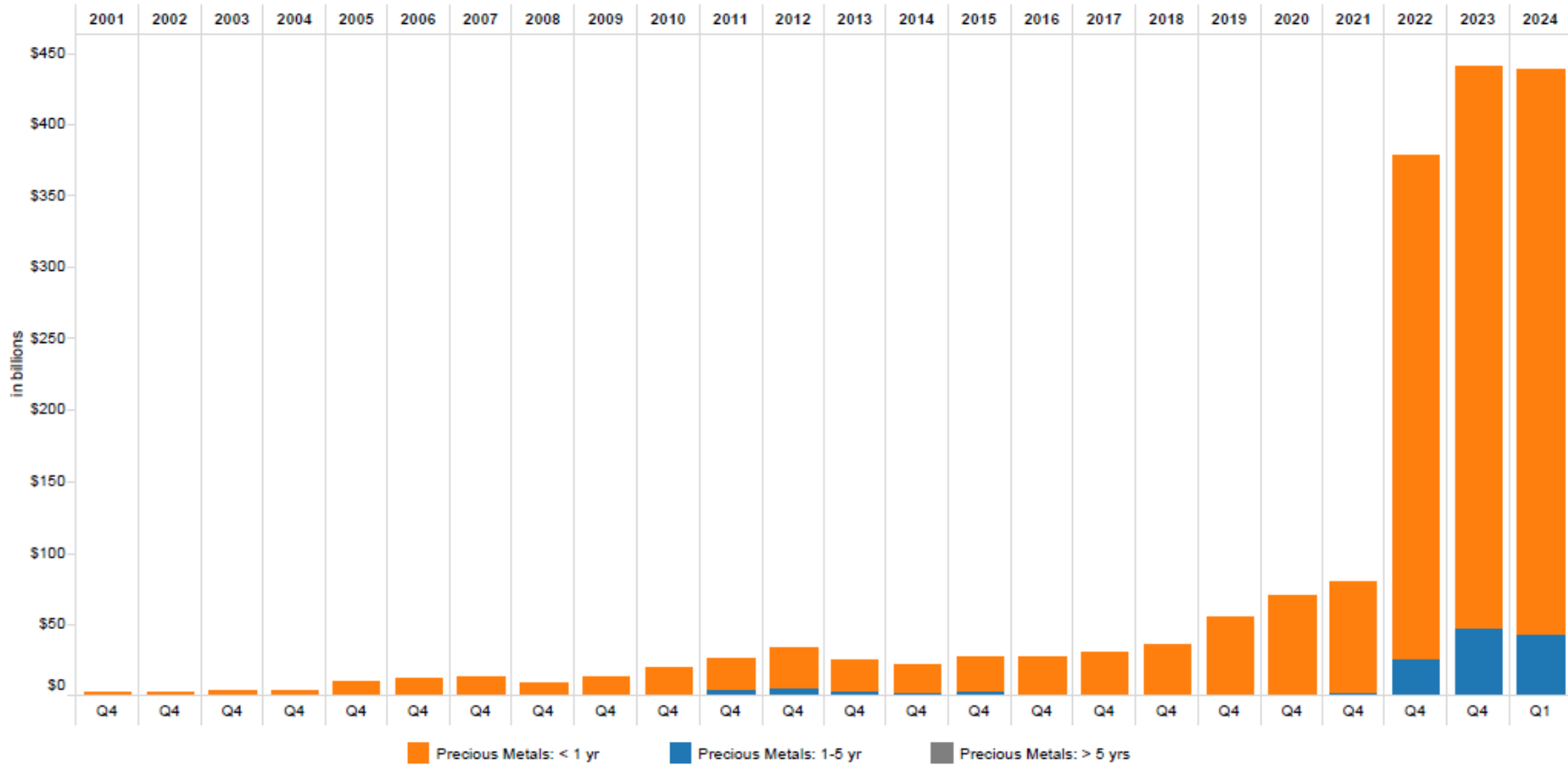
	2011 Q4	2012 Q4	2013 Q4	2014 Q4	2015 Q4	2016 Q4	2017 Q4	2018 Q4	2019 Q4	2020 Q4	2021 Q4	2022 Q4	2023 Q4	2024 Q1
Interest Rate: < 1 yr	\$87,812	\$82,948	\$77,758	\$71,808	\$55,054	\$55,061	\$72,589	\$71,492	\$79,132	\$62,444	\$68,044	\$92,693	\$87,576	\$96,127
Interest Rate: 1-5 yr	32,750	30,191	44,157	33,727	49,406	43,261	36,154	36,681	35,854	39,198	41,244	27,371	29,648	29,097
Interest Rate: > 5 yrs	24,168	21,175	24,630	22,214	32,981	29,762	23,565	23,244	24,259	20,838	20,464	20,661	21,804	22,389
Foreign Exchange Rate: < 1 yr	17,632	18,386	18,372	22,145	24,130	23,912	24,380	28,891	28,241	29,434	30,954	31,270	34,341	39,005
Foreign Exchange Rate: 1-5 yr	3,117	2,910	2,341	2,587	3,986	4,454	4,805	4,219	4,052	4,404	4,864	5,996	6,862	6,727
Foreign Exchange Rate: > 5 yrs	1,503	1,480	1,029	969	1,648	2,420	2,525	2,096	2,146	2,402	2,552	3,146	3,501	3,486

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

Source: Call reports, Schedule RC-R

Figure 18: Notional Amounts of Precious Metal Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations

Precious Metals



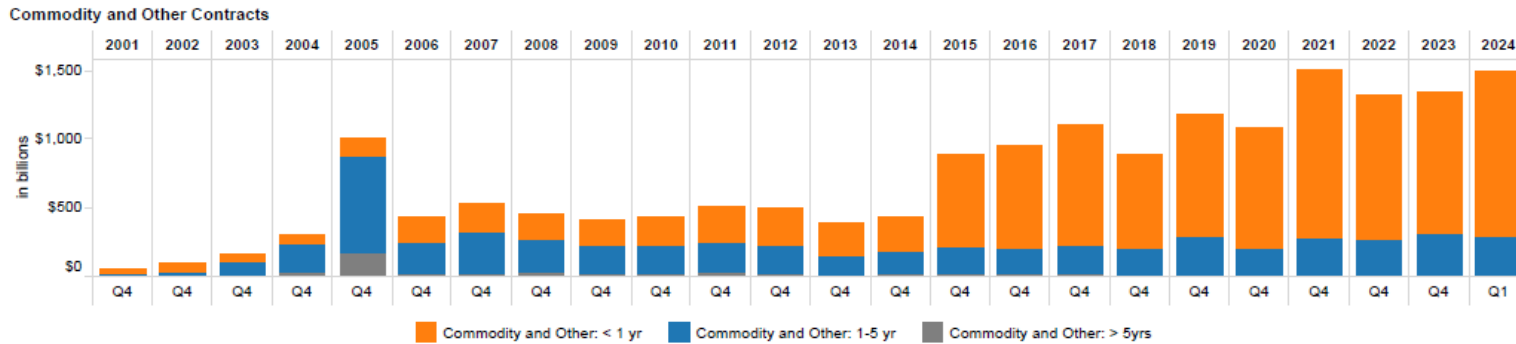
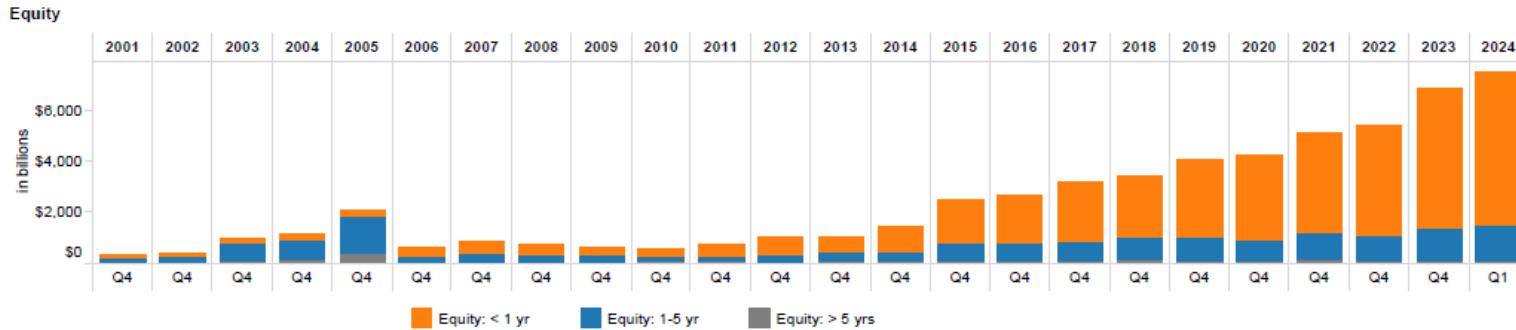
In billions of dollars

	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 Q4	2022 Q4	2023 Q4	2024 Q1
Precious Metals: < 1 yr	\$10.72	\$7.55	\$11.55	\$17.47	\$21.12	\$27.88	\$21.41	\$19.29	\$23.51	\$25.07	\$28.82	\$33.82	\$52.58	\$67.80	\$75.78	\$352.12	\$393.20	\$394.80
Precious Metals: 1-5 yr	2.1	1.5	1.2	1.9	4.7	5.8	3.8	2.8	3.9	2.5	2.4	2.3	2.1	2.5	3.5	26.0	47.5	43.8
Precious Metals: > 5 yrs	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Under SA-CCR gold derivatives are considered precious metals derivative contracts rather than an exchange rate derivative contract, resulting in an increase in reported precious metals derivative contracts compared with prior quarters. Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

Source: Call reports, Schedule RC-R

Figure 19: Notional Amounts of Equity Contracts and Commodity and Other Contracts by Maturity
Insured U.S. Commercial Banks and Savings Associations



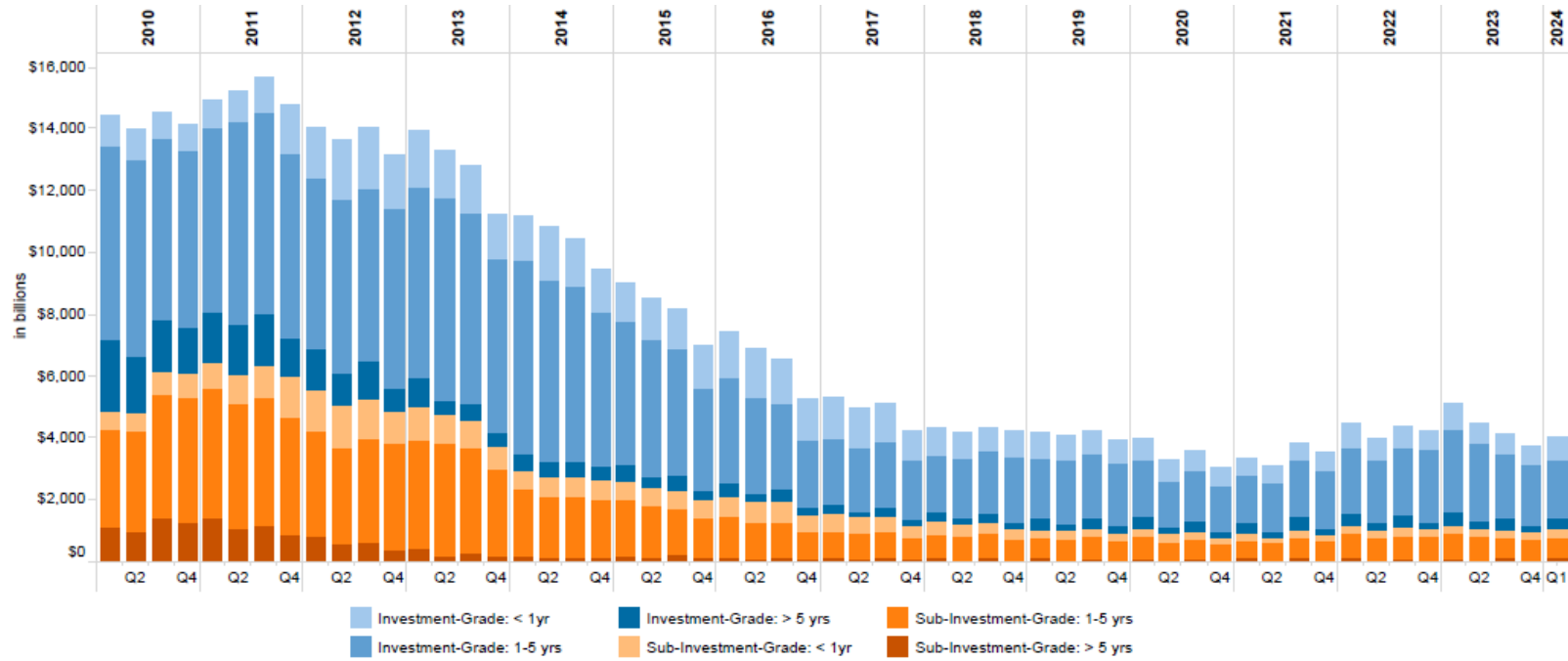
In billions of dollars

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1
Commodity and Other: < 1 yr	\$185	\$206	\$179	\$176	\$203	\$261	\$261	\$235	\$257	\$668	\$750	\$883	\$688	\$884	\$879	\$1,216	\$1,038	\$1,021	\$1,202
Commodity and Other: 1-5 yr	235	297	233	198	209	209	208	144	164	197	179	202	198	286	198	279	272	314	287
Commodity and Other: > 5 yrs	20	25	43	33	25	46	28	6	20	22	23	25	9	10	9	7	7	7	6
Equity: < 1 yr	341	473	409	312	296	427	627	645	996	1,743	1,842	2,296	2,449	3,084	3,287	3,881	4,335	5,469	6,047
Equity: 1-5 yr	221	297	256	228	191	210	262	291	352	628	677	733	864	844	771	1,055	999	1,304	1,401
Equity: > 5 yrs	45	70	72	82	85	94	82	136	101	130	123	113	139	136	139	145	99	99	111

Note: Beginning January 1, 2022, the largest banks are required to calculate their derivative exposure amount for regulatory capital purposes using the Standardized Approach for Counterparty Credit Risk (SA-CCR). Refer to the call report instructions and OCC Bulletin 2020-7, "Standardized Approach for Counterparty Credit Risk: Final Rule," for additional information on the SA-CCR exposure calculation.

Source: Call reports, Schedule RC-R

Figure 20: Notional Amounts of Credit Derivative Contracts by Credit Quality and Maturity
Insured U.S. Commercial Banks and Savings Associations

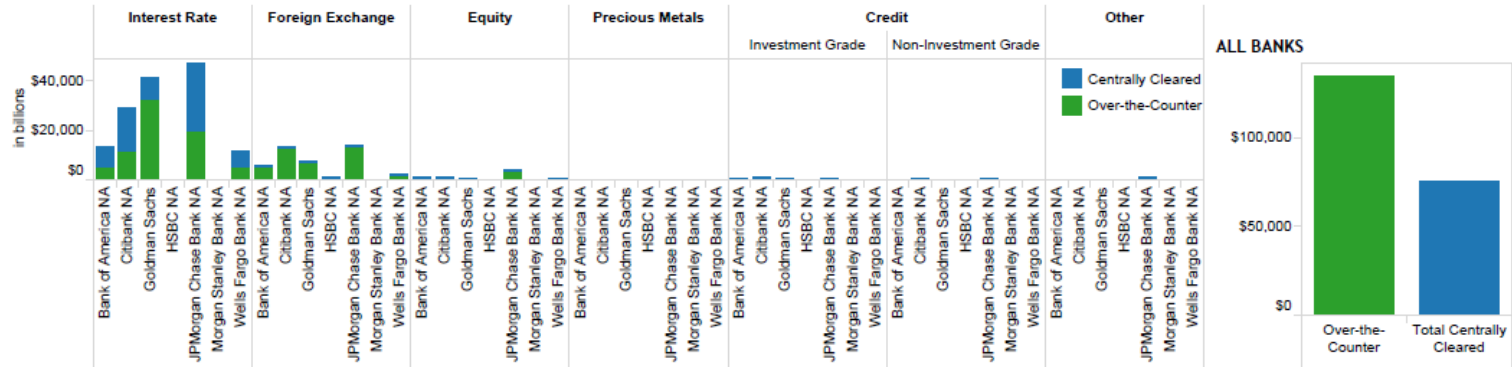


In billions of dollars

	2019				2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Investment-Grade: < 1yr	\$763	\$758	\$675	\$781	\$726	\$619	\$648	\$554	\$546	\$539	\$565	\$601	\$795	\$642	\$692	\$617	\$769	\$658	\$595	\$635	\$680
Investment-Grade: 1-5 yrs	1,976	2,083	2,084	2,018	1,799	1,523	1,637	1,521	1,545	1,589	1,846	1,864	2,109	2,076	2,190	2,362	2,688	2,507	2,109	1,966	1,923
Investment-Grade: > 5 yrs	367	189	330	198	367	171	336	160	332	160	418	187	449	198	408	210	440	217	377	176	334
Total Investment Grade	\$3,106	\$3,030	\$3,089	\$2,997	\$2,891	\$2,313	\$2,622	\$2,235	\$2,423	\$2,289	\$2,829	\$2,651	\$3,352	\$2,916	\$3,291	\$3,189	\$3,897	\$3,382	\$3,080	\$2,777	\$2,937
	2019				2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Sub-Investment-Grade: < 1yr	\$259	\$283	\$275	\$268	\$247	\$278	\$233	\$218	\$245	\$215	\$244	\$208	\$225	\$248	\$247	\$221	\$252	\$238	\$218	\$232	\$260
Sub-Investment-Grade: 1-5 yrs	661	701	708	624	743	608	618	533	570	551	654	632	777	751	747	778	826	804	696	683	683
Sub-Investment-Grade: > 5 yrs	119	60	111	56	105	56	108	48	119	49	125	49	150	51	105	53	104	51	120	53	119
Total Sub-Investment Grade	\$1,039	\$1,044	\$1,093	\$947	\$1,095	\$942	\$959	\$799	\$935	\$815	\$1,023	\$889	\$1,152	\$1,049	\$1,099	\$1,052	\$1,182	\$1,092	\$1,035	\$968	\$1,061

Source: Call reports, Schedule RC-L

Figure 21: Notional Amounts of Over-the-Counter and Centrally Cleared Derivative Contracts
Insured U.S. Commercial Banks and Savings Associations



In billions of dollars

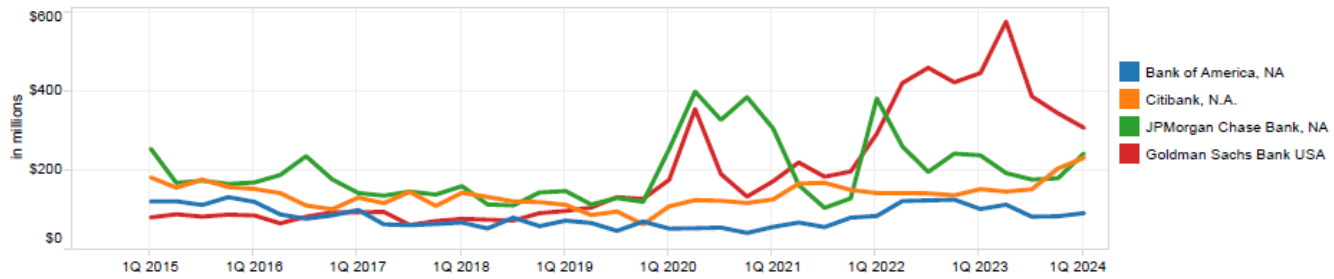
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared	Over-the-Counter	Total Notional
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Investment Grade	Non-Investment Grade	Centrally Cleared	Over-the-Counter			
JPMorgan Chase Bank NA	28,896	20,176	809	13,535	1,172	3,329	0	258	263	247	383	417	85	932	29,208	38,894	68,103
Citibank NA	18,177	11,101	399	13,131	220	638	24	78	196	914	71	266	88	84	19,175	28,202	45,377
Bank of America NA	8,091	5,384	171	5,762	330	739	6	62	172	238	44	94	0	46	8,814	12,325	21,140
Goldman Sachs	8,842	32,689	201	7,606	54	575	0	0	30	317	7	141	0	60	9,134	41,389	50,523
HSBC NA	68	54	53	1,029	0	17	0	5	1	4	0	1	0	0	122	1,111	1,233
Wells Fargo Bank NA	5,859	5,442	0	2,385	132	279	0	5	0	43	0	22	0	79	5,982	8,254	14,246
Morgan Stanley Bank NA	1	102	0	104	0	39	0	0	0	17	0	6	0	0	1	267	268
Grand Total	67,734	74,947	1,434	43,552	1,908	5,616	30	408	662	1,780	505	937	173	1,202	72,446	128,443	200,889
ALL OTHER	2,918	2,012	23	4,208	0	35	0	0	1	36	0	29	24	95	2,967	6,416	9,383
TOTAL	70,652	76,960	1,457	47,760	1,908	5,651	30	408	663	1,816	505	967	198	1,297	75,413	134,859	210,272

% of Total

Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared as a % of Total Notional	Total Over-the-Counter as a % of Total Notional
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Investment Grade	Non-Investment Grade	Centrally Cleared	Over-the-Counter		
JPMorgan Chase Bank NA	57%	43%	4%	96%	26%	74%	0%	100%	52%	48%	48%	52%	8%	92%	43%	57%
Citibank NA	62%	38%	3%	97%	26%	74%	24%	76%	18%	82%	22%	78%	51%	49%	42%	58%
Bank of America NA	60%	40%	3%	97%	31%	69%	0%	91%	42%	58%	32%	68%	0%	100%	42%	58%
Goldman Sachs	21%	79%	3%	97%	9%	91%	0%	100%	9%	91%	5%	95%	0%	100%	18%	82%
HSBC NA	56%	44%	5%	95%	0%	100%	0%	100%	11%	89%	14%	86%	0%	100%	10%	90%
Wells Fargo Bank NA	52%	48%	0%	100%	32%	68%	0%	100%	1%	99%	0%	100%	0%	100%	42%	58%
Morgan Stanley Bank NA	1%	99%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%	0%	100%

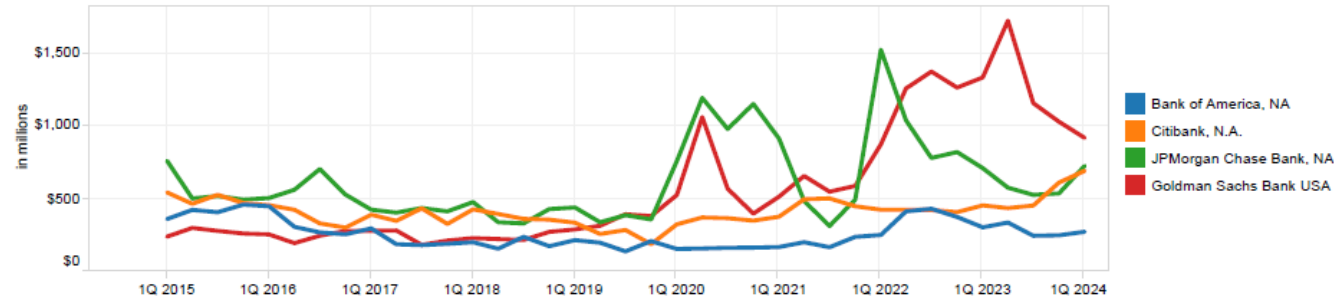
Source: Call reports, Schedule RC-R

Figure 22: Average 60-Day Value-at-Risk



	2018				2019				2020				2021				2022				2023				2024
	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
Bank of America, NA	\$68	\$53	\$81	\$59	\$73	\$67	\$47	\$71	\$53	\$54	\$55	\$42	\$57	\$68	\$57	\$80	\$85	\$122	\$124	\$126	\$102	\$113	\$83	\$84	\$92
Citibank, N.A.	144	133	122	120	113	87	96	84	109	125	123	118	127	167	169	151	143	143	142	137	153	146	152	205	232
JPMorgan Chase Bank, NA	160	114	111	144	148	114	130	120	254	399	328	385	306	183	105	129	382	261	196	242	238	193	177	180	243
Goldman Sachs Bank USA	77	75	73	92	97	106	132	128	176	355	191	134	173	220	184	197	293	421	469	423	446	576	387	344	307

VaR Capital Requirement



	2019				2020				2021				2022				2023				2024
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Bank of America, NA	\$219	\$201	\$141	\$212	\$158	\$161	\$166	\$167	\$171	\$204	\$170	\$241	\$254	\$416	\$435	\$378	\$307	\$340	\$249	\$252	\$276
Citibank, N.A.	338	261	288	191	327	374	370	353	380	500	506	452	428	428	425	411	458	439	457	615	695
JPMorgan Chase Bank, NA	443	341	360	361	762	1,197	983	1,155	917	489	315	498	1,528	1,043	784	824	714	580	530	540	729
Goldman Sachs Bank USA	292	317	397	384	529	1,065	572	401	518	660	552	592	878	1,262	1,378	1,268	1,338	1,728	1,161	1,033	922

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