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Derivatives: A Broader Industry Issue

Through the New York Bankers Association, large banks and small close ranks around broad issues of significance to the financial system. I am pleased to discuss one such issue with you today: the supervision of bank derivatives activities.

Now, while I still have your attention, let me be quick to say that this is an issue of importance to the entire financial services industry – it is not limited to the small number of financial institutions that are active traders of these instruments, or even to the appreciably larger number that use derivatives as a risk management tool. As the OCC's most recent quarterly report on the subject shows, nearly one in six national banks uses derivatives to control and reduce uncertainty and risk.

Derivatives enable banks of all sizes to disaggregate the risks that are found in financial instruments and services, and to transfer those risks to parties who are more willing, or better suited, to assume or manage them. For example, banks large and small use derivatives to achieve a desired interest rate risk profile and, more recently, to hedge the cost of issuing deposits whose returns are linked to equity prices. Moreover, collateralized debt obligations – investment products backed by commercial loan or bond exposures, or derivatives based on them – show up even in community bank investment portfolios. Derivatives can be very effective tools to manage risk, and the OCC supports their use by national banks, provided that they use them in a safe and sound manner.

Whether or not bankers use derivatives directly in their own operations, these financial instruments have clearly changed the world in which all banks operate. For example, one reason hedge funds and other non-traditional lenders are interested in participating in traditional bank markets such as the syndicated loan market is because they can use derivatives to hedge their exposures. The OCC's 2006 Underwriting Survey provides evidence that hedge fund purchases of syndicated loans has contributed significantly to margin compression and relaxed lending standards in this market, and this pressure has steadily trickled down to the segments where community banks earn their bread and butter: in the middle market and in commercial real estate.

In short, you don't have to be a user of derivatives to be affected by them.

Having said that, there's no denying that the business of dealing in derivatives is a business largely dominated by large financial institutions, including large national banks supervised by the OCC. U.S. commercial banks represent some 20 percent of the total global deal volume in derivatives; of that share, the five largest institutions – all national banks – account for 97 percent of the total notional amount, 94 percent of total revenues, and 88 percent of net credit exposures.

For the banks that rely on them most heavily, derivatives are not only essential risk management instruments, but key contributors to the bottom line. Trading in cash and derivatives instruments will likely generate more than \$15 billion in revenue this year for commercial banks – an important earnings source in an important market niche for commercial banks seeking to compete with investment banks, insurance companies, and other capital market participants.

But while these revenue numbers are impressive, as a regulator we are careful to ask this question: in their reach for earnings, are banks doing anything that would compromise their safety and soundness or increase systemic risk? In other words, are they overreaching?

To answer that question, of course, we have to begin with a meaningful assessment of the amount of risk that banks are assuming. Unfortunately, the one measure of derivatives activity that garners the most media attention – because the numbers are eye-popping – is not especially meaningful. That is the total notional amount of derivatives outstanding, which for U.S. commercial banks at the end of the second quarter was \$119 trillion. A staggering number, to be sure, but while notional amounts might be a useful measure of business volume in some sense, they tend not to be very useful indicators of risk.

A better place to begin our focus, we believe, is on net current credit exposure, or the amount that would be owed to banks if all of their derivatives contracts were immediately liquidated. According to our quarterly derivatives report, that exposure was \$199 billion at the end of the second quarter. The top three dealer banks have \$150 billion in net current credit exposure, or 75 percent of that total, illustrating the concentration risk that many analysts have noted.

Needless to say, these numbers are quite a bit smaller than the trillions of dollars in corresponding notional value that I just mentioned. But they are by no means small. To put these numbers into perspective, let's look at how these derivative credit exposures compare to commercial and industrial loan exposures. At the three largest bank derivatives dealers, derivatives net current credit exposure is equivalent to 46 percent of the total value of their C&I loans. In other words, the derivatives business creates a very large credit portfolio –

nearly half the size of the existing commercial loan book – and such a large and concentrated credit exposure has the potential to affect both markets and systemic stability.

How these banks manage those risks is a matter of more than passing concern to every banker, large or small, regardless of whether that banker makes use of derivatives routinely, casually, or not at all. Why? Because significant mismanagement of these risks could precipitate market disruptions that affect public confidence in financial institutions generally.

The banking system has come a very long way since the early 1990s, when banks were failing, credit was in short supply, and the economy suffered as a result. Today, as New York Fed president Tim Geithner put it, investors and depositors run to banks in times of crisis, not away from them. The banking system has become a safe harbor of public confidence. That's largely because the public and private sectors have worked together over the years to encourage innovation, structural flexibility, competition, solid capital and risk management, and high prudential standards.

It's an impressive accomplishment. But it's an accomplishment we have to work to protect, including with respect to the supervision of financial derivatives. In this context, constructive cooperation between government and the industry is essential if we are to meet the challenges of maintaining financial stability. To further that goal, the supervisory tools available to us today are more sophisticated than they were just a few years ago. And we have new mechanisms for coordinating activities among the supervisory agencies to ensure that information is properly shared, and financial supervision is as seamless as our current arrangements will allow. In a financial world where the lines between different types of

providers are increasingly blurred and cross-border access to capital is increasingly free, this interagency and intergovernmental cooperation is more important than ever.

Let me cite two notable examples. The first is the President's Working Group on Financial Markets, which has come to play a pivotal role as a deliberative and coordinating body. Chaired by the Treasury Department, this cross-functional group of banking, securities, and commodities regulators has enhanced the integrity, efficiency, orderliness, and competitiveness of our nation's financial markets and has helped maintain investor confidence. Secretary Paulson has emphasized the important work of this group from his earliest days on the job, and we at the OCC participate as the primary supervisor of the largest U.S. commercial banks that are the most active derivatives traders in the banking system.

The second example is the cooperation between market participants and supervisors. Indeed, the impetus for addressing operational issues in connection with the rising volume of credit derivatives contracts has come as much from the industry as from the regulatory community. As many of you know, a 2005 industry report highlighted these infrastructure weaknesses at a time when such practices were undergoing increasing scrutiny by their regulators. Since then, fifteen financial supervisors from this country and around the world have been working with the major trading institutions to improve automation and efficiency in trade processing, and the progress has been significant.

When all is said and done, however, the OCC contributes most importantly to the effort to address derivatives risk through our direct supervisory work at national banks. I'd now like to say a few words about how we do that.

OCC Supervision of Derivatives

The OCC brings long experience to the supervision of derivatives. We led the way among the federal banking agencies when the OCC appointed a Senior Deputy Comptroller for Capital Markets to oversee our entire derivatives supervisory effort in 1993. OCC examiners conducted our first horizontal review of derivatives activities in 1994, utilizing what was then new supervisory guidance that set forth the risk management practices required to conduct the derivatives business in a safe and sound manner. In subsequent years much additional guidance followed, including extensive questions and answers on our supervisory expectations, and other examiner handbooks and issuances to the industry. Our quarterly analysis of the derivatives market, which began in 1994, is now in its twelfth year, and is widely respected for its authoritative statistical and analytical presentation.

We believe that the OCC's paradigm for large bank supervision provides us with especially useful insights into conditions in derivatives markets. More than other agencies, domestic or foreign, our particular supervisory approach involves the continuous, on-site presence of large teams of examiners at each of our largest banks – teams that include derivatives, credit, and capital markets specialists. This approach, we believe, facilitates the ability of our supervisors to acquire a close understanding of the bank's culture and its attitude toward risk and risk management; to evaluate the credit, market, operational, reputation, and compliance risks in the derivatives portfolio of the largest trading banks; to communicate concerns directly to senior management; and to achieve timely and effective corrective action as needed.

In terms of derivatives supervision, I would like to describe today three focal points for the OCC: price risk, credit risk, and operational risk. In terms of price risk, banks can and do take positions in cash and derivatives markets in an effort to generate trading profits.

By definition, banks engaging in such activities assume the risk of movements in market prices and volatilities, and of course, that can result in substantial losses depending on the size of the exposure.

Historically, however, we have observed only four instances since 2000 when one of our top five trading banks recorded a quarterly trading loss. All of these were relatively small, and none involved the three largest bank dealers. Put another way, we have more than 100 observations of quarterly results, with only four instances, or four percent, of net losses. The infrequent incidence of such losses reflects in part the internal limits that dealer banks use to keep price risk exposures at relatively small percentages of earnings and capital, and in part the substantial stream of revenue generated from dealer spreads on individual derivatives transactions.

Notwithstanding this history of low trading losses, our examiners still spend a substantial amount of time addressing price risks taken by dealer banks. Our concern is that, even with prudent internal limits, a bank's risk profile can change very quickly in the event of a market disruption, with the potential for losses far exceeding such limits. And while large dealer banks tend not to post net trading losses over an entire quarter, they can and do suffer losses during shorter periods, and therefore our examiners continue to focus on price risk exposures.

Now, while banks generally assume only modest price risk exposures relative to earnings and capital, the same cannot be said about credit risk. Indeed, for our dealer banks, the business of derivatives is at its core very much the business of extending credit. As a result, we focus on the terms and conditions of the credit risks dealer banks assume in this

business in ways that are similar, but not identical, to the ways we focus on large bank credit risk more generally.

As I've already noted, at \$199 billion, the net current credit exposure numbers in the banking system are very large. But it is important to recognize that banks actively secure much, and sometimes all, of such exposures with high quality collateral, or margin, to mitigate this risk. While the banking agencies do not collect collateral data in the Call Reports, we have observed from our examinations that the aggregate amount of such collateral is about 30 to 40 percent of net current credit exposure. And with highly leveraged counterparties such as hedge funds, the amount of such collateral typically is well in excess of 100 percent of such exposure.

Moreover, in these collateralized relationships, the amount of collateral or margin – typically cash or government securities – is generally adjusted daily based on daily changes in net current credit exposure. For example, if the value of that exposure increases, and the collateral is no longer sufficient, the bank makes a margin call for more collateral. Of course, it is always possible in volatile markets for an increase in credit exposure to occur so quickly and in such magnitude that the bank's counterparty would be unable to meet the margin call and provide the required collateral. To account for that very possibility, banks typically require hedge funds to post in advance an extra cushion of collateral, or "initial" margin, to help limit the effect of sudden, significant increases in credit exposure. In this way, even if a hedge fund defaulted on a margin call, the extra protection provided by initial margin helps shield the dealer from loss.

In sum, the very large amount of net current credit exposures arising from derivatives activities of large banks is not quite as worrisome as it may first appear. Indeed,

collateralization and the relatively higher credit quality of derivatives counterparties help explain why credit losses from derivatives counterparty credit risk are fairly low and, as a percentage of exposures, much lower than we see for C&I loans.

Nevertheless, derivatives credit exposure remains a real and quite significant risk. Fierce competition can have the effect of reducing the level of collateral protection that banks require. Unexpected market disruptions or other stress events can produce dramatic increases in credit exposures that can blow through the collateral required for more predictable market scenarios. Many derivatives counterparties are highly leveraged, producing less room for error in credit judgments. And the balance sheets of such counterparties are frequently opaque, making it impossible for bank dealers to assess risks embedded in “away trades” that don’t involve that bank. For all these reasons, we and other regulators will continue to closely monitor margin levels, stress testing, scenario analysis, and other tools that derivatives dealers need to use effectively to manage derivatives credit risk.

A third derivatives risk that very much commands the attention of our examiners is operational risk – the risk that arises from trade and settlement processing. As I alluded to earlier, this risk has surfaced most prominently in the rapidly expanding market for credit derivatives. We found that the processing infrastructure for these often sophisticated risk management products was decidedly unsophisticated and “low tech,” with significant manual trade confirmations in a high volume business. As a result, we observed an unacceptably high volume of unconfirmed transactions and undisclosed trade assignments – a practice where a hedge fund counterparty arranges for another dealer to assume its position without informing the derivatives dealer.

To address these very real operational risk concerns, the industry has made substantial progress toward eliminating unconfirmed trade backlogs and modernizing trade processing and settlement systems. But the problems with credit derivatives infrastructure vividly demonstrates that efficient back-office systems are crucial to the effective functioning of a derivatives business. Such systems depend on personnel who understand derivatives and have the technical abilities that enable them to communicate with front-office traders. Thus, for high-volume trading operations – where operational risk can be especially serious – OCC examiners will continue to monitor performance measures such as disputed, unconfirmed, and failed trades, and will continue to examine the underlying processing systems to better assess that operation's efficiency.

Concentration of Derivatives Dealers

Let me conclude by briefly touching on one related point: the concentration of derivatives dealer activities among banks. The rapid growth of derivatives generally and credit derivatives in particular, and the dominance of a few large banks, would normally raise supervisory concerns about market and portfolio concentrations. We generally would have concerns if a handful of large banks so dominated the market for any product that other providers found it difficult to enter and compete in that market, to the possible disadvantage of customers and counterparties. And of course, as supervisors, we always take notice when a credit product constitutes a significant multiple of a bank's capital.

But derivatives aren't like other products. Trading in these complex instruments is not a business that lends itself to entry by small firms. It requires highly skilled personnel and advanced technology to support the requisite risk management infrastructure. Given the resource commitment necessary to conduct a derivatives business in a safe and sound

manner, and the critical importance of credit quality to assure performance on contracts, it is understandable that derivatives activity is concentrated in those few institutions with the requisite credit strength and scale required to effectively compete.

Moreover, the derivatives dealer market is in fact an intensely competitive one, with large U.S. commercial banks competing not only against foreign banks, but also against investment banks and insurance companies, both U.S. and foreign. At present, although the choices are relatively few if a counterparty were intent on dealing with a U.S. commercial bank, there is no shortage of trading counterparties in the derivatives market generally.

And of course, we supervise large dealer banks with the goal of ensuring that they are well capitalized and have the necessary expertise, personnel, and resources to manage their derivatives effectively – a process that also should help mitigate concentration risk.

Thank you for your patience today in listening to my remarks on a topic that, while seemingly disconnected from most of your day-to-day activities, is really very important to all of us. With that, I would be happy take your questions.