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Comptroller of the Currency  
Administrator of National Banks

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Washington, DC 20219

## **OCC's Quarterly Report on Bank Trading and Derivatives Activities Third Quarter 2011**

### **Executive Summary**

- Insured U.S. commercial banks reported trading revenues of \$13.1 billion in the third quarter, 78% higher than in the second quarter, and 214% higher than \$4.2 billion in the third quarter of 2010. Revenues in the third quarter were a record, but overstate actual trading performance due to the inclusion of a significant amount of revenues that were unrelated to core trading activities.
- Trading risk exposure, as measured by Value-at-Risk (VaR), decreased in the third quarter as dealers actively reduced risk in the face of increasing global financial risks. Aggregate average VaR at the 5 largest trading companies declined 6.1% from the second quarter to \$673 million. VaR in the third quarter 2011 was 8.8% lower than a year ago.
- Credit exposure from derivatives increased sharply in the third quarter. Net current credit exposure increased 39%, or \$141 billion, to \$504 billion, due to declining interest rates.
- The notional amount of derivatives held by insured U.S. commercial banks decreased \$1.4 trillion, or 0.6%, from the second quarter of 2011 to \$248 trillion. Notional derivatives are 5.7% higher than at the same time last year.
- Derivative contracts remain concentrated in interest rate products, which comprise 82% of total derivative notional amounts. Credit derivatives, which represent 6.3% of total derivatives notionals, rose 3% to \$15.7 trillion.

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The OCC's quarterly report on trading revenues and bank derivatives activities is based on Call Report information provided by all insured U.S. commercial banks and trust companies, reports filed by U.S. financial holding companies, and other published data.

A total of 1,088 insured U.S. commercial banks reported derivatives activities at the end of the third quarter, an increase of 17 banks from the prior quarter. Derivatives activity in the U.S. banking system continues to be dominated by a small group of large financial institutions. Five large commercial banks represent 96% of the total banking industry notional amounts and 85% of industry net current credit exposure.

The OCC and other supervisors have examiners on-site at the largest banks to continuously evaluate the credit, market, operational, reputation, and compliance risks of bank derivatives activities. In addition to the OCC's on-site supervisory activities, the OCC continues to work with other financial supervisors and major market participants to address infrastructure issues in OTC derivatives, including development of objectives and milestones for stronger trade processing and improved market transparency across all OTC derivatives categories.

### **Revenues**

Insured U.S. commercial banks reported \$13.1 billion in trading revenues in the third quarter, 78% higher than in the second quarter, and 214% higher than \$4.2 billion in the third quarter of 2010. Trading revenues in the third quarter were the highest on record, surpassing the former record of \$9.8 billion from the first quarter of 2009. However, trading revenues include two components that can, and did in the third quarter, distort actual

trading performance. First, some banks reported gains and losses on hedges of mortgage servicing assets as trading revenues. In the third quarter, a sharp decline in interest rates reduced the value of the mortgage servicing asset (MSA), which large banks typically hedge by taking positions that would increase in value when interest rates decline. These hedges produced significant gains in the third quarter, offsetting the declines in value of the MSA. The hedge gains were reflected in trading revenues for interest rate products, but the charges for MSA impairment are reported as a component of servicing (i.e., non-trading, or "other") income. Second, as noted in previous reports, the credit adjusted values of derivative payables and receivables can have a large impact on trading revenues when credit spreads change materially, as was also the case in the third quarter. Adjustments to the fair value of derivative receivables and payables reflect changes to both bank and counterparty credit spreads. Bank credit spreads increased materially during the third quarter, as the credit crisis in Europe weighed on the market's perception of the credit strength of banks, not only in Europe but also in the United States. Rising bank credit spreads reduce the value of derivatives payables. Under current accounting rules, banks recognize the declining value of their derivatives liabilities as trading gains.

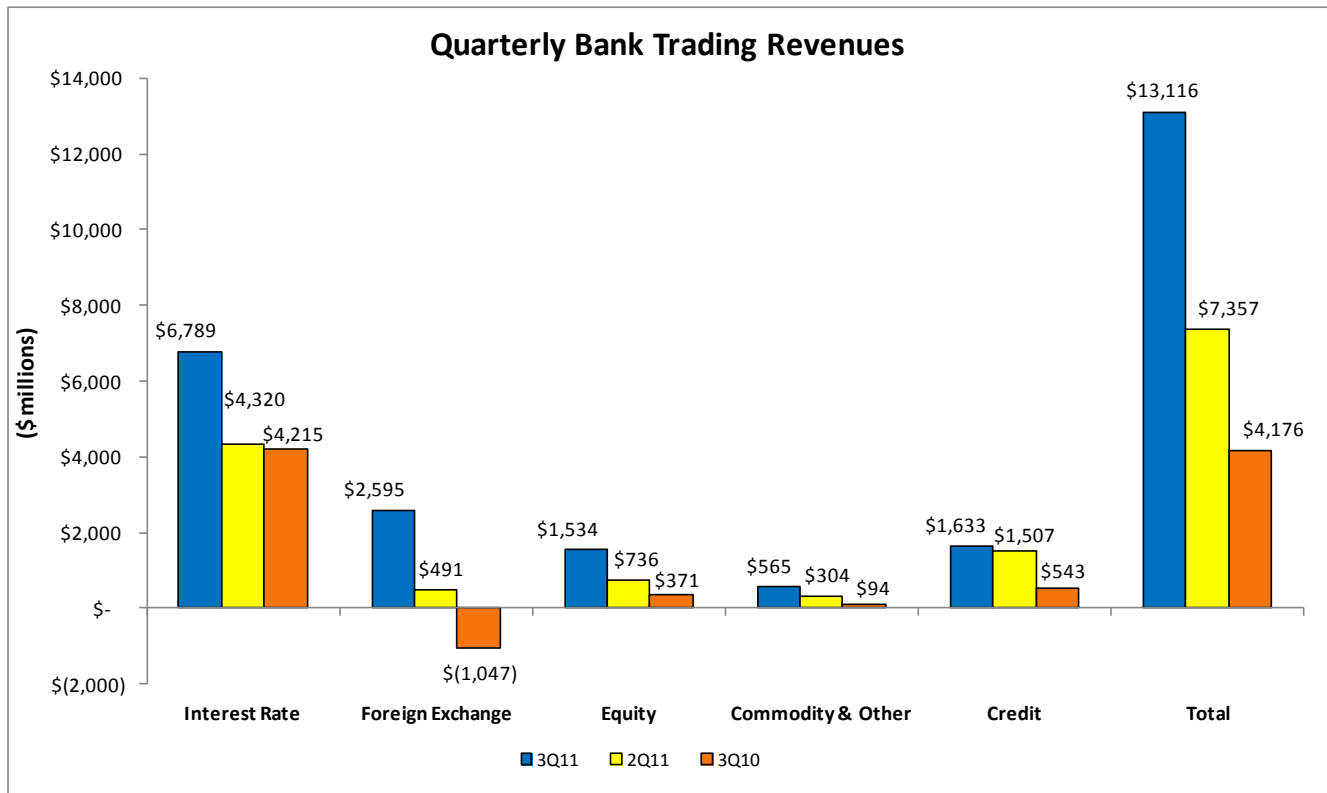
As a result of these non-trading factors, reported trading revenues, particularly for interest rate products, do not provide an accurate reflection of trading performance. Absent the "noise" from MSA hedge gains and derivatives liability valuation adjustments (DVA), which contributed approximately \$8 billion in revenues, trading revenues in the third quarter exhibited the seasonal slowing pattern often observed during the last half of the year. The seasonal weakening in client demand was exacerbated by concerns over the prospects for the global economy given increasing stress in Europe. Foreign exchange, equity and commodity revenues, however, were materially stronger, both when measured against the second quarter of 2011 and against the third quarter of 2010.

### Commercial Bank Trading Revenue

Bank Trading Revenue \$ in millions	3Q11	2Q11	Change 3Q11 vs. 2Q11	% Change 3Q11 vs. 2Q11	3Q10	Change 3Q11 vs. 3Q10	% Change 3Q11 vs. 3Q10
Interest Rate	6,789	4,320	2,469	57%	4,215	2,574	61%
Foreign Exchange	2,595	491	2,104	429%	(1,047)	3,642	348%
Equity	1,534	736	799	109%	371	1,164	314%
Commodity & Other	565	304	260	85%	94	470	498%
Credit	1,633	1,507	126	8%	543	1,090	201%
<b>Total Trading Revenues</b>	<b>13,116</b>	<b>7,357</b>	<b>5,759</b>	<b>78%</b>	<b>4,176</b>	<b>8,940</b>	<b>214%</b>

Bank Trading Revenue \$ in millions	3Q11	Avg Past 12 Q3's	ALL Quarters Since Q4 1996			Past 8 Quarters		
			Avg	Hi	Low	Avg	Hi	Low
Interest Rate	6,789	2,273	1,463	9,099	(3,420)	2,584	6,789	(1,188)
Foreign Exchange	2,595	1,178	1,489	4,261	(1,535)	1,845	4,261	(1,047)
Equity	1,534	466	415	1,829	(1,229)	651	1,534	144
Commodity & Other	565	274	158	789	(320)	274	565	(25)
Credit*	1,633	N/A	N/A	2,707	(11,780)	1,188	2,707	(485)
<b>Total Trading Revenues</b>	<b>13,116</b>					<b>6,542</b>		

\*Credit trading revenues became reportable in 1Q07. Highs and lows are for available quarters only.



Data Source: Call Reports. Note: Beginning 1Q07, credit exposures are broken out as a separate category.

### Holding Company Trading Revenues<sup>1</sup>

To get a more complete picture of trading revenues in the banking system, it is useful to review consolidated holding company trading performance. As illustrated in the table that follows, consolidated holding company trading revenues of \$14 billion in the third quarter of 2011 were 18% lower than in the second quarter, but 15% higher (\$1.8 billion) than the third quarter of 2010.

Holding Co. Trading Revenue	3Q11	2Q11	Change 3Q11 vs. 2Q11	% Change 3Q11 vs. 2Q11	3Q10	Change 3Q11 vs. 3Q10	% Change 3Q11 vs. 3Q10
\$ in millions							
Interest Rate	6,579	4,477	2,102	47%	4,097	2,482	61%
Foreign Exchange	5,160	1,158	4,002	346%	(2,075)	7,236	349%
Equity	(2,673)	5,218	(7,891)	-151%	5,305	(7,979)	-150%
Commodity & Other	2,141	1,411	730	52%	1,312	829	63%
Credit	2,792	4,762	(1,970)	-41%	3,573	(781)	-22%
<b>Total HC Trading Revenues</b>	<b>13,998</b>	<b>17,026</b>	<b>(3,028)</b>	<b>-18%</b>	<b>12,212</b>	<b>1,787</b>	<b>15%</b>

Prior to the financial crisis, bank trading revenues typically ranged from 60-80% of consolidated holding company trading revenues. Since the financial crisis, and the adoption of bank charters by the former investment banks, the percentage of bank trading revenues to consolidated company revenues has fallen into a range of 30-50%. This decline reflects the significant amount of the trading activity by the former investment banks that, while included in holding company results, remains outside the insured commercial bank. More generally, insured commercial banks have more limited legal authorities than do their holding companies, particularly in commodity and equity products.

<sup>1</sup> The OCC's Quarterly Report on Bank Trading and Derivatives Activities focuses on the activity and performance of insured commercial banks. Discussion of consolidated bank holding company activity and performance is limited to this section, as well as the data in Table 2.

In the third quarter, however, the distortion introduced by gains on mortgage servicing asset hedges in the bank (where the mortgage servicing asset is held), as well as losses in equity trading activities outside the bank, changed the recent pattern of the contribution of bank trading revenues to holding company revenues. Bank trading revenues were 94% of consolidated company trading revenues in the third quarter, compared to 43% in the second quarter. It is unlikely for bank trading revenues to consistently represent such a large share of total company trading revenues. First, the impact of mortgage servicing asset hedges, an issue unique to banks, which hold the MSA, should diminish. Second, normalization of equity trading revenues, which are concentrated at the holding company, will influence the bank/company revenue ratio. Equity trading revenues were a drag on third quarter holding company trading revenues, as banking companies sustained \$2.7 billion of losses, compared to revenues of \$5.2 billion and \$5.3 billion during the second quarter of 2011 and the third quarter of 2010 respectively.

## **Credit Risk**

Credit risk is a significant risk in bank derivatives trading activities. The notional amount of a derivative contract is a reference amount from which contractual payments will be derived, 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 due to the more uncertain nature of the potential credit exposure. With a funded loan, the amount at risk is the amount advanced to the borrower. The credit risk is unilateral; the bank faces the credit exposure of the borrower. However, in most derivatives transactions, such as swaps (which make up the bulk of bank derivatives contracts), the credit exposure is bilateral. Each party to the contract may (and, if the contract has a long enough tenor, probably will) have a current credit exposure to the other party at various points in time over the contract's life. Moreover, 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 of time in the future.

The first step to measuring credit exposure in derivative contracts involves identifying those contracts where a bank would lose value if the counterparty to a contract defaulted today. The total of all contracts with positive value (i.e., derivatives 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., derivatives payables) to the bank is the gross negative fair value (GNFV) and represents a measurement of the exposure the bank poses to its counterparties.

\$ in billions	Gross Positive Fair Values				Gross Negative Fair Values			
	3Q11	2Q11	Change	%Change	3Q11	2Q11	Change	%Change
Interest Rates	4,735	3,047	1,688	55%	4,642	2,958	1,684	57%
FX	636	454	182	40%	603	438	165	38%
Equity	93	73	20	28%	87	73	14	20%
Commodity	66	55	10	19%	65	55	10	18%
Credit	490	313	177	57%	473	305	169	55%
Total	6,021	3,942	2,078	53%	5,871	3,829	2,041	53%

Gross positive fair values (i.e., derivatives receivables) increased 53%, or \$2.1 trillion, to \$6 trillion in the third quarter. Receivables from interest rate contracts, which make up 79% of gross derivatives receivables (and hence are the dominant source of credit exposure), increased 55%, or \$1.7 trillion. The large increase in receivables from interest rate contracts resulted from a sharp decline in market interest rates associated with increasing concerns about credit problems in Europe. The 10-year swap rate, for example, fell from 3.28% to 2.11% during the quarter. Because banks hedge the market risk of their derivatives portfolios, the increase in gross positive fair values was offset by a similar increase in gross negative fair values (i.e., derivatives payables). Derivatives payables increased 53%, or \$2 trillion, to \$5.9 trillion, led by a 57% increase in payables on interest rate contracts.

For a portfolio of contracts with a single counterparty where the bank has a legally enforceable bilateral netting agreement, contracts with negative values may be used to offset contracts with positive values. This process generates a "net" current credit exposure (NCCE), as shown in the example below:

Counterparty A Portfolio	# of Contracts	Value of Contracts	Credit Measure/Metric
Contracts With Positive Value	6	\$500	Gross Positive Fair Value
Contracts With Negative Value	4	\$350	Gross Negative Fair Value
Total Contracts	10	\$150	Net Current Credit Exposure (NCCE) to Counterparty A

A bank's net current credit exposure across all counterparties will therefore be the sum of the gross positive fair values for counterparties without legally certain bilateral netting arrangements (this may be due to the use of non-standardized documentation or jurisdiction considerations) and the bilaterally netted current credit exposure for counterparties with legal certainty regarding the enforceability of netting agreements.

Net current credit exposure is the primary metric used by the OCC to evaluate credit risk in bank derivatives activities. NCCE for insured U.S. commercial banks increased 39% (\$141 billion) to \$504 billion in the third quarter, as the \$2.1 trillion increase in gross receivables (GPFV) exceeded the \$1.9 trillion increase in the dollar amount of netting benefits. NCCE peaked at \$800 billion at the end of 2008, during the financial crisis, when interest rates had plunged and credit spreads were very high. NCCE during the third quarter of 2011 was the fourth highest on record, behind only the fourth quarter of 2008 and the first two quarters of 2009, at the peak of the financial crisis. Legally enforceable netting agreements allowed banks to reduce GPFV exposures by 91.6% (\$5.5 trillion) in the third quarter, up from 90.8% in the second quarter. The 91.6% netting benefit percentage is the second highest on record, trailing only the 91.9% from the second quarter of 2010, and precluded an even greater gain in NCCE.

\$ in billions	3Q11	2Q11	Change	%
Gross Positive Fair Value (GPFV)	6,021	3,942	2,078	53%
Netting Benefits	5,517	3,579	1,938	54%
Netted Current Credit Exposure (NCCE)	504	364	141	39%
Potential Future Exposure (PFE)	795	821	(26)	-3%
Total Credit Exposure (TCE)	1,299	1,185	114	10%
Netting Benefit %	91.6%	90.8%	0.9%	1%
10 Year Interest Swap Rate	2.11%	3.28%	-1.17%	-36%
Dollar Index Spot	78.6	74.3	4.3	6%
Credit Derivative Index - North America Inv Grade	134.4	92.7	41.6	45%
Credit Derivative Index - High Volatility	245.1	159.9	85.2	53%
Russell 3000 Index Fund (RAY)	666.0	790.0	(124.0)	-16%
Dow Jones-UBS Commodity Index (DJUBS)	140.2	158.1	(17.9)	-11%

Note: Numbers may not add due to rounding.

The second step in evaluating credit risk involves an estimation of how much the value of a given derivative contract might change in the bank's favor over the remaining life of the contract; this is referred to as the "potential future exposure" (PFE). PFE decreased 3% (\$26 billion) in the third quarter to \$795 billion, due to a decline in the notional amount of interest rate contracts. The total credit exposure (PFE plus the net current credit exposure) increased 10% in the third quarter to \$1.3 trillion.

The distribution of NCCE in the banking system is concentrated in banks/securities firms (55%) and corporations (38%). Exposure to hedge funds, sovereign governments and monoline financial firms is very small (7% in total). However, the sheer size of aggregate counterparty exposures results in the potential for major losses even in sectors where exposure is a small percentage of the total. For example, notwithstanding

the minimal share of NCCE to monolines, banks suffered material losses on these exposures during the credit crisis. Because banks have taken credit charges (via credit valuation adjustments) to completely write down their monoline exposures, current credit exposures to monolines are now virtually 0% of total net current credit exposure. Sovereign credit exposures are also a small component (5%) of net current credit exposure and, like monoline exposures, are largely unsecured. These exposures are an increasing area of focus for bank supervisors as they review counterparty credit risk.

Net Current Credit Exposure By Counterparty Type as a % of Total NCCE	Banks & Securities Firms	Monoline Financial Firms	Hedge Funds	Sovereign Governments	Corp and All Other Counterparties	Total
Total Commercial Banks	55%	0%	2%	5%	38%	100%
Top 5 Commercial Banks	57%	0%	2%	5%	36%	100%

A more risk sensitive measure of credit exposure would also consider the value of collateral held against counterparty exposures. Commercial banks with total assets greater than \$10 billion report the fair value of collateral held against various classifications of counterparty exposure.

Reporting banks held collateral against 64% of total NCCE at the end of the third quarter, down from 71% in the second quarter of 2011<sup>2</sup>. Credit exposures to banks/securities firms and hedge funds are well secured. Banks held collateral against 86% of their current exposure to banks and securities firms, down from 92% in the second quarter. Hedge fund exposures have always been very well secured, because banks take "initial margin" on transactions with hedge funds, in addition to fully securing any current credit exposure. In the third quarter, however, although coverage of hedge funds remains very high at 179% of current exposure, it did fall sharply from 294% in the second quarter, as hedge funds drew down idle balances to preserve liquidity and reduce their credit exposures to banks. Collateral coverage of corporate, monoline and sovereign exposures is much less than for financial institutions and hedge funds.

FV of Collateral to Net Current Credit Exposure	Banks & Securities Firms	Monoline Financial Firms	Hedge Funds	Sovereign Governments	Corp and All Other Counterparties	Overall FV/NCCE
Total Commercial Banks	86%	5%	179%	15%	32%	64%

Collateral quality held by banks is very high and liquid, with 78% held in cash (both U.S. dollar and non-dollar), and an additional 10% held in U.S. Treasuries and government agencies.

Fair Value of Collateral	Cash U.S. Dollar	Cash Other	U.S. Treas Securities	U.S. Gov't Agency	Corp Bonds	Equity Securities	All Other Collateral	Total
Collateral Composition (%)	46.9%	31.3%	3.4%	7.0%	0.4%	0.6%	10.5%	100.0%

During the third quarter, concerns about the credit quality of European banks and sovereign debt, as well as the deteriorating outlook for global economic growth, created significant uncertainty, and volatility, in financial markets. Credit spreads increased and market participants became less willing to assume each other's credit risks. Investors aggressively bought government bonds in markets, like the United States and Germany, in a flight-to-quality. Investor preference for the safest assets drove key interest rates lower, which caused sharp increases in derivatives receivables and NCCE. Key credit performance metrics for derivatives reflect the deteriorating environment at the end of the third quarter, in both past due derivatives contracts and charge-offs. The fair value of derivatives contracts past due 30 days or more increased 141% to \$77 million. Notwithstanding this large increase, past-due derivative contracts represented only 0.02% of NCCE. Banks charged-off \$89 million in derivatives receivables in the third quarter, up from \$71 million in the second quarter. In addition, this report restates first quarter charge-offs, which were originally reported as \$74 million. Amended regulatory reports now show actual charge-offs to be \$1.6 billion. The large increase in charge-offs in the first quarter reflects the settlement of hedging transactions with a monoline insurer covering commercial mortgage-backed securities. As noted above, these monoline exposures had been written down via credit valuation adjustments, expenses similar to loan loss provisions, to reflect the credit deterioration of the counterparty. The large, revised, first quarter charge-off of a nearly-fully reserved exposure therefore had a de minimis financial statement impact.

<sup>2</sup> Some of the collateral figures for 2Q11 have been restated due to amended call reports.

In the third quarter, 22 banks reported charge-offs of derivatives exposures, down from 23 in the second quarter. Charge-offs in the third quarter of 2011 represented 0.02% of the net current credit exposure from derivative contracts, the same as in the second quarter. [See Graph 5c.] For comparison purposes, Commercial and Industrial (C&I) loan net charge-offs increased \$7 million, less than 1%, to \$2.3 billion, in the third quarter. Net C&I charge-offs were 0.19% of total C&I loans in the third quarter, down from 0.20% in the second quarter.

The level of charge-offs of derivatives credit exposures is typically much less than for C&I exposures. Two factors account for the historically favorable charge-off performance of derivatives. First, the credit quality of the typical derivatives counterparty is higher than the credit quality of the typical C&I borrower. Second, most of the large credit exposures from derivatives, whether from other dealers, large non-dealer banks, or hedge funds are collateralized daily, typically by cash and/or government securities. The large first quarter charge-off, which nearly doubled the previous peak of \$847 million in the fourth quarter of 2008, represented the lingering effect of legacy credit exposures associated with the financial crisis, as banks continue to negotiate settlements with their monoline counterparties. Unlike most participants in the derivatives market, monoline financial insurers did not post collateral to secure their exposures. The unsecured nature of these exposures explains the large first quarter write-off. To the extent banks have fully reserved these exposures via credit valuation adjustment charges, however, recognizing the charge-off does not have a material financial statement or earnings impact.

## **Market Risk**

Banks control market risk in trading operations primarily by establishing limits against potential losses. Value-at-Risk (VaR) is a statistical measure that banks use to quantify the maximum expected loss, over a specified horizon and at a certain confidence level, in normal markets. It is important to emphasize that VaR is not the maximum potential loss; it provides a loss estimate at a specified confidence level. A VaR of \$50 million at 99% confidence measured over one trading day, for example, indicates that a trading loss of greater than \$50 million in the next day on that portfolio should occur only once in every 100 trading days under normal market conditions. Since VaR does not measure the maximum potential loss, banks stress test trading portfolios to assess the potential for loss beyond the VaR measure. Banks and supervisors have been working to expand the use of stress analyses to complement the VaR risk measurement process that is typically used when assessing a bank's exposure to market risk.

\$ in millions	JPMorgan Chase & Co.	Citigroup Inc.	Bank of America Corp.	The Goldman Sachs Group	Morgan Stanley
Average VaR 3Q11	\$53	\$224	\$164	\$102	\$130
Average VaR 2Q11	\$58	\$184	\$229	\$101	\$145
Change in Avg VaR 3Q11 vs 2Q11	(\$5)	\$40	(\$66)	\$1	(\$15)
% Change in Avg VaR 3Q11 vs 2Q11	-9%	22%	-29%	1%	-10%
9-30-11 Equity Capital	\$182,287	\$177,372	\$230,252	\$70,088	\$61,828
2010 Net Income	\$17,370	\$10,602	(\$2,238)	\$8,354	\$4,703
Avg VaR 3Q11 / Equity	0.03%	0.1%	0.1%	0.1%	0.2%
Avg VaR 3Q11 / 2010 Net Income	0.3%	2.1%	-7.3%	1.2%	2.8%

Data Source: 10K & 10Q SEC Reports.

The large trading banks disclose average VaR data in published financial reports. To provide perspective on the market risk of trading activities, it is useful to compare the VaR numbers over time, and to equity capital and net income. As shown in the table above, market risks reported by the five largest banking companies, as measured by VaR, are small as a percentage of their capital. Because of mergers, and VaR measurement systems incorporating higher volatility price changes throughout the credit crisis (compared to the very low volatility environment prior to the crisis), bank VaR measures had generally increased throughout the credit crisis. After the peak of the financial crisis, as more normal market conditions emerged and volatility declined, bank VaR measures have broadly trended lower.

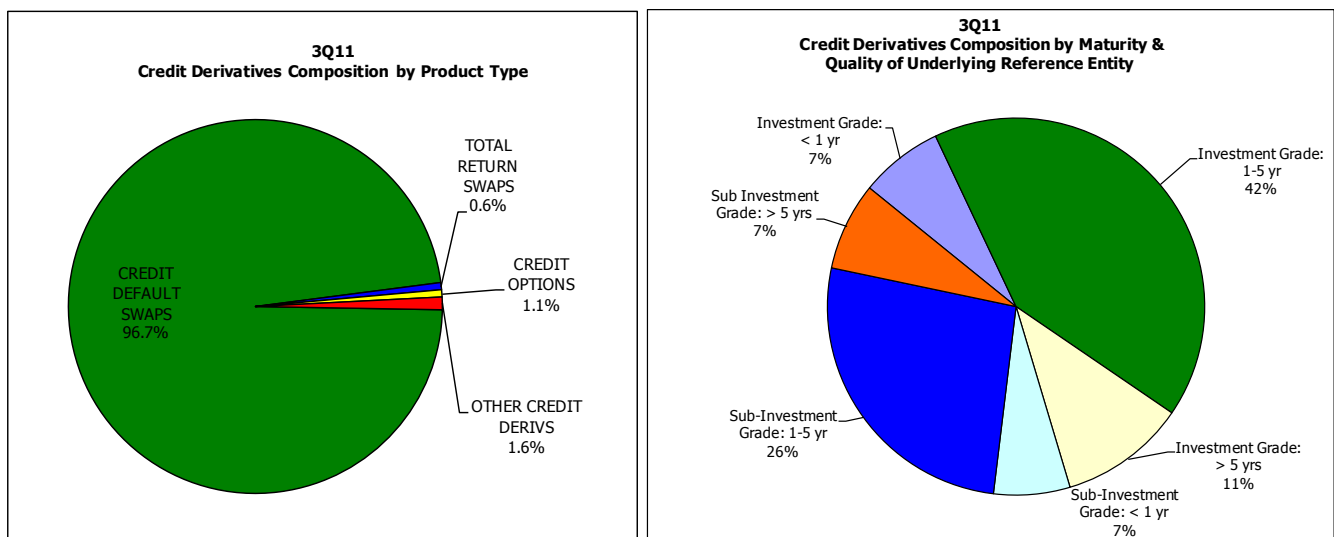
Aggregate VaR measures fell during the third quarter at the major dealers, notwithstanding an increase in financial markets volatility, as dealers actively worked to reduce risk given the backdrop of European sovereign and financial institution credit concerns. Aggregate average VaR at the five large dealer banking companies of \$673 million fell 6.1% from the second quarter, and was 8.8% lower than in the third quarter of 2010.

Because of methodological differences in calculating VaR, readers are cautioned that a higher VaR figure at a particular bank may not necessarily imply that the bank has more trading risk than another bank with a lower VaR. For example, JP Morgan, Goldman Sachs and Morgan Stanley calculate VaR using a 95% confidence interval. If those firms used a 99% confidence interval, as does Bank of America and Citigroup, their VaR estimates would be meaningfully higher. The data series used to measure risk also is an important factor in the calculated risk measure. Firms using a longer period over which to measure risk may include the higher volatility period of the financial crisis, and therefore their measured VaR will be higher than firms that use a less volatile data series. Indeed, one major reason for the decline in VaR at large trading firms is the lower volatility environment that has prevailed since the end of the financial crisis. The VaR measure for a single portfolio of exposures will be different if the time period used to measure risk is not the same.

To test the effectiveness of VaR measurement systems, trading institutions track the number of times that daily losses exceed VaR estimates. Under the Market Risk Rule that establishes regulatory capital requirements for U.S. commercial banks with significant trading activities, a bank’s capital requirement for market risk is based on its VaR measured at a 99% confidence level and assuming a 10-day holding period. Banks back-test their VaR measure by comparing the actual daily profit or loss to the VaR measure. The results of the back-test determine the size of the multiplier applied to the VaR measure in the risk-based capital calculation. The multiplier adds a safety factor to the capital requirements. An “exception” occurs when a dealer has a daily loss in excess of its VaR measure. Some banks disclose the number of such “exceptions” in their published financial reports. Because of the unusually high market volatility and large write-downs in CDOs during the financial crisis, as well as poor market liquidity, a number of banks experienced back-test exceptions and therefore an increase in their capital multiplier. Currently, however, none of the large dealer banks hold additional capital for market risk based upon an increased multiplier, as the incidence of back-test exceptions no longer requires it.

## Credit Derivatives

Credit derivatives rose 3% in the third quarter to \$15.7 trillion. Credit derivatives outstanding remain below the peak of \$16.4 trillion in the first quarter of 2008. From year-end 2003 to 2008, credit derivative contracts grew at a 100% compounded annual growth rate. Industry efforts to eliminate offsetting trades (“trade compression”), as well as reduced demand for structured products, has led to a decline in credit derivative notionals. Tables 11 and 12 provide detail on individual bank holdings of credit derivatives by product and maturity, as well as the credit quality of the underlying reference entities. As shown in the first chart below, credit default swaps are the dominant product at 97% of all credit derivatives notionals. [See charts below, Tables 11 and 12, and Graph 10.]



Data Source: Call Reports. Note: Beginning 1Q07, credit exposures are broken out as a separate category.

Contracts referencing investment grade entities with maturities from 1-5 years represent the largest segment of the market at 42% of all credit derivatives notionals, down from 43% at end of the second quarter of 2011.



Contracts of all tenors that reference investment grade entities are 60% of the market, the same as in the second quarter. [See chart on right above.]

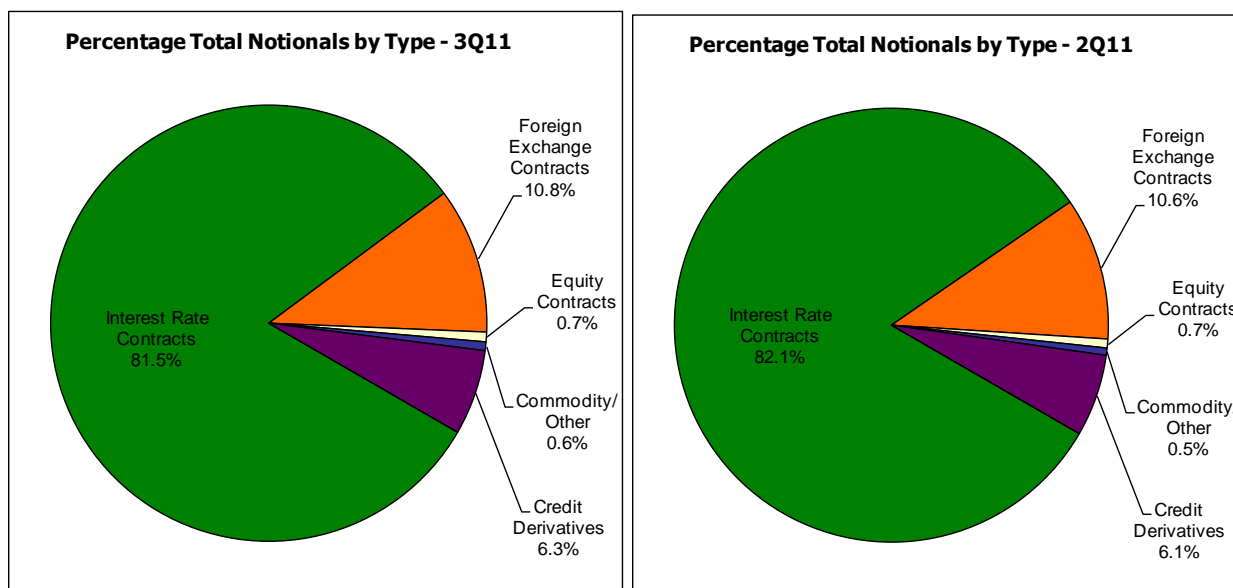
The notional amount for the 35 insured U.S. commercial banks that sold credit protection (i.e., assumed credit risk) was \$7.7 trillion, up 2.7% (\$202 billion) from the second quarter. The notional amount for the 30 banks that purchased credit protection (i.e., hedged credit risk) was \$7.9 trillion, an increase of 3% (\$232 billion). [See Tables 1, 3, 11 and 12 and Graphs 2, 3 and 4.]

## **Notionals**

Changes in notional volumes are generally reasonable reflections of business activity, and therefore can provide insight into potential revenue and operational issues. However, the notional amount of derivatives contracts does not provide a useful measure of either market or credit risks.

The notional amount of derivatives contracts held by insured U.S. commercial banks in the third quarter fell by \$1.4 trillion (0.6%) to \$248 trillion from the second quarter. Derivatives notionals fell due to a 1% (\$2.5 trillion) drop in interest rate contracts, a reflection of both declining client activity in the third quarter, as well as industry trade compression exercises, which reduce the volume of existing contracts. The notional amount of derivatives is 5.7% higher than a year ago.

The five banks with the most derivatives activity hold 96% of all derivatives, while the largest 25 banks account for nearly 100% of all contracts. [See Tables 3, 5 and Graph 4.]



Data Source: Call Reports.

Note: Beginning 1Q07, credit exposures are broken out as a separate category.

Interest rate contracts comprise 82% of total derivatives. FX and credit derivatives are 11% and 6%, respectively, of total notionals.

\$ in billions	3Q11	2Q11	\$ Change	% Change	% of Total Derivatives
Interest Rate Contracts	202,107	204,620	(2,513)	-1%	81.5%
Foreign Exchange Contracts	26,795	26,483	312	1%	10.8%
Equity Contracts	1,786	1,654	131	8%	0.7%
Commodity/Other	1,602	1,352	250	19%	0.6%
Credit Derivatives	15,661	15,227	434	2.8%	6.3%
Total	247,952	249,337	(1,386)	-0.6%	100%

Swap contracts, at 63% of total notional derivatives, unchanged from the second quarter, continue to represent the bulk of derivative contracts.

\$ in billions	3Q11	2Q11	\$ Change	% Change	% of Total Derivatives
Futures & Forwards	39,791	41,097	(1,306)	-3%	16%
Swaps	156,132	156,054	78	0%	63%
Options	36,368	36,958	(590)	-2%	15%
Credit Derivatives	15,661	15,227	434	3%	6%
Total	247,952	249,337	(1,386)	-0.6%	100%

## **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 means that a bank's receivable or payable, 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.

**Credit Derivative:** A financial contract that allows a party to take, or reduce, credit exposure (generally on a bond, loan or index). Our derivatives survey includes over-the-counter (OTC) credit derivatives, such as credit default swaps, total return swaps, and credit spread options.

**Derivative:** A financial contract whose value is derived from the performance of underlying market factors, such as interest rates, currency exchange rates, commodity, credit, and equity prices. Derivative transactions include a wide assortment of financial contracts including structured debt obligations and deposits, swaps, futures, options, caps, floors, collars, forwards and various combinations thereof.

**Gross Negative Fair Value:** The sum total of the fair values of contracts where the bank owes money to its counterparties, without taking into account netting. This represents the maximum losses the bank's counterparties would incur if the bank defaults and there is no netting of contracts, and no bank collateral was held by the counterparties. Gross negative fair values associated with credit derivatives are included.

**Gross Positive Fair Value:** The sum total of the fair values of contracts where the bank is owed money by its counterparties, without taking into account netting. This represents the maximum losses a bank could incur if all its counterparties default and there is no netting of contracts, and the bank holds no counterparty collateral. Gross positive fair values associated with credit derivatives are included.

**Net Current Credit Exposure (NCCE):** For a portfolio of derivative contracts, NCCE is the gross positive fair value 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.

**Over-the-Counter Derivative Contracts:** Privately negotiated derivative contracts that are transacted off organized exchanges.

**Potential Future Exposure (PFE):** An estimate of what the current credit exposure (CCE) could be over time, based upon 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 upon the underlying market factor (e.g., interest rates, commodity prices, equity prices, etc.) and the contract's remaining maturity. However, the risk-based capital rules 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 uses the amounts upon which banks hold risk-based capital.

**Total Credit Exposure (TCE):** The sum total of net current credit exposure (NCCE) and potential future exposure (PFE).

**Total Risk-Based Capital:** The sum of tier 1 plus tier 2 capital. Tier 1 capital consists of common shareholders' equity, perpetual preferred shareholders' equity with noncumulative dividends, retained earnings, and minority interests in the equity accounts of consolidated subsidiaries. Tier 2 capital consists of subordinated debt, intermediate-term preferred stock, cumulative and long-term preferred stock, and a portion of a bank's allowance for loan and lease losses.