Office of the
Comptroller of the Currency

Quarterly Report on Bank Trading and Derivatives Activities

Second Quarter 2024

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

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Contents

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 1,231 insured U.S. national and state commercial banks and savings associations reported trading and derivatives activities at the end of the second 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 second quarter of 2024, four large commercial banks represented 88.1 percent of the total banking industry notional amounts and 65.0 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 115th 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 $15.8 billion in the second quarter of 2024, $218 million more (1.4 percent) than in the previous quarter and $2.2 billion more (16.0 percent) than a year earlier (see table 1).
- Credit exposure from derivatives increased in the second quarter of 2024 compared with the first quarter of 2024. NCCE increased $9.0 billion, or 3.4 percent, to $260.0 billion (see table 5).
- Derivative notional amounts increased in the second quarter of 2024 by $2.0 trillion, or 1.0 percent, to $208.1 trillion (see table 10).
- Derivative contracts remained concentrated in interest rate products, which totaled $145.0 trillion or 69.7 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 $15.8 billion in trading revenue in the second quarter of 2024, $218 million more (1.4 percent) than in the previous quarter and $2.2 billion more (16.0 percent) than a year earlier (see table 1). The quarter-over-quarter increase in trading revenue was due to increases in revenue from interest rate, equity, and commodity and other 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	2Q 2024	1Q 2024	Q/Q change	Q/Q % change	2Q 2023	Y/Y change	Y/Y % change
Interest rate	$4,927	$1,817	$3,110	171.1%	$3,471	$1,456	41.9%
Foreign exchange	$4,377	$7,551	– $3,174	– 42.0%	$5,174	– $797	– 15.4%
Equity	$5,511	$4,814	$697	14.5%	$3,996	$1,515	37.9%
Commodity and other	$657	$504	$153	30.4%	$824	– $166	– 20.2%
Credit	$376	$944	– $568	– 60.1%	$204	$172	84.4%
Total trading revenue	**$15,849**	**$15,630**	**$218**	**1.4%**	**$13,668**	**$2,180**	**16.0%**

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 $26.8 billion in the second quarter of 2024 was $5.2 billion less (16.1 percent) than in the previous quarter. The quarter-over-quarter decrease in trading revenue was due to decreases in revenue from foreign exchange, equity, commodity and other, and credit instruments. Year-over-year holding company trading revenue increased by $449 million (1.7 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	2Q 2024	1Q 2024	Q/Q change	Q/Q % change	2Q 2023	Y/Y change	Y/Y % change
Interest rate	$6,632	$4,491	$2,142	47.7%	$4,773	$1,859	38.9%
Foreign exchange	$5,697	$8,638	– $2,941	– 34.0%	$7,902	– $2,206	– 27.9%
Equity	$11,172	$13,059	– $1,887	– 14.5%	$10,925	$247	2.3%
Commodity and other	$1,545	$1,990	– $445	– 22.4%	$1,615	– $70	– 4.3%
Credit	$1,777	$3,800	– $2,023	– 53.2%	$1,158	$619	53.5%
Total BHC trading revenue	**$26,823**	**$31,977**	**– $5,154**	**– 16.1%**	**$26,374**	**$449**	**1.7%**

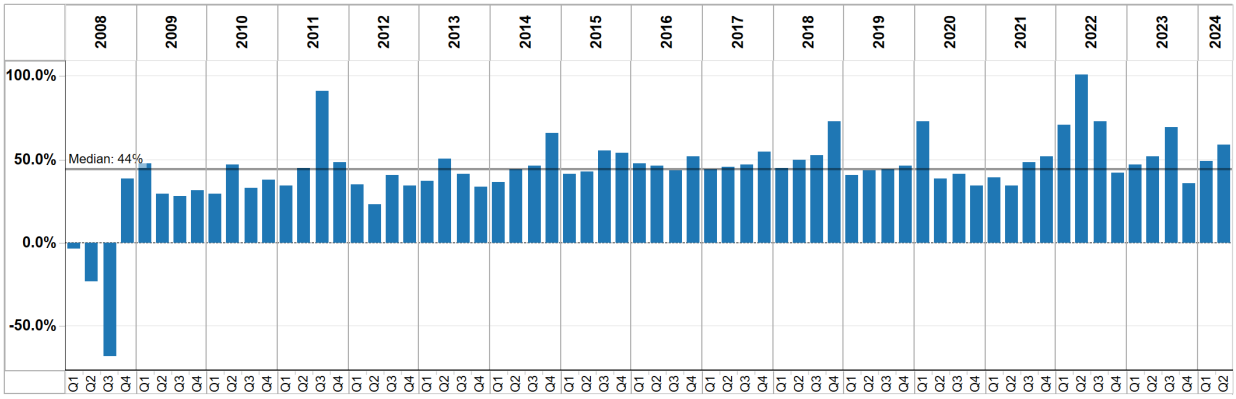
Source: Consolidated Financial Statements for Holding Companies—FR Y-9C, Schedule HI

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 second quarter of 2024, banks generated 59.1 percent of consolidated holding company trading revenue, an increase from 48.9 percent in the previous quarter (see figure 1).

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



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

Counterparty Credit Risk

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

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

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

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

GPFV increased by $37.0 billion (1.8 percent) in the second quarter of 2024 to $2.1 trillion, primarily driven by a $21.0 billion (1.6 percent) increase in receivables from interest rate contracts and a $22.0 billion (4.3percent) increase in receivables from FX contracts (see table 3a). GNFV increased $37.0 billion (1.8 percent) to $2.1 trillion during the quarter, driven by a $29.0 billion (5.7 percent) increase in payables on FX contracts and a $17.0 billion (1.4 percent) increase in payables from interest rate contracts (see table 3b).

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

Trading instruments	2Q 2024	1Q 2024	Q/Q change	Q/Q % change	2Q 2023	Y/Y change	Y/Y % change
Interest rate	$1,339	$1,318	$21	1.6%	$1,482	– $143	– 9.6%
FX	$538	$516	$22	4.3%	$637	– $99	– 15.5%
Equity	$176	$183	– $7	– 3.6%	$147	$29	19.9%
Commodity & other	$47	$47	$1	1.2%	$49	– $1	– 2.5%
Credit	$38	$39	– $1	– 1.7%	$39	– $1	– 1.5%
GPFV	**$2,140**	**$2,103**	**$37**	**1.8%**	**$2,353**	**– $214**	**– 9.1%**

Source: Call reports, Schedule RC-L

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

Trading instruments	2Q 2024	1Q 2024	Q/Q change	Q/Q % change	2Q 2023	Y/Y change	Y/Y % change
Interest rate	$1,272	$1,255	$17	1.4%	$1,428	– $156	– 10.9%
FX	$533	$504	$29	5.7%	$627	– $94	– 15.0%
Equity	$194	$201	– $7	– 3.6%	$154	$40	25.6%
Commodity & other	$44	$45	– $1	– 2.6%	$47	– $3	– 5.7%
Credit	$42	$43	– $1	– 1.4%	$41	$1	3.5%
GNFV	**$2,085**	**$2,048**	**$37**	**1.8%**	**$2,297**	**– $212**	**– 9.2%**

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 $9.0 billion (3.4 percent) to $260.0 billion in the second quarter of 2024 (see table 5).[3] Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 87.7 percent ($1.9 trillion) in the second quarter of 2024.

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

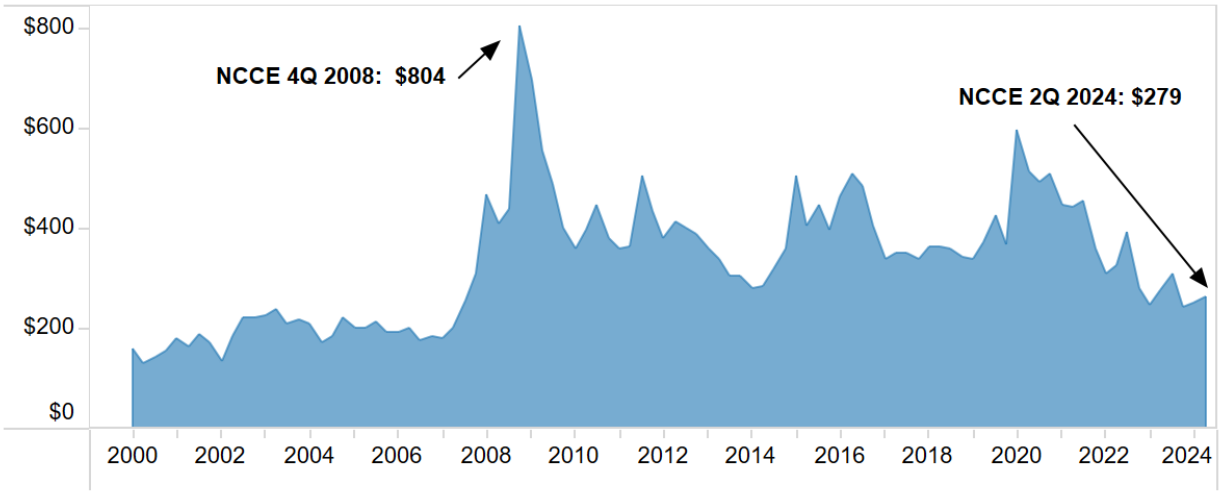
Netting benefit ratio	2Q 2024	1Q 2024	Q/Q change	Q/Q % change
GPFV	$2,140	$2,103	$37	1.8%
NCCE RC-R	$260	$251	$9	3.4%
Netting benefit RC-R	$1,880	$1,851	$28	1.5%
Netting benefit % RC-R	87.7%	88.0%		–0.3%

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 second quarter of 2024 at $279.0 billion as more normal market activity resumed.

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



Source: Call reports, Schedule RC-R

The bulk of NCCE in the financial system is concentrated in banks and securities firms (39.9 percent) and in corporations and other counterparties (54.6 percent) (see table 6). The combined exposure to hedge funds and sovereign governments was small (5.5 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
2Q 2024	39.9%	1.5%	4.0%	54.6%
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%

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 129.0 percent of their

total NCCE at the end of the second quarter of 2024, up from 127.8 percent in the first quarter of 2024 (see table 7). Collateral held against hedge fund exposures decreased in the second quarter to 884.6 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 %
2Q 2024	134.4%	884.6%	87.3%	106.8%	129.0%
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%

Source: Call reports, Schedule RC-L

The majority of collateral held by banks against NCCE is very liquid with 61.0 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
2Q 2024	46.5%	14.5%	9.7%	0.5%	4.6%	6.2%	18.0%
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%

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
2Q 2024 average 60-day VaR	$282	$151	$85	$276
1Q 2024 average 60-day VaR	$243	$232	$92	$307
Q/Q change	$39	– $81	– $7	– $31
2Q 2024 total risk-based capital	$297,156	$163,176	$205,041	$62,538

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
2Q 2024 VaR capital requirement	$847	$452	$256	$828
1Q 2024 VaR capital requirement	$729	$695	$276	$922
Q/Q change	$118	– $244	– $20	– $94
2Q 2024 total risk-based capital	$297,156	$163,176	$205,041	$62,538

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

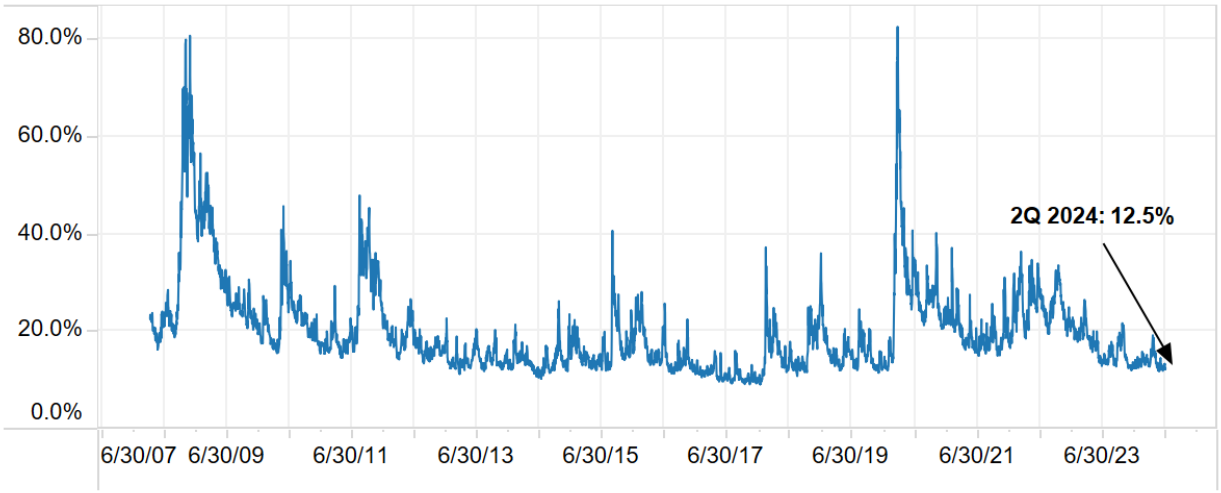
Volatility Index

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 12.5 percent at the end of the second quarter of 2024.

Figure 3: Volatility Index (VIX)

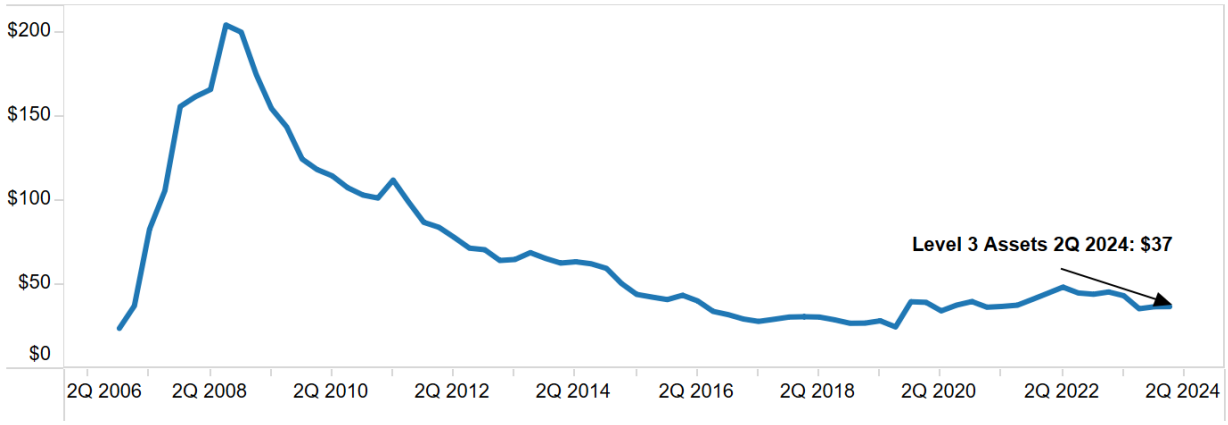


Source: Bloomberg

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 second quarter of 2024, banks held $37.0 billion of level 3 trading assets, up 0.2 percent from the previous quarter and 19.2 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 second quarter increased by $2.0 trillion (1.0 percent) to $208.1 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 $145.0 trillion, or 69.7 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	2Q 2024	1Q 2024	Q/Q change	Q/Q % change	2Q 2023	Y/Y change	Y/Y % change
Interest rate	$144,959	$144,427	$532	0.4%	$164,073	– $19,114	– 11.6%
FX	$51,021	$49,856	$1,165	2.3%	$46,376	$4,645	10.0%
Equity	$6,308	$6,253	$55	0.9%	$5,471	$836	15.3%
Commodity and other	$1,699	$1,557	$142	9.1%	$1,520	$179	11.8%
Credit derivatives	$4,112	$3,999	$113	2.8%	$4,474	– $363	– 8.1%
Total notional	**$208,098**	**$206,091**	**$2,006**	**1.0%**	**$221,915**	**– $13,817**	**– 6.2%**

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 swap contracts and credit derivatives (see table 11). Swaps contracts remained the leading derivatives contract type at 61.1 percent of all notional amounts.

The four banks with the most derivative activity hold 88.1 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	2Q 2024	1Q 2024	Q/Q change	Q/Q % change	2Q 2023	Y/Y change	Y/Y % change
Futures and forwards	$36,701	$36,822	– $121	– 0.3%	$33,318	$3,383	10.2%
Swaps	$127,083	$124,893	$2,190	1.8%	$143,243	– $16,160	– 11.3%
Options	$40,203	$40,378	– $176	– 0.4%	$40,880	– $677	– 1.7%
Credit derivatives	$4,112	$3,999	$113	2.8%	$4,474	– $363	– 8.1%
Total notional	**$208,098**	**$206,091**	**$2,006**	**1.0%**	**$221,915**	**– $13,817**	**– 6.2%**

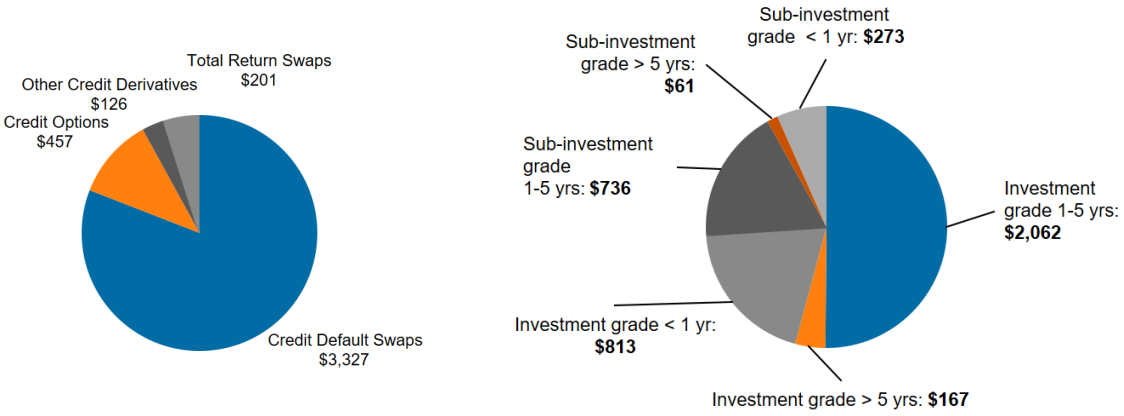
Source: Call reports, Schedule RC-L

Credit Derivatives

The notional amounts of credit derivatives increased $113.0 billion (2.8 percent) to $4.1 trillion in the second 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 (80.9 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 $2.1 trillion or 50.1 percent of all credit derivative notional amounts. Contracts of all tenors that reference investment-grade entities are $3.0 trillion or 74.0 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 119 banks that net sold credit protection (i.e., assumed credit risk) was $1.9 trillion, up $60.3 billion (3.2 percent) from the first quarter of 2024 (see table 24 in the

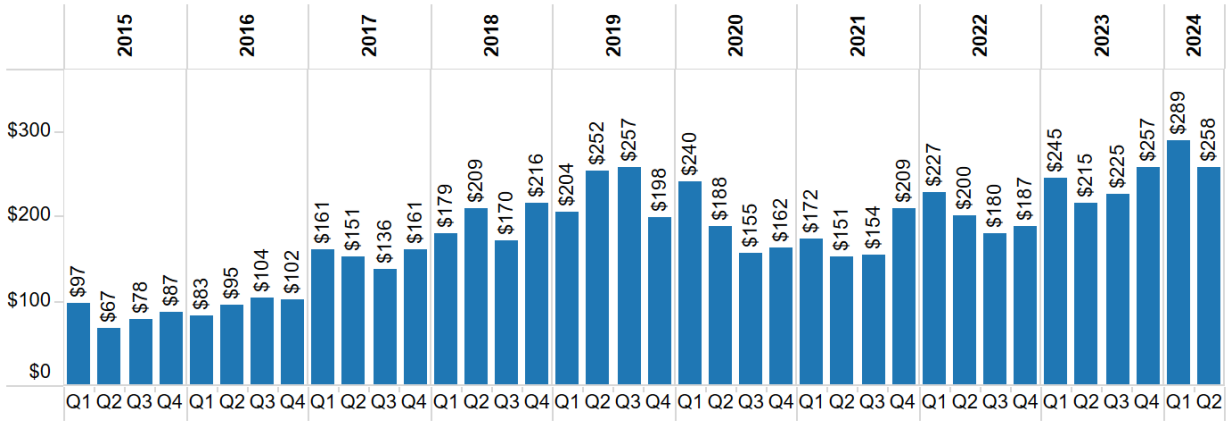
appendix). The notional amount for the 98 banks that net purchased credit protection (i.e., hedged credit risk) was $2.2 trillion, $52.4 billion higher (2.5 percent) than in the first quarter of 2024 (see table 24 in the appendix).

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 decreased in the second 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 second quarter of 2024, 36.3 percent of banks' derivative holdings were centrally cleared (see table 12). From a market factor perspective, 48.6 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 27.0 percent of credit derivative transactions were centrally cleared during the second quarter of 2024.

Centrally cleared derivative transactions were heavily concentrated at qualifying central counterparties, with 82.1 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
2Q 2024	48.6%	3.1%	23.5%	6.4%	27.0%	13.4%	36.3%
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%

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.

Appendix: Index of Tables and Figures

Tables

Figures

Table 13: Notional Amounts of Derivative Contracts
Top 25 Commercial Banks, Savings Associations, and Trust Companies in Derivatives, in Millions of Dollars, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$1,075,458	$1,169,317	$11,022,034	$32,680,038	$9,029,055	$1,204,880	$1,007,382
GOLDMAN SACHS BANK USA	543,888	54,926,248	965,913	1,966,049	5,435,528	35,230,305	10,758,276	570,177	1,006,280
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	495,437	716,864	6,318,146	33,720,479	7,872,250	1,514,862	480,552
BANK OF AMERICA NA	2,550,584	21,622,575	188,110	445,605	4,377,832	12,151,308	3,888,417	571,303	540,227
WELLS FARGO BANK NA	1,719,839	13,280,741	495,848	528,610	1,900,960	7,294,730	2,957,037	103,556	35,834
STATE STREET BANK&TRUST CO	321,473	2,939,525	34,791	0	2,838,809	36,666	29,259	0	63,420
U S BANK NATIONAL ASSN	664,924	1,224,313	146	250	75,830	936,711	195,264	16,112	4,628
HSBC NA	159,048	1,187,121	13,560	1,443	482,839	602,859	70,611	15,809	40,902
BANK OF NEW YORK MELLON	351,806	1,098,720	12,330	73	297,729	745,427	42,906	255	145,968
PNC BANK NATIONAL ASSN	552,530	707,241	8,925	13,520	24,527	581,173	67,083	12,013	1,929
TD BANK NATIONAL ASSN	370,332	384,229	0	0	2,173	381,906	150	0	0
TRUIST BANK	511,931	375,807	6,344	24,941	19,860	249,776	65,540	9,346	475
NORTHERN TRUST CO	156,265	352,826	0	0	324,920	27,367	539	0	12,111
MORGAN STANLEY BANK NA	211,521	315,646	1,912	0	41,389	230,642	18,477	23,226	3,006
CITIZENS BANK NATIONAL ASSN	219,634	302,066	1,625	0	8,802	241,659	48,157	1,824	217
CAPITAL ONE NATIONAL ASSN	477,304	271,936	25,540	0	13,150	226,105	744	6,398	264
FIFTH THIRD BANK NA	212,484	182,565	2,218	221	6,367	100,791	68,432	4,536	405
REGIONS BANK	153,039	173,123	191	0	3,677	137,547	26,533	5,175	33
BMO BANK NATIONAL ASSN	261,999	155,774	0	0	3,243	149,916	2,614	1	341
KEYBANK NATIONAL ASSN	184,963	138,293	819	0	5,403	116,343	15,646	81	424
HUNTINGTON NATIONAL BANK	195,864	105,904	500	0	6,746	79,542	14,906	4,209	20
MANUFACTURERS&TRADERS TR CO	208,378	80,963	0	0	3,592	72,744	4,627	0	110
COMERICA BANK	79,611	73,928	0	0	3,288	57,449	11,552	1,639	280
BOKF NATIONAL ASSN	50,195	71,642	3,635	3,587	49,558	8,123	6,737	1	0
SANTANDER BANK N A	100,562	59,700	0	0	1,686	51,986	5,999	30	20
Top 25 commercial banks, SAs & TCs with derivatives	$15,447,648	$206,849,705	$3,333,302	$4,870,479	$33,268,086	$126,111,591	$35,200,812	$4,065,434	$3,344,827
Other commercial banks, SAs & TCs with derivatives	6,013,385	1,247,998	12,566	873	86,867	971,101	130,482	46,109	897
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	3,345,868	4,871,352	33,354,954	127,082,692	35,331,294	4,111,544	3,345,724

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, June 30, 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.	$4,143,003	$55,662,772	$1,157,950	$1,966,467	$11,513,814	$31,323,254	$8,513,600	$1,187,687	$995,882
CITIGROUP INC.	2,405,686	49,111,956	662,740	3,234,907	7,246,469	29,401,865	7,519,862	1,046,113	479,410
GOLDMAN SACHS GROUP, INC., THE	1,653,313	44,166,544	1,413,440	3,493,707	5,552,967	21,720,876	10,736,982	1,248,572	340,536
BANK OF AMERICA CORPORATION	3,257,996	38,758,350	638,829	1,795,056	7,975,933	22,318,412	4,965,811	1,064,309	397,868
MORGAN STANLEY	1,212,447	35,991,492	748,329	1,712,566	4,184,665	20,299,146	8,272,710	774,076	87,097
WELLS FARGO & COMPANY	1,940,074	13,628,871	521,642	594,064	2,346,366	7,120,967	2,954,467	91,365	35,829
MIZUHO AMERICAS LLC	81,436	8,404,667	27,744	32,594	426,765	7,323,984	578,416	15,164	1,911
SMBC AMERICAS HOLDINGS, INC.	38,512	6,162,664	654,526	888,732	291,767	2,616,641	1,709,819	1,179	293
STATE STREET CORPORATION	325,603	2,931,376	34,942	0	2,838,809	28,366	29,259	0	63,420
U.S. BANCORP	680,058	1,212,839	146	250	75,064	926,002	195,265	16,112	4,628
HSBC NORTH AMERICA HOLDINGS INC.	229,968	1,187,171	15,343	1,443	484,470	594,431	75,676	15,809	40,902
BANK OF NEW YORK MELLON CORPORATION, THE	428,539	1,079,507	12,664	73	303,226	720,383	42,906	255	146,130
BARCLAYS US LLC	196,076	921,101	27,446	326,526	532,937	33,192	200	800	14
RBC US GROUP HOLDINGS LLC	167,974	719,142	180,360	219,932	13,579	304,493	203	576	225
PNC FINANCIAL SERVICES GROUP, INC., THE	556,539	685,601	9,034	13,520	28,815	555,036	67,083	12,113	1,929
TD GROUP US HOLDINGS LLC	523,648	514,367	65,349	4,155	43,592	400,831	440	0	0
TRUIST FINANCIAL CORPORATION	519,853	361,961	6,344	24,941	19,991	235,191	65,539	9,955	475
BMO FINANCIAL CORP.	293,524	353,573	102,809	25,998	69,376	151,353	2,674	1,364	364
NORTHERN TRUST CORPORATION	156,797	350,826	0	0	324,920	25,367	539	0	12,111
CAPITAL ONE FINANCIAL CORPORATION	480,018	306,240	25,540	0	13,623	259,935	744	6,398	264
CITIZENS FINANCIAL GROUP, INC.	220,374	302,066	1,625	0	8,802	241,659	48,157	1,824	217
FIFTH THIRD BANCORP	213,262	186,770	2,218	221	6,367	104,996	68,432	4,536	405
REGIONS FINANCIAL CORPORATION	154,396	171,026	191	0	3,730	135,397	26,533	5,175	33
KEYCORP	187,475	144,705	819	0	7,289	120,869	15,646	81	424
AMERIPRISE FINANCIAL, INC.	179,712	139,466	6,695	3,073	474	42,778	83,328	3,117	0
Top 25 holding companies with derivatives	$20,246,283	$263,455,052	$6,316,725	$14,338,224	$44,313,809	$147,005,423	$45,974,290	$5,506,580	$2,610,367

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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	4.0	96.0	65.8	25.7	4.9	1.5	2.1
GOLDMAN SACHS BANK USA	543,888	54,926,248	5.3	94.7	85.1	12.5	1.3	0.1	1.0
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	2.4	97.6	63.5	30.1	2.6	0.8	3.0
BANK OF AMERICA NA	2,550,584	21,622,575	2.9	97.1	62.5	29.5	4.8	0.6	2.6
WELLS FARGO BANK NA	1,719,839	13,280,741	7.7	92.3	76.0	20.0	2.6	0.7	0.8
STATE STREET BANK&TRUST CO	321,473	2,939,525	1.2	98.8	2.4	96.6	0.0	1.0	0.0
U S BANK NATIONAL ASSN	664,924	1,224,313	0.0	100.0	88.7	8.9	0.0	1.0	1.3
HSBC NA	159,048	1,187,121	1.3	98.7	10.5	84.3	1.9	1.9	1.3
BANK OF NEW YORK MELLON	351,806	1,098,720	1.1	98.9	21.1	78.5	0.4	0.0	0.0
PNC BANK NATIONAL ASSN	552,530	707,241	3.2	96.8	91.7	3.8	0.6	2.2	1.7
TD BANK NATIONAL ASSN	370,332	384,229	0.0	100.0	99.5	0.5	0.0	0.0	0.0
TRUIST BANK	511,931	375,807	8.3	91.7	77.6	5.7	11.4	2.8	2.5
NORTHERN TRUST CO	156,265	352,826	0.0	100.0	7.7	92.1	0.2	0.0	0.0
MORGAN STANLEY BANK NA	211,521	315,646	0.6	99.4	39.4	38.5	14.8	0.0	7.4
CITIZENS BANK NATIONAL ASSN	219,634	302,066	0.5	99.5	89.2	9.9	0.0	0.4	0.6
CAPITAL ONE NATIONAL ASSN	477,304	271,936	9.4	90.6	83.7	6.3	0.0	7.6	2.4
FIFTH THIRD BANK NA	212,484	182,565	1.3	98.7	64.8	21.5	1.5	9.6	2.5
REGIONS BANK	153,039	173,123	0.1	99.9	93.2	1.6	0.0	2.3	3.0
BMO BANK NATIONAL ASSN	261,999	155,774	0.0	100.0	96.4	2.0	1.5	0.0	0.0
KEYBANK NATIONAL ASSN	184,963	138,293	0.6	99.4	87.8	4.8	0.0	7.4	0.1
HUNTINGTON NATIONAL BANK	195,864	105,904	0.5	99.5	89.3	5.5	0.6	0.6	4.0
MANUFACTURERS&TRADERS TR CO	208,378	80,963	0.0	100.0	98.3	1.7	0.0	0.0	0.0
COMERICA BANK	79,611	73,928	0.0	100.0	72.2	4.5	0.0	21.1	2.2
BOKF NATIONAL ASSN	50,195	71,642	10.1	89.9	78.4	0.1	0.1	21.4	0.0
SANTANDER BANK N A	100,562	59,700	0.0	100.0	88.1	11.8	0.0	0.0	0.1
Top 25 commercial banks, SAs & TCs with derivatives	$15,447,648	$206,849,705	$8,203,781	$198,645,924	$143,803,840	$50,980,664	$6,307,005	$1,692,763	$4,065,434
Other commercial banks, SAs & TCs with derivatives	6,013,385	1,247,998	13,439	1,234,559	1,155,130	39,984	678	6,096	46,109
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	8,217,220	199,880,483	144,958,970	51,020,648	6,307,683	1,698,859	4,111,544
Top 25 Commercial Banks, SAs & TCs with derivatives: percentage of total		99.4	3.9	95.5	69.1	24.5	3.0	0.8	2.0
Other commercial banks, SAs & TCs with derivatives: percentage of total		0.6	0.0	0.6	0.6	0.0	0.0	0.0	0.0
Total all commercial banks, SAs & TCs with derivatives: percentage of total		100.0	3.9	96.1	69.7	24.5	3.0	0.8	2.0

Note: Currently, the call report does not differentiate credit derivatives by over-the-counter or exchange-traded. Credit derivatives have been included in the "over-the-counter" category as well as in the sum of total derivatives here. "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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$297,156	$78,098	$235,990	$314,088	106
GOLDMAN SACHS BANK USA	543,888	54,926,248	62,538	19,360	72,466	91,826	147
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	163,176	40,919	158,547	199,466	122
BANK OF AMERICA NA	2,550,584	21,622,575	205,041	30,736	60,632	91,368	45
WELLS FARGO BANK NA	1,719,839	13,280,741	168,892	38,968	21,514	60,482	36
STATE STREET BANK&TRUST CO	321,473	2,939,525	18,716	6,499	22,694	29,193	156
U S BANK NATIONAL ASSN	664,924	1,224,313	69,512	4,802	11,859	16,660	24
HSBC NA	159,048	1,187,121	19,528	3,801	3,608	7,409	38
BANK OF NEW YORK MELLON	351,806	1,098,720	21,212	5,238	10,523	15,761	74
PNC BANK NATIONAL ASSN	552,530	707,241	54,922	4,580	– 1,918	2,662	5
TD BANK NATIONAL ASSN	370,332	384,229	42,293	110	1,569	1,679	4
TRUIST BANK	511,931	375,807	59,974	409	3,224	3,633	6
NORTHERN TRUST CO	156,265	352,826	12,509	1,119	4,991	6,110	49
MORGAN STANLEY BANK NA	211,521	315,646	24,163	881	4,136	5,017	21
CITIZENS BANK NATIONAL ASSN	219,634	302,066	22,752	318	1,809	2,127	9
CAPITAL ONE NATIONAL ASSN	477,304	271,936	54,125	2,876	6,477	9,353	17
FIFTH THIRD BANK NA	212,484	182,565	22,707	1,456	3,001	4,457	20
REGIONS BANK	153,039	173,123	16,281	338	599	937	6
BMO BANK NATIONAL ASSN	261,999	155,774	27,015	318	254	572	2
KEYBANK NATIONAL ASSN	184,963	138,293	20,663	441	706	1,146	6
HUNTINGTON NATIONAL BANK	195,864	105,904	17,954	1,759	930	2,689	15
MANUFACTURERS&TRADERS TR CO	208,378	80,963	20,973	247	237	484	2
COMERICA BANK	79,611	73,928	9,713	482	1,420	1,902	20
BOKF NATIONAL ASSN	50,195	71,642	4,857	770	1,229	1,998	41
SANTANDER BANK N A	100,562	59,700	12,576	973	488	1,460	12
Top 25 commercial banks, SAs & TCs with derivatives	$15,447,648	$206,849,705	$1,449,247	$245,496	$626,984	$872,480	60
Other commercial banks, SAs & TCs with derivatives	6,013,385	1,247,998	636,252	14,513	9,580	24,094	4
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	2,085,500	260,009	636,565	896,574	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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$54,225,890	98.6	$750,012	1.4
GOLDMAN SACHS BANK USA	543,888	54,926,248	54,315,564	99.9	40,507	0.1
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	49,009,974	99.8	113,202	0.2
BANK OF AMERICA NA	2,550,584	21,622,575	19,459,560	92.4	1,591,712	7.6
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	$177,010,988	98.6	$2,495,433	1.4
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	21,371,468	87.3	3,108,270	12.7
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	198,382,456	97.3	5,603,703	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.

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, June 30, 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**
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$589,784	$571,971	$4,720	$1,531	$10,433	$12,791
GOLDMAN SACHS BANK USA	543,888	54,926,248	728,286	717,809	46	111	6,743	7,671
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	405,920	392,029	1,603	1,156	15,567	15,666
BANK OF AMERICA NA	2,550,584	21,622,575	152,444	140,568	35,323	40,337	4,313	3,812
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	$1,876,434	$1,822,377	$41,692	$43,135	$37,056	$39,940
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	147,145	148,472	35,977	29,003	1,254	2,291
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	2,023,579	1,970,849	77,669	72,138	38,310	42,231

* 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), June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	6,919	1,582	1,452	3,520	203	162
GOLDMAN SACHS BANK USA	543,888	54,926,248	1,663	1,312	– 109	351	2	107
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	3,022	991	1,198	569	231	33
BANK OF AMERICA NA	2,550,584	21,622,575	1,844	434	842	489	53	26
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	13,448	4,319	3,383	4,929	489	328
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	2,400	608	994	582	168	48
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	15,848	4,927	4,377	5,511	657	376

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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$34,263,671	$7,707,562	$6,534,445	$48,505,678	$10,683,759	$2,634,976	$1,236,490	$14,555,225
GOLDMAN SACHS BANK USA	543,888	54,926,248	22,719,255	9,524,360	9,278,967	41,522,582	4,558,122	1,093,070	765,003	6,416,195
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	21,868,060	4,386,652	3,213,604	29,468,316	10,944,373	2,223,344	989,122	14,156,839
BANK OF AMERICA NA	2,550,584	21,622,575	5,821,461	4,823,901	3,224,116	13,869,478	5,347,048	531,893	341,616	6,220,557
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	$84,672,447	$26,442,475	$22,251,132	$133,366,054	$31,533,302	$6,483,283	$3,332,231	$41,348,816
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	11,152,239	3,101,910	1,010,138	15,264,286	7,647,117	371,357	90,465	8,108,939
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	95,824,686	29,544,385	23,261,270	148,630,340	39,180,419	6,854,640	3,422,696	49,457,755

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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$256,948	$24,783	$13	$281,744
GOLDMAN SACHS BANK USA	543,888	54,926,248	201	21	0	222
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	113,041	6,874	0	119,915
BANK OF AMERICA NA	2,550,584	21,622,575	63,744	7,790	0	71,534
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	$433,934	$39,468	$13	$473,415
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	9,237	820	0	10,057
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	443,171	40,288	13	483,472

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, June 30, 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 tears	Equity maturity > 5 years	Equity: all maturities
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$927,908	$150,172	$3,866	$1,081,946	$4,142,917	$814,144	$62,705	$5,019,766
GOLDMAN SACHS BANK USA	543,888	54,926,248	40,251	15,433	622	56,306	591,239	71,097	31,986	694,322
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	135,701	52,701	556	188,958	604,943	152,008	12,624	769,575
BANK OF AMERICA NA	2,550,584	21,622,575	41,594	9,840	1,102	52,536	748,575	281,872	23,832	1,054,279
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	$1,145,454	$228,146	$6,146	$1,379,746	$6,087,674	$1,319,121	$131,147	$7,537,942
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	103,759	101,975	3,668	209,403	326,703	140,238	11,780	478,722
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	1,249,213	330,121	9,814	1,589,149	6,414,377	1,459,359	142,927	8,016,664

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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$1,204,880	$304,058	$594,984	$61,262	$960,304	$74,155	$158,717	$11,704	$244,576
GOLDMAN SACHS BANK USA	543,888	54,926,248	570,177	53,233	195,975	39,510	288,718	65,145	193,567	22,747	281,459
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	1,514,862	243,165	923,035	28,237	1,194,437	78,635	229,348	12,442	320,425
BANK OF AMERICA NA	2,550,584	21,622,575	571,303	148,768	259,381	24,356	432,505	44,318	90,732	3,748	138,798
Top four commercial banks, SAs & TCs with derivatives	$8,283,944	$183,367,643	$3,861,222	$749,224	$1,973,375	$153,365	$2,875,964	$262,253	$672,364	$50,641	$985,258
Other commercial banks, SAs & TCs with derivatives	13,177,088	24,730,060	250,322	63,419	88,380	13,338	165,137	11,246	63,618	10,321	85,185
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	4,111,544	812,643	2,061,755	166,703	3,041,101	273,499	735,982	60,962	1,070,443

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, June 30, 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
JPMORGAN CHASE BANK NA	$3,510,536	$56,180,782	$1,204,880	$630,077	$574,803	$491,588	$42,557	$90,001	$5,931	$466,436	$17,825	$90,445	$97
GOLDMAN SACHS BANK USA	543,888	54,926,248	570,177	310,705	259,472	281,990	7,246	21,359	110	233,496	4,604	21,269	103
CITIBANK NATIONAL ASSN	1,678,936	50,638,038	1,514,862	787,659	727,203	694,902	33,194	59,563	0	652,917	12,484	61,802	0
BANK OF AMERICA NA	2,550,584	21,622,575	571,303	299,364	271,939	223,362	17,084	58,918	0	215,546	3,050	53,343	0
WELLS FARGO BANK NA	1,719,839	13,280,741	103,556	55,360	48,196	8,123	29,770	150	17,317	10,063	27,846	0	10,287
STATE STREET BANK&TRUST CO	321,473	2,939,525	0	0	0	0	0	0	0	0	0	0	0
U S BANK NATIONAL ASSN	664,924	1,224,313	16,112	7,242	8,870	3,936	0	0	3,306	181	0	0	8,689
HSBC NA	159,048	1,187,121	15,809	11,934	3,875	8,687	3,247	0	0	3,875	0	0	0
BANK OF NEW YORK MELLON	351,806	1,098,720	255	255	0	255	0	0	0	0	0	0	0
PNC BANK NATIONAL ASSN	552,530	707,241	12,013	4,929	7,085	100	0	0	4,829	0	0	0	7,085
TD BANK NATIONAL ASSN	370,332	384,229	0	0	0	0	0	0	0	0	0	0	0
TRUIST BANK	511,931	375,807	9,346	3,380	5,966	325	1,577	0	1,478	0	0	0	5,966
NORTHERN TRUST CO	156,265	352,826	0	0	0	0	0	0	0	0	0	0	0
MORGAN STANLEY BANK NA	211,521	315,646	23,226	20,899	2,327	20,042	857	0	0	2,267	60	0	0
CITIZENS BANK NATIONAL ASSN	219,634	302,066	1,824	0	1,824	0	0	0	0	0	0	0	1,824
CAPITAL ONE NATIONAL ASSN	477,304	271,936	6,398	3,692	2,705	0	0	0	3,692	0	0	0	2,705
FIFTH THIRD BANK NA	212,484	182,565	4,536	1,190	3,346	0	0	0	1,190	0	0	0	3,346
REGIONS BANK	153,039	173,123	5,175	1,715	3,460	0	0	0	1,715	0	0	0	3,460
BMO BANK NATIONAL ASSN	261,999	155,774	1	1	0	1	0	0	0	0	0	0	0
KEYBANK NATIONAL ASSN	184,963	138,293	81	33	49	33	0	0	0	2	46	0	0
HUNTINGTON NATIONAL BANK	195,864	105,904	4,209	2,626	1,584	311	0	0	2,315	0	0	0	1,584
MANUFACTURERS&TRADERS TR CO	208,378	80,963	0	0	0	0	0	0	0	0	0	0	0
COMERICA BANK	79,611	73,928	1,639	683	956	683	0	0	0	956	0	0	0
BOKF NATIONAL ASSN	50,195	71,642	1	0	1	0	0	0	0	1	0	0	0
SANTANDER BANK N A	100,562	59,700	30	5	25	5	0	0	0	25	0	0	0
Top 25 commercial banks, SAs & TCs with derivatives	$15,447,648	$206,849,705	$4,065,434	$2,141,748	$1,923,686	$1,734,342	$135,532	$229,991	$41,883	$1,585,767	$65,915	$226,859	$45,146
Other commercial banks, SAs & TCs with derivatives	6,013,385	1,247,998	46,109	32,507	13,603	3,773	0	0	28,733	2,987	19	0	10,597
Total all commercial banks, SAs & TCs with derivatives	21,461,032	208,097,703	4,111,544	2,174,254	1,937,289	1,738,115	135,532	229,991	70,616	1,588,753	65,935	226,859	55,742
Top 25 commercial banks, SAs & TCs with derivatives: percentage of total			98.9	52.1	46.8	42.2	3.3	5.6	1.0	38.6	1.6	5.5	1.1
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	52.9	47.1	42.3	3.3	5.6	1.7	38.6	1.6	5.5	1.4

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, June 30, 2024

FFIEC 051 Call Report Schedule SU

Gross notional amount of derivatives	2Q24	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21
Total gross notional amount of interest rate derivatives held for trading	$5,850	$5,774	$5,586	$5,325	$5,242	$5,016	$4,792	$4,915	$4,953	$4,994	$5,011	$5,301
Total gross notional amount of all other derivatives held for trading	$61	$51	$149	$50	$47	$51	$43	$42	$35	$39	$44	$14
Total gross notional amount of interest rate derivatives not held for trading	$32,167	$29,189	$26,068	$122,763	$21,050	$17,819	$14,395	$16,786	$19,499	$21,308	$22,545	$29,991
Total gross notional amount of all other derivatives not held for trading	$698	$626	$614	$845	$842	$676	$1,103	$1,037	$1,142	$1,007	$1,314	$1,461

FFIEC 051 Call Report Schedule RC-R**

Notional principal amounts of over-the-counter derivative contracts covered by the regulatory capital rules	2Q24	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21
Interest rate	$23,617	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
Foreign exchange rate	$9	Data Not Reported	$7	Data Not Reported	$5	Data Not Reported	$5	Data Not Reported	$4	Data Not Reported	$4	Data Not Reported
Credit (investment grade reference asset)	$89	Data Not Reported	$75	Data Not Reported	$80	Data Not Reported	$188	Data Not Reported	$265	Data Not Reported	$230	Data Not Reported
Credit (non-investment grade reference asset)	$324	Data Not Reported	$302	Data Not Reported	$251	Data Not Reported	$212	Data Not Reported	$176	Data Not Reported	$168	Data Not Reported
Equity	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported
Precious metals	$4	Data Not Reported	$4	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$4	Data Not Reported
Other	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported	$0	Data Not Reported

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

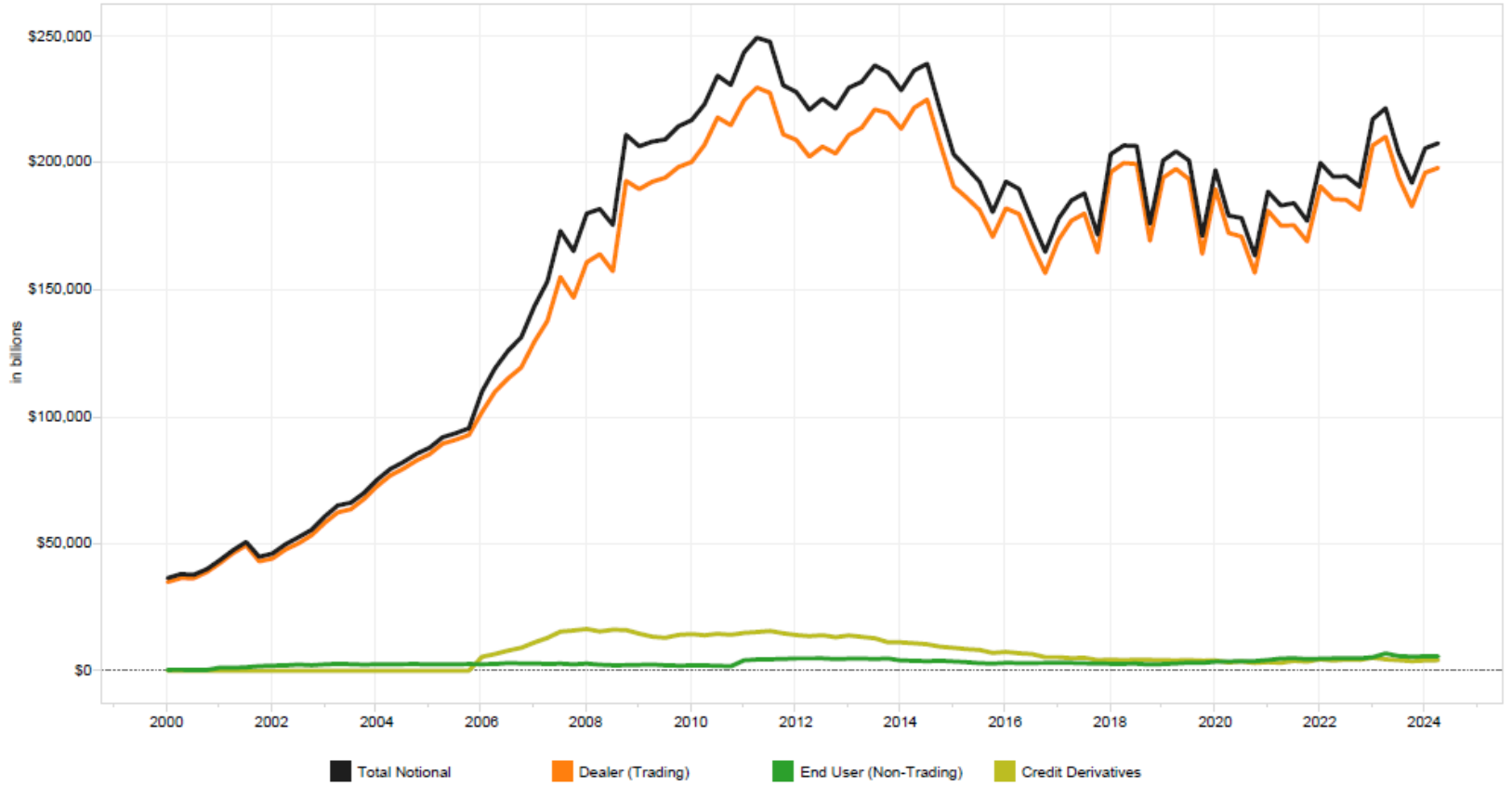
Current Credit Exposure	2Q24	1Q24	4Q23	3Q23	2Q23	1Q23	4Q22	3Q22	2Q22	1Q22	4Q21	3Q21
Current credit exposure across all derivative contracts covered by the regulatory capital rules	$466	Data Not Reported	$354	Data Not Reported	$455	Data Not Reported	$493	Data Not Reported	$363	Data Not Reported	$233	Data Not Reported

* 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



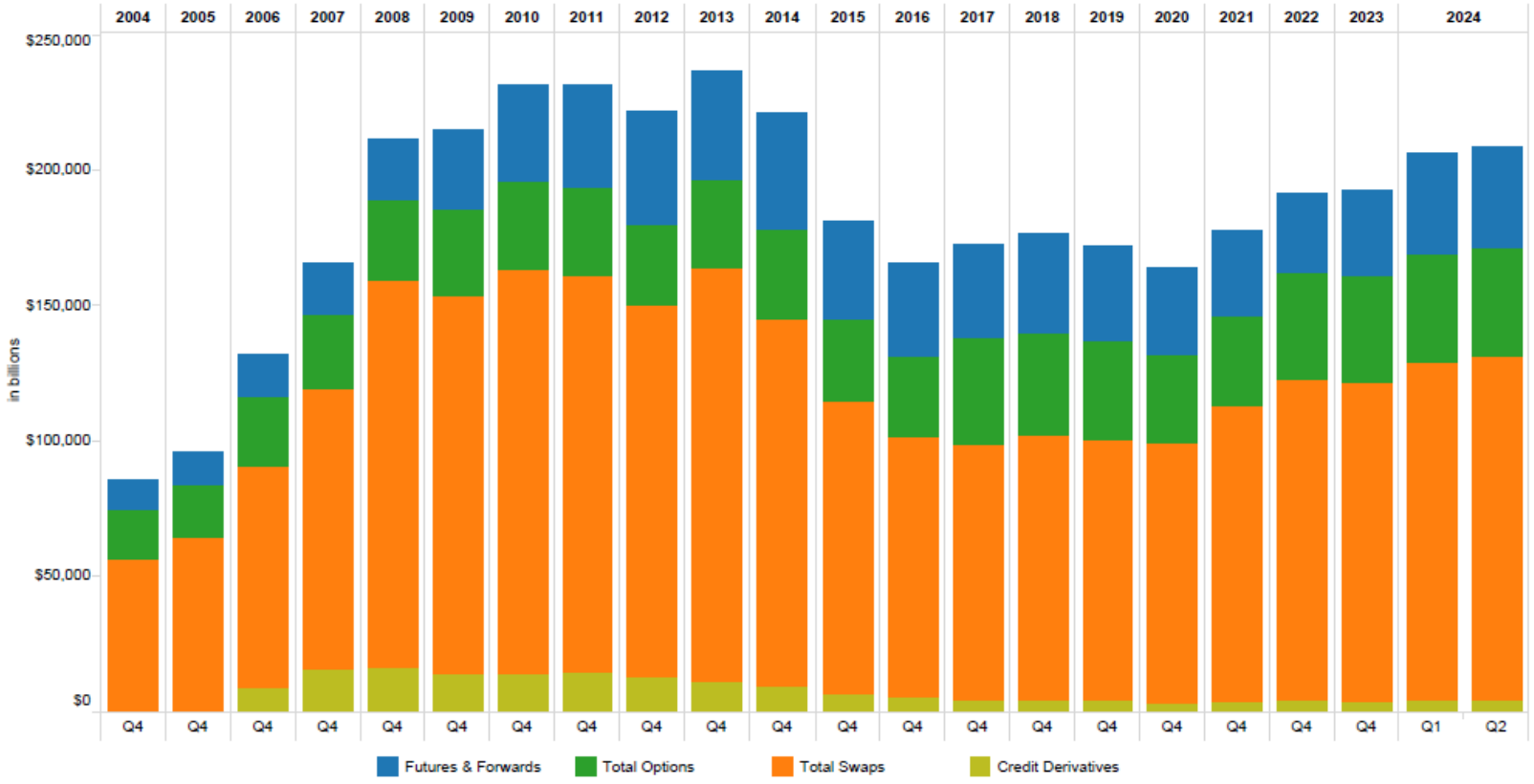
In billions of dollars

	2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Total Notional	$197,504	$179,573	$178,579	$163,799	$188,990	$183,501	$184,480	$177,464	$200,354	$194,852	$195,084	$190,978	$217,602	$221,915	$204,293	$192,464	$206,091	$208,098
Dealer (Trading)	189,995	172,723	171,242	156,997	181,421	175,607	175,695	169,360	191,121	186,016	185,703	181,875	207,222	210,643	194,426	183,203	196,440	198,382
End User (Non-Trading)	3,522	3,595	3,757	3,768	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	5,604
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	4,112

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



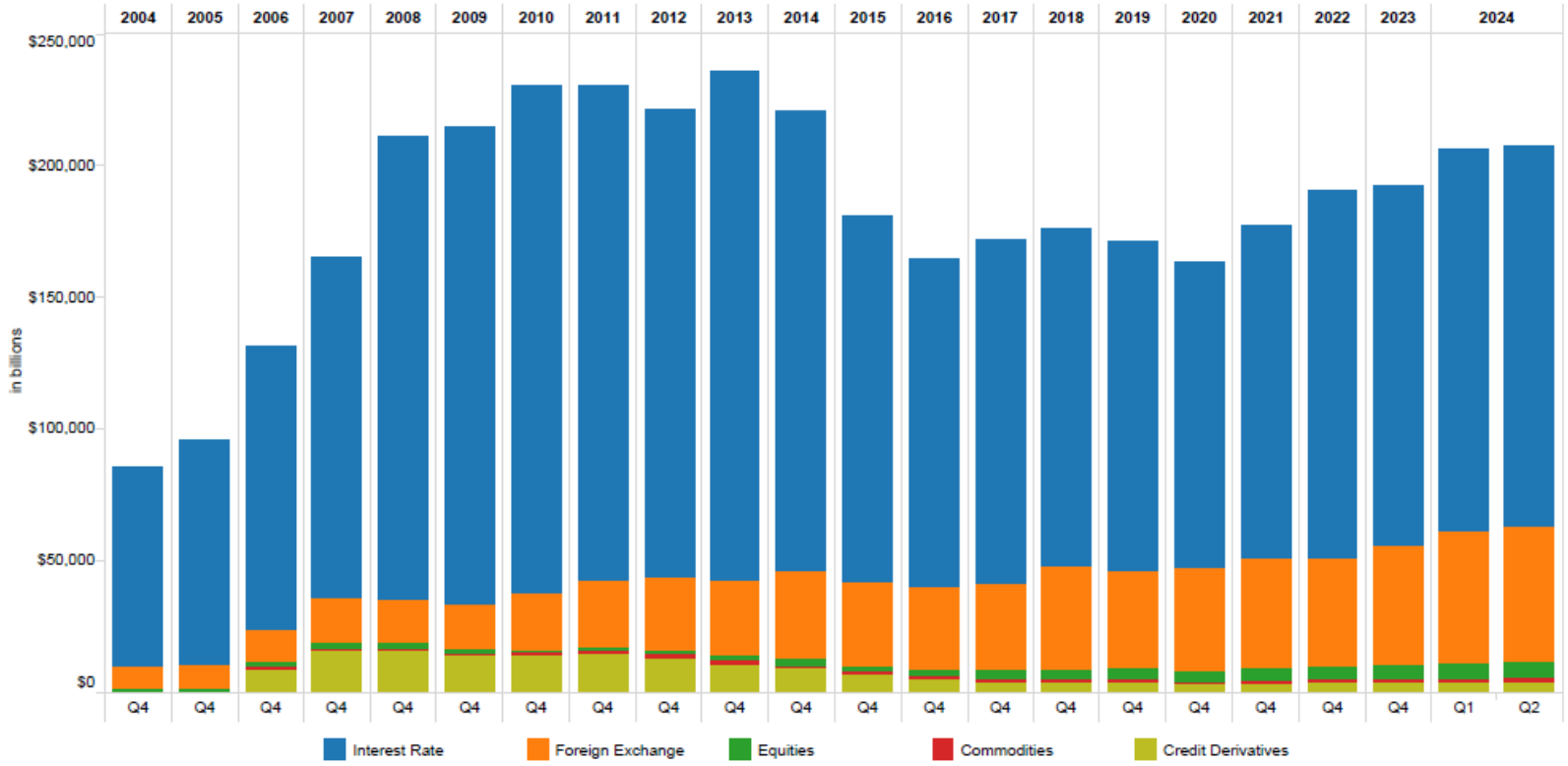
In billions of dollars

	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	Q2
Futures & Forwards	$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	$28,749	$31,807	$36,822	$36,701
Total Options	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	40,203
Total Swaps	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	127,083
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	4,112
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	190,978	192,464	206,091	208,098

* 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

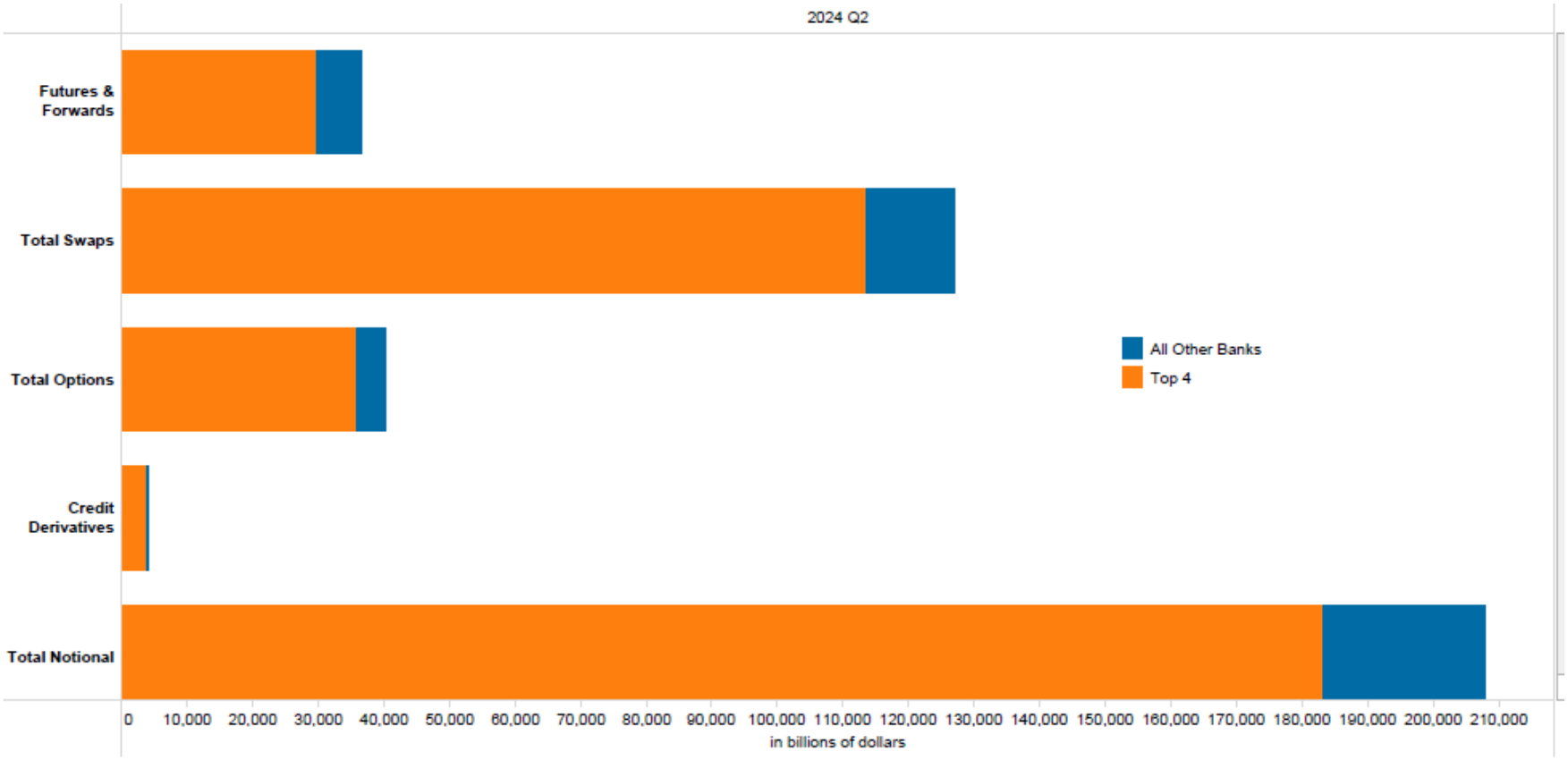
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q4	Q1	Q2
Interest Rate	$193,399	$187,866	$177,650	$193,084	$174,687	$138,389	$124,488	$130,417	$128,175	$125,065	$116,000	$126,236	$139,756	$136,274	$144,427	$144,959
Foreign Exchange	20,990	25,436	27,587	28,480	33,183	32,100	31,737	32,903	39,220	37,170	39,596	41,847	41,124	45,278	49,856	51,021
Equities	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	6,308
Commodities	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	1,699
Credit Derivatives	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	4,112
Total Notional	231,099	230,998	221,794	235,992	221,078	180,959	165,252	171,974	176,354	171,465	163,799	177,464	190,978	192,464	206,091	208,098

* 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



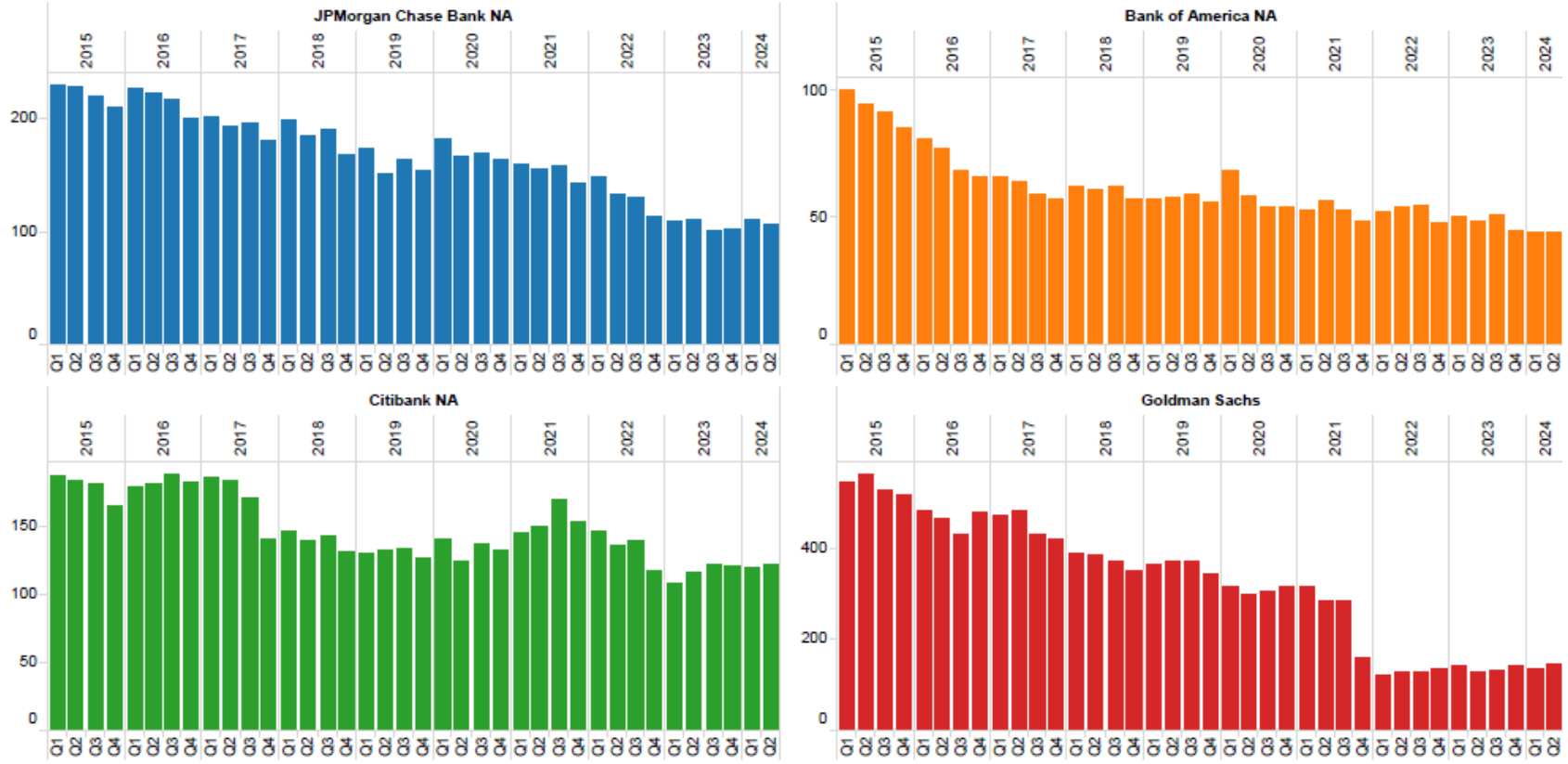
In billions of dollars

	Top 4	All Other Banks	Grand Total
Futures & Forwards	$29,878	$6,822	$36,701
Total Swaps	113,782	13,301	127,083
Total Options	35,846	4,357	40,203
Credit Derivatives	3,861	250	4,112
Total Notional	183,368	24,730	208,098

* 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



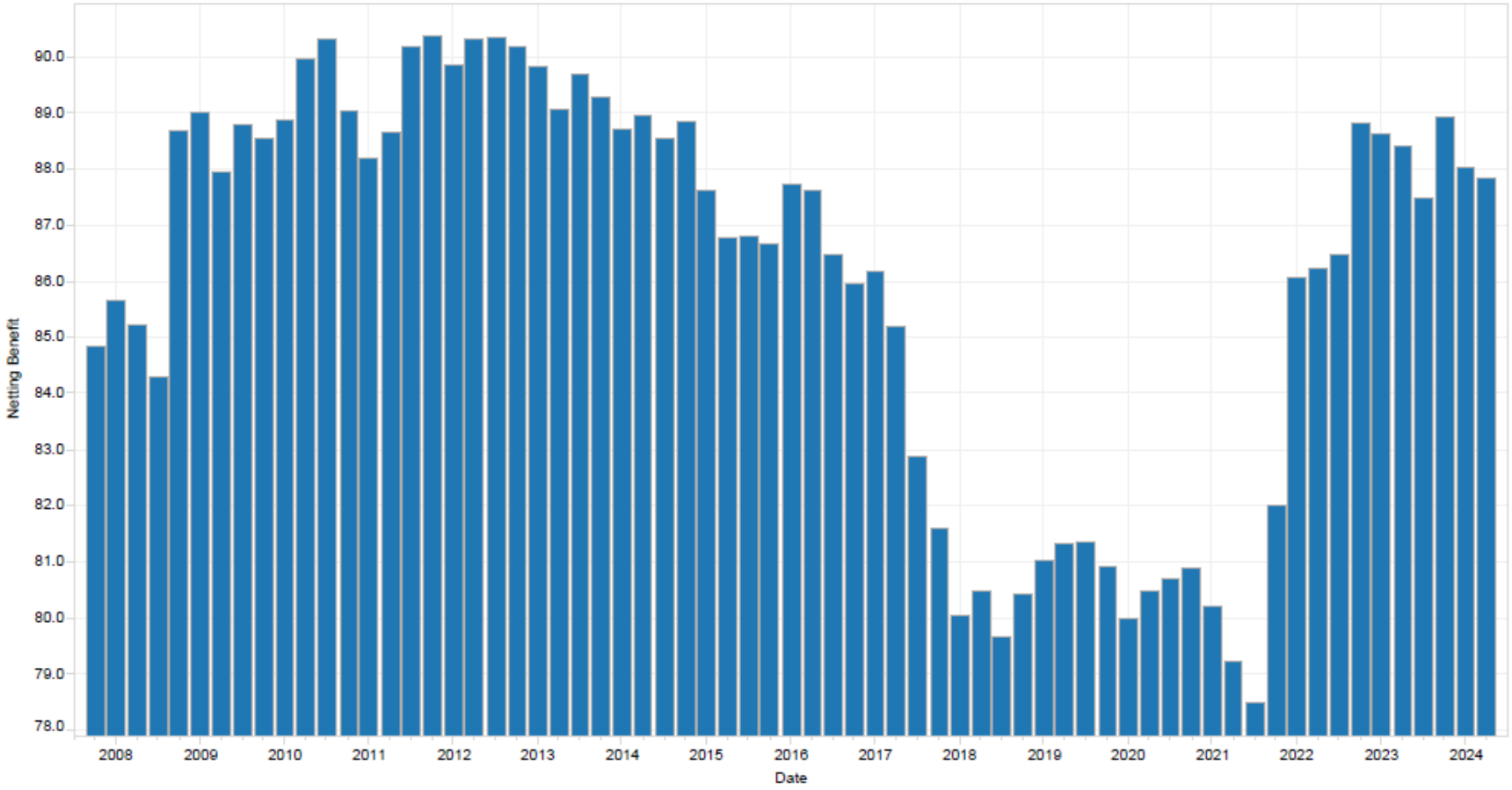
	2017				2018				2019				2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
JPMorgan Chase Bank NA	201	193	195	179	197	184	190	167	173	150	163	153	181	165	168	163	159	155	158	143	147	133	130	113	109	110	102	102	110	106
Bank of America NA	66	64	59	57	62	61	62	57	58	58	59	56	68	59	54	54	53	57	53	49	52	54	55	48	50	49	51	45	44	45
Citibank NA	186	184	171	140	146	139	144	132	130	132	134	126	140	125	137	133	145	150	170	153	147	136	139	118	108	116	123	121	120	122
Goldman Sachs	472	484	433	420	389	384	371	354	366	372	372	344	319	299	304	314	317	285	286	160	120	126	128	134	140	126	130	142	132	147
TOTAL	220	218	205	191	195	187	188	173	178	169	176	164	174	160	165	164	165	158	169	137	134	122	122	108	103	104	103	105	107	108

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

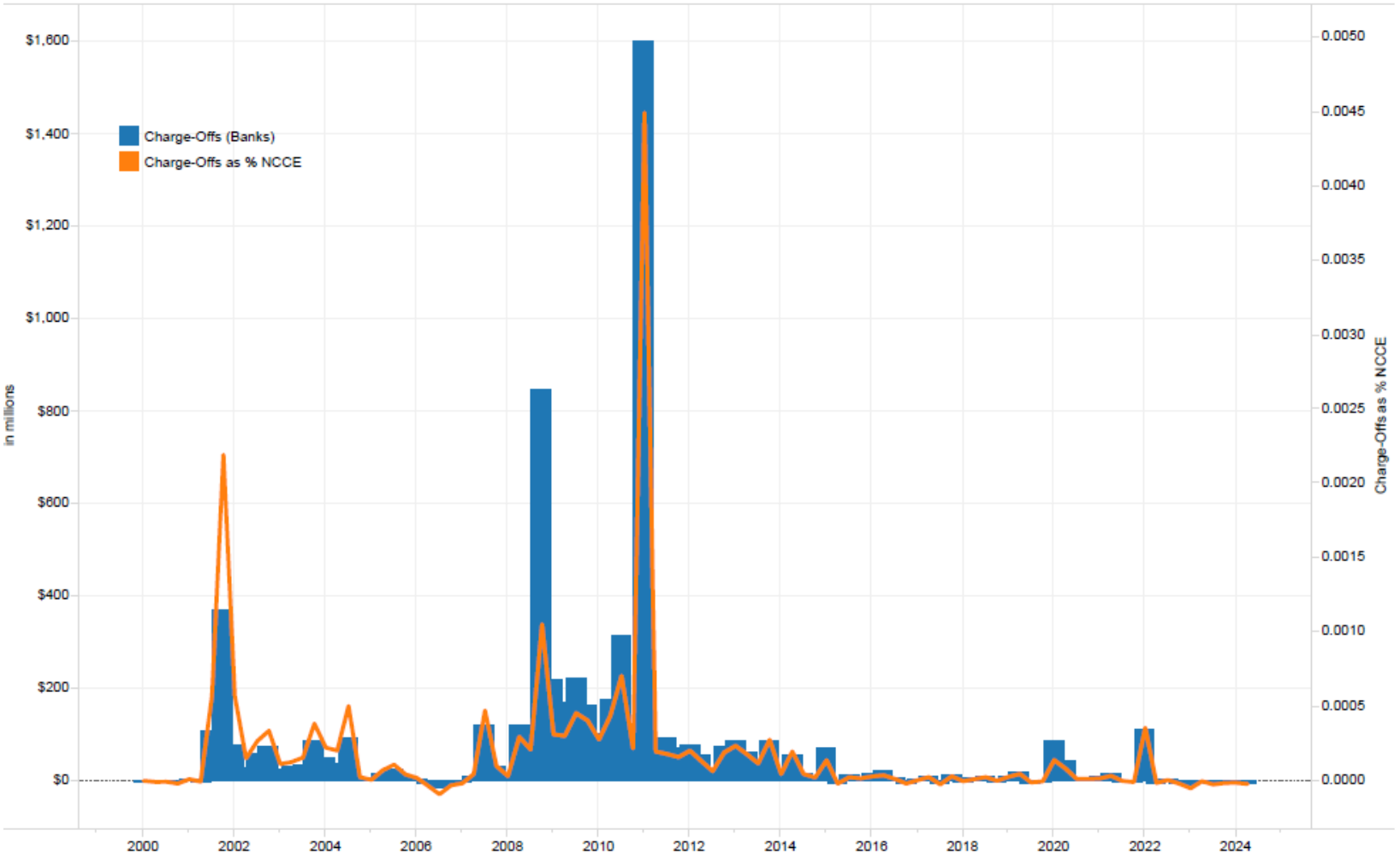
2016				2017				2018				2019				2020				2021				2022				2023				2024	
Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
87.7	87.6	86.5	86.0	86.2	85.2	82.9	81.6	80.0	80.5	79.7	80.4	81.0	81.3	81.4	80.9	80.0	80.5	80.7	80.9	80.2	79.2	78.5	82.0	86.1	86.3	86.5	88.8	88.6	88.4	87.5	88.9	88.0	87.8

* 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

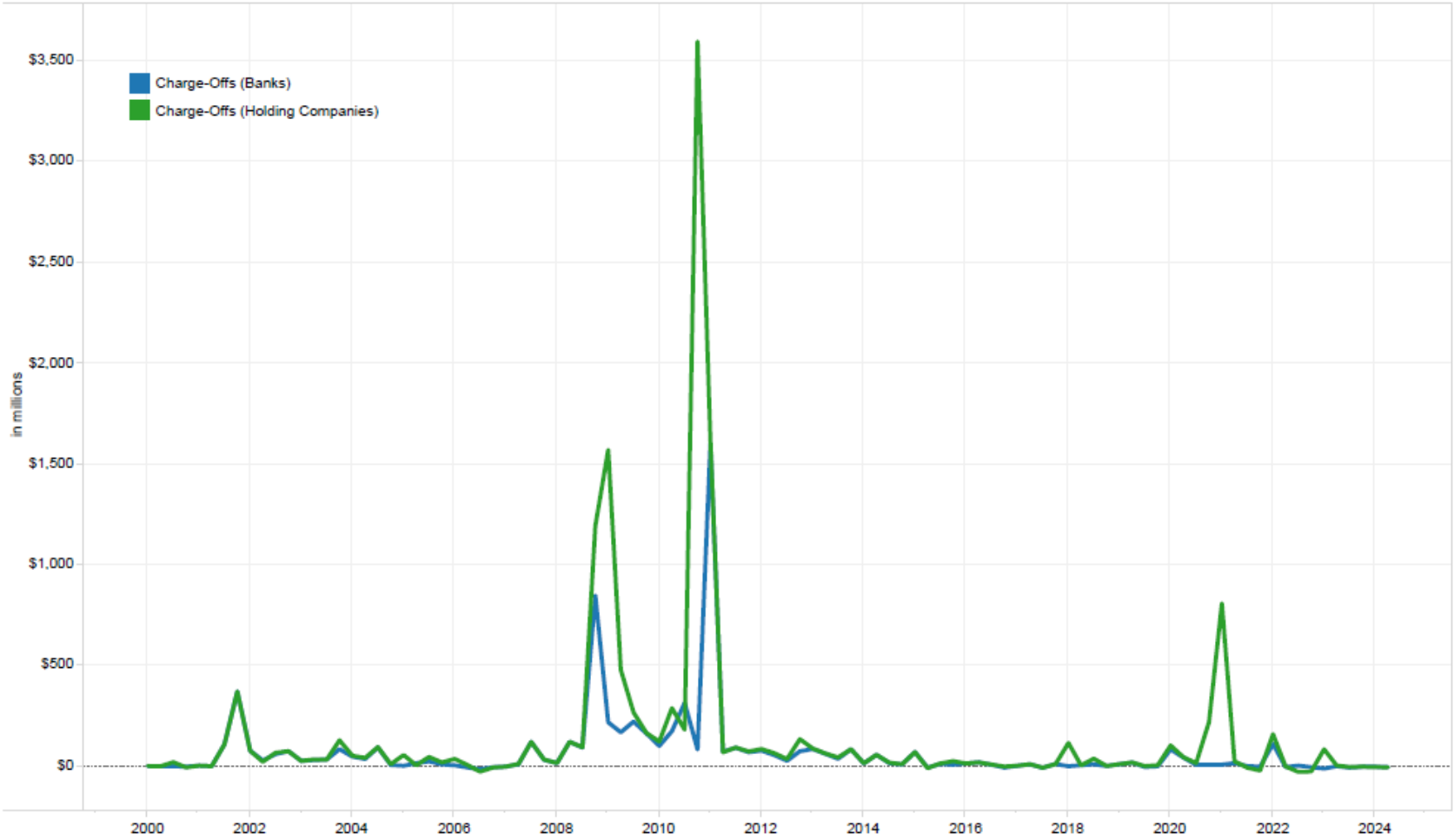


	2018				2019				2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Charge-Offs (Banks)	-1.1	4.0	8.8	0.1	9.1	17.2	-4.8	-1.5	82.7	42.1	6.0	6.6	6.8	14.7	-0.2	-3.3	109.5	-4.9	2.0	-5.5	-12.5	-0.9	-7.7	-3.6	-3.5	-5.5

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

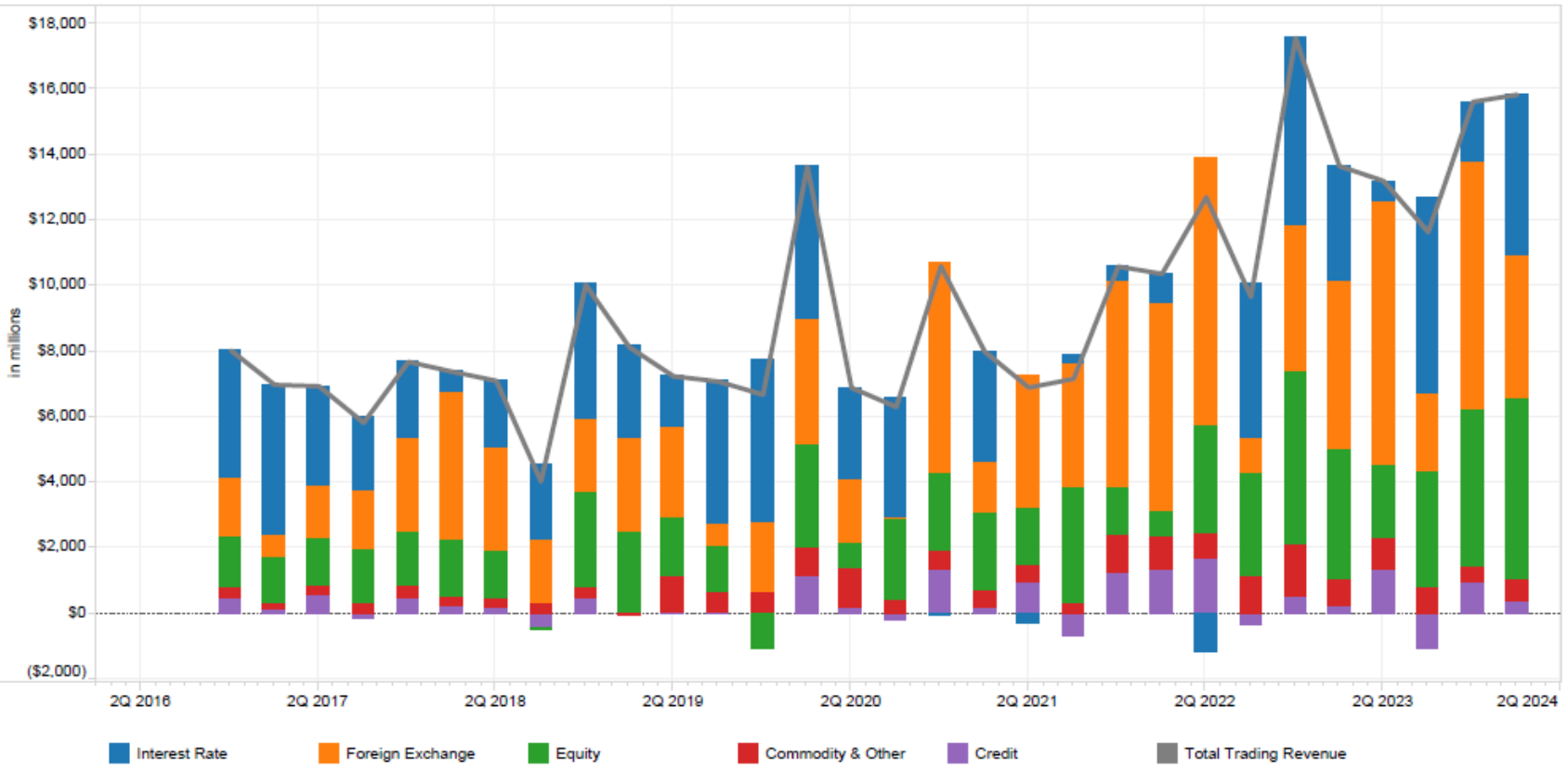


	2018				2019				2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Charge-Offs (Banks)	-1.1	4.0	8.8	0.1	9.1	17.2	-4.8	-1.5	82.7	42.1	6.0	6.6	6.8	14.7	-0.2	-3.3	109.5	-4.9	2.0	-5.5	-12.5	-0.9	-7.7	-3.6	-3.5	-5.5
Charge-Offs (Holding Companies)	114.5	3.5	36.6	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	-6.1

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



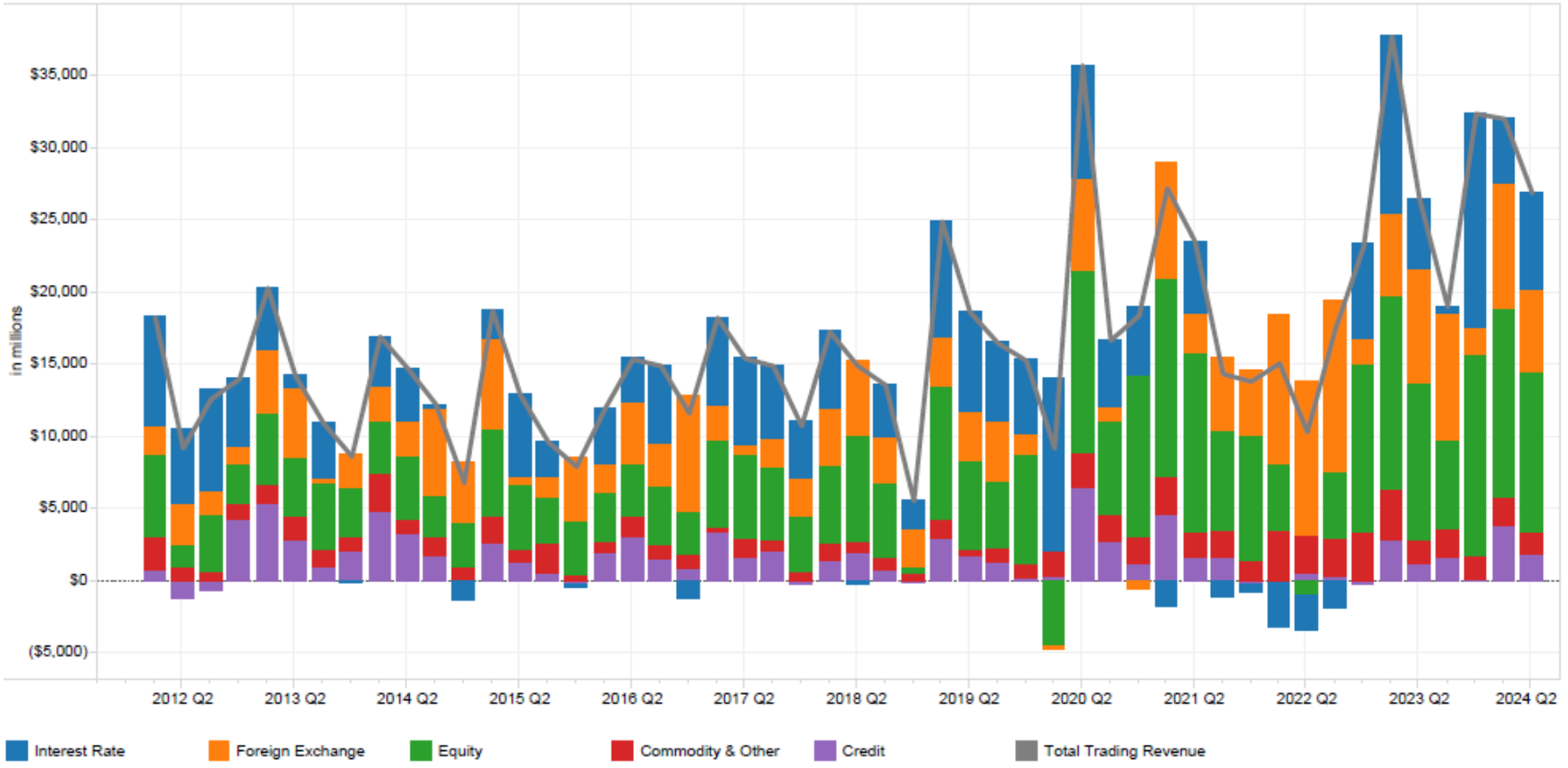
In millions of dollars

	2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
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	$4,927
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	4,377
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	5,511
Commodity & Other	646	905	1,226	434	622	549	531	347	1,161	1,029	774	1,153	1,570	824	942	773	504	657
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	376
Total Trading Revenue	6,681	13,648	6,893	6,305	10,611	7,999	6,896	7,164	10,598	10,373	12,714	9,671	17,581	13,668	13,211	11,649	15,630	15,848

* 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



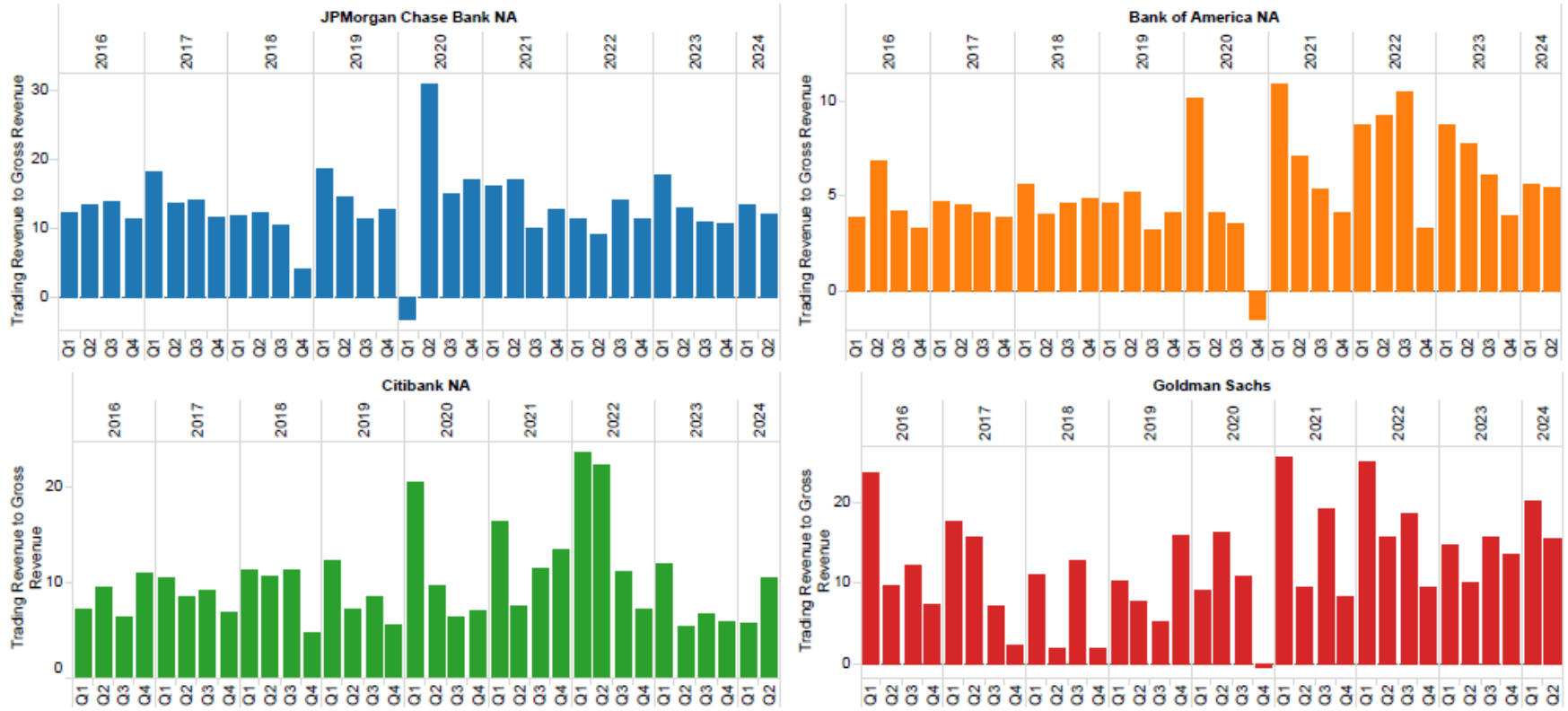
In millions of dollars

	2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
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	$12,304	$4,773	$522	$14,872	$4,491	$6,632
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	5,697
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	13,377	10,925	6,084	14,019	13,059	11,172
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	1,607	1,990	1,545
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	1,777
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	37,681	26,374	18,960	32,319	31,977	26,823

* 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*

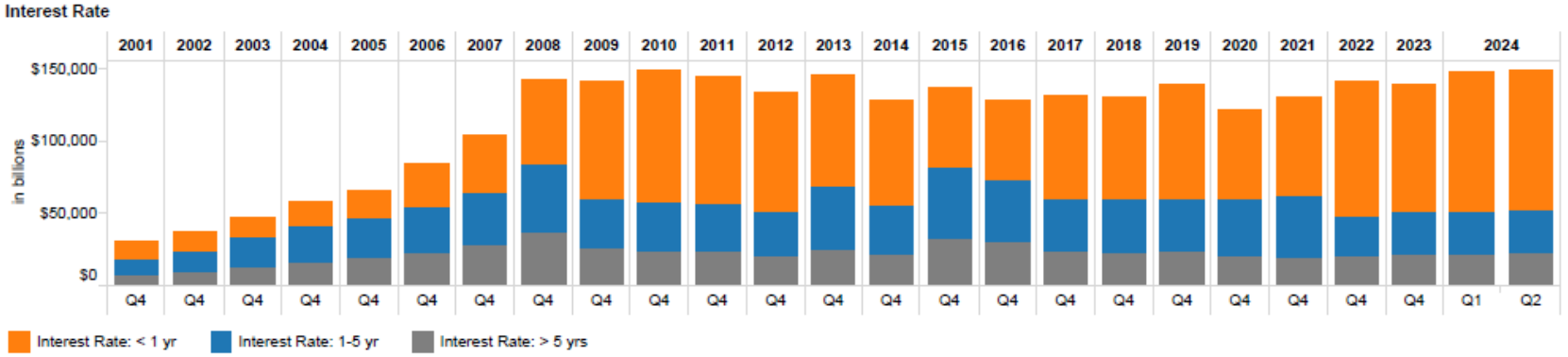
	2018				2019				2020				2021				2022				2023				2024	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
JPMorgan Chase Bank NA	11.90	12.19	10.26	3.92	18.57	14.57	11.30	12.62	-3.33	30.88	14.83	16.96	16.12	16.90	9.84	12.70	11.13	8.86	14.06	11.38	17.66	12.79	10.83	10.50	13.25	11.96
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	5.50
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	16.24	7.42	11.57	13.44	23.64	22.30	11.05	7.15	12.01	5.44	6.66	5.77	5.71	10.52
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	15.39
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	10.27

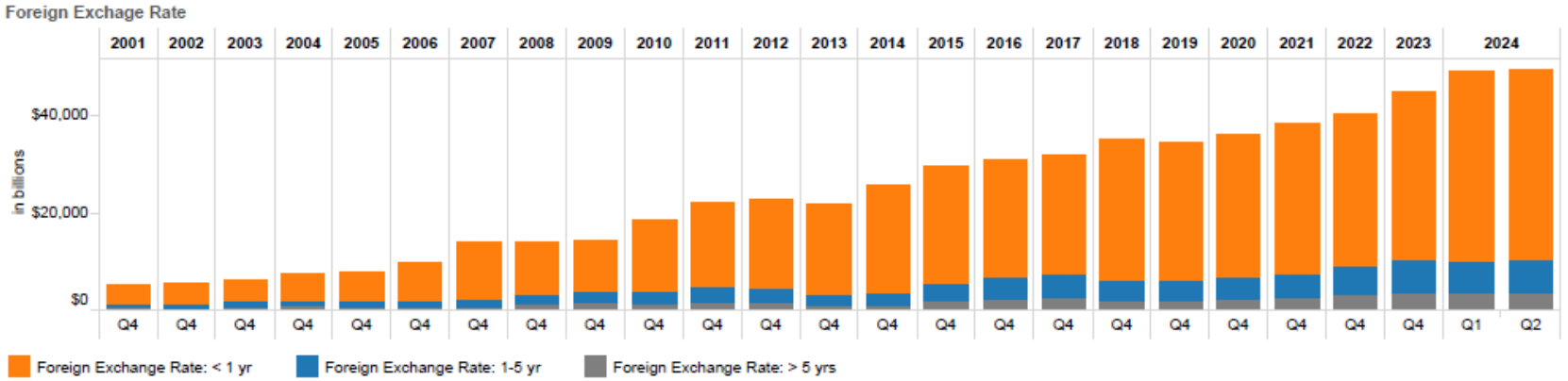
* The trading revenue figures are for cash and derivative activities. Revenue figures are quarterly, not year-to-date numbers.

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





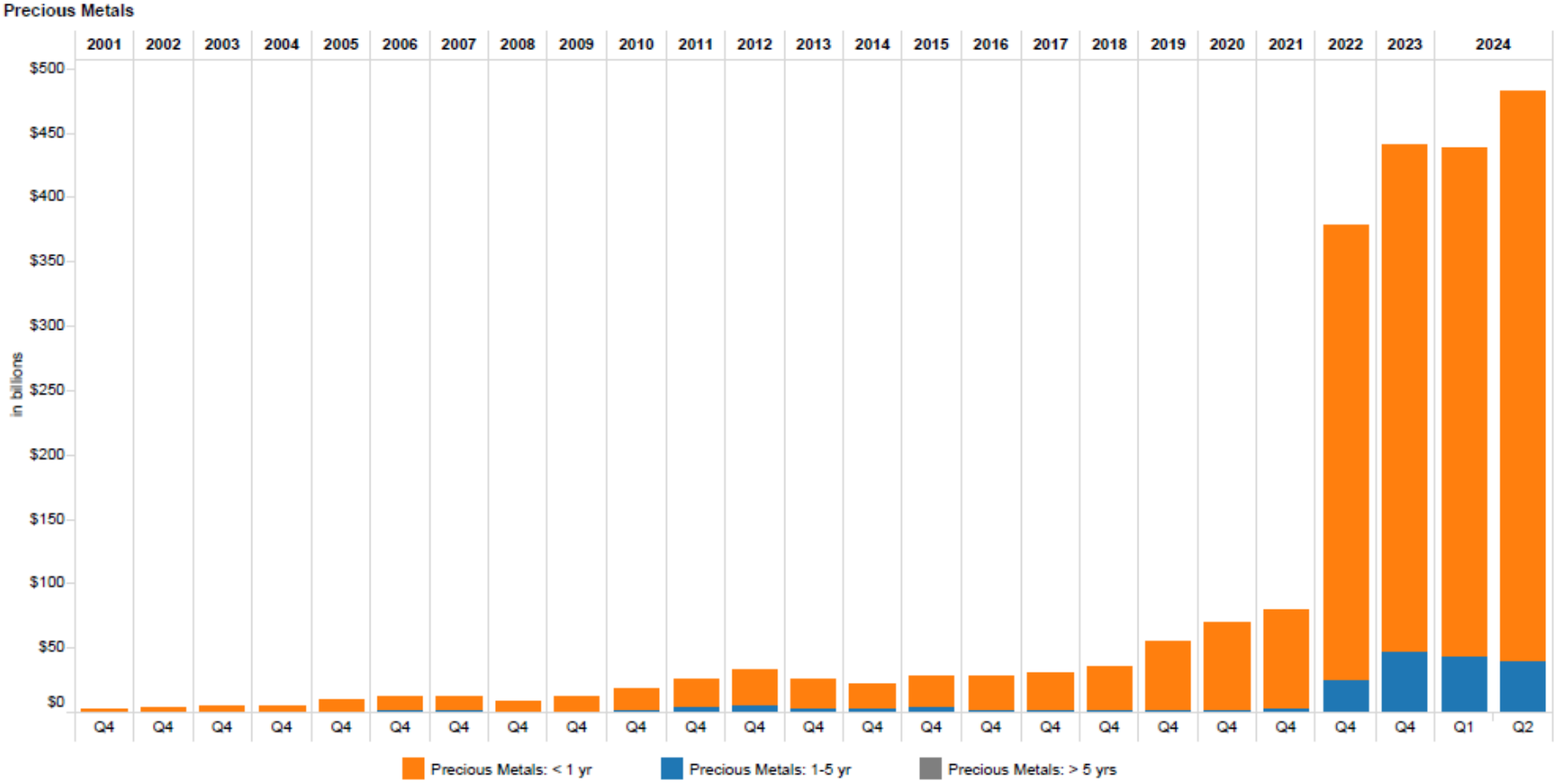
In billions of dollars

	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	Q1	Q2
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	$87,574	$96,124	$95,825
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	29,655	29,104	29,544
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	21,809	22,393	23,261
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	31,271	34,341	39,005	39,180
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	6,855
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	3,423

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



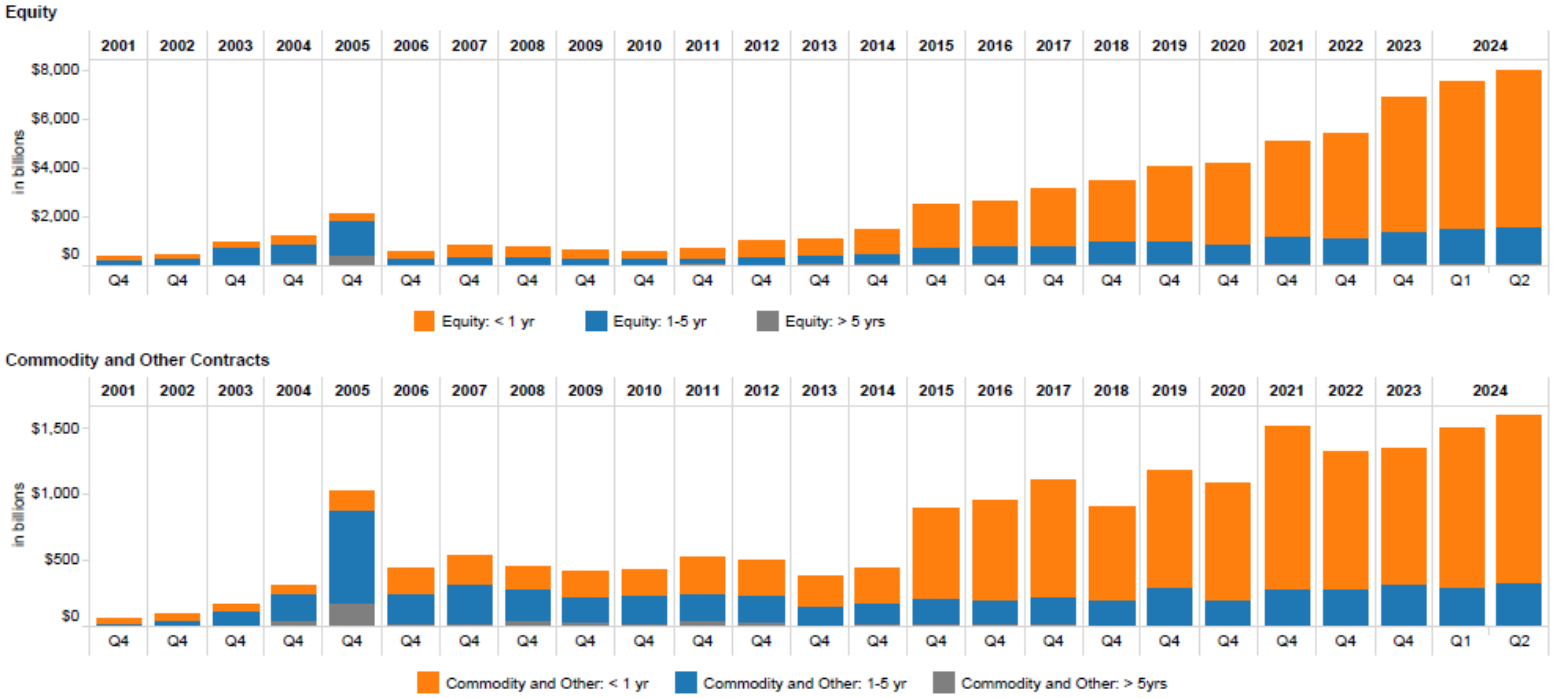
In billions of dollars

	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	Q1	Q2
Precious Metals: < 1 yr	$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	$75.78	$352.12	$393.20	$394.80	$443.17
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	40.3
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	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



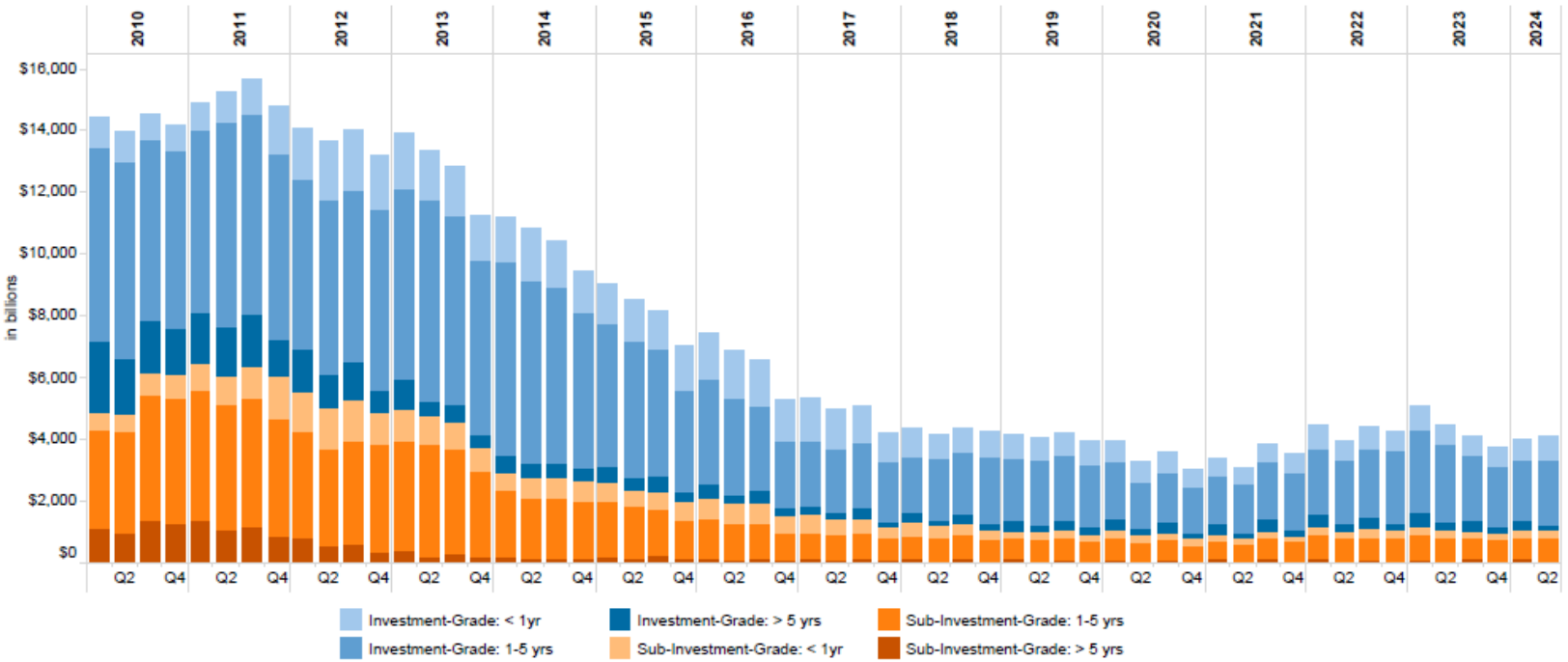
In billions of dollars

	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	Q2
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	$1,249
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	330
Commodity and Other: > 5yrs	20	25	43	33	25	46	28	6	20	22	23	25	9	10	9	7	7	7	6	10
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	6,414
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	1,459
Equity: > 5 yrs	45	70	72	82	85	94	82	136	101	130	123	113	139	136	139	145	99	99	111	143

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



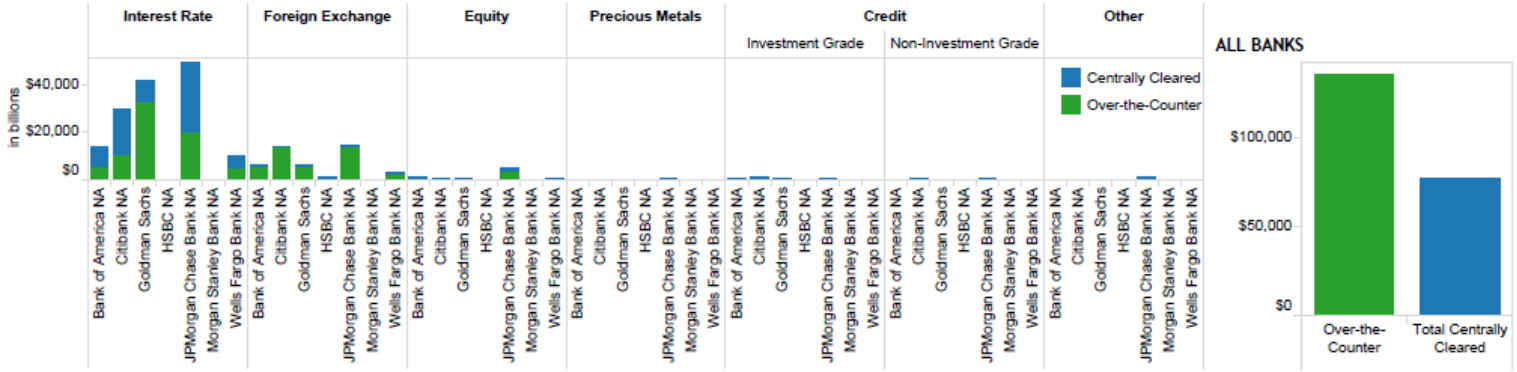
In billions of dollars

	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	Q2
Investment-Grade: < 1yr	$763	$758	$675	$781	$726	$619	$648	$554	$546	$539	$565	$601	$795	$642	$692	$617	$769	$658	$595	$635	$680	$813
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	2,062
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	167
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	$3,041

	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
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	$273
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	736
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	61
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	$1,070

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

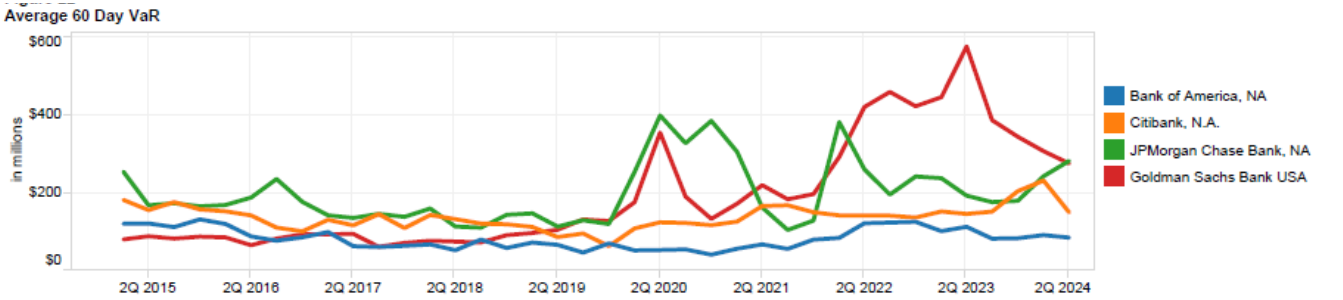
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared	Over-the-Counter	Total Notional
									Investment Grade		Non-Investment Grade						
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter			
JPMorgan Chase Bank NA	28,287	20,219	652	13,903	1,171	3,849	0	282	251	239	329	451	86	996	30,775	39,939	70,714
Citibank NA	18,731	10,738	405	13,752	182	587	25	95	180	983	52	265	97	92	19,671	26,511	46,183
Bank of America NA	8,453	5,417	154	6,066	343	712	7	65	178	280	45	94	4	49	9,182	12,682	21,865
Goldman Sachs	8,789	32,733	234	6,182	57	637	0	0	44	347	9	148	0	56	9,135	40,104	49,238
HSBC NA	65	44	59	958	0	23	0	5	1	5	0	1	0	0	125	1,036	1,161
Wells Fargo Bank NA	5,038	5,029	0	2,649	130	256	0	5	0	26	0	18	0	82	5,168	8,065	13,233
Morgan Stanley Bank NA	2	117	0	113	0	41	0	0	0	17	0	7	0	0	2	294	296
Grand Total	69,364	74,297	1,505	43,622	1,882	6,105	31	452	654	1,896	435	983	187	1,276	74,058	128,631	202,689
ALL OTHER	2,914	2,055	27	4,304	0	29	0	0	1	37	0	30	26	101	2,988	6,557	9,525
TOTAL	72,278	76,352	1,532	47,926	1,882	6,135	31	452	656	1,933	435	1,013	212	1,377	77,026	135,188	212,214

% of Total

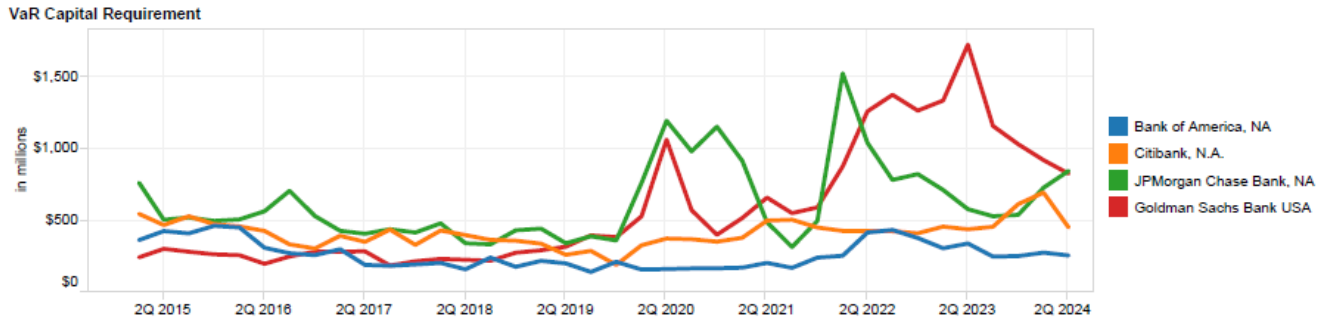
Bank Name	Interest Rate		Foreign Exchange		Equity		Precious Metals		Credit				Other		Total Centrally Cleared as a % of Total Notional	Total Over-the-Counter as a % of Total Notional
									Investment Grade		Non-Investment Grade					
	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter	Centrally Cleared	Over-the-Counter		
JPMorgan Chase Bank NA	58%	42%	4%	96%	23%	77%	0%	100%	51%	49%	42%	58%	8%	92%	44%	56%
Citibank NA	64%	36%	3%	97%	24%	76%	20%	80%	15%	85%	16%	84%	51%	49%	43%	57%
Bank of America NA	61%	39%	2%	98%	32%	68%	9%	91%	39%	61%	32%	68%	7%	93%	42%	58%
Goldman Sachs	21%	79%	4%	96%	8%	92%	0%	100%	11%	89%	6%	94%	0%	100%	19%	81%
HSBC NA	59%	41%	6%	94%	0%	100%	0%	100%	16%	84%	19%	81%	0%	100%	11%	89%
Wells Fargo Bank NA	50%	50%	0%	100%	34%	66%	0%	100%	2%	98%	0%	100%	0%	100%	39%	61%
Morgan Stanley Bank NA	2%	98%	0%	100%	0%	100%			0%	100%	0%	100%	0%	100%	1%	99%

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	Q2
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	$85
Citibank, N.A.	144	133	122	120	113	87	96	64	109	125	123	118	127	167	169	151	143	143	142	137	153	146	152	205	232	151
JPMorgan Chase Bank, NA	160	114	111	144	148	114	130	120	254	399	328	385	306	163	105	129	382	261	196	242	238	193	177	180	243	282
Goldman Sachs Bank USA	77	75	73	92	97	106	132	128	176	355	191	134	173	220	184	197	293	421	459	423	446	576	387	344	307	276



	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
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	$256
Citibank, N.A.	338	261	288	191	327	374	370	353	380	500	506	452	428	428	425	411	458	439	457	615	695	452
JPMorgan Chase Bank, NA	443	341	390	361	762	1,197	983	1,155	917	489	315	498	1,528	1,043	784	824	714	580	530	540	729	847
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	828

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