

Questions and Answers for BC-277: Risk Management of Financial Derivatives

Background

1. What exactly are the risks posed to banks by financial derivative instruments?

Credit Risk

The risk of loss if a counterparty defaults on a contract and at the time of default the contract has a positive mark-to-market value for the nondefaulting party. Prior to maturity, credit risk also includes an amount in excess of the then current mark-to-market value, reflecting the likelihood that a derivative instrument will attain even higher mark-to-market values prior to its maturity (also referred to as "pre-settlement risk"). Some derivative instruments also pose "settlement risk," which is the short-term risk (less than 24 hours) a bank faces when it has performed its obligations under a contract, but has not yet received value from its counterparty.

Market Risk

The risk of loss associated with a decline in the value of a derivative instrument, and/or the decline in the value of a portfolio if the portfolio is unhedged or imperfectly hedged. Such declines result when the value of the underlying assets, securities, or rates moves in a direction that reduces the value of a derivative instrument.

Liquidity Risk

The risk that a bank will be unable to meet its net funding requirements. For derivative instruments, a high degree of mathematical sophistication and frequent updates is necessary in order to assess future cash flow patterns. Consequently, it can be difficult for a bank to control the amount and timing of future payment obligations or receipts associated with derivative instruments.

Liquidity risk also includes situations in which a market participant cannot execute a transaction at a fair price because of wide bid-ask spreads, meaning that a bank would have less certainty about the true value of the instrument. This risk is particularly important in highly structured or customized transactions, because it may be difficult to locate a counterparty to enter into a transaction in a timely manner.

Operational Risk

The risk associated with human error, system failures, or inadequate procedures and controls. This risk is exacerbated in the case of certain financial derivative instruments because of the complex nature of their payment structures and the calculation of their values.

Systemic Risk

The risk that financial difficulties in one institution or a major market disruption will cause uncontrollable financial harm to other institutions or prevent the effective operation of the financial system generally.

Legal Risk

The risk that a transaction is not valid and enforceable under applicable law. Over-the-counter derivative instruments, rather than exchange-traded instruments, have generally been the focus of this risk; however, the risk with respect to these transactions has been reduced due to the exemption from the Commodity Exchange Act granted by the CFTC after the passage of the Futures Trading Practices Act of 1992.

In addition, legal risk arises from concern about whether netting arrangements contained in standard derivative products master agreements would be honored in the event of a counterparty's default, receivership or bankruptcy, or that a party is unable to pursue other rights provided for in the agreement.

Legal risk also refers to situations when a bank's customer does not have the power and authority to engage in derivative transactions.

Reputation Risk

The risk that a bank might lose a client, or its ability to compete effectively for new clients, due to perceptions that the bank does not deal fairly with clients or that it does not know how to properly manage its derivatives business.

The above risks, although defined individually, are often realized simultaneously (i.e., risks may be interconnected). This is particularly true when there is a structural realignment of market prices in a given marketplace (e.g., the September 1992 currency crisis in the European Exchange Rate Management (ERM) system). During such periods, there can often be a concurrent increase in market risk, a reduction in market liquidity, and an increase in credit risk, all of which increase systemic risk.

2. Have derivatives activities increased systemic risk?

Systemic risk can arise from many sources, including derivatives activities. Derivatives are not the sole, or even the principal, source of systemic risk in financial markets. However, the possibility of systemic disruptions has perhaps increased in recent years as a result of the combination of two factors: (1) rapid growth in volume and complexity of derivatives, and (2) rapid improvements in technology and telecommunications which have increased the sensitivity of the financial system to shocks.

As BC-277 describes, institutions engaging in derivatives activities take on a variety of risks (i.e., market, credit, liquidity, operational, and legal risks), and derivatives transactions allow those risks to be linked in multiple and complex ways. Consequently, it has become more difficult to evaluate the ultimate risk exposure posed by derivatives transactions. This problem is compounded because financial shocks can now spread more rapidly across markets. Banks can reduce the potential for losses posed by derivatives, taken singly or in combination, by adopting the sound risk management principles contained in BC-277.

The OCC believes that the best defense against systemic risk is for derivative participants to implement effective risk management systems that include limits and controls on interconnected risk and the ability to monitor the exposure resulting from the covariance between one or more market risk factors. The OCC believes BC-277 provides guidelines that represent prudent practices that can foster such risk management systems.

3. How does BC-277 address the risks described above?

The OCC believes that the best defense against sizeable individual losses or significant systemic disruptions is the implementation and use by individual banks of sound and efficient risk management processes. Such processes for managing credit, market, liquidity, operational, and legal risks should prevent significant losses due to counterparty failure or adverse changes in market conditions. Open and timely communications between trading, support, and risk management units are essential.

BC-277 provides guidelines on risk management practices for national banks engaging in financial derivatives activities. The guidelines represent prudent practices that will enable a bank to conduct financial derivatives activities in a safe and sound manner. National banks engaged in financial derivatives transactions are expected to follow the guidelines and will be examined accordingly.

4. What does BC-277 mean when it says that the guidelines represent sound procedures for risk management generally, and "should be applied to all of a bank's risk taking activities"?

The Circular outlines broad principles for effective risk management. Banks assume credit, market, legal, liquidity, and operational risks in all aspects of their business, not just in derivatives activities. Prudent management of a bank begins with effective senior management and board oversight. The board should determine how much risk (credit, market, liquidity, legal) the bank will take in all of its business units, and establish policies that limit that risk and provide for a reporting mechanism to determine compliance with such limits. The aggregate risk the bank assumes across all of its business units should be reasonable in relation to its earnings and capital levels, and within management's ability to measure and manage it.

Effective audit coverage and adequate separation of duties (independence), as required in BC-277, are applicable not only to derivatives activities, but all of a bank's risk management activities.

Banks should assess risks across all of their business activities, using the general principles outlined in BC-277, and not limit them strictly to derivatives activities.

5. In view of the applicability of BC-277's guidelines to "all of a bank's risk-taking activities," what does a bank have to do to comply?

Banks must establish an effective overall risk management program. Such a program includes policies that limit the various types of risks incurred, systems that measure the risks, and a reporting process that ensures that the risks are within the limits authorized by the board.

6. What is the relationship between BC-277 and the activities of the inter-agency task force that Comptroller Ludwig called for on September 27, 1993?

The informal inter-agency group called for by the Comptroller has the following goals: to share information on the extent of banks' involvement in derivatives activities; to address accounting and disclosure issues; to discuss ways of achieving greater cooperation in the examination process; and to review and evaluate procedures for risk valuation, pricing and stress testing. The inter-agency group is focusing on promoting inter-agency coordination on derivatives policy and continuing to address accounting and disclosure issues.

7. How does BC-277 differ from the G30's "Derivatives: Practices and Principles?"

The G30 study was written by private market participants and includes a comprehensive industry survey. The study offers a list of 20 recommendations that form a set of industry best practices. Alternatively, the OCC, a bank supervisory agency, wrote BC-277. As such, each document has a somewhat different perspective.

Generally, both documents provide comprehensive discussions of prudent practices for participants in derivatives markets, including recommendations for market, credit, liquidity, and operations risk management systems. However, BC-277 is more stringent than the G30 study in a number of areas. For example, BC-277 recommends that banks establish limits and other controls on interconnected risk positions (i.e., two or more risk positions that are correlated and would be expected to change in value due to a change in the same market factors -- See question 27 and question 28). BC-277 also states that dealer banks should identify if a derivative transaction is consistent with a counterparty's policies and procedures as they are known to the bank. BC-277 states that banks engaged in significant trading activities should consider having an internal transfer pricing system that incorporates a charge for liquidity usage. Also, BC-277

states that a bank should reasonably satisfy itself that the terms of any contract governing its derivatives activities with a counterparty are legally sound.

8. When will BC-277 be effective?

BC-277 became effective when it was issued on October 27, 1993.

9. What will be the practical result for a bank of not following BC-277?

BC-277 sets forth safe and sound standards for a bank's derivatives activities. As a practical matter, failure to comply with the provisions of the Circular could expose a bank to unacceptable losses to derivative-related income and reductions to capital, which could ultimately lead to the failure of the bank. Banks should perform a self-assessment of their current practices relative to BC-277's requirements. Each bank should develop an action plan to correct areas of non-compliance.

The OCC will work with banks to address deficiencies in compliance with the Circular. To the extent that banks engage in unsafe and unsound activities by failing to comply with BC-277, the OCC may enforce the standards via available administrative remedies, such as cease and desist orders, civil money penalties, etc.

10. If a bank is not in compliance with several standards in BC-277, which standards should take priority?

All of the standards are important, and depending upon the condition of markets, the condition of the bank and the bank's counterparties, any of them might be considered "most important" at a particular time. Consequently, OCC expects banks to comply with each standard contained in BC-277 to the extent that a standard could be viewed as being relevant to a bank's business activities.

11. Are exchange-traded futures and futures options covered by BC-277?

Yes. Although much of BC-277 was written with OTC derivatives in mind, the safety and soundness standards contained throughout the document apply to all derivatives activities and to all banking activities, to the extent possible.

12. The circular refers to financial contracts, including "swaps, forwards, futures, options, caps, floors, collars, and various combinations thereof." Is this intended to include forward foreign exchange transactions?

The definition of derivatives in BC-277 specifically includes forwards. As a consequence, BC-277 does explicitly cover forward foreign exchange transactions. Since forwards are covered, BC-277 also applies to forward CMO and pass-thru MBS purchases. For example, banks should incorporate pre-settlement risk into their overall credit limits for appropriate counterparties.

The definition of derivatives does not include spot foreign exchange transactions, regular-way settlement of mortgage and other securities, money market instruments and other asset/liability accounts. However, the guidelines in BC-277 represent sound procedures for risk management generally. Therefore, to the extent possible, they should be applied to all of a bank's risk management activities.

13. Is the OCC concerned about any particular bank(s), either dealer or end-user?

The OCC has general concerns that not all derivatives users both understand the associated risks and have adequate risk measurement, monitoring and control systems and policies in place. The OCC has particular concerns about the extent of senior management and board of director knowledge and oversight of derivative activities, for both dealers and end-users, and this is especially so with respect to the trading and use of "exotic" or highly complex derivative instruments. The OCC has responded to this concern by issuing BC-277, which will be supplemented with Examiner Guidance and Examination Procedures in the next few months.

14. BC-277 indicates that the OCC "encourages" national banks to use derivatives for various purposes. Why then does BC-277 go on to state that the OCC is "concerned about how the use of derivatives can influence the risk of failure of any institution and negatively affect the liquidity of the financial system"?

The OCC believes that derivatives, when properly managed, offer many potential benefits, such as allowing banks to access the lowest cost funding alternative, and providing greater flexibility in managing risk by transferring unwanted risks to parties who are more willing, or better suited, to take them. However, even though derivatives present the same risks that banks have always managed, the associated risks are often interconnected and, hence, generally more difficult to manage. As a result, the OCC wants banks to establish appropriate risk management systems and controls in order to safely engage in derivatives activities.

15. Do floating rate loans, securities and loans with caps/floors, indexed deposits, and mortgage loans and securities constitute "derivatives" for purposes of BC-277?

BC-277 focuses principally on over-the-counter, customized, derivative financial transactions. While loans and securities with caps and floors have derivative features, they are not explicitly included in BC-277's definition of "derivatives." While the OCC has other guidance for specific assets, such as the tests for mortgage derivative products contained in BC-228, the guidance in BC-277 represents sound procedures for risk management generally. Therefore, to the extent possible, BC-277 should be applied to all of a bank's risk management activities. Because loans and securities with explicit and embedded options, including mortgage-backed securities, complicate the risk management process, they are included within the broad scope of BC-277's guidance. Banks are expected to measure, monitor and control risks from these products in their overall balance sheet management.

16. BC-277 states that "structured debt obligations" are covered. What are structured debt obligations, and what is the extent of BC-277's applicability to them?

Structured debt obligations are debt issues whose coupon, redemption amount, and/or stated maturity adjusts depending upon movements in interest rates, foreign exchange rates, commodity prices, equity indices, etc. BC-277 indicates that bank end-users should have risk management systems that evaluate the possible impact on the bank's earnings and/or capital which might result from adverse changes in market conditions. For structured notes, the OCC expects banks to have evaluated the risk of these instruments, and placed meaningful limits on the volume of such assets.

Additionally, the OCC expects banks that purchase structured notes to understand, by performing "stress tests," how the economic value and cash flows of the notes will change as a result of changes in interest rates, yield curve shape, volatility, commodity prices, equity indices, foreign currency exchange rates, or other relevant market factors. Banks should use such analyses to identify those market environments that would cause unacceptable deterioration in value or cash flows.

Banks should also carefully assess the liquidity risk of structured notes. Because of the complexity of many of the structures, market risks can be extremely high. Secondary markets are often quite limited and market prices can be difficult to obtain. For banks holding structured notes in an available for sale account, management must pay particular attention that the market values, and consequently the bank's capital, are correctly stated.

17. Does BC-277 apply to fiduciary activities?

Because BC-277 outlines sound risk management principles generally, it applies to all risk activities within a bank, to the extent practicable. It is not expected that fiduciary departments would be derivatives dealers; however, they should be guided by the Circular as an end-user or

active position taker, as appropriate. In particular, management should address counterparty credit risk, market, liquidity, operations and legal risks as they relate to the activities of the trust department.

Senior Management and Board Oversight

18. What are the differences in BC-277's recommendations for dealers/active position-takers and limited end-users?

The sophistication of a bank's risk management practices should be consistent with the level of activity and degree of risk assumed by the bank in its derivatives activities. Consequently, limited end-users may need less sophisticated risk management systems than those required by dealers or active position-takers. For example, dealers and active position-takers must be able to frequently (in most cases at least daily) perform a broad range of scenario analyses/stress tests because of the potential impact on earnings and capital. In contrast, limited end-users may not need to perform such stress tests more frequently than monthly or quarterly.

Dealers will have internal quantitative technicians that estimate volatilities and correlations used to estimate market and credit risk exposures. Limited end-users, on the other hand, may rely on estimates from dealers or other third-party sources provided the sources are independent of the bank's counterparty. Also, end-users should price derivatives based upon bid (for long positions) and offer (for short positions) because such prices reflect levels at which an end-user can offset a transaction. Dealers are encouraged to price positions based upon mid-market levels less adjustments (unearned credit spreads, close-out costs, investment/funding costs and administrative costs).

19. Section A, "Senior Management and Board Oversight," of BC-277 indicates that bank management should ensure that any "appropriate approvals" are obtained prior to engaging in derivatives activities. What appropriate regulatory approvals, if any, are there?

Banks that plan to establish operating subsidiaries (e.g., derivatives products companies, futures commission merchants, etc.) must notify the OCC pursuant to 12 CFR 5.34 and receive OCC approval. Banks that plan to engage in physical commodity transactions also must obtain prior OCC approval. Also, banks interested in pursuing activities that raise unprecedented or significant legal or supervisory issues should discuss such activities with the OCC prior to commencing the activity in order to reduce regulatory uncertainty.

In certain cases BC-277 requires banks to obtain appropriate internal approvals, from senior management or the board. Internal approvals are required when the bank plans significant changes in activity, or new derivatives activity, such as entry into different product lines or markets, the use of derivative instruments with different risk characteristics, or implementation of different business strategies and goals.

20. Is a bank dealer required to obtain board or senior management approval each time it does business in a new activity?

If a bank dealer engages in what clearly represents a new product or risk type, and/or one for which the bank has no relevant experience, or for which liquidity is uncertain, it would be prudent to obtain senior management approval for the activity. This would be particularly true if the activity requires substantial market knowledge or involves regulatory schemes that are unfamiliar to the bank. It is always appropriate to obtain prior senior management approval, moreover, if the new activity or product poses legal risks not currently addressed by existing policy. However, if a new financial instrument has risk attributes similar to those of products already traded, BC 277 does not require that the bank dealer obtain board or senior management approval.

21. Once a product has been deemed appropriate to manage by senior management a specific type of exposure, must similar products used to manage the same exposure receive an "appropriate approval"?

No, provided such similar products do not introduce any new risks. "New" risks would include legal or operational risk, as well as valuation risk (i.e., the risk that the bank's models are unable to accurately price a transaction) for new products that require changes in pricing methodology.

22. Section A, "Senior Management and Board Oversight," of BC-277 provides as an example of a new activity as one in which "the use of derivative instruments with cash flow performance dependent upon markets in different geographic regions." What does this mean?

Some types of derivative instruments are indexed to prices or rates that are associated with particular geographic regions, such as structured notes indexed to the government debt or the currency of a foreign country. Such derivative instruments may contain unique "local" or "political" risks, in addition to the risks described above, which must also be properly evaluated and managed.

23. Can "senior management" for the U.S. office of a foreign bank be the branch management, rather than the senior management of the overseas corporate entity?

Generally yes, provided that senior management of the head office of the foreign bank has outlined appropriate risk limits and other controls within which the branch must operate, and has established effective reporting and audit functions to monitor and review the branch's activities, including compliance with applicable limits.

24. When are approvals and decisions appropriate for the board versus a committee of the board?

The Circular indicates those cases where the board can designate a committee, or senior management, to approve policies and procedures. Otherwise, the full board is responsible for oversight.

25. How much expertise should bank senior management and the board have regarding derivatives? And should their level of knowledge and expertise be verified by testing?

The OCC does not expect senior managers and directors to demonstrate operating expertise in the derivatives markets, and does not expect them to take any tests. The OCC does expect management and the board to have sufficient understanding of the products and risks to approve the bank's derivatives business strategy (as articulated in policies); to have general familiarity with the nature of the business, including an understanding of the nature of the risks taken; to limit the amount of earnings and capital at risk; and to review periodically the results of derivatives activity, including compliance with appropriate limits.

26. For limited end-users, what does the OCC expect when it says that "risk measurement systems should be capable of demonstrating the effectiveness of derivatives transactions in achieving such objectives?" Can a bank have limited end-user activities without having to establish a group to measure risks which are not much different than the risks associated with on-balance sheet investment securities?

Banks need to have risk measurement systems, regardless of whether they are engaged in derivatives activities. Systems used by the bank should capture the bank's derivatives transactions and be capable of evaluating the effect of the derivatives on the bank's overall risk profile. If the bank's policy stipulates that derivatives are to be used to reduce risk exposures, the bank's risk measurement and monitoring processes should be capable of documenting that the derivatives transactions in fact do reduce risk.

Banks are not required to hire new personnel to measure derivatives risks. For limited end-users, the individual or unit that measures and monitors risk can be part of a more general operations, compliance or risk management unit; it cannot be made a part of a trading or sales unit. A trading/sales unit and the risk management unit may both report to a Chief Financial Officer, as long as they are independent from each other.

27. What is interconnection risk?

Interconnection risk refers to risk combinations in a bank's portfolio that may or may not be immediately obvious. For example, a market event that affects cash flows or the value of a specific type of financial instrument may also affect financial instruments in other markets because of cross-market price or rate correlations. Ultimately, such an event can have a wide-spread impact on a bank's financial holdings as well as the holdings of the bank's counterparties, and on market conditions generally.

For example, if interest rates on short-term U.S. government securities were to increase, it is likely that other domestic interest rates, both short- and long-term, would also increase. In addition, it is also likely that increasing domestic rates would influence exchange rates to the extent that international investors shifted their holdings out of foreign financial instruments and into domestic financial instruments to exploit the higher domestic interest rates. Rising interest rates may also result in higher credit risks for a bank as interest-sensitive borrowers become less able to service their bank debt. Moreover, while the various markets adjust to, or come in line with, the increase in domestic interest rates (and as market participants reassess their own financial strategies in view of the rising rates) bid-ask spreads may widen and volatility may increase, reflecting a general rise in uncertainty about the true value of certain financial instruments. Such changes to bid-ask spreads and market volatility would pose greater liquidity risk to a bank by increasing the uncertainty associated with both the bank's net funding requirements and the bank's ability to meet those funding requirements by selling assets or settling liabilities at anticipated values.

Interconnection risk is typically more important to those institutions heavily involved in derivatives activities, such as dealers and active end-users, because financial derivatives can link markets more closely and in less intuitive ways, and hence, pose less-intuitive risk combinations. However, it is important to recognize that interconnection risk is a relatively new concept, and few, if any, banks currently have developed the methodologies necessary to successfully measure and monitor interconnected risk positions, but several of the more sophisticated banks are working on addressing these issues.

Developing interconnection risk position limits involves intensive analyses of relevant rates and prices in order to determine the nature and extent of any trends and patterns within those rates and prices (and their associated volatilities and bid-ask spreads).

Knowledge of these trends and patterns may serve as guides to measure aggregate market and credit risk exposures more accurately. For example, the potential future credit exposure of a fixed/floating interest rate swap is generally calculated using scenarios of probable interest rate paths. However, the potential future exposure of a portfolio of interest rate swaps is unlikely to be represented by the sum of the individual exposures associated with each swap within the portfolio. Interrelationships among rates affect the potential future exposure of the portfolio.

Another important aspect of interconnection risk is gaining a better understanding of low probability/high risk events. For example, there is likely to be a positive relationship between

credit exposure to a counterparty and the default probability of that counterparty, especially for counterparties with sizeable exposures relative to their capital. Determining the extent of this type of risk would require integrating an on-going analysis of counterparty credit quality with market movements. Managing this risk would be especially important during times of market stress.

28. Would recognizing interconnected risk positions enable a bank to assume more risk due to "portfolio diversification effects"?

Generally not, because BC-277 extends the concept of risk correlations to include possible correlations between different types of risk. For example, when markets rates or prices become volatile, market participants might become more hesitant to engage in transactions, thereby reducing market liquidity. In such circumstances, market risk would be correlated to liquidity risk. Hence, a particular market could become illiquid at the same time a bank proposes to sell or close out a position in that market. The simultaneous occurrence of increased market risk and increased liquidity risk could pose as great a risk as the occurrence of a single catastrophic event. As a consequence of this kind of interconnectedness, a bank might determine that its aggregate risk tolerance (based on the combination of market, credit, liquidity, and operational risks) could be reached as a result of interactions between different types of risk, even though the bank's market risk profile might seem "manageable" when viewed independently.

29. The risk management systems sections refer to the necessity for limits on concentration risk. What is intended by "concentration" in this context?

The third bullet point on page 8 under Section A3, "Risk Management Systems," indicates that a comprehensive system should include limits and controls on the level(s) of risk regarding counterparty credit, concentrations, and other relevant market factors. The term "concentrations" refers to identifiable groups of a bank's assets and/or liabilities that are especially sensitive to changes in specific market factors. These concentrations are similar to interconnected risk exposures, but the focus here is a "product-oriented" approach as opposed to the "risk-oriented" approach discussed in question 27. The product-oriented approach is a less precise means of controlling risks, but it is more easily designed and applied. Consequently, it is more common among less active market participants.

For example, it may be appropriate for a bank to establish limits and sublimits on the volume of option contracts having the same strike price or exercise date, as well as limits on the maximum percentage of open interest of a futures contract. Other limits should be applied to legal risks regarding contract enforceability.

Limits on the amount of business in new products, subject to the development of market knowledge and product experience, are other market factors for which banks should implement policies to avoid concentrations (see also question 30 for a related discussion on this point).

Prudent avoidance of concentrations applies to both dealers and end-users.

30. What should a bank do when too few people in a bank truly understand the nature of the bank's derivatives activities?

Concentrations of knowledge, like most other concentrations, may expose the bank to risk. In banks where the absence of a few key personnel would materially affect the efficient functioning of the bank's risk management program, senior management should develop contingency plans to protect the bank against this risk. In addition, senior management should consider documenting risk management methodologies so that someone without extraordinary financial training could use the documentation to understand those methodologies. Finally, senior management should ensure that the complexities of the bank's activities are never allowed to exceed the knowledge level within the bank.

Market Risk Management

31. Section B, "Market Risk Management," of BC-277 refers to "dealers and active position-takers." Does the OCC consider active end-users to be "active position-takers?"

Not necessarily. An active end-user may, or may not be, an active position-taker. Many active end-users employ derivatives only to reduce risk, rather than to act on specific market views.

The OCC expects the systems and controls used by active end-users to be more sophisticated than those generally employed by limited end-users. In particular, the OCC expects active end-users to have effective measurement systems to monitor counterparty credit exposure, both current and potential. The OCC expects strong operational support systems, including valuation and documentation. Finally, OCC expects a higher degree of senior management and board oversight for active end-users than for limited end-users.

32. BC-277 discusses risk measurement systems to ensure that market factors affecting risk exposures are adequately measured, monitored and controlled. Must a bank have either a simulation model or market value of equity model if it engages in derivatives activities?

The OCC does not specify the types of systems a bank must have to measure, monitor and control risks. The OCC encourages banks to develop simulation models and/or other market value systems to assist in identifying and evaluating their risk exposures. However, the OCC does not require banks to use a specific system or methodology. As long as the bank can properly measure and control risks, the choice among appropriate methodologies it uses is an internal matter.

Credit Risk Management

- 33. Are you imposing a "suitability standard" on dealers as a result of the recommendation in Section C1 of BC-277 that "approving officers also should be able to identify if a proposed derivatives transaction is consistent with a counterparty's policies and procedures with respect to derivatives activities, as they are known to the bank"?**

No. The OCC did not adopt in BC-277 a suitability standard for bank derivatives activities. The NASD's suitability rule requires that its members have reasonable grounds for believing that its recommendations to non-institutional customers are suitable, based on facts disclosed by the customers about their financial situations and needs. The suitability rule also requires that its members obtain certain specified information about their non-institutional customers prior to the execution of recommended trades. Refer to NASD Rules of Fair Practice, Art. III, section 2.

There are several distinctions between Section C1 of BC-277 and the NASD's suitability rule. By its terms, the NASD rule does not apply to institutional customers. Section C1 applies to institutional customers. However, it does not apply to dealers and, in most cases, other market professionals. See question 35 below. (In fact, few, if any, bank dealer customers for derivatives transactions are "non-institutional.") The suitability rule requires a securities dealer to request specific information and make a judgment about suitability before recommending a transaction for its customer. Section C1 has no similar requirement for bank dealers.

Section C1 of BC-277 is similar to the NASD's suitability rule in that it presumes, consistent with safe and sound banking practices, that a bank dealer will not recommend transactions it knows, or has reason to know, would be inappropriate for the customer on the basis of available information. However, Section C1 requires only that the bank's credit officers determine that a proposed derivatives transaction is consistent with a counterparty's policies and procedures with respect to derivatives activities, as they are known to the bank. If the bank believes a particular transaction may be inappropriate for a customer, and that customer insists on proceeding, the bank need only document its analysis and the information it provided the customer. Documentation of the bank's assessment of the appropriateness of the transaction, and any discussions with the counterparty, represents sound business practice and may lessen the chances that a counterparty will threaten litigation as a result of an unprofitable transaction.

Section C1 is an important element of guidance to banks selling over-the-counter (OTC) financial derivatives instruments with respect to the control of credit and reputation risk. A customer's ability to perform its obligations under a derivatives transaction depends, in part, on the appropriateness of the transaction to the customer's financial situation and its business practices and objectives. BC-277 provides guidance to the bank's credit officers who establish the credit lines of individual customers. In this respect, it is broadly analogous to the responsibility of credit officers to evaluate a borrower's ability to repay before making a traditional bank loan.

The OCC's guidance also recognizes that buyers of OTC financial derivatives instruments need to possess some degree of sophistication, or have access to such sophistication, in order to understand those transactions. Many end-users of financial derivatives instruments are sufficiently sophisticated to understand the appropriateness of a particular transaction to their risk management purposes. Section C1 provides an added measure of assurance in this regard by recognizing the obligation of bank dealers, who have credit and reputational interests at risk, to assess their clients' sophistication and their understanding of the derivatives transactions that they propose to enter into.

34. What kind of documentation would a dealer have to complete if it did not believe a transaction was "appropriate" for a counterparty?

Each bank must determine whether it will execute transactions it considers inappropriate. A bank which executes such transactions should maintain documentation in the file that indicates why it believed the transaction was not appropriate and details the individuals involved in the discussions (both bank and counterparty). The bank does not need to obtain any formal acknowledgement from the counterparty confirming that the bank felt the transaction was not appropriate. There is no legal prohibition against a bank executing a transaction that it feels is inappropriate for a customer; however, the bank must consider safety and soundness standards, particularly as they relate to the counterparty's ability to perform the contract.

If the bank believes a transaction is inappropriate, it should only execute the transaction after advising the customer of this determination, and documenting the files accordingly. The OCC would expect that transactions the dealer determines are inappropriate would generally be initiated by the customer, rather than the bank dealer.

35. Does the "appropriateness standard" apply to transactions between dealers? If not, at what level of counterparty sophistication does this standard become effective?

The standard does not apply to transactions between dealers or, in most cases, to other "market professionals" such as trading advisors and fund managers. The counterparty's level of sophistication, as well as the dealer's general understanding of its business, are key factors in this determination.

The OCC expects banks transacting derivatives business with non-dealers to evaluate the credit risk of a derivatives transaction using standards similar to those used for non-derivative transactions. As in any credit transaction, the bank would evaluate the purpose of the transaction and make an assessment as to whether its terms are appropriate given the counterparty's business objectives, plans and strategies. In many cases, credit file information will outline the customer's risk profile, business characteristics, and the types of transactions for which the counterparty would require a credit line. In such cases, no additional customer information would ordinarily be necessary. The "appropriateness standard" serves to ensure that banks make credit decisions for derivatives activities based upon the same principles as for non-derivative transactions.

The OCC does want the bank dealer that sells or intermediates a transaction to/for a "customer" to exercise caution, however, and to consider documenting the files appropriately, when the bank has reason to believe that the counterparty does not fully understand the risks of a transaction (particularly unusual risk elements), or a proposed transaction is of a type that has not been specifically approved (by the bank dealer) for a particular counterparty. In these situations, prudent management practices call for the bank to document the bank's determination that the transaction is appropriate for the counterparty.

36. Does the "appropriateness standard" apply to a bank acting as agent?

Yes. Sound risk management principles demand that banks acting as agent assess, based upon currently available information, whether a cash or derivative instrument, including a structured note, to be sold is appropriate for a customer. Banks acting as agents face the same reputation risks as bank dealers acting as principals, particularly if they are recommending the transaction.

37. What specifically does a bank have to know about a counterparty's policies and procedures in order to determine that a transaction is "appropriate?"

Because derivative transactions often involve customizing a product to address a specific need, a bank that is designing a derivative transaction needs to understand the risk its counterparty is trying to manage or assume. Unless it does so, the bank cannot make an appropriate evaluation of the credit risk of the transaction. The bank should make sure that its counterparty understands the general market risk profile of the derivative transaction, and should explain how (particularly if the counterparty lacks sophistication in derivatives) the transaction will achieve the counterparty's objectives.

The bank does not have to obtain and review its counterparty's policies, or verify the data used by the counterparty to assess its risk position.

38. Does a credit officer have to approve each derivatives transaction? If the transaction does not present a credit line problem, can it occur without credit officer approval? If so, who would have responsibility for determining "appropriateness" as indicated in Section C1 of BC-277?

No, a credit officer does not need to approve each derivatives transaction. OCC expects, however, that credit officers review, and derivatives sales personnel understand, the types of transactions appropriate for a credit line.

Many banks establish aggregate credit limits for their customers, with sublimits for various types of direct lending. Likewise, they also establish sublimits for derivatives product exposures by type (e.g., interest rate, currency, commodity, etc.).

Management in the derivatives area should recognize that unusual types of transactions may require specific approval, given prudent concerns about the counterparty's business operations, even if the exposure does not threaten to exceed an approved line. Bank management should determine the appropriate approving personnel (e.g., sales unit, sales management, credit officer, etc.) in such instances.

39. On page 12, BC-277 states that "derivative credit lines should be approved using the same credit discipline as credit exposures arising from traditional lending products." Does this mean that end-users cannot rely on a Moody's or S&P rating in setting a credit limit?

End-users, particularly limited end-users, may use the ratings supplied by nationally recognized ratings services as a factor in determining credit limits. They generally do not have the expertise to analyze the complex financial statements of derivatives dealers, particularly non-bank dealers, or it is not cost effective for them to do so. Banks generally should not, however, rely exclusively on such ratings. Management remains responsible for using the best information available; the lag time between financial events and ratings changes can sometimes be significant. It would be imprudent for management to maintain a credit limit in the face of material adverse news about a counterparty, simply because the ratings services had yet to change a rating.

Active end-users may have the resources and talent necessary to make a more informed judgment, and generally should do so, particularly if credit exposures are large.

40. Must a bank measure the potential increase in credit exposure for short term derivative transactions if the risk-based capital rules do not require an "add-on"?

It depends upon the level of derivatives activity. The OCC generally expects risk measurement systems to be more sophisticated than risk-based capital (RBC) guidelines. The existing RBC standards are minimums and banks should not use such standards as accurate measures of derivatives-related credit risk. BC-277 requires risk management systems that are appropriate for the risk being managed. For some banks, rough approximations of risk (such as those contained in the Basle proposals) may be acceptable.

41. What is the meaning of the term "settlement limits"?

The discussion of settlement limits refers to the risk incurred when a bank performs its obligation under a contract before the counterparty performs its obligation. Settlement limits are particularly important for transactions, such as foreign exchange transactions, that do not involve delivery vs. payment (DVP, i.e., when payment and delivery are simultaneous). When a transaction is not DVP, the party who first performs under the contract (for example, by delivering currency) is exposed until the other party performs. As indicated in the Circular, the

time horizon for settlement risk is generally very short (less than 24 hours), and usually represents time zone differences between two parties.

Liquidity Risk Management

42. What are "liquidity limits"?

The Circular addresses two aspects of liquidity: the consequences of a bank's derivatives activities on its cash flow and funding needs, and the potential risk exposures created by market and/or product concentrations. To control cash flow risk, banks should measure and project cash flow mismatches arising from payments and receipts of cash on derivative contracts. Banks should incorporate any material cash flow gaps and collateral arrangements from derivative activities into their overall liquidity planning efforts, including contingency planning. As part of the contingency planning process, banks should carefully evaluate the potential liquidity exposure resulting from early termination arrangements, as well as collateralization requirements that can be triggered by credit rating changes. Often such arrangements can exacerbate funding pressures. Finally, because of the asymmetrical nature of options (buyer can lose only the premium; seller has unlimited risk), dealers that sell options should measure how changes in underlying asset prices can trigger large cash flow requirements (gamma risk), and incorporate the results, if material, in their liquidity planning efforts.

The second aspect of liquidity relates to the liquidity of specific contracts and products. To control risk, dealer banks should place limits on exposure to thinly-traded products, for which wide bid-offer spreads can create unforeseen losses. Illiquid markets can at times deteriorate to a point where trading may cease, in which case it can become very difficult for a dealer to exit or hedge an exposed position. Limits to control this type of liquidity risk generally include those related to specific products or markets, notional volumes, and maximum tenors. Much of the earlier discussion regarding concentrations applies to the bank's analysis of liquidity risks in derivatives.

43. How should a bank regard credit enhancements when the bank attempts to balance liquidity risk and credit risk?

Generally, banks can reduce credit risks by engaging in mutual collateralization arrangements, in which the out-of-the-money party posts collateral. Of course such arrangements can call upon a bank's collateral, and thus reduce liquidity.

Termination arrangements are sometimes used to protect one counterparty to a transaction when the other party's credit rating deteriorates. Banks entering into agreements containing termination provisions must evaluate liquidity and market risk ramifications, which include unanticipated cash outflows, having to close out transactions prematurely, and the potential for creating an unhedged position. When a bank closes out a transaction pursuant to a termination arrangement, it may not be able to find a cost-effective offsetting position, because its value as a counterparty may have fallen due to the decline in its rating. At such times, market risk could

become a significant factor. Due to the potential severity of their impact, banks should exercise caution with respect to the volume of such early termination arrangements.

Banks must consciously manage and plan for the liquidity ramifications of their derivatives business. As a result, banks should have policies to control the exposure arising from early termination and collateralization arrangements as well as other credit enhancements. Dealers should periodically "stress test" to determine the amount of collateral that would be required under a variety of adverse market scenarios. Bank management must make its own determinations with regard to balancing liquidity and credit risks, as well as all other risks assumed by the bank (legal, currency, market, operational, fiduciary, etc.) subject to the limits and controls that reflect management, and the board's, tolerance for risk taking.

Operations and Systems Risk Management

44. What systems do dealers and end-users need to engage in derivative transactions?

Dealers must have sophisticated operational and market measurement systems. These systems must be able to quickly, and accurately, identify the risks to which the dealer is exposed. Dealers who make markets in options must have more sophisticated measurement models and systems in order to take account of the special risks of options (e.g., gamma, vega, theta, and rho).

End-users generally must have risk measurement systems that identify overall on- and off-balance sheet risks. Risk measurement systems should measure and monitor earnings-at-risk, due to changes in market factors (which in most cases will be interest rates) and market value of portfolio equity. It is important for end-users to project cash flow and value changes for any derivatives positions established for overall risk management purposes.

45. Is it unsafe and unsound if a bank cannot aggregate derivatives risks across various profit centers and branches to determine overall exposure?

The OCC would clearly consider the size and scope of a derivatives trading operations before making such an assessment. If an institution operates within strict risk controls, conservative limits might mitigate to some extent a bank's inability to aggregate exposures across various profit centers. Nevertheless, the OCC considers such an inability a control weakness that should result in more conservative limits on the amount of aggregate risk a bank can take.

Legal Issues

46. Will the OCC require an opinion of counsel to support bilateral netting agreements for purpose of calculating credit exposure?

Yes, for transactions with many foreign counterparties or U.S. branches or offices of some foreign counterparties. Because the legal status of netting for these counterparties is uncertain, it is prudent to obtain legal assurance that netting agreements will be valid in the event of default or bankruptcy.

47. Will an industry legal opinion (e.g., a competent legal opinion addressed to a trade group such as ISDA) satisfy the opinion of counsel requirement?

Yes, provided that the particular agreement does not contain terms that vary from those addressed in the industry opinion.

48. Do futures exchanges meet the requirements of your multilateral netting guideline?

All futures exchanges that meet the conditions set forth in the Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of 10 Countries, Bank for International Settlements, Nov. 1990 ("Lamfalussy Report") would meet the OCC's requirements. All major U.S. futures exchanges meet these standards.

Capital Adequacy

49. How do your examiners ascertain that a national bank engaged in derivatives transactions maintains adequate capital to support those activities?

All national banks are expected to meet the OCC's minimum capital requirements as contained in 12 CFR 3. Monitoring a bank's compliance with these minimum requirements is part of the OCC's ongoing supervision process. In addition, OCC examiners evaluate the need for capital in excess of regulatory minimums. Factors that are considered in determining a bank's overall capital adequacy include the quality of the bank's risk management systems, exposure to credit concentrations, as well as liquidity, interest rate, market, legal and operational risks. Banks with deficient risk management practices or significant individual or aggregate risk exposures will be expected to hold capital above the regulatory minimums.

The banking agencies have issued a notice of proposed rulemaking to amend the risk-based capital guidelines (12 CFR 3) to incorporate interest rate risk. The proposal includes measurement of interest rate risk resulting from derivatives and other off-balance sheet accounts.

Accounting

50. How should derivatives be accounted for considering the supersession of BC-79?

Although BC-277 supersedes BC-79, the accounting guidelines previously contained in BC-79 remain effective, as they are codified in the instructions to the Call Report. Financial derivatives not specifically addressed in the instructions to the Call Report should be accounted for in accordance with generally accepted accounting principles.

The banking agencies are currently reviewing regulatory accounting policies for off-balance sheet financial derivatives.

51. What disclosures for derivatives does the OCC recommend?

Currently, depending on their size and other factors, banks are required to report certain information about their off-balance sheet derivative activities in Schedules RC-D, RC-L, and RC-N.

The banking agencies have published for comment a number of proposed Call Report disclosures with respect to derivatives. They include changes to:

- Schedule RC-L that provide separate reporting for futures, forwards and options, distinguishing between exchange-traded and OTC transactions, and providing for replacement cost data and reporting of fair values for contracts accounted for both at market and on a hedge or accrual basis. Additionally, banks would be required to report a single net current credit exposure with respect to legally enforceable bilateral netting arrangements across all derivative contracts.
- Schedule RI to capture data regarding the amount of off-balance sheet derivative income (or loss) included in net interest income and net income.

Revisions to risk-based capital standards for the measurement of interest rate risk mandated by section 305 of the Federal Deposit Insurance Corporation Improvement Act of 1991 have also been proposed and would result in significant changes to the Call Report.

In addition, the Basle Supervisors' Committee has undertaken a project that may result in an explicit capital charge for market risk in bank trading activities and expanded reporting of derivative maturities.