CHAIRMAN'S REPORT

Throughout 1995 the Foreign Exchange Committee (Committee) spent significant time assessing and discussing important issues facing the global foreign exchange market. As a result of these discussions, the Committee undertook several projects in the areas of trading practices, market structure, and risk management. Among the Committee's most significant 1995 accomplishments were the newly revised *Guidelines for Foreign Exchange Trading Activities (Guidelines)*, *Principles and Practices for Wholesale Market Transactions*, the creation of standardized transaction documentation for barrier options, and *Comments on the Basle Committee's Proposal Regarding the Supervisory Treatment of Foreign Exchange Risk*.

During the course of the year, the Committee also discussed various developments in market practices. Perhaps the two most notable were the resurgence in demand for historical rate rollovers (HRR) and the increasing use of accounting system arbitrage. Because both of these practices entail considerable financial risk, the Committee highlights them in this report. The demand for HRRs has reportedly grown in recent months, particularly in Asian Markets. To brief the foreign exchange community about the risks associated with HRRs and its recommendations on dealing with those risks we present the *Committee Letter on Historical-Rate Rollovers*, dated December 26, 1991, on page 118.

During 1995 the Committee also examined the market practice referred to as "accounting system arbitrage." It found that the practice is often motivated by inappropriate financial incentives and can result in transactions that have no, or even negative, economic value to a firm. As a result of these findings, the Committee incorporated a section called "Accounting for Forward Transactions" to the newly revised *Guidelines for Foreign Exchange Trading Activities.* A discussion of the issues to consider in accounting for forward foreign exchange transactions appears on page 25.

The *Guidelines*, first written in 1980, have been updated periodically. Their revision underscores the Committee's belief that the issues raised continue to require the consideration of all market participants. To make the *Guidelines* as accessible as possible, in 1995 the Committee published them separately from the *Annual Report* for the first time and included all of the supporting documents that were only referenced in previous versions. The revised *Guidelines* were distributed to the more than 1,500 members of FOREX USA, Inc., the Association Cambiste International's organization in the United States. In 1996 the Committee is planning to present the *Guidelines* to the public.

As Chairman of the Foreign Exchange Committee, in 1995, I had the honor of co-chairing the committee that authored the *Principles and Practices for Wholesale Financial Market Transactions (Wholesale Code)* in August 1995. The creation of the *Wholesale Code* was a collaborative effort involving several groups representing over-the-counter financial market participants, including the Foreign Exchange Committee, the Emerging Markets Traders Association, the International Swaps and Derivatives Association, the New York Clearing House Association, the Public Securities Association, and the Securities Industry Association. The *Wholesale Code* was prepared in order to clarify the relationship between market participants and to articulate a set of best practices for over-the-counter financial markets transactions.

The *1995 Annual Report* summarizes the Committee's productivity and discusses the major projects completed during the year:

- The Market Structure Subcommittee researched and drafted the Committee's response to the Basle Committee's proposed treatment of foreign exchange risk and worked exhaustively with the Financial Markets Lawyers Group (FMLG) and British Bankers Association (BBA) to develop standardized transaction documentation for barrier options.
- The Trading Practices Subcommittee drafted the Committee *Letter on Confirmation Best Practices*, which outlines issues related to confirmation processing. The subcommittee agreed to undertake the periodic review and updating of the Committee's *Guidelines for Foreign Exchange Trading Activities.*

- The Risk Management Subcommittee continued conducting presentations of the Committee's paper, *Reducing Foreign Exchange Settlement Risk* (October 1994), and discussed options for the next phase of the project to reduce settlement risk. The subcommittee also undertook a general study of how different types of institutions approach liquidity management.

- The Financial Markets Lawyers Group worked with the Committee and the British Bankers Association to develop standardized transaction documentation for barrier options, a new *Foreign Exchange and Options Master Agreement*, and an updated *International Currency Options Master Agreement*. In addition, the FMLG drafted the Committee's letter supporting the National Association of Insurance Commissioner's (NAIC) proposed amendment to its Model Act. The NAIC's proposed amendment addresses the enforcement of close-out and netting provisions of master agreements relating to derivative transactions.

- The Committee also assisted the Bank for International Settlements with the design of its triennial foreign exchange turnover survey. The survey revealed that the foreign exchange market has continued to grow rapidly, though at a slower pace than in the 1980s. A summary of the North American survey responses is included in this Annual Report on page 120.

We describe each of the projects further in the Subcommittee sections that follow and present selected Committee documents completed during 1995.

I hope that the work completed by the Committee this year will be of value to all market participants and will help to encourage productive international discussions on many of the topics.

Lewis W. (Woody) Teel
Chairman

LEGAL INITIATIVES OF THE FOREIGN EXCHANGE COMMITTEE

The Foreign Exchange Committee's legal initiatives aim to promote greater understanding of the laws and statutes that govern foreign exchange trading and to enhance the integrity of the foreign exchange market by encouraging the adoption of sound trading practices. The Committee, with the assistance of the Financial Market Lawyers Group (FMLG), continues its commitment to these objectives through its creation of standard transaction documentation. The development of standard documentation is the statutory underpinning of the global foreign exchange market:

- In 1995, the FMLG and the British Bankers Association continued their joint effort to obtain the legal opinions of local counsel in several countries on the enforceability of the termination and close-out netting provisions of the *International Foreign Exchange Master Agreement* (IFEMA) in foreign jurisdictions. The FMLG has obtained opinions from the following countries: Belgium, England, France, Singapore, Japan, Switzerland, Cayman Islands, Sweden, Germany, and the United States. Additional opinions have been commissioned and will be available at a later date. The FMLG also intends to track the enforceability of IFEMA provisions by obtaining updated information from other countries on an annual basis.

- In 1995, the Committee, working in conjunction with the FMLG and the BBA, drafted and issued standard documentation for barrier options (see page 115).

- The Committee also endorsed the FMLG's new *Foreign Exchange and Options Master Agreement* (FEOMA). This new agreement contains standard provisions covering foreign exchange deals, including options transactions (see page 51).

- The Committee endorsed a newly revised *International Currency Options Master Agreement* (ICOM). This new agreement incorporates standard netting provisions into the original ICOM agreement. In 1996, the FMLG will coordinate with the BBA to determine from which countries legal opinions should be obtained regarding the enforceability of the ICOM provisions.

These documents are reprinted in this *Annual Report*. Electronic versions are also available from the Committee's Executive Assistant.

TRADING PRACTICES SUBCOMMITTEE REPORT

The Trading Practices Subcommittee monitors issues raised by the trading behavior of market participants and makes procedural recommendations to promote sound trading practices and enhance the integrity of the foreign exchange market.

During 1995, the Trading Practices Subcommittee held discussions and worked on updating the *Guidelines for Foreign Exchange Trading Activities*. One of the group's discussions ended with the decision to add a new section to the *Guidelines* entitled "Accounting for Forward Transactions" (see page 25).

GUIDELINES FOR FOREIGN EXCHANGE TRADING ACTIVITIES

The *Guidelines* first appeared in the Committee's 1980 Annual Report and were titled *Selected Issues Relating to the Management of Foreign Exchange Trading Activity*. Since then, the *Guidelines* have been updated several times. Like the foreign exchange market itself, the *Guidelines* have continued to grow over time and are now twice their original length. To appeal to a wider audience, the Committee dropped the term "Management" from the *Guidelines* title. The Subcommittee convened a group of senior traders to assist with the revision. This group recommended that the Committee distribute the document to all parties involved in foreign exchange markets, rather than only those who manage these activities. This same group provided valuable input by raising many new issues that were added to the document during the revision process.

The *Guidelines* represent a significant achievement in that they showcase much of the Committee's work over the years. This work and the topics it addresses continue to affect individuals and firms that trade foreign exchange. The latest revision incorporates the committee's prime undertaken since 1992, when the *Guidelines* were last revised. These initiatives include changes in the guidelines for broker switches and recommended best market practices for dealing with foreign exchange settlement risk.

Although the *Guidelines* are published each year in the Annual Report, the Committee is also making the *Guidelines* available under separate cover with appendices that include all supporting documents. In addition, the *Guidelines* were distributed to the Committee's mailing list as well as to the members of FOREX USA (Association Cambiste International's U.S. organization). In all, the Committee distributed approximately 2,500 copies to foreign exchange market participants.

The Committee's aim is to make the *Guidelines* accessible to as many market participants as possible. The distribution of the *Guidelines* to the extended list of market participants is a step toward this goal.

To further underscore the Committee's commitment to the *Guidelines*, the Trading Practices Subcommittee will provide additional guidance to institutions that would like more detail on one or more issues raised in the *Guidelines*. The Committee's revised *Guidelines*, without the appendices, are reprinted in this *Annual Report* beginning on page 28.

MARKET STRUCTURE SUBCOMMITTEE REPORT

The Market Structure Subcommittee considers issues and developments that are likely to affect the structure and character of the foreign exchange market over the long term. During 1995, the Subcommittee's two principal projects were to develop standard documentation for barrier options and to draft the Foreign Exchange Committee's formal response to the April 1995 proposal of the Basle Committee on Bank Supervision regarding the treatment of foreign exchange risk. The document *Comments on the Basle Committee's Proposal Regarding the Supervisory Treatment of Foreign Exchange Risk* presents the Committee's point-by-point views on the BIS's proposal and appears on pages 29-33.

STANDARD DOCUMENTATION FOR BARRIER OPTIONS

In early 1995, the Committee became aware of the special risks associated with barrier options. Like many new types of market transactions, barrier options began as infrequent, individually negotiated contracts. As trading volume has increased, however, the need for a standard market definition and treatment has also grown. The Committee has created a standardized framework for the barrier options market to increase the market's efficiency, assist the growth of the market, and avoid trading disputes. Before the introduction of standard barrier option documentation, dealing in barrier options required the negotiation of numerous contract-specific details (for example, defining a trigger event). Overlooking a detail or assuming standard treatment could result in a mistake. In the absence of standard documentation, the Committee also believes that trade disputes are more likely to occur.

Together with the FMLG and the BBA, the Market Structure Subcommittee proposed standard market treatment for barrier options. This proposal was then incorporated into a set of standard documentation guidelines. This documentation clearly outlines the variables of barrier option contracts and allows for their default treatment unless otherwise negotiated. Although this standard documentation is recommended by the Committee, the parties involved in barrier options transactions are ultimately responsible for tailoring it to fit their specific circumstances. The barrier options standard documentation is reprinted in this *Annual Report* on pages 92-115.

COMMITTEE'S *COMMENTS ON THE BASLE COMMITTEE'S PROPOSAL REGARDING THE SUPERVISORY TREATMENT OF FOREIGN EXCHANGE RISK*

In April 1995, the Basle Committee on Bank Supervision, which meets under the auspices of the Bank for International Settlements, released a set of proposed risk-based capital guidelines for state member banks and bank holding companies regarding the treatment of foreign exchange risk. Following the release of the paper by the U.S. Board of Governors of the Federal Reserve System, the Market Structure Subcommittee was directed by the Chairman to draft a formal comment on the BISs proposal for submission to the Board in the name of the Foreign Exchange Committee. Work on the comment began in May. The Committee's comments addressed two major points of the BIS proposal: (1) the level of capital needed to support the risk assumed by an institution and (2) the proposed regulatory model.

The Committee believes that the amount of capital required under the proposal to cover trading is too conservative. It bases this view on its study of the level of historical foreign exchange risks, which showed that the proposed capital weightings well exceeded the potential risks. The BIS proposal also outlines a regulatory model with minimum quantitative standards for assessing foreign exchange risk. However, the Committee contends that the regulatory model would be redundant because many institutions will continue to use their own. Instead, the Committee recommends that regulators review banks' models to ensure that the minimum standards have been met. The Committee's formal comment was submitted to the Secretary of the Federal Reserve's Board of Governors on July 25, 1995. The text of the Committee's comment is reprinted in this *Annual Report* on pages 29-33.

RISK MANAGEMENT SUBCOMMITTEE REPORT

The Risk Management Subcommittee facilitates the understanding of risk management issues and promotes improvements in the quality of risk management techniques in foreign exchange and related financial markets. During 1995, the Risk Management Subcommittee concluded its *Reducing Foreign Exchange Settlement Risk* global tour with a January seminar in Tokyo. Given the positive reception of the Subcommittee's settlement risk seminar by the financial communities in North America, Europe, and Asia in 1995, the Subcommittee began researching and writing a netting implementation case study. This netting "how to" manual is expected to be published in 1996. The research began with a survey to assess the current state of netting in Committee members' firms. Based on the firms' survey responses, the Subcommittee's paper will outline the steps necessary to implement netting systems and to resolve the problems that may occur.

In 1995, the Committee also discussed the issue of funding liquidity management. The Subcommittee's deliberations on this issue revealed that the nature of a financial institution's business primarily dictates its approach to managing funding liquidity. Any financial institution may fund itself by issuing corporate debt. However, a commercial bank (a deposit-taking entity) is likely to augment corporate debt with deposit liabilities, while an investment bank will generally fund itself to whatever extent is possible with corporate debt. In the event of a liquidity crisis, the two types of institutions are likely to implement different crisis management measures. For example, investment banks will generally rely upon secured borrowing facilities, while commercial banks may be more oriented toward selling assets and securing discount window loans. The Subcommittee recognizes the importance of having effective funding liquidity systems and crisis management plans in place.

MEMBERSHIP SUBCOMMITTEE REPORT

The Membership Subcommittee advises the Federal Reserve Bank of New York on potential candidates for membership in the Foreign Exchange Committee. The Subcommittee also makes recommendations regarding Subcommittee assignments and considers organizational changes for the Committee. Given the rapid changes in the nature of the foreign exchange market, in 1995 the Subcommittee recommended that the Committee admit a new type of member—"other dealers." The proposed change was adopted by the Committee effective January 1, 1996.

The Committee's Document of Organization (on pages 127-128) was updated to reflect the change and now reads:

> *The composition of the Committee should include: New York Banks; Other U.S. Banks; Foreign Banks; Investment Banks and other Dealers; Foreign Exchange Brokerage Firms (preferably to represent both foreign exchange and Euro-deposit markets); the president of FOREX USA, Inc. (ex officio); and the Federal Reserve Bank of New York (ex officio).*

ADVISORY ROLE OF THE FOREIGN EXCHANGE COMMITTEE

A principal purpose of the Foreign Exchange Committee is to advise the Federal Reserve Bank of New York on issues related to the foreign exchange market. At the Committee's monthly meetings at the Federal Reserve Bank of New York, members from dealing institutions provide their assessment of recent exchange rate trends and trading conditions. Members from foreign exchange brokerage firms comment on recent trends in the volume of transactions and on issues pertaining to the bank-broker relationship. Such discussions are particularly useful during periods of increased market stress or heightened volatility.

Perhaps the most important project of 1995 pertaining to the Committee's advisory role to the Federal Reserve was its comments on the Basle Committee on Banking Supervision's proposal to amend risk-based capital *guidelines*. The proposal, which was released for public comment in April 1995, outlined revisions to the risk-based capital *guidelines* regarding the supervisory treatment of foreign exchange risk. Because the policies outlined in the proposal have important implications for foreign exchange dealing banks and the market in general, the members of the Foreign Exchange Committee elected to submit a comment. The Market Structure Subcommittee was subsequently directed by the Chairman to draft the Committee's comments. The Committee's comments are reprinted on pages 29-33.

MEETINGS OF THE COMMITTEE

The Committee held eleven meetings during 1995. Most Committee meetings are held at the Federal Reserve Bank of New York. The meeting is usually a luncheon meeting or late afternoon meeting; occasionally, members of the Committee host dinner meetings at their institutions.

MEETINGS IN 1995	SCHEDULE FOR 1996
January 5	January 11
February 2	February 1
March 2	March 7
April 6	April 11
May 4	May 2
June 1	June 6
July 6	July 11
September 7	September 5
October 5	October 3
November 2	November 7
December 7	December 5

SUBCOMMITTEE ASSIGNMENTS FOR 1995

MARKET STRUCTURE

Co-Chairmen:

- William A. Dueker, Jr.
- Thomas J. Hughes

Members:

- Bruce Cobb
- Christopher Kelson
- Lars P. Lidberg
- William Rappolt
- Klaus Said
- Susan Storey

MEMBERSHIP

Chairman:

- Peter R. Fisher, FRBNY

Members:

- James P. Borden
- Matthew Lifson
- John D. Nixon
- William Rappolt

RISK MANAGEMENT

Co-Chairmen:

- John Finigan
- Heinz Riehl

Members:

- Chris Deuters
- Martin Dooney
- Paul Kimball
- Ian MacKay
- Andrew Siciliano
- Robert A. White

TRADING PRACTICES

Co-Chairmen:

- Richard Mahoney
- John D. Nixon

Members:

- Lloyd C. Blankfein
- James P. Borden
- Anthony Bustamante
- Kikou Inoue
- David Puth
- Jamie K. Thorsen

SUBCOMMITTEE ASSIGNMENTS FOR 1996

MARKET STRUCTURE

Co-Chairman:

William A. Dueker, Jr.

William Rappolt

Members:

Stephen M. Bellotti

James P. Borden

Michael E. deSa

Kikou Inoue

Klaus Said

Andrew Siciliano

L. Britt Swofford

MEMBERSHIP

Chairman:

Peter R. Fisher, FRBNY

Members:

Matthew Lifson

David Puth

William Rappolt

Lewis W. Teel

RISK MANAGEMENT

Co-Chairman:

Paul Kimball

Lewis W. Teel

Members:

Thomas J. Hughes

Michael Kukanza

Lars P. Lidberg

Ian MacKay

Robert M. Rubin

Julian M. Simmonds

Susan Storey

TRADING PRACTICES

Co-Chairman:

Richard Mahoney

Jamie K. Thorsen

Members:

Lloyd C. Blankfein

Anthony Bustamante

Christopher Kelson

Matthew Lifson

John D. Nixon

David Puth

SELECTED DOCUMENTS

Guidelines **for Foreign Exchange Trading Activities**

Comments on the Basle Committee's Proposal Regarding the Supervisory Treatment of Foreign Exchange Risk

Committee Letter on Confirmation Best Practices

Principles and Practices for Wholesale Market Transactions

Foreign Exchange and Options Master Agreement

International Currency Options Master Agreement

Guide to the International Currency Options Master Agreement

Barrier Options Standard Documentation

Committee letter in support of the National Association of Insurance Commissioner's proposed amendment of its model act

Committee Letter on Historical-Rate Rollovers (HRRs)

Results of the 1995 Foreign Exchange Turnover Survey
Historical Index including 1995 items

The Foreign Exchange Committee's Document of Organization

COMMITTEE LETTER REGARDING ITS RELEASE OF THE REVISED GUIDELINES FOR FOREIGN EXCHANGE TRADING ACTIVITIES

March 25, 1996

Dear Foreign Exchange Professional:

Enclosed is a copy of the Foreign Exchange Committee's (Committee) recently revised Guidelines for Foreign Exchange Trading Activities. Given current events and the evolving nature of the market, the Committee feels that the issues raised in the Guidelines are critically important to safely conducting foreign exchange trading activities. Although the Committee publishes the Guidelines in its annual report each year, this particular version incorporates the supporting documents that until now were only referenced.

This release of the Guidelines underscores the Committee's commitment to their adoption and use. The Committee wishes to encourage thoughtful consideration of the issues presented here and encourages you to disseminate the Guidelines to your foreign exchange colleagues. As a further commitment to the concepts addressed in the Guidelines, the Committee is planning a public presentation and discussion of the Guidelines later this year.

The Committee feels that many of the issues raised in the Guidelines are applicable to all staff members associated with foreign exchange trading activities; therefore, the Guideline references to "trader" or "trading room staff" are intended to be inclusive of all staff associated with the foreign exchange trading, sales, and analytical support.

The Guidelines' ten-year history and regular revision cycle indicate that it is a work in progress; it evolves with the market place. While the Committee hopes that the Guidelines present issues clearly and concisely, the Committee's Trading Practices Subcommittee stands ready to address your questions (see Guidelines page 26). In addition, the Committee would welcome any suggestions you may have on how to further improve the Guidelines.

Attached is a copy of the Committee's Document of Organization and a list of its 1996 Membership. Do not hesitate to contact me or other members of the Committee with questions or comments regarding the Committee's work.

Sincerely yours,

John Finigan
Chairman

Enclosures (3)

GUIDELINES FOR FOREIGN EXCHANGE TRADING ACTIVITIES
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GUIDELINES FOR FOREIGN EXCHANGE TRADING ACTIVITIES
JANUARY 1996

INTRODUCTION

The main objective of the Guidelines is to clearly and concisely document issues that should be considered by institutions active in the foreign exchange market. These recommendations are based on the views of representatives from a number of commercial banks, investment banks, and brokerage firms participating in the foreign exchange market. The guidelines are primarily directed to managers and line personnel in the institutions actively trading foreign exchange (including commercial/investment banks and other wholesale market participants) and also to managers and staff of foreign exchange brokerage firms. Others may also find the discussion useful as much of the material can be applied generically to financial market activities. These guidelines should clarify common market practices and assist individuals in conducting their daily business activities.

This is the Committee's fourth revision of a paper first published in 1980. The Committee has published numerous "good practices" recommendations in the three years since the last revision of these guidelines. This version of the Guidelines reflects the Committee's work on several issues affecting the conduct of foreign exchange trading activities. Many of these are referenced in the document and included in the appendices.

The Foreign Exchange Committee encourages wide distribution of the Guidelines. To that end, foreign exchange professionals are encouraged to duplicate and distribute the document freely. Interested parties may also obtain current copies of these guidelines by contacting the Executive Assistant, Foreign Exchange Committee, 33 Liberty Street, New York, NY 10045, telephone (212)720-6651 and facsimile (212)720-1655.

ETHICAL ISSUES FOR MANAGEMENT

Confidentiality

Confidentiality and customer anonymity are essential to the operation of a professional foreign exchange market. Market participants and their customers expect to have their interest and activity known only by the other party to the transaction and an intermediary if one is used.

It is inappropriate to disclose, or to request others to disclose, information relating to a counterparty's involvement in a transaction except to the extent required by law.

A trader may have access to a considerable amount of confidential information, including the trades he or she prices and confidential material prepared within the organization or obtained from those with whom the institution does business. Such information might pertain directly to the foreign exchange market or to other financial markets. Although not explicitly stated to be confidential, it may not be publicly available.

Managers should expect that their employees will not pass on confidential information outside of their institution except with the permission of the party or parties directly involved. Nor should a trader or broker distribute confidential information within his or her institution except on a need-to-know basis. Managers should not tolerate traders or brokers utilizing confidential material for personal benefit or in any manner that might compromise their institution. In the event that confidentiality is broken, it is the role of management to act promptly to correct the conditions that permitted such an event to occur.

Management should be alert to the possibility that the changing mechanics of foreign exchange trading might jeopardize their efforts to preserve confidentiality. As technological innovations are introduced into the trading environment, managers should be aware of the security implications of such changes. For example, the use of two-way speaker phones has largely been abandoned or controlled to safeguard confidentiality. Ongoing advances in telecommunications systems, computer networks, trade processing systems and market analysis systems, and the integration of these systems within an institution can lead to inadvertent breaches of security. The potential loss of confidentiality represented by complex systems — with multiple users, multiple locations, and ongoing data base or operating program changes — may be further complicated when the central processing unit or software is managed by an outside vendor.

Managers should also act to protect sensitive information when visitors are present in trading rooms or brokerage operations. There is always the possibility that visitors will be exposed to confidential information such as: names of transaction participants, amounts of trades, and currencies traded. Whether or not disclosed information is put to use, and however unintentional disclosure may be, the fact that confidentiality between counterparties has been violated is grounds for concern. Visits should be prearranged and visitors should be accompanied by an employee of the host institution. A visitor from another trading institution should not be permitted to trade for his or her own institution from the premises of the host.

Trading for Personal Account

In general, managers should expect traders to give their full attention to their employing institution's business activities without being distracted by their own personal financial affairs. Managers should also expect traders to fulfill their institutional responsibilities objectively, unbiased by their own financial position.

Managers should be aware that a conflict of interest or an appearance of a conflict of interest may arise if traders are permitted to deal for themselves in those commodities or instruments closely related to the ones they deal for their institution. Such conflict could be detrimental or embarrassing to the institution, the trader, or both. It is management's responsibility to develop and disseminate a clear institutional policy on these matters and to establish procedures to avoid actual conflicts of interest. At a minimum, an institution should require senior management to give traders explicit permission to engage in trading for personal account and require traders to execute such transactions in a manner that allows monitoring by management. Some institutions have recently taken steps to prohibit traders from any trading for personal account that could give rise to the appearance of a conflict of interest.

Traders should recognize that they, too, have a responsibility to identify and avoid conflicts and the appearance of conflict of interest. A trader should bring to management's attention any situation where there is a question of propriety. In no instance should a trader use his or her institutional affiliation, or take advantage of nonpublic or exclusive foreign exchange transaction information involving a third party to create trading opportunities for personal gain.

Entertainment/Gifts

Management should assure themselves that their institution's general guidelines on entertainment and the exchange of gifts are sufficient to address the particular circumstances of their employees. Where appropriate, such general guidelines should be supplemented for trading personnel to help them avoid the dangers of excessive entertainment. Special attention needs to be given to the style, frequency, and cost of entertainment afforded traders. Many trading institutions have mechanisms in place to monitor entertainment. Although it is customary for a broker or trader to occasionally entertain market contacts at lunch or dinner, entertainment even in this form becomes questionable when it is underwritten but not attended by the host.

Foreign exchange market personnel should conduct themselves in such a way as to avoid potentially embarrassing situations and the appearance of improper inducement. They should fully understand their institution's guidelines on what constitutes an appropriate gift or entertainment as well as the bounds of law and reasonable propriety. They should also be expected to notify management regarding unusual favors offered traders by virtue of their professional position.

Fiduciary Responsibility/Appropriateness

Management should act honestly and in good faith when marketing, transacting, and administering it foreign exchange trading activities. Firms should take care to determine that the client has the capability (either internally or through independent professional advice) to understand the nature and risk of foreign exchange activities and that the client is not relying on recommendations or advice of the firm when entering into foreign exchange activities (unless a written advisory agreement has been signed by both parties). Consideration should be given to the making of risk disclosures in connection with foreign exchange trading activities. Firms should maintain policies and procedures that identify and address circumstances that can lead to uncertainties, misunderstandings, or disputes with the potential for relationship, reputational, or litigation risk. A more detailed discussion of the issues relating to fiduciary responsibility/appropriateness is contained in Principles and Practices for Wholesale Financial Market Transactions, August 1995.

HUMAN RESOURCE ISSUES FOR MANAGEMENT

As a result of the rapid growth and increasing complexity of the financial markets, trading rooms are operating on frontiers of earnings and risk, business mission and business policy. Skillful, capable people are a prerequisite

for success in this demanding environment. It is a primary management responsibility to recruit, develop, and lead individuals and teams tasked to operate in this atmosphere.

The work environment for trading personnel has some very important characteristics. Trading room situations are positions of great trust. The pace of work is intense. Traders operate under strong internal pressures to make profits in a market that is open twenty-four hours a day. At the same time, the process of developing a trader has become compressed. Today, traders are either hired from other institutions or selected internally from individuals thought to have the work experience or academic training that would prepare them quickly for market-making, position-taking, or sales-related activities.

Selection

The process of selecting new employees is an important management responsibility. Managers should ensure that prospective trading room staff meet predetermined standards of aptitude, integrity, and stability for trading room jobs at all levels. Managers should exercise caution in delegating hiring decisions. To the extent possible, job candidates should be interviewed by several staff members of the institution and references should be checked. The managers' expectations concerning a trader's responsibilities, profitability, and behavior should be discussed thoroughly before a candidate is hired.

Training

The mobility of trading personnel within the financial industry has a material effect on traders' perceptions of their relationship to their employers. In some cases, it may be possible for an employee to begin trading an instrument for an institution although he or she does not have an intimate knowledge of the traditions and practices of that market or of the traditions and corporate culture of his or her current employer. This situation can give rise to misunderstandings about management's expectations of traders.

Managers should ensure that each trader is fully acquainted with the policies, procedures, and style that their institution chooses to employ in the conduct of its business. Management should consider providing complete orientation procedures for new employees at all levels and formal procedures to ensure periodic review of the institution's rules and policies by each trader. An awareness of and respect for market procedures and conventions should be encouraged.

Roles, responsibilities, and authorities should be unambiguous. Procedures, technologies, and contingencies should be thoroughly explained. Risk measurements and risk reporting should be understood by all involved in trading activities.

Compensation

Compensation systems should encourage appropriate behavior, reflecting institutional goals and reinforcing organizational values.

Stress

Stress may lead to job performance problems. Managers need to be able to identify symptoms of stress among trading personnel and then act to mitigate problems. Management should consider educating trading room staff in personal stress management techniques.

Substance Abuse

Managers should educate themselves and their traders or brokers about the signs of drug use and the potential damage resulting from the use of drugs and other forms of substance abuse. Policies should be developed and clearly announced for dealing with individuals who are found to be substance abusers.

Gambling

Gambling among market participants has obvious dangers and should be discouraged.

TRADING PRACTICES

The smooth functioning and integrity of the interbank market, whether through direct dealing or electronic or voice brokers, depends on trust, honesty, and high standards of behavior by all market participants.

Traders' Responsibility for Prices

It is a management responsibility to ensure that traders who are authorized to quote dealing prices are aware of and comply with policies and procedures that apply to foreign exchange dealing.

In the interbank market, dealers are expected to be committed to the bids and offers they propose through brokers for generally accepted market amounts unless otherwise specified and until the bid or offer is (1) dealt on, (2) canceled, (3) superseded by a better bid or offer, or (4) the broker closes another transaction in that currency with

another counterparty at a price other than that originally proposed. In the cases of (3) or (4), the broker should consider the original bid or offer no longer valid unless reinstated by the dealer.

If one counterparty is unacceptable to the other because of limited credit line availability, the broker may propose to substitute a "clearing institution." If both counterparties agree, this use of "switches" is an acceptable practice, but it entails certain risks. Management is encouraged to adopt the recommended principles and procedures for broker switches outlined in the Foreign Exchange Committee Letter on Name Substitution, September 23, 1993.

Electronic Trading Vehicles

In utilizing electronic trading vehicles, dealers are expected to be clear and precise in their use of dealing terminology, and alert to potential educational and structural issues or problems inherent in the adaptation of new technology. Management should actively monitor the introduction of such systems to insure proper training, timely dispute resolution, and appropriate interaction with vendors in order to refine and enhance these dealing tools. Opportunities for trade disputes are inevitable when using new systems. Users should govern themselves according to established market conventions and any departure from those conventions should be agreed upon at the time a deal is transacted.

Need to Avoid Questionable Practices

When markets are unsettled and prices are volatile, opportunities may arise for traders to engage in practices that may realize an immediate gain or avoid a loss but may be questionable in terms of a trader's reputation (as well as that of the trader's institution) over the long run. There are many kinds of questionable practices. For example, perpetrating rumors may reflect adversely on the professionalism of the trader. Reneging on deals may give rise to liability. The profitability of a given forward transaction may be distorted by delayed or inconsistent establishment of the appropriate spot rate. In the latter case, it is recommended that management adopt the standard of the middle rate at the time of the transaction.

It is unethical to manipulate market practice or convention to gain unfair competitive advantage. Management should be alert to any pattern of complaints about a trader's behavior from sources outside the institution such as customers, other trading institutions, or intermediaries. Information available within the organization should be reviewed to determine if individual traders or brokers become frequently involved in disputes over trades or tend to accept deals at rates that were obvious misquotes, accidental or otherwise, by counterparties. Complaints about trading practices may be self-serving, however, and should be handled judiciously.

Off-Market Rates

Dealers may occasionally face requests from customers to use "off-market" exchange rates. Such requests should be accommodated only after resolving issues concerning credit policy and propriety.

"Historical-rate rollovers" are an important example of off-market rate transactions. (See Foreign Exchange Committee Letter "Historical-Rate Rollovers: A Dangerous Practice," December 26, 1991. Historical-rate rollovers involve the extension of a forward foreign exchange contract by a dealer on behalf of his customer at off-market rates. The application of nonmarket rates can have the effect of moving income from one institution to another (perhaps over an income reporting date) or of altering the timing of reported taxable income. Such operations, in effect, result in an extension of unsecured credit to a counterparty.

The use of historical-rate rollovers involves two major risks: (1) either counterparty could unknowingly aid illegal or inappropriate activities, and (2) either counterparty could misunderstand the special nature of the transaction and the associated credit exposures. Given these risks, the rolling over of contracts at historical rates is a dangerous practice that should be avoided absent compelling justification and procedural safeguards. While the nature of certain commercial transactions may justify the use of historical rates with some customers, use of historical rates with other trading institutions should not be permitted. Even when used with customers, historical-rate rollovers are appropriate if (1) customers have a legitimate commercial justification for extending the contract, and (2) senior management of both the customer and the dealer institutions are aware of the transaction and the risks involved.

All dealer institutions permitting requests for historical-rate rollovers should have written procedures guiding their use. An example of such procedures is as follows:

a. A letter from the customer's senior management (treasurer or above) should be kept on file explaining (1) that the customer will occasionally request to roll over contracts at historical rates; (2) the reasons why such requests will be made; and (3) that such requests are

consistent with the customer firm's internal policies. This letter should be kept current.

b. The dealer should solicit an explanation from the customer for each request for an off-market rate deal at the time the request is made.

c. Senior Management and/or appropriate credit officers at the dealer institution should be informed of and approve each transaction and any effective extension of credit.

d. A letter should be sent to senior customer management immediately after each off-market transaction is executed explaining the particulars of the trade and explicitly stating the implied loan or borrowing amount.

e. Generally, forward contracts should not be extended for more than three months, nor extended more than once; however, any extension of a rollover should itself meet the requirements of (b), (c), and (d) above.

Stop-Loss/Profit Orders

Trading institutions may receive requests from customers, branches, and correspondents to buy or sell a fixed amount of currency if the exchange rate for that currency reaches a specified level. These orders, which include stop-loss and limit orders from trading counterparties, may be intended for execution during the day, overnight, or until executed or canceled. The growing incidence of such orders is due to widening acceptance of technical trading concepts, and increasingly sophisticated and disciplined risk management in spot, forward and derivative foreign exchange products. Fluctuations in market liquidity, multiple price discovery mechanisms, and evolving channels of distribution obscure transparency and may complicate the execution of such business. As a result, management should ensure clear understanding between their institution and their counterparties of the basis on which these orders will be undertaken. In accepting such an order, an institution assumes an obligation to make every reasonable effort to execute the order quickly at the established price. However, a specified rate order does not necessarily provide a fixed-price guarantee to the counterparty.

When a dispute arises between institutions as to whether an order should have been executed, brokers are often asked to confirm the high/low price of the day. Brokers are not the market per se and can only be used as an information source. A brokering company is one representative of the market and can therefore give trading ranges seen from within their institution, which may not be indicative of the entire market range. Consequently, that information should be treated with discretion.

Management should also ensure that their dealers and operations department are equipped to attend to all aspects of the frequently complex nature of these orders during periods of peak volume and extreme volatility. These complexities may include: conditional provisions, transaction notification, and cancellation or forwarding instructions.

TRADER-TRADER RELATIONSHIP

A current practice among trading institutions is to deal directly with each other, at least at certain agreed-upon times during the dealing day. The nature of the direct dealing relationship will vary according to the interests of the two parties. Management should ensure that the terms of each relationship are clearly understood and accepted by both institutions and that these terms are respected in practice.

A possible element of a direct dealing relationship between two institutions is reciprocity. That is, each institution in a direct dealing pair may agree to provide timely, competitive rate quotations for marketable amounts when it has received such a service from the other. Differences in institutions' relative size, expertise, or specialization in certain markets, will influence what is perceived by the two parties as equitable.

In the brokers' market, traders should not renege on a transaction, claiming credit line constraints , in an effort to "settle" a personal dispute. Instead, senior management should be made aware of a problem so that both institutions may act to address it. In all cases and at all times, traders should maintain professionalism, confidentiality, and proper language in telephone and electronic conversations with traders at other institutions.

Traders should also be certain that their market terminology is clear and understood by their counterparty. They should take steps to avoid using confusing or obscure market jargon that could be misleading or inaccurate.

Management should analyze trading activity periodically. Any unusually large concentration of direct trading with another institution or institutions should be reviewed to determine wether the level of activity is appropriate.

TRADER-BROKER RELATIONSHIP

Senior management of both trading institutions and brokerage firms should assume an active role in overseeing the trader-broker relationship. Management should establish the terms under which brokerage service is to be rendered, agree that any aspect of the relationship can be reviewed by either party at any time, and be available to intercede in disputes as they arise. Management of both trading institutions and brokerage firms should ensure that their staffs are aware of and in compliance with internal policies governing the trader-broker relationship. Ultimately, the senior management at a trading institution is responsible for the choice of brokers. Therefore, senior management should periodically monitor the patterns of broker usage and be alert to possible undue concentrations of business. Brokerage management should impress upon their employees the need to respect the interests of all of the institutions served by their firm.

Name Substitution

Brokers are intermediaries who communicate bids and offers to potential principals and otherwise arrange transactions. In the traditional foreign exchange market, the names of the institutions placing bids or offers are not revealed until a transaction's size and exchange rate are agreed upon; even then, only the counterparties gain this information. If one of the counterparties is unacceptable to the other, the substitution of a new counterparty may be agreed on.

"Name substitution" (the practice of interposing a new counterparty or clearing bank between the two original parties) developed because before names are introduced in the course of a transaction each counterparty has already committed to the trade and its details. Many institutions believe that once they have revealed confidential information, they should complete a trade with the same specifications.

A name substitution in a spot transaction is an acceptable practice provided that:

- both counterparties receive the name of an acceptable counterparty within a reasonable amount of time;
- the clearing bank is fully aware of the trade; and
- the clearing bank is operating in accordance with its normal procedures and limits.

Under these circumstances, the bank's risk does not differ from any other trades involving the respective trading institutions. When transactions cannot be completed expeditiously, risks increase and disruptions can occur. Therefore, foreign exchange managers should clearly establish with their brokers the approach their institution will generally follow in handling specific name problems. Managers should provide their brokers with the names of institutions with which they are willing to deal or, alternatively, the names of the institutions they will virtually always reject. Brokers should use this information to try to avoid name problems. If a broker proposes a transaction on behalf of an institution not usually regarded as an acceptable counterparty, it is appropriate for that broker to make a potential counterparty aware that the transaction may need to be referred to management for credit approval (that is, the counterparty may be "referable") before the trade can be agreed to.

Name substitutions rarely occur in the brokered forward market. Participants in this market recognize and understand that a broker's forward bids and offers, even though firm, cannot result in an agreed trade at matching prices unless it comes within the internal credit limits of each counterparty. Forward dealers should not falsely claim a lack of credit to avoid trades or to manipulate prices.

Missed Prices and Disputes

Difficulties may arise when a trader discovers that a transaction thought to have been entered, was not completed by the broker. Failure to complete a transaction as originally proposed may occur for a variety of reasons: the price was simultaneously canceled, an insufficient amount was presented to cover dealers' desired transactions, or an unacceptable counterparty name might be presented. Disputes may also arise over misunderstandings or errors by either a trader or a broker.

Whenever a trade is aborted, managers and traders must recognize that it may be impossible for the broker to find another counterparty at the original price. Managers should ensure that their staffs understand that it is inappropriate to force a broker to accept a transaction in which a counterparty has withdrawn its interest before the trade could be consummated—a practice known as "stuffing."

For their part, brokerage firm management should establish clear policies prohibiting position-taking by brokers and require that any position unintentionally assumed be closed out at the earliest practical time after the problem has been identified.

Avoiding Disputes

The management of both trading institutions and brokerage firms should take steps to reduce the likelihood of disputes. This can be accomplished when management assumes a key role in training new employees. Training may extend to the use of proper, clear, and common terminology; awareness of standard market practice; and adherence to the procedures of their institution. Trading institution management should also consider implementing frequent intra day reconciliations with other counterparties, including those arranged through brokers; once-a-day checks may be inadequate.

Even if these procedures are followed, disputes are inevitable and management should establish clear policies for resolution. Informal dispute resolution practices, which sometimes develop in the market, can be inconsistent with sound business practices.

Resolution of Disputes

When disputes arise or differences occur, the following guidelines for compensation apply:

Differences should be routinely referred to senior management for resolution, thereby changing the dispute from an individual trader-broker issue to an inter-institutional issue. All compensation should take the form of a bank check or wire transfer in the name of the institution or of adjustment to brokerage bills. The settlement of differences should be evenhanded, allowing for compensation to go both ways.

All such transactions should be fully documented by each firm. Once a resolution has been reached, an institution should make restitution by check or some other noncash mean (for example, reduction of brokerage bill). When differences occur between a broker and dealer, the dealer is strongly urged to accept compensation directly from the brokering company and not to insist on a name at the original price.

For more detailed suggestions on the resolution of differences and disputed trades, see: 1989 Foreign Exchange Committee Annual Report pp. 16-17; the Federal Reserve Bank of New York "Policy Statement on the Use of 'Points' in Settling Foreign Exchange Contracts," August I, 1990; and the "Committee Letter on Confirmation and Dispute Resolution Practices," December 22, 1993.

TRADER-CUSTOMER RELATIONSHIP

Issues may develop in the relationship between trading institutions and their customers. As a consequence, the management of customer relationships requires a high degree of integrity and mutual respect as well as effective communication of each party's interests and objectives. Disputes may arise between a trader and a customer concerning the terms of a transaction should be referred to the appropriate level of management for resolution.

It is a normal practice for nonfinancial organizations to delegate trading authority formally to specific individuals within the organization and to advise their bankers accordingly. At the same time, trading institutions are obliged to make reasonable efforts to comply with corporate dealing authorization instructions. Trading personnel who deal with customers should be familiar with current corporate instruction, and those instructions should be readily accessible. Sales and trading personnel should bring to management's attention changes in counterparties trading patterns, significant book profits or losses, or any unusual requests.

Undisclosed Counterparties

"Know your customer" has long been a golden rule for most non-arms length financial transactions. The recent increases in the volume of foreign exchange transactions conducted through funds managers/investment dealers has resulted in substantial numbers of deals where the principal counterparties are not known at the time of transaction. Dealers should identify counterparties as soon as possible following a deal.

Management at financial institutions engaged in trading on this basis needs to be aware of the risks involved, particularly with respect to credit exposure and money laundering.

OPERATIONAL ASPECTS OF TRADING

Risk Management

Institutions should be duly aware of the various types of risk to which they are exposed when engaging in foreign exchange transactions, including:

- Market Risk: The risk of loss due to adverse changes in financial markets (exchange rate risk, interest rate risk, basis risk, correlation risk, etc.).
- Credit Risk: The risk of loss due to a counterparty default (settlement risk, delivery risk, sovereign risk).

- Liquidity Risk: The risk that a lack of counterparties will leave a firm unable to liquidate, fund, or offset a position (or to do so at or near the market value of the asset).
- Operational/Technology Risk: The risk of loss from inadequate systems and controls, human error, or management failure (processing risk, product pricing risk, valuation risk, etc.)
- Legal Risk: The risk of loss due to legal or regulatory aspects of financial transactions (suitability risk, compliance risk, etc.).

There are also overall business risks that fall outside these categories such as reputation risk, event risk and fraud.

Sound management controls to monitor and evaluate the risk exposures associated with foreign exchange and related trading operations can help keep these exposures within management's specifications. Management needs to reinforce information tools with effective mechanisms for monitoring compliance.

Many different approaches are used by financial institutions to measure and manage the various risks arising from foreign exchange transactions. Risk Management methodologies vary in complexity. At the simple end of the spectrum one finds notional value limits by product type, by customer, and by country for controlling credit and settlement risk exposures as well as the market risk exposures incurred. On the more sophisticated end, an institution may use a combination of real time measures of value-at-risk (VAR) and scenario analysis. VAR is calculated by using often complex statistical models and simulation techniques for predicting rate volatility. These also take into account cross-currency and cross-market correlations, liquidity factors, and (in the case of credit risk) expected counterparty default rates. Management should ensure that the risk management techniques employed in their institutions are commensurate with the levels of risk incurred and the nature and volume of the foreign exchange activity being undertaken.

There are important aspects of risk management that go beyond the measurement of market and credit risk. These include:

- adherence to company-approved accounting policies and standards for all products;
- periodic independent reviews by internal auditors and daily oversight role of an independent risk management/compliance unit; annual review by external auditors and annual or more frequent examinations by the regulators;
- segregation of trading room and back-office functions for deal processing, accounting and settlement;
- independent verification of revaluation rates and yield curves used for risk management and accounting purposes;
- documented and regularly tested disaster recovery and back-up procedures involving both systems (front and back office) and off-site facilities;
- sufficient human resources and systems support to ensure that deal processing and risk reporting remain timely and accurate;
- independent verbal and/or written confirmation of all trades;
- independent daily reporting of risk positions to senior management;
- daily reporting of traders' profit/loss to senior management;
- new product approval and implementation procedures, which include sign-offs by legal, tax, audit, systems, operations, risk management, and accounting departments;
- an independent valuation-model testing and approval process;
- well-documented and appropriately approved operating procedures;
- independent approval of customer credit limits and market risk position limits;
- independent monitoring of credit and market risk limits; and
- exception reporting and independent approval of limit excesses;

Risk management is not a substitute for integrity or awareness. Management should be aware of the assumptions used in its risk assessments and the need to develop the discipline, depth, and experience that ensure survivability. Risks should be weighed against potential returns and longer term organizational goals.

Accounting for Forward Transactions

Net present value accounting (NPV) is the preferred approach for marking foreign exchange forward books to market. NPV more accurately reflects the true market values of unsettled forward contracts. The well known theory of "covered interest rate arbitrage," which is the financial underpinning of forward foreign exchange markets, takes into account the time value of money. Discounting or deriving the NPV of the forward cash flows is required to evaluate the financial viability of a forward transaction. It requires the linking of the forward and spot pieces of a forward transaction while taking into account the funding costs of a forward position.

A firm's choice of accounting methods is management's prerogative; however, if management does not use NPV for valuing their foreign exchange forward books, an alternative means of controlling the inherent risks must be devised. These risks include:

- taking "unearned" profits on the spot portion of the forward deal into income immediately and delaying the recognition of trading losses until some point in the future. NPV accounting evaluates the spot and forward pieces of a forward deal together and allows a firm to identify losses earlier.
- inappropriate economic incentives resulting from inconsistencies between the accounting treatment applied to cash instrument transactions and other off-balance sheet instrument transactions. Variances in accounting methods may inadvertently provide an inappropriate financial incentive for a trader to engage in transactions that provide no economic value (or even negative economic value) to the firm.
- collusion between traders who work at institutions that practice NPV accounting methods and traders at those institutions that do not. The early close out of a forward transaction (which would be based on a discounted value) could result in an immediate and unanticipated gain or loss being realized in the books of a firm not practicing NPV accounting methods.

Netting

Interest in foreign exchange netting has increased as institutions have sought to reduce counterparty credit risk exposure, interbank payments, and the amount of capital allocated to foreign exchange activity. While netting arrangements may have operational similarities, they can differ significantly in their legal and risk-reduction characteristics. Some forms of netting reduce the number and size of settlement payments while leaving credit risk at gross levels. The masking of risk, however, is not consistent with sound banking practice. Other forms of netting, such as netting by novation, can reduce credit risk as well as payment flows by legally substituting net obligations in place of gross obligations. In 1994 the Foreign Exchange Committee published the paper, *Reducing Foreign Exchange Settlement Risk* which defines settlement risk and offers several best practices recommendations.

Since the 1994 paper, several commercial ventures providing netting services to market participants have been launched. These ventures vary in their approach to and method for reducing settlement risk. The Committee recommends that firms considering joining or subscribing to a netting service evaluate their options carefully to insure that it will provide the anticipated level of risk reductions for the firm.

The Foreign Exchange Committee has held a long-standing interest in foreign exchange netting. Further information about the types of netting arrangements are found in the Committee's Annual Report for 1988 (p. 9), and for 1989 (p. 8). Other sources of information are the *Report of the Committee on Interbank Netting Schemes of the G-10 Central Banks* published by the Bank for International Settlements (BIS) in November 1990, and *The Supervisory Recognition of Netting for Capital Adequacy Purposes* published by the BIS in April 1993.

New Product Development

The growing complexity of new financial instruments and services requires that detailed research and documentation, together with internal cross-functional reviews and personnel training, be completed before a product is marketed. Formal programs to control the introduction of a new product help verify that the new activity is likely to be sufficiently profitable; that associated risks will be manageable, and that all legal, regulatory, accounting, and operating requirements are met. While many requirements must be fulfilled before the introduction of a product, the existence of formal, new product programs can actually speed and facilitate the product development cycle. (For further discussion, see *1988 Foreign Exchange Committee Annual Report, p. 11)*

Taping of Telephone Conversations

Many trading institutions record all telephone lines used for trading and confirmation. Taping conversations in foreign exchange trading rooms and confirmation areas helps resolve disputes quickly and fairly. Whether or not

traders need access to untaped lines in order to carry out unrecorded conversations on sensitive topics is a matter of management preference.

Access to tapes containing conversations should be granted only for the purpose of resolving disputes and should be strictly limited to those personnel with supervisory responsibility for trading, customer dealing, or confirmations. Tapes should be kept in secure storage for as long as is sufficient for most disputes to surface. When taping equipment is first installed, trading institutions should give counterparties due notice that conversations will be taped.

Deal Confirmations

Institutions active in the foreign exchange market should exchange written confirmations of all foreign exchange transactions — including both interbank and corporate, spot, and forward. Any use of same-day telephone confirmations should be followed with written confirmations through means of immediate communication. Such timely confirmations can be provided by telex, SWIFT, fax transmissions, as well as by various automated dealing and confirmation systems. These forms of communication are more appropriate than mailed confirmations, which, particularly on spot transactions, may not arrive in time to bring problems to light before the settlement date. Trading institutions have found that the sooner a problem is identified, the easier and often less expensive it is to resolve. Prompt and efficient confirmation procedures are also a deterrent to unauthorized dealing.

In the United States brokered foreign exchange market, when both parties to a transaction are offices of institutions located in the United States, the counterparties—and not the broker—are responsible for confirming the transaction directly to one another. However, when a broker arranges an "international" transaction, where either one or both of the parties does not have a U.S. "address," it is the broker's responsibility to provide each of the counterparties with written confirmations of the transaction. Brokers should ensure that confirmations of spot transactions are given on the same day that a trade is consummated. Trading institutions have the responsibility to check that the confirmations provided by brokers are received and reconciled on a timely basis. They also are responsible for promptly reconciling the activity going through their nostro accounts with their trading transactions.

For further discussions, see: the "Committee Letter on Confirmation and Dispute Resolution Practices," December 22, 1993; and the Foreign Exchange Committee Letter of June 1995.

Documentation

It is in the market's best interest that participants use and support the development of market standard documentation. In addition, firms should maintain explicit policies on documentation requirements and procedures for safeguarding executed documents. Policies may address how to handle specific documents, including, but not limited to, the following:

- corporate resolutions;
- certificates of incumbency;
- delegation of authority;
- industry standard agreements;
- risk disclosures; and
- confirmations.

Third-party Payments

Management should have a clear policy for traders concerning the appropriateness of honoring requests for "third-party payments." A third-party payment is a transfer of funds in settlement of a foreign exchange transaction to the account of an institution or corporation other than that of the counterparty to the transaction. A subsidiary of the counterparty is a legally separate third party, but a foreign branch of an institution is not.

The normal payment risk inherent in foreign exchange—the risk that funds are paid out to a counterparty but not received—is most acute when the funds, in either local or foreign currency, are transferred to a party other than the principal to the transaction. These third-party payments are more susceptible than normal transactions to: (1) fraud perpetrated by a current or former employee of the counterparty who is diverting payment to a personal account, (2) fraud perpetrated by an employee of the bank who is altering the payment instructions, or (3) misinterpretation of the payment instructions whereby the funds are transferred to an erroneous beneficiary. In many cases, the ability to recover the funds paid out will depend upon the outcome of legal proceedings.

As a matter of policy, many institutions establish special controls for this type of transaction. The control procedures appropriate to address the associated risks include various measures to authenticate or verify third-party payments, such as:

- requiring the counterparty to provide standing payment and settlement instructions;
- requiring an authenticated confirmation on the transaction date;
- requiring the counterparty to submit a list of individuals authorized to transact business and to confirm deals; or
- confirming by telephone all deals on the transaction date to the individual identified by the counterparty.

Importance of Support Staff

Management's attention to a foreign exchange trading operation is usually directed toward establishing trading policies, managing risk, and developing trading personnel. Equally important is an efficient "back office" or operating staff. Details of each trading transaction should be accurately recorded. Payment instructions should be correctly exchanged and executed. Timely information should be provided to management and traders. The underlying results should be properly evaluated and accounts quickly reconciled. Time-consuming and costly reconciliation of disputed or improperly executed transactions mar the efficiency of the market, hurt profitability, and can impair the willingness of others to trade with the offending institution.

Accordingly, management must be aware of its responsibility to establish a support staff consistent with the scope of their trading desk's activity in the market. In addition, management should ensure that trading is commensurate with available back office support. It is also essential that management and staff of the back office are sufficiently independent from the traders and trading management in terms of organizational reporting lines. Finally, the incentive and compensation plans for back office personnel should not be directly related to the financial performance of the traders.

Audit Trail

Management should ensure that procedures are in place to provide a clear and fully documented audit trail of all foreign exchange transactions. The audit trail should provide information identifying the counterparty, currencies, amount, price, trade date, and value date. Such information should be captured in the institution's records as soon as possible after the trade is completed and should be in a format that can be readily reviewed by the institution's management as well as by internal and external auditors. These procedures should be adequate to inform management of trading activities and to facilitate detection of any lack of compliance with policy directives.

Recent technological innovations in trading and execution systems tend to improve data capture and allow for the creation of more precise audit records. For example, some electronic dealing systems independently generate trade data that serve as an effective audit trail. Trades executed via telex, automated dealing systems, or an internal source document provide better verification than trades executed over the telephone. An accurate audit trail significantly improves accountability and documentation and reduces instances of questionable transactions that remain undetected or improperly recorded. Management may therefore wish to emphasize such systems when considering trading room configuration and mechanics for dealing with counterparties.

Twenty-four Hour Trading

With foreign exchange trading now taking place on a continuous twenty-four-hour basis, management should be certain that there are adequate control procedures in place for trading that is conducted outside of normal business hours—either at the office or at traders' homes. Management should clearly identify the types of transactions that may be entered into after the normal close of business and should ensure that there are adequate support and accounting controls for such transactions. Management should also designate and inform their counterparties of those individuals, if any, who are authorized to deal outside the office. In all cases, confirmations for trades arranged off-premises should be sent promptly to the appropriate staff at the office site.

Twenty-four-hour trading, if not properly controlled, can blur the distinction between end-of-day and intra-day position risk limits. Financial institutions involved in twenty-four-hour trading should establish an unofficial "close of business" for each trading day against which end-of-day positions are monitored.

Increasingly, during the U.S. workday, institutions in the United States are receive requests to trade from overseas traders who are operating outside their own normal business hours. Management should consider how they want their traders to respond. It is possible that, for selected

counterparties, arrangements can be discussed in advance and a procedures can be established to accommodate the counterparty's needs while still identifying and protecting all parties to the transaction.

CONCLUSION

The intersection of all these topics, issues, and guidelines occurs on the trading floor. On the floor risk is assumed, clients are served, business potential is realized and principle becomes practice. As financial markets grow increasingly dynamic and the global environment increasingly complex, the role of the trading room manager has evolved beyond revenue and expense management. Individuals should be carefully chosen and empowered. The demands, responsibilities and importance of this role should not be underestimated by senior management.

TRADING PRACTICES SUBCOMMITTEE

The Foreign Exchange Committee's Guidelines for Foreign Exchange Trading Activities was revised by the Trading Practices Subcommittee, chaired by Richard Mahoney from Bank of New York and John Nixon from Tullett & Tokyo Forex International Limited. The following members of the Subcommittee provided invaluable assistance to this project:

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David Ogg	Steven M. Peras
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ADDITIONAL INFORMATION

These Guidelines are regularly reviewed and updated. The Trading Practices Subcommittee welcomes your comments and suggestions. In addition, the Subcommittee stands ready to provide further guidance on the issues presented in the Guidelines. If you would like to discuss particular issues with a member of the Subcommittee or you have a suggestion on how to improve the Guidelines, please contact the Trading Practices Subcommittee, c/o Executive Assistant, Foreign Exchange Committee, 33 Liberty Street, New York, NY 10045, telephone (212)720-6651 and facsimile (212)720-1655.

COMMITTEE LETTER REGARDING THE APRIL 1995 MARKET RISK PROPOSAL FROM THE BASLE COMMITTEE ON BANKING SUPERVISION

William W. Wiles
Secretary of the Board
Board of Governors of the Federal Reserve System
20th Street and Constitution Avenue, N.W.
Washington, D.C. 20551

Dear Mr. Wiles,

The Foreign Exchange Committee (the "Committee") appreciates the opportunity to submit the attached comments on the April 1995 market risk proposal from the Basle Committee on Banking Supervision. This commentary expresses the collective opinions of the Committee's membership. The Committee recognizes that the task of generating international capital guidelines for market risks is difficult and complex. We congratulate the Basle Committee on Banking Supervision for its commendable progress in drafting these guidelines.

The Committee's letter focuses on the proposed standards for using internal bank models to calculate regulatory capital held against market risk. While the Committee wholeheartedly approves the use of internal models to calculate capital, the Committee has two principal comments on the Basle Committee's proposal:

(1) The levels of capital generated by the proposal's highly conservative quantitative standards are unduly burdensome, significantly greater than historical risks in the foreign exchange market.

(2) The proposed regulatory model may not be used for day-to-day risk management and may prove impossible to validate using the proposed risk parameters.July 25, 1995

Given these concerns, Committee members recommend that banks should be able to use their validated internal models to calculate regulatory capital requirements. Regulators could adjust these calculations with a multiplication factor after reviewing each bank's internal model and validation procedures. The attached comment letter provides a more detailed explanation of these general observations. We hope that the Basle Committee on Banking Supervision will find these comments helpful.

Also attached for your information is a list of the Committee's 1995 membership. Please feel free to contact me or the Committee's Executive Assistant regarding any aspect of our comments.

Sincerely yours,

Lewis W. (Woody) Teel
Chairman

COMMENT ON THE BASLE COMMITTEE'S PROPOSAL REGARDING THE SUPERVISORY TREATMENT OF FOREIGN EXCHANGE RISK
Draft (July 10, 1995)

INTRODUCTION

The Foreign Exchange Committee ("the Committee") supports the effort of the Basle Committee to establish international guidelines for applying capital charges to the market risks incurred by banks. The Foreign Exchange Committee is encouraged that a number of its recommended changes to the April 1993 Basle Committee proposal on market risk ("BIS proposal") were incorporated in the current BIS proposal, most notably the use of banks' internal models for calculating market risk and the extension of Tier 3 capital to cover foreign exchange as well as other market exposures.

However, the latest proposal, particularly the quantitative standards for using internal models, raises two major concerns:

1. The extremely conservative quantitative standards in the proposal (including the multiplication factor, the holding period, restricted correlations and the confidence interval) would require banks to hold capital against daily price movements of as much as 24 standard deviations. Such capital requirements are out of proportion to actual risks in the foreign exchange market. The simple aggregation of capital for credit and market risks also overestimates the capital necessary for a diversified firm because potential losses from these risks are unlikely to be realized simultaneously. The additional costs imposed by such capital standards may shift a significant volume of trading activity to less regulated organizations.
2. A regulatory model with minimum quantitative standards may actually impede progress toward developing more precise risk measurement systems. Virtually any comprehensive set of proposed quantitative standards will be in conflict with model parameters used by banks. Banks will continue to rely upon their own more precise internal models. The regulatory model, purely duplicative, will not be used in day-to-day risk management and may prove impossible to validate using the proposed risk parameters. The regulatory model may divert resources from improvements to a bank's day-to-day risk systems. The Committee strongly recommends that banks should be able to use their internal models as the basis for calculating regulatory capital requirements. Based upon their reviews of banks' internal models, regulators may adjust the model results, if necessary, using a multiplication factor greater than one.

QUANTITATIVE STANDARDS FOR USING INTERNAL MODELS

Members of the Foreign Exchange Committee understand the necessity of establishing conservative capital standards that capture a wide range of possible price movements. However, the BIS proposal assumes that each bank's portfolio is comprised entirely of the most illiquid and volatile traded instruments. In contrast, internal bank models are designed to more correctly reflect the actual composition of each bank's portfolio. The table below compares the current quantitative standards from the BIS proposal with parameters generally used by financial institutions. The cumulative effect of the BIS proposal standards is a total compounding factor ranging from 12.1 to 14.7, which is equivalent to a market move of approximately 24 standard deviations of daily price changes.[1] Based on historical market volatilities in foreign exchange, Committee members believe that planning for at least 24 standard deviation price changes is unduly extreme.

If banks are required to maintain capital against "worst case" price movements while competitors' capital requirements are significantly lower, then banks (and perhaps other highly-regulated organizations) will have to widen bid-offer spreads to remain profitable. As a result, foreign exchange market liquidity may diminish and a substantial portion of foreign exchange turnover would migrate to less regulated entities.

1. Confidence interval of 2.33 standard deviations * 3.16 (square root of 10-day vs 1-day holding period) * 1.1 (excluded correlations) * 3 (minimum proposed multiplication factor) = 24.3 standard deviations.

COMPARISON OF MODEL PARAMETERS: THE BIS PROPOSAL AND FINANCIAL INSTITUTIONS

	Financial Inst	BIS Proposal	Compounding Effect
Holding Period	1 Day	10 Days	3.16
Confidence Interval	1.65 - 2.0	2.33	1.16 - 1.41
Correlations	Across Market Factors	Within Market Factors	1.1[2]
Multiplication Factor	1	3 (Minimum)	3
Cumulative Compounding Effect			12.1 - 14.7

Chart 1 (attached) compares the capital that would be held under the latest BIS proposal against a long spot yen position of $100 million equivalent, showing profits and losses over rolling 10-day periods. As the chart demonstrates, the BIS proposal would require capital of almost 15 percent ($15 million) for this position.[3] The largest 10-day price movement in the past ten years (June 12, 1985 - June 12, 1995) was a 12 percent gain in the yen shortly after the September 1985 Plaza Agreement. The proposed BIS capital requirement is therefore more onerous than would have been necessary for this "worst case" historical experience. The second largest 10-day price movement was 8 percent, equivalent to only half of the BIS proposed regulatory capital level.

It should also be noted that a yen position of this size could be liquidated in 1 day rather than 10 days. The largest 1-day price change in the same 10-year period was 3.47%, implying a portfolio value change of $3.47 million. The $14.88 million of capital required under the BIS proposal is 4.3 times greater than the largest historical 1-day loss on this portfolio over the past 10 years.

A comparison between the BIS credit risk capital guidelines and the proposed capital requirements for market risk guidelines also leads to the conclusion that the BIS market risk proposal is unduly conservative. Committee members agree that foreign exchange trading positions (which can generally be liquidated in one day) impose less risk than long-term commercial loans (which cannot be offset until maturity). Yet the BIS market risk proposal would require capital of 14 percent or more against certain market risks while the credit risk guidelines require 8 percent against long-term commercial loans.

Multiplication Factor

The Committee understands that it may be appropriate to use a multiplication factor to transform value-at-risk figures into suitable capital levels. However, using a multiplication factor in addition to the highly conservative model assumptions in the BIS proposal generates capital requirements that are clearly excessive. As discussed more fully below, the Committee recommends that the BIS proposal include a multiplication factor but allow banks to use their own model parameters to calculate value at risk.

While the Committee is fully supportive of the qualitative standards outlined in the BIS proposals, there is concern that national supervisors, both within and between international jurisdictions, must apply a consistent approach in determining the level of each bank's compliance with the standards. This is particularly important as the results of these compliance assessments will be used to determine the multiplication factor assigned to each bank. To reduce the level of arbitrariness in this exercise, the BIS should develop a set of detailed guidelines for use by the national supervisors to ensure consistent application and measurement of compliance with the qualitative standards.

Holding Period

A 10 business day holding period is unjustifiable and ignores the fact that, even if a particular instrument is not readily marketable, its risk can often be hedged in liquid markets. Given that the large majority of both trading[4] and position-taking in foreign exchange occurs in major currency pairs, the Committee recommends that the common

2. This estimate is based upon the results of a comparison conducted by a major U.S. money center bank represented on the Committee in June 1995. This bank compared its daily value-at-risk (VAR) figures using correlations across interest and exchange rate movements with modified estimates allowing no correlations. The uncorrelated estimates were consistently 1.1 times this bank's correlated VAR calculations.

3. The BIS proposed capital guideline for this position would be as follows:
2.13% (1 standard deviation of yen change for 10-day holding period) *
2.33 standard deviations (99% confidence interval) *
3 (Multiplication Factor) *
$100 million (notional position) = $14,888,700

4. According to the BIS Central Bank Survey of Foreign Exchange Market Activity in April 1992, 83.2 percent of all global spot foreign exchange transactions were in major currency pairs including the US dollar, Japanese yen, Deutsche Mark, other European currencies, the Canadian dollar and the Australian dollar (Table IIb on page 10).

holding period for all currencies should be 1 day. A 1-day holding period also facilitates more accurate back testing of value-at-risk calculations against actual daily revenues.

Correlation

Sophisticated institutions use correlations across risk categories (e.g., interest rates and exchange rates) to measure portfolio risks more accurately and often employ diversification strategies to reduce risks. Disallowing the possibility of any cross-category correlations for market risk capital discourages risk reduction through diversification and reduces the reliability of potential loss forecasts.

Confidence Interval

The 99th percentile, 1-tailed test (equivalent to 2.33 standard deviations in a normal distribution) is also conservative. Most financial institutions use confidence intervals ranging from 1.65 standard deviations (95th percentile) to 2 standard deviations (97.7th percentile). Combined with other highly conservative BIS proposed assumptions, a wide confidence interval can generate potential loss forecasts well in excess of actual risks.

Observation Period

The Committee strongly recommends the use of a single observation index weighted to capture the benefits of both long and short observation periods. A weighted methodology would respond to changing market environments while preserving the importance of earlier data. Committee members believe that the dual observation period under consideration by the BIS would be operationally burdensome.

De Minimus Exemption

Committee members believe that the de minimus exemption should be applied to all banks. Whether banks take positions for their own account or not is irrelevant given the exemption criteria of overall net open positions exceeding 2% of eligible capital. The de minimus exemption should also not include a requirement on the size of a bank's matched foreign exchange positions. Matched positions are already covered under BIS credit risk guidelines.

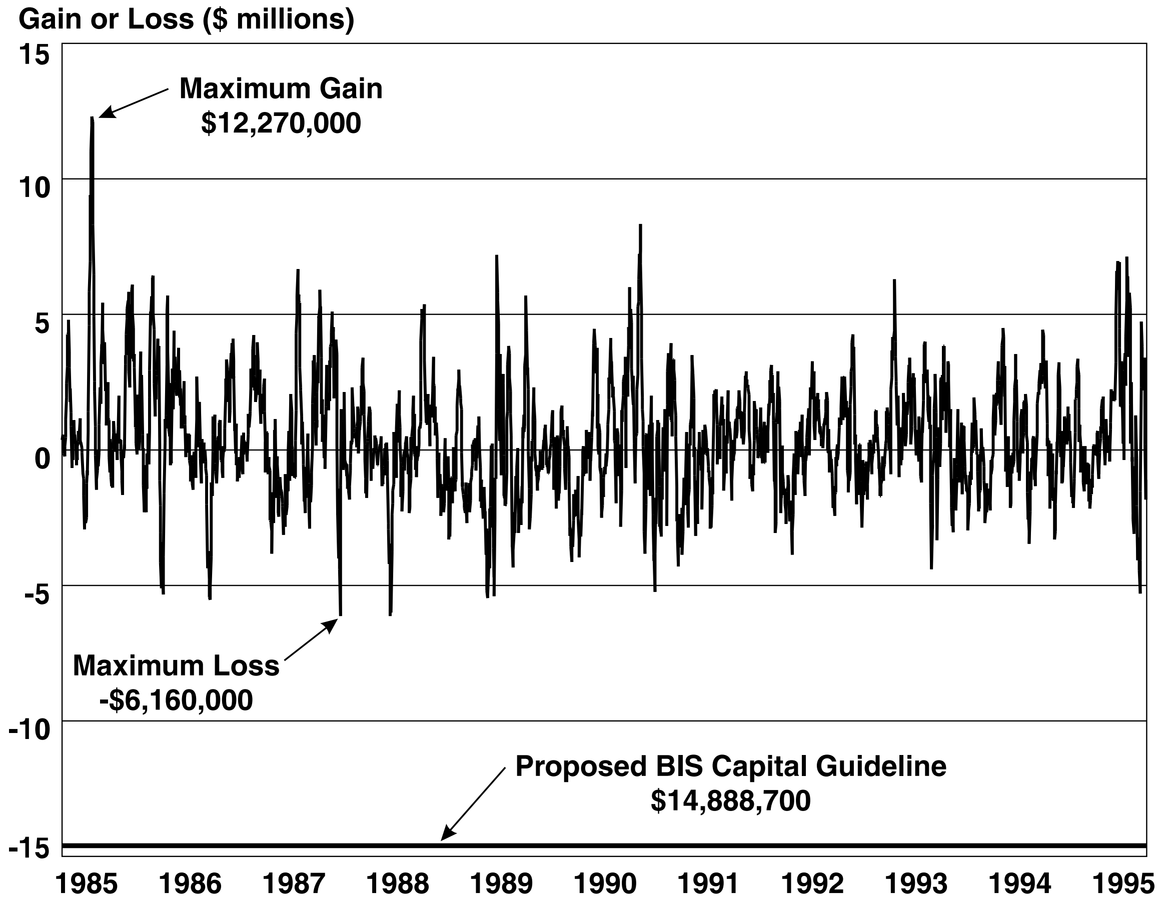
Using Internal Bank Models

The Foreign Exchange Committee strongly supports the use of internal models to calculate capital against possible losses from market price movements. However, as outlined above, the proposal as currently drafted includes minimum quantitative standards that are very different from most banks' internal models. In many instances, the proposed BIS model may be used solely for calculating regulatory capital rather than for day-to-day risk management purposes.

The BIS proposal requires that banks "back-test" their past value-at-risk calculations against actual profits and losses. The Committee agrees that back-testing is a crucial element in the validation of any bank's value at risk model. Although the BIS proposal is not specific in this regard, we are assuming that the requirement is for banks to back-test their own internal models. The conservative assumptions in the BIS model would make it extremely difficult, if not impossible, for banks to back-test the BIS model. For example, to back-test a model using the proposed 10-day holding period would require that the model's calculations be compared with actual revenues over a 10-day period. Virtually all trading portfolios change significantly over any 10-day period, making it impractical to compare the proposed value-at-risk calculations with actual revenues. In a similar fashion, using a highly conservative 99% confidence interval will make it extremely difficult to judge whether the interpreted results from back-testing are statistically significant. Back testing the BIS model would be purely a regulatory burden which would provide little, if any, benefit to the bank's risk management capabilities.

A simpler and more effective approach would allow each bank to use its own internal model to compute risk capital. Regulators could utilize the multiplication factor, if necessary, to adjust bank computed value at risk to appropriate capital levels. To evaluate the accuracy of internal models, regulators would review both the results of back testing as well as the methodologies employed in the back testing process. Internal models with poor predictive capabilities would be penalized with a multiplication factor greater than one. In this manner, regulators could encourage the development of more precise risk measurement models while maintaining consistent and conservative levels of risk capital.

Chart 1
10 DAY PROFITS AND LOSSES ON A $100 MILLION EQUIVALENT LONG YEN POSITION
June 12, 1985 - June 12, 1995



Proposed Capital Guidelines =

2.13% (1 standard deviation for 10-day holding period)*

2.33 standard deviations (99% confidence interval)*

3 (Multiplication Factor) * $100 million position

COMMITTEE COVER LETTER FOR ITS LETTER ON RECOMMENDED CONFIRMATION BEST PRACTICES

Dear Foreign Exchange Professional:

Enclosed is a copy of the Foreign Exchange Committee's recommended best practices for improving the trade confirmation process. These recommended practices are intended to reduce the risk to participants, whether due to error or fraud, in the period immediately after trade execution.

We strongly urge you to send a copy of the enclosed letter to your customers and counterparties, in order to encourage best practices among as wide a rand of market participants as possible.

Sincerely yours,

Lewis W. (Woody) Teel
Chairman

COMMITTEE LETTER REGARDING ITS RECOMMENDED CONFIRMATION BEST PRACTICES

June 27, 1995

Re: Standardizing the Confirmation Process

Dear Sir/Madam:

The Foreign Exchange Committee's *Guidelines for the Management of Foreign Exchange Trading Activity* are intended to enhance the integrity of the foreign exchange market through the promotion of sound business practices. As part of our continuing efforts in this regard, the Committee is issuing a set of recommended management principles to serve as an elaboration of the existing guidelines for the purpose of improving trade confirmation practices.

The Committee's recommended guidelines stem from the understanding that all foreign exchange market participants have certain duties. Perhaps the most fundamental of these in relation to trade confirmation practices is the duty to maintain an efficient operating staff. Management's attention to a foreign exchange trading operation is usually directed toward establishing trading policies, managing risk, and developing trading personnel. Equally important, however, is a rigorous back office. Details of each trading transaction must be accurately recorded, payment instructions must be correctly exchanged and executed, accounts must be quickly reconciled and financial results must be properly evaluated. Time-consuming and costly reconciliation of improperly executed transactions mars the efficiency of the market, undermines profitability, and impairs the willingness of others to trade with an offending institution. Accordingly, management should be aware of its responsibility to establish an operations staff consistent with the scope of its trading activity.

The Committee believes that the confirmation procedure is a mutual obligation between the two counterparties, and that the obligation should apply equally to fund managers and corporations, as well as members of the interbank community. The confirmation process is a fundamental first line of defense against fraud. As such, market participants should keep in mind that the time between trade execution and trade confirmation is not a window of opportunity, but a window of risk. The Committee underscores the importance of minimizing the number of transactions that are confirmed after 4:00 p.m. on trade date to narrow this window of risk as much as possible.

The Foreign Exchange Committee has identified four specific duties that follow from the fundamental duty of market participants to maintain a rigorous back office. These duties, along with the Committee's existing recommendations in its Guidelines, represent the basis for the procedures that are recommended regarding the internal management of trade confirmation by foreign exchange dealing institutions and brokers.

1. **Trades Should be Confirmed Within 1 to 3 Hours of Execution:** Institutions in the foreign exchange market should make every effort to exchange confirmations of all foreign exchange transactions to which they are party—including both interbank and corporate, spot and forward, within 1 to 3 hours of execution of the transaction. The prompt exchange of confirmations and their immediate and thorough checking upon receipt is vital to the orderly functioning of the market place and provides a first defense against fraud. To further reduce the risk of fraud and error, counterparts should agree to exchange standard settlement instructions. If there has been a misunderstanding between counterparties regarding transaction terms, it will usually be discovered upon the review of the confirmation. Counterparties to brokered transactions should exchange confirmations, including from spot transactions, even though the parties may have received confirmations from the broker.

   Confirmations should identify (I) the parties to the foreign exchange transaction and the designated offices through which they are respectively acting,

(ii) the broker, if applicable, (iii) the transaction date, (iv) the amounts of the currencies being bought or sold and by which parties, (v) the exchange rate at which the currency amounts are being bought or sold, and (vi) the value date.

2. **All Splits Should be Confirmed by the End of the Day on the Same Day as the Transaction:** For all investment advisors, every effort should be made to identify allocations to specific accounts and confirm all transactions by the end of the business day on the day of the trade. For corporate customers, every effort should be made to confirm all transactions within 3 hours of the trade, but no later than the end of the business day. The Committee recommends that all participants make every effort towards confirming splits by 4:00 p.m. Both counterparties should exchange and review confirmations and identify any errors on the trade date. The Committee strongly urges all participants to have a clear separation of duties between the trade staff and back-office staff handling confirmations. Someone other than the person that executed the trade should confirm.

3. **All Errors Should be Resolved on the Same Day of Execution:** Institutions in the foreign exchange market should make every effort to resolve any disputes relating to foreign exchange transactions—including both interbank and corporate, spot and forward—on the day of execution. Given the volatility in the foreign exchange market, timely error resolution is essential in reducing potential market risk.

   The non-receipt of expected confirmations, the receipt of unexpected confirmations, or any inconsistencies or inaccuracies in confirmations, should be queried and if appropriate, disputed as soon as the confirmation is received. Identification and resolution of errors should be the responsibility of all counterparties because failure to cooperate in the immediate resolution of errors could exacerbate losses.

4. **All Market Participants Should Move Towards Autoconfirmations:** Autoconfirmation is the most reliable method of confirming transactions. The Committee recommends that all market participants make every effort to evolve their systems toward use of an electronic confirmation process that utilizes a standard industry format when settling foreign exchange transactions. The implementation of automatic confirmation allows faster and more complete trade confirmation, minimizes market risk and trade errors, minimizes settlement risk and compensation payments, reduces potential errors caused by human intervention (phone and paper), reduces operational and overhead costs, and reduces or eliminates paper storage.

   Automatic methods of communication of confirmations are superior to mailed confirmations, which, particularly in the case of spot transactions, often do not arrive in time to bring problems to light before the settlement date. Institutions should make an effort to automate the confirmation process, since unautomated confirmation systems tend to break down during periods of heavy activity, precisely when they are most critical.

Attached is a copy of the Committee's Document of Organization and a list of its 1994 Membership. Please feel free to contact myself, members of the Committee, or the Committee's Executive Assistant with any questions or comments regarding this letter.

COMMITTEE LETTER REGARDING THE PRINCIPLES AND PRACTICES FOR WHOLESALE FINANCIAL MARKET TRANSACTIONS

Dear Foreign Exchange Professional:

Enclosed is a copy of the final version of the Principles and Practices for Wholesale Financial Market Transactions document, a voluntary code of best practices for over-the-counter non-exchange traded financial instruments. The Principles are intended to provide guidance to participants in wholesale over-the-counter transactions, including foreign exchange dealing.

To encourage best practices among as wide a range of market participants as possible, we strongly urge you to send copies of the Principles to your customers and counterparties.

Attached is a copy of the Committee's Document of Organization and a list of its 1995 Membership. Please feel free to contact me, members of the Committee, or David Carangelo, the Committee's Executive Assistant, with any questions or comments regarding the Principles.

Sincerely yours,

Lewis W. (Woody) Teel
Chairman

PRINCIPLES AND PRACTICES OF WHOLESALE FINANCIAL MARKET TRANSACTIONS

Re: The Principles and Practices for Wholesale Financial Market Transactions

August 17, 1995

Dear Sir/Madam:

It is with pleasure that we provide the enclosed final version of the Principles and Practices for Wholesale Financial Market Transactions (the "Principles"). The Principles were developed over the course of the past year by a drafting committee consisting of representatives from several financial trade associations, under the coordination of the Federal Reserve Bank of New York. Representatives of the Emerging Markets Traders Association, the Foreign Exchange Committee of the Federal Reserve Bank of New York, the International Swaps and Derivatives Association, the New York Clearing House Association, the Public Securities Association and the Securities Industry Association participated in the preparation of the Principles.

The drafting process entailed an approximately six-week public comment period, during which the March 20,1995 draft of the Principles was widely circulated. During the comment period, the drafting committee received comment letters from 22 institutions, law firms, trade associations, bar associations and government agencies regarding the draft Principles. The drafting committee also held an open meeting at the Federal Reserve Bank of New York to discuss this draft of the Principles with interested parties.

In preparing the final version of the Principles, the drafting committee considered carefully all the comments made in each of the comment letters. Members of the drafting committee also met personally with representatives from many of the commenting institutions. In many cases, changes to the draft Principles were adopted to respond directly to suggestions made by the commenters. The purpose of this letter is to highlight the most significant points raised in the comment letters and these meetings, and to indicate where responsive changes to the draft Principles were made.

1. PARTICIPANTS

Several commenters noted that the definition of Participant in Section 1.1 of the draft Principles may have been unnecessarily confusing or over-inclusive due to the long list of legal terms that were referenced. The drafting committee agreed that the list was unnecessary, and it has been removed from the final version of the Principles.

The drafting committee believed that a technical definition of Participant was not consistent with the voluntary nature of the Principles. Any participant in wholesale financial markets transactions can, if they choose, adhere to the Principles. Therefore, a sufficient definition of Participant is "any corporation, partnership, trust, government or other entity that engages regularly in one or more types of Transactions". The word "regularly" was added to address the concerns of certain commenters who feared that every institution that entered into only a few Transactions would be assumed to be a Participant. Thus the definition has been limited to those institutions that regularly enter into Transactions. Of course, even institutions that do not regularly enter into Transactions may find value in reviewing and implementing where appropriate portions of the Principles.

A few commenters suggested that the definition of Participant should be limited to dealers, so that end-users that participated in the wholesale financial markets could not fall within the Principles. This suggestion was based on the notion that certain assumptions contained in the Principles (i.e., the assumption of arm's-length relationships) should not apply to such end-users. Rejecting for end-user Participants the provisions of the Principles that confirm the arm's-length nature of Transactions might, however, promote an alternate governing assumption that end-user Participants may rely on communications of their counterparties as recommendations and investment advice in Transactions. The drafting committee concluded

that such an assumption would be at odds with many of the provisions of the Principles that encourage parties to clearly communicate the nature of their relationship to each other, and to enter into written agreements where one Participant wishes to rely on another Participant for recommendations or investment advice. To preclude end-users from coming within the definition of Participant would be to encourage the types of uncertainty that the Principles are designed to reduce.

In the highly competitive wholesale financial markets, Participants are free to negotiate the nature of their relationships. However, especially in times of stress in financial markets, Participants should want to avoid ambiguities in their relationships with other Participants. If the nature of the relationship is clear, then the firms will be better and more quickly able to decide what action is appropriate in the circumstances. For this reason, prudence dictates that a decision should be made up front as to the nature of the relationship. If one Participant prefers not to have an arm's length relationship, it certainly will be able to enter into a written agreement with another Participant providing otherwise.

Although the drafting committee did not adopt the suggestion to exclude or otherwise segregate end-user Participants from the Principles, the drafting committee does recognize that some provisions of the Principles will be more applicable to dealer Participants than end-user Participants. Therefore, Section 5.1 of the Principles now notes that the provisions of Section 5 may be of particular relevance to dealers. Furthermore, Section 5.1 encourages Participants to adopt policies and procedures to identify and address the general kinds of circumstances described throughout Section 5, in order to protect the Participant from relationship, reputational or litigation risks.

2. RELIANCE ON ADVICE

Sections 1.2 and 4.2 of the Principles confirm the arm's-length nature of relationships between Participants in Transactions. Section 4.2.2 of the draft Principles stated that a Participant that wished to rely on its counterparty for recommendations should enter into a written agreement with the counterparty to that effect. Several commenters interpreted this provision broadly to disclaim responsibility even for the factual accuracy of statements made to a counterparty.

The drafting committee did not intend for Section 4.2.2 to be interpreted in this manner. The intent of this Section was merely to describe what Participants should do if they wished to enter into an advisory relationship where one Participant would provide recommendations or investment advice to the other. It was not intended to protect or condone inaccurate or intentionally misleading factual statements. Furthermore, the Principles do not and could not modify the common law rules of fraud. However, the drafting committee recognized the need for clarification on this point, and Section 4.2.2 has been appropriately redrafted, including inclusion of a statement that factual communications relating to Transactions should be accurate and not intentionally misleading.

Additionally, a few commenters noted that Section 4.2.2 of the draft Principles could be interpreted to undermine a Participant's potential obligations pursuant to the Employee Retirement Income Security Act of 1974 ("ERISA") and regulations thereunder when entering into Transactions with pension plans that are Participants. These commenters explained that in certain situations, a Participant could become a fiduciary of a pension plan by providing investment advice or recommendations regarding securities or other property on a regular basis pursuant to a mutual agreement, arrangement or understanding, written or otherwise, if such advice served as the primary basis for investment decisions with respect to the assets of the pension plan. The determination as to whether such a relationship exists is based on the facts and circumstances of the relationship. Therefore, some commenters noted, a Participant could become a fiduciary to a pension plan Participant under ERISA even if the parties did not enter into a written advisory agreement.

As noted in Section 1.3 of the draft Principles, the Principles are not intended to replace any applicable statutes or regulations such as ERISA. Section 4.2.2 of the draft Principles also stated that any advisory obligations always were subject to any rules or regulations that placed affirmative obligations on a Participant. Nevertheless, some commenters thought that Section 4.2.2 should be deleted because it suggested a course of action (entering into a written agreement) that might not be necessary in certain limited circumstances to create a fiduciary relationship between Participants.

The drafting committee recognizes the concerns of these commenters and has redrafted Section 4.2.2 with these issues in mind. Notably, Section 4.2.2 now reiterates the notion that all Participants should enter into written advisory agreements to avoid misunderstandings and disputes that could arise by relying on "facts and circumstances" to govern the nature of a relationship. Revised Section 4.2.2 also acknowledges that certain laws, rules or regulations expressly provide that in some situations an

oral agreement or the facts and circumstances of a relationship alone may give rise to an advisory or fiduciary relationship, in some cases even in the presence of a written agreement purporting to negate such a relationship. Finally, Section 1.3 was clarified to further express the view that the Principles do not replace or modify any applicable statutes, rules or regulations.

Despite these changes designed to address the concerns expressed by some commenters, the drafting committee continues to hold the view (shared by other commenters) that Participants should strive to clarify the nature of their relationships, and to reduce any advisory or fiduciary agreements to writing.

In order to promote the clarification of the arm's-length relationship of Transactions, Section 5.2 of the Principles now expresses the desirability of maintaining policies and procedures to identify and address situations where a counterparty has the capability to understand and make independent decisions regarding Transactions but where the counterparty appears to assume incorrectly that it may rely on the Participant for recommendations or investment advice.

Where a Participant does wish to rely on a counterparty's communications as recommendations or investment advice, the Principles state that the Participant should put its counterparty on notice in writing that it is relying and obtain the counterparty's agreement in writing to do business on that basis. The draft Principles also stated that the Participant should provide the counterparty with accurate and complete information regarding the size, nature and condition of the counterparty's business. Several commenters noted that a "completeness" standard was potentially overbroad. Section 4.2.2 of the Principles now refers only to information that is accurate and sufficient to allow the counterparty to provide recommendations or investment advice to the Participant.

3. CONFIDENTIALITY

Section 4.3 of the draft Principles stated that Participants should keep confidential all information relating to Transactions, except where disclosure was required or requested by a regulatory authority. Several commenters concluded that this Section was inconsistent with Section 3.6.2, which encouraged Participants to seek external valuations of Transactions from outside parties at appropriate intervals. These commenters correctly noted that to obtain such valuations would necessarily involve disclosures to a third party valuation agent that could be deemed to violate Section 4.3.

After additional consideration, the drafting committee concluded that Section 4.3 as proposed was overly broad and not reflective of current market practice. That is, the drafting committee recognized that the expectation of confidentiality attaches to the identity of counterparties involved in particular Transactions, and not with respect to all information related to such Transactions. Therefore, the revised Section 4.3 has been limited to information related to a counterparty's involvement in a Transaction. Because the counterparty's identity is not necessary to obtain a valuation, the conflict between Sections 4.3 and 3.6.2 is resolved by this change.

Finally, the drafting committee also recognized that in some specific situations (e.g., where there is a proprietary deal structure) a Participant may desire to have all information relating to a Transaction kept confidential. However, the drafting committee believed that such situations should be dealt with on a case-by-case basis between the parties, and not through the broad confidentiality provision contained in the draft Principles.

4. VALUATION

Some commenters noted that Section 3.6 of the draft Principles (related to valuation) did not affirmatively state that Participants were not obligated to provide valuations of Transactions to counterparties. This omission is remedied by the new language in Section 3.6.4. That Section was modified further to require any Participant providing a valuation to clearly state the characteristics of such valuation. This provision is consistent with Section 3.6.2, which requires any Participant requesting a valuation to clearly state the desired characteristics of that requested valuation.

Section 3.6.2 also was modified to affirmatively encourage all Participants to ascertain the availability of external valuations (which may include valuations from its counterparty) prior to entering into a Transaction, if the Participant does not have the internal capability to value a Transaction at appropriate intervals.

5. DISTRIBUTION OF PRINCIPLES

Some commenters believed that Participants who adhere to the Principles should publicize or otherwise notify counterparties of their adherence. Such notification would be consistent with the goal of informing counterparties of the nature of relationships between Participants.

Section 5.3 has been amended to suggest that sending a copy of the Principles may be one way for a Participant to put its counterparty on notice regarding the relationship between Participants.

6. INFORMATION

Section 5.4 of the draft Principles related to voluntarily providing additional information to a counterparty to assist the counterparty in its decision-making process. Many commenters recognized that such voluntary additional information may be especially important in the context of a Transaction in which the payment formula is particularly complex or which includes a significant leverage component. Section 5.4 has been redrafted to reflect these comments.

7. DISPUTES

Based on a suggestion from a commenter, Section 6.5 of the draft Principles has been revised to encourage Participants to notify its counterparty of any disputes or complaints related to Transactions with that counterparty.

8. SUITABILITY

A few commenters suggested that the draft Principles were fundamentally flawed because they did not create a new obligation on Participants to determine the suitability of Transactions for their counterparties. The drafting committee regards these comments as expressing a view of how Transactions should be conducted that is fundamentally inconsistent with the view reflected in the Principles. An obligation to determine suitability of Transactions for a counterparty (in the absence of an applicable statute, rule or regulation or a written agreement to that effect) would create duties and responsibilities that are unavoidably vague in scope and conflict with the arm's-length nature of Transactions.

This alternative approach is incompatible with the central concept of the Principles, supported by most commenters, that encourage Participants to take responsibility for their own decisions regarding Transactions. Furthermore, the alternative approach would undermine the finality of agreed Transactions, and create tremendous uncertainty regarding the economic risk position of Participants. Therefore, the drafting committee believes that a suitability obligation can not and should not be imposed on Participants. Instead, the Principles encourage each Participant to seek independent advice or enter into a written advisory agreement whenever it is unable or unwilling to take responsibility for its own decisions relating to Transactions.

This letter has summarized the most significant comments received verbally and in writing during the comment period, and the major changes reflected in the final version of the Principles based on these comments.

On behalf of the entire drafting committee, we would like to thank all those who took the time to provide the drafting committee with comments and input. This participation led to important changes, which should help to further the goal of establishing the Principles as guidance for all entities that regularly engage in wholesale financial market transactions.

Yours sincerely,

Gay H. Evans
Co-Chair of Principles
Drafting Committee
International Swaps and
Derivatives Association, Inc.

Lewis W. Teel
Co-Chair of Principles
Drafting Committee
Foreign Exchange Committee

Ernest T. Patrikis
First Vice President
Federal Reserve Bank of New York

PRINCIPLES AND PRACTICES FOR WHOLESALE FINANCIAL MARKET TRANSACTIONS

INTRODUCTION

These Principles and Practices for Wholesale Financial Market Transactions are the result of a joint effort by several groups that represent participants in the over-the-counter financial markets. These Principles were prepared in order to confirm the relationship between Participants and to articulate a set of best practices with respect to over-the-counter financial markets transactions between Participants.

Representatives of the Emerging Markets Traders Association, the Foreign Exchange Committee of the Federal Reserve Bank of New York, the International Swaps and Derivatives Association, the New York Clearing House Association, the Public Securities Association and the Securities Industry Association participated in the preparation of the Principles. The preparation of the Principles was coordinated by the Federal Reserve Bank of New York.

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PRINCIPLES AND PRACTICES FOR WHOLESALE FINANCIAL MARKET TRANSACTIONS

1. PURPOSE OF PRINCIPLES AND PRACTICES

1.1 Applicability

These Principles and Practices for Wholesale Financial Market Transactions (the "Principles") are intended to provide guidance for the conduct of wholesale transactions in the over-the-counter financial markets between Participants ("Transactions").

"Participant" means any corporation, partnership, trust, government or other entity that engages regularly in one or more types of Transactions. The term "counter-party" as used in the Principles means a Participant that is the other party to a Transaction with a Participant.

The Principles reflect principles and practices in the United States of America and may not reflect principles and practices in other countries.

1.2 Nature of Principles

The Principles confirm the arm's-length nature of Transactions and describe the assumptions that Participants may make about each other. The Principles also articulate a set of best practices that Participants should aspire to achieve in connection with their Transactions. It is intended that the Principles (especially those contained in Section 3) will continue to evolve over time as business practices change. The Principles do not create any legally enforceable obligations, duties, rights or liabilities.

Adherence to the Principles is strictly voluntary. A Participant may implement the Principles as it deems appropriate. Any policies or procedures implemented or other actions taken by a Participant based on the Principles should be appropriate for the size, nature and complexity of the Participant and its Transactions as well as its business activities generally.

It should not be assumed that an entity that is within the definition of Participant necessarily adheres to the Principles. Nevertheless, because the Principles confirm the nature of the relationship between Participants, an entity that is within the definition of Participant should be aware that Participants will make certain assumptions when entering into Transactions with that entity.

1.3 Supplementary Nature of Principles

The Principles are intended to supplement, and are not intended to replace or modify, applicable statutes, governmental regulations, exchange, board of trade or self-regulatory organization rules and industry practices (including those embodied in applicable codes of conduct).

2. PARTICIPANTS - FINANCIAL RESOURCES

2.1 Financial Resources

A Participant should maintain adequate financial resources, including capital, liquidity or other sources of support, to manage the material risks associated with its Transactions and meet its Transaction commitments.

3. PARTICIPANTS - POLICIES AND PROCEDURES

3.1 Policies and Procedures

With respect to policies and procedures of the types identified in the Principles, a Participant should have policies approved by its board of directors, a committee thereof or an appropriate level of senior management. An appropriate level of senior management should approve controls and procedures to implement these policies. All policies, controls and procedures should be appropriate to the size, nature and complexity of the Participant and its Transactions, and should be reviewed as business and market circumstances change.

3.2 Supervision and Training of Employees

A Participant should maintain internal policies and procedures for supervising and training appropriate officers, employees and representatives of the Participant with respect to conduct related to Transactions.

3.3 Control and Compliance

A Participant should maintain and enforce internal control and compliance procedures designed so that its Transactions are conducted in accordance with applicable legal and regulatory requirements, internal policies and any specific requirements contained in any agreements applicable to its Transactions.

3.4 Risk Management

A Participant should maintain (i) policies and procedures that clearly delineate lines of responsibility for managing market, credit and other risks, (ii) adequate systems for measuring risks, including, where appropriate, systems for developing stress scenarios to measure the impact of market conditions that might reduce liquidity or cause extraordinary changes in price or volatility, (iii) appropriately structured limits on risk taking, (iv) policies and procedures designed for comprehensive and timely risk reporting, and (v) policies and procedures for reviewing the adequacy of internal measures of credit risk, market risk and valuation.

3.5 Independent Risk Monitoring

A Participant should have knowledgeable individuals responsible for risk monitoring and control who are independent of the individuals that conduct the Transactions that create the risk exposure.

3.6 Valuation

3.6.1 Valuation of Transactions

A Participant should maintain policies and procedures for the valuation of Transactions at intervals appropriate for the type of Transaction in question, regardless of the accounting methodology employed by the Participant. These policies and procedures should address the specific methodology used for valuation, including as appropriate the use of market or model based valuations with reserves and adjustments.

3.6.2 Obtaining External Valuations

If a Participant does not have the internal capability to value a Transaction and a price or market valuation of a Transaction is not publicly available or otherwise readily ascertainable, then the Participant should (i) ascertain the availability of external valuations (which may include valuations from its counterparty) prior to entering into the Transaction and (ii) obtain an external valuation of the Transaction at intervals appropriate for the type of Transaction in question.

When a Participant requests an external valuation for a Transaction, the Participant should clearly state the desired characteristics of the requested valuation (e.g., mid-market, indicative or firm price).

3.6.3 Evaluating External Valuations

In assessing any external valuation received, it is essential that the Participant consider the circumstances in which the valuation was provided, including criteria such as whether the party providing the valuation is a counterparty to the Transaction, the time frame within which the valuation was provided and whether the party supplying the valuation was compensated for its services. Participants should understand that a valuation of a particular Transaction may include adjustments for, among other factors, credit spreads, cost of carry and use of capital and profit, and may not be representative of either (i) the valuation used by a counterparty for internal purposes or (ii) other market or model based valuations.

3.6.4 Providing Valuations to Other Participants

Entering into a Transaction does not obligate a Participant to provide valuations of that Transaction to its counterparty. However, if a Participant does provide valuations of Transactions, it should maintain policies and procedures concerning the provision of valuations. Such policies and procedures should require the Participant to clearly state the characteristics of any valuation provided (e.g., mid-market, indicative or firm price). In those markets with specific conventions regarding valuations, Participants should supply valuations using those conventions, unless otherwise agreed.

3.7 Credit Risk

Before entering into a Transaction involving credit exposure to a counterparty, a Participant should assess its counterparty's ability to meet its payment obligations.

As credit relationships depend upon the existence of a legal relationship between parties, Participants should recognize situations where special steps may be necessary to assure that Transactions are enforceable against the party on whose credit the Participant is relying, particularly when dealing through third parties such as agents, brokers or investment advisors acting for undisclosed principals.

3.8 Legal Capacity and Authority to Transact

Before entering into a Transaction, a Participant should take measures reasonable under the circumstances to

satisfy itself that its counterparty has the legal capacity and authority to enter into the Transaction. A Participant should recognize that Transactions with governmental units and regulated counterparties (such as depository institutions, mutual funds, pension plans, trusts and insurance companies) may require additional scrutiny to establish the scope of the counterparty's legal capacity and authority. Special scrutiny also should be given to the scope of a third party agent's authority to act for its principal.

4. RELATIONSHIPS BETWEEN PARTICIPANTS

4.1 Fair Dealing and Professional Standards

A Participant should act honestly and in good faith when marketing, entering into, executing and administering Transactions. A Participant should act in a manner designed to promote public confidence in the wholesale financial markets. In addition, a Participant should show its counterparties professional courtesy and consideration.

4.2 Relationships with Counterparties

4.2.1 Decision-Making Capability

A Participant should satisfy itself that it has the capability (internally or through independent professional advice) to understand and make independent decisions about its Transactions. That capability includes the experience, knowledge and ability to analyze the tax and accounting treatment as well as the legal, credit, market and liquidity risks of each Transaction. Absent a written agreement to the contrary, a Participant should expect that its counterparty will assume that the Participant has the capability to understand and make independent decisions about its Transactions and will act accordingly.

4.2.2 Reliance on Investment Advice

The character and level of risk that is desirable for a particular Participant is a business judgment that is appropriately made by the Participant's governing body or management, in accordance with any applicable statutory or regulatory constraints, based on an evaluation of the totality of its particular circumstances and objectives.

A Participant may communicate to its counterparty economic or market information relating to Transactions and trade or hedging ideas or suggestions. All such communications (whether written or oral) should be accurate and not intentionally misleading. Absent a written agreement or an applicable law, rule or regulation that expressly imposes affirmative obligations to the contrary, a counterparty receiving such communications should assume that the Participant is acting at arm's length for its own account and that such communications are not recommendations or investment advice on which the counterparty may rely.

In any case where a Participant does not wish to make independent investment decisions regarding a Transaction and instead wishes to rely on a counterparty's communications as recommendations or investment advice, the Participant should, prior to entering into a Transaction with that counterparty involving such reliance, (i) put its counterparty on notice in writing that it is relying on the counterparty, (ii) obtain the counterparty's agreement in writing to do business on that basis, and (iii) provide the counterparty with accurate information regarding its financial objectives and the size, nature and condition of its business sufficient to provide such recommendations or investment advice. The extent of the counterparty's obligations to provide recommendations and investment advice then will be determined by that written agreement and any applicable law, rule or regulation that imposes affirmative obligations on the counterparty. Certain laws, rules or regulations expressly provide that, in some situations, an oral agreement or the facts and circumstances of a relationship alone may give rise to an advisory or fiduciary relationship, in some cases even in the presence of a written agreement purporting to negate such a relationship. Nonetheless, to avoid misunderstandings and disputes, the steps outlined above should be followed.

4.2.3 Transaction Information

A Participant should ensure that it identifies and reaches agreement on all material terms and conditions of each Transaction it enters into. In some cases it may be useful for the parties to exchange a written outline of the principal terms and conditions of a Transaction prior to its execution. A Participant should either ask questions and request additional information or seek independent professional advice when it does not have a full understanding of either the risks involved in a Transaction or the fit between a Transaction and its desired risk profile. A counterparty should answer such questions and respond to such requests for additional information in good faith, and the information provided should be accurate and not intentionally misleading. A Participant should expect that, if it does not expressly ask questions or request additional information with respect to a Transaction, its counterparty will assume that the Participant understands the Transaction and has all the information it needs for its decision-making process.

4.2.4 Other Activities of Counterparties

A Participant should be aware that in the over-the-counter financial markets it may be customary for a counterparty to (i) take positions in instruments that are identical or economically related to a Transaction that has been or will be entered into with the Participant, or (ii) have commercial relationships with the issuer of an instrument underlying a Transaction that has been or will be entered into with the Participant.

4.2.5 Role as Agent or Broker

A Participant that represents itself as generally acting as a "broker" in Transactions should act only as agent for both parties or (in those markets where it is customary to do so) as riskless principal, unless it discloses clearly to all parties before executing a Transaction that it is acting in another capacity.

A Participant that represents itself as generally acting as a principal may on occasion agree to act as an agent for a counterparty, to assist the counterparty to execute a Transaction with other Participants on a "best execution" basis or at a specified level, or to effect a Transaction directly if and when the Participant is prepared to do so at a specified level. A Participant acting as an agent should avoid misusing its knowledge of the terms on which the counterparty is prepared to execute a Transaction to take unfair advantage of the counterparty.

A Participant should be aware that its agent may be engaging in other activities as described above in Section 4.2.4.

4.3 Confidentiality

A Participant expects that its involvement in a Transaction will be handled in confidence by its counterparty. Accordingly, a Participant should not, except with express permission, disclose or discuss, or request that others disclose or discuss, information relating to its counterparty's involvement in a Transaction except to the extent required by law or required or requested by a regulatory authority.

5. CONSIDERATIONS RELATING TO RELATIONSHIPS BETWEEN PARTICIPANTS

5.1 Introduction

A Participant (particularly one that is holding itself out as a dealer in a particular wholesale financial instrument) should maintain policies and procedures that identify and address circumstances that can lead to uncertainties, misunderstandings or disputes with the potential for relationship, reputational or litigation risk. A Participant should consider including in such policies and procedures provisions designed to address the particular circumstances described in this Section 5. Maintaining and complying with such policies and procedures should be regarded as steps taken by the Participant for its own protection. Accordingly, neither the maintenance nor compliance with such policies and procedures should be construed as giving rise to duties to others.

5.2 Counterparty Decision-Making Capability

A Participant may wish to evaluate (based upon information in its possession) its counterparty's capability (internally or through independent professional advice) to understand and make independent decisions about the terms and conditions of its Transactions. A Participant may, without limitation, consider the following factors in evaluating a counterparty's capability: the nature of the counterparty's business; the financial size and condition of the counterparty; the counterparty's prior dealings or experience in Transactions; and the nature, complexity and risks of a proposed Transaction. A Participant should be aware that if it holds itself out as a dealer for a certain type of Transaction, other Participants will assume that it has the capability to understand and make independent decisions regarding that type of Transaction.

A Participant may wish to maintain policies and procedures for identifying (based on information in the possession of the representative of the Participant executing the Transaction on the Participant's behalf) and addressing exceptional situations (which may pose relationship, reputational or litigation risks to the Participant) where its counterparty either (i) does not have the capability (internally or through independent professional advice) to understand and make independent decisions regarding a particular Transaction or a type of Transaction being proposed by the Participant or (ii) has the capability to understand and make independent decisions regarding a Transaction, but where (a) the amount of risk to the counterparty involved in the Transaction appears to be clearly disproportionate in relation to the size, nature and condition of the counterparty's business or (b) the counterparty appears to assume incorrectly that it may rely on the Participant for recommendations or investment advice.

A Participant may wish to consider taking such steps, if any, as it may deem appropriate in the circumstances to address these types of exceptional situations, including, without limitation, (i) providing or obtaining additional information to or from the counterparty, (ii) involving additional qualified personnel internally, (iii) involving additional qualified personnel of the counterparty, (iv) entering into a written agreement specifying the nature of the relationship or (v) not entering into the particular Transaction or type of Transaction with that counterparty. This list of steps to consider for exceptional situations is neither exhaustive nor mandatory because any appropriate response will be based upon the facts and circumstances of a specific situation.

5.3 Notifying Counterparties of Nature of Relationship

A Participant may wish to inform some or all of its counterparties of the nature of the relationships between Participants. Such information may, without limitation, take the form of (i) communications to a counterparty that are designed to put the counterparty on notice about the Participant's assumptions regarding the counterparty's capability to understand and make independent decisions and non-reliance concerning Transactions with the Participant (which communications may include sending a copy of the Principles to the counterparty), or (ii) representations or disclosures to be acknowledged by a counterparty that are designed to confirm that the Participant's assumptions regarding the counterparty's capability to understand and make independent decisions and non-reliance concerning Transactions with the Participant are correct.

5.4 Providing Additional Information to Counterparties

For a Transaction in which the payment formula is particularly complex or which includes a significant leverage component, a Participant may wish to assist a counterparty in its decision-making process by providing more information (such as loss scenarios) to a counterparty than is typically provided for other types of Transactions. Where loss scenarios are part of the information voluntarily provided to a counterparty, or where loss scenarios are prepared at a counterparty's request and the counterparty does not stipulate some or all of the assumptions to be used in making the calculations, the Participant should attempt in good faith to use assumptions that provide information that is reasonable under the circumstances.

6. MECHANICS OF TRANSACTIONS

6.1 When Transactions are Binding

A Transaction should be considered final and binding when entered into in accordance with applicable market practice, whether by oral, written or electronic means.

6.2 Confirmations

Transactions should be confirmed as soon as possible and in accordance with applicable market practice. For most types of Transactions, a confirmation (whether sent by mail, telex, facsimile, electronic or other means) provides a necessary final safeguard against errors. All confirmations should be dispatched promptly by one or both parties and reviewed carefully by the receiving party, even when oral checks of the Transactions have been undertaken. The dispatch and checking of confirmations also should be carried out or reviewed independently from those who conduct the Transactions.

6.3 Payment and Settlement Instructions

A Participant should provide its counterparty with standing payment and settlement instructions, and any modifications to those standing instructions should be communicated as quickly as possible to facilitate prompt settlement of Transactions.

6.4 Documentation

A Participant should use, to the greatest extent practicable, standardized or master agreements or comparable arrangements that apply to multiple Transactions, in order to provide standardized terms governing Transactions and to provide for the netting or offset of credit exposures and payment obligations. A Participant should review and where appropriate modify the documentation it uses in connection with Transactions periodically in light of changes in market practice or law.

6.5 Complaints and Settlement of Differences

A Participant should notify its counterparty promptly of any dispute or complaint involving a Transaction in order to mitigate any damages to itself or its counterparty. A Participant should attempt to resolve promptly and fairly any such dispute or complaint. A Participant should ensure that all complaints involving Transactions are promptly and fairly investigated, wherever practicable, by employees or representatives of the Participant who were not directly

involved with the disputed Transaction. Such investigations should be construed as an act of prudence to reduce the risk of loss resulting from the dispute, and not as an admission of liability by the Participant.

In addition, upon receiving information that a complaint or dispute involving a Transaction may create market exposure, the Participant should consider all available methods to reduce potential losses from that exposure. Any such steps taken should be construed as an act of prudence and not an admission of liability by the Participant.

7. STANDARDS FOR TRANSACTIONS

7.1 Misuse of Market Terminology and Conventions

Traders, brokers, and other employees or representatives of a Participant should use clear and unambiguous language when negotiating Transactions. Recognizing that each type of Transaction may have its own unique terminology, definitions and calculations, a Participant should, prior to engaging in a Transaction, familiarize itself with that type of Transaction's terminology and conventions, and, where necessary, inform its personnel of differences in terminology, conventions and specific terms that may be particularly susceptible to misinterpretation. In addition, no Participant should abuse deliberately market procedures or conventions to obtain an unfair advantage over, or to unfairly prejudice, its counterparties.

7.2 Manipulative Practices

A Participant should not engage in any trading practices that constitute fraudulent, deceptive or manipulative acts or practices under applicable laws and regulations.

7.3 Bribes and Outside Fees and Commissions

No employee or representative of a Participant should offer or solicit explicit inducements to or from employees or representatives of other institutions in exchange for conducting business. It is recognized, however, that entertainment and gifts in reasonable amounts are offered and accepted in the ordinary course of business, and do not necessarily constitute inducements. A Participant should maintain policies and procedures that provide guidance on the provision and receipt of entertainment and gifts by staff.

7.4 Rumors and False Information

A Participant should not spread any rumors or misinformation that the Participant knows or believes to be false or misleading. In addition, a Participant should not disseminate any information that falsely states or implies governmental approval of any institution or Transaction.

7.5 Money Laundering and Other Criminal Activities

A Participant should take measures designed to satisfy itself that its Transactions are not being used to facilitate money laundering or other criminal activities.

THE FOREIGN EXCHANGE COMMITTEE

in association with

THE BRITISH BANKERS' ASSOCIATION

FOREIGN EXCHANGE AND OPTIONS MASTER AGREEMENT

(FEOMA)

February 15, 1996

FOREIGN EXCHANGE AND OPTIONS MASTER AGREEMENT
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FOREIGN EXCHANGE AND OPTIONS (FEOMA) MASTER AGREEMENT

MASTER AGREEMENT dated as of ________________, 199___,by and between__________________________, a ____, and ____, a ____.

SECTION 1. DEFINITIONS

Unless otherwise required by the context, the following terms shall have the following meanings in the Agreement:

"Agreement" has the meaning given to it in Section 2.2.

"American Style Option" means an Option which may be exercised on any Business Day up to and including the Expiration Time.

"Base Currency", as to a Party, means the Currency agreed to as such in relation to it in Part VII of the Schedule.

"Business Day" means for purposes of: (i) Section 3.2, a day which is a Local Banking Day for the applicable Designated Office of the Buyer; (ii) Section 5.1 and the definition of American Style Option and Exercise Date, a day which is a Local Banking Day for the applicable Designated Office of the Seller; (iii) clauses (i), (viii) and (xii) of the definition of Event of Default, a day which is a Local Banking Day for the Non-Defaulting Party; (iv) solely in relation to delivery of a Currency, a day which is a Local Banking Day in relation to that Currency; and (v) any other provision of the Agreement, a day which is a Local Banking Day for the applicable Designated Offices of both Parties; provided, however, that neither Saturday nor Sunday shall be considered a Business Day for any purpose.

"Buyer" means the owner of an Option.

"Call" means an Option entitling, but not obligating (except upon exercise), the Buyer to purchase from the Seller at the Strike Price a specified quantity of the Call Currency.

"Call Currency" means the Currency agreed to as such at the time an Option is entered into, as evidenced in a Confirmation.

"Close-Out Amount" has the meaning given to it in Section 8.1.

"Close-Out Date" means a day on which, pursuant to the provisions of Section 8.1, the Non-Defaulting Party closes out Currency Obligations and/or Options or such a close-out occurs automatically.

"Closing Gain", as to the Non-Defaulting Party, means the difference described as such in relation to a particular Value Date under the provisions of Section 8.1.

"Closing Loss", as to the Non-Defaulting Party, means the difference described as such in relation to a particular Value Date under the provisions of Section 8.1.

"Confirmation" means a writing (including telex, facsimile or other electronic means from which it is possible to produce a hard copy) evidencing an FX Transaction or an Option, and specifying:

(A) in the case of an FX Transaction, the following information:

- (i) the Parties thereto and the Designated Offices through which they are respectively acting,
- (ii) the amounts of the Currencies being bought or sold and by which Party,
- (iii) the Value Date, and
- (iv) any other term generally included in such a writing in accordance with the practice of the relevant foreign exchange market; and

(B) in the case of an Option, the following information:

- (i) the Parties thereto and the Designated Offices through which they are respectively acting,
- (ii) whether the Option is a Call or a Put,

(iii) the Call Currency and the Put Currency that are the subject of the Option and their respective quantities,

(iv) which Party is the Seller and which is the Buyer,

(v) the Strike Price,

(vi) the Premium and the Premium Payment Date,

(vii) the Expiration Date,

(viii) the Expiration Time,

(ix) whether the Option is an American Style Option or a European Style Option, and

(x) such other matters, if any, as the Parties may agree.

"**Credit Support"** has the meaning given to it in Section 8.2.

"Credit Support Document", as to a Party (the "first Party"), means a guaranty, hypothecation agreement, margin or security agreement or document, or any other document containing an obligation of a third party ("Credit Support Provider") or of the first Party in favor of the other Party supporting any obligations of the first Party under the Agreement.

"Credit Support Provider" has the meaning given to it in the definition of Credit Support Document.

"Currency" means money denominated in the lawful currency of any country or the Ecu.

"Currency Obligation" means any obligation of a Party to deliver a Currency pursuant to an FX Transaction, the application of Section 6.3(a) or (b), or an exercised Option (other than one that is to be settled at its In-the-money Amount under Section 5.5).

"Currency Pair" means the two Currencies which potentially may be exchanged in connection with an FX Transaction or upon the exercise of an Option, one of which shall be the Put Currency and the other the Call Currency.

"Custodian" has the meaning given to it in the definition of Insolvency Proceeding.

"Defaulting Party" has the meaning given to it in the definition of Event of Default.

"Designated Office(s)", as to a Party, means the office or offices specified in Part II of the Schedule.

"Effective Date" means the date of this Master Agreement.

"European Style Option" means an Option for which Notice of Exercise may be given only on the Option's Expiration Date up to and including the Expiration Time, unless otherwise agreed.

"Event of Default" means the occurrence of any of the following with respect to a Party (the "Defaulting Party", the other Party being the "Non-Defaulting Party"):

(i) the Defaulting Party shall (A) default in any payment when due under the Agreement (including, but not limited to, a Premium payment) to the Non-Defaulting Party with respect to any Currency Obligation or Option and such failure shall continue for two (2) Business Days after the Non-Defaulting Party has given the Defaulting Party written notice of non-payment, or (B) fail to perform or comply with any other obligation assumed by it under the Agreement and such failure is continuing thirty (30) days after the Non-Defaulting Party has given the Defaulting Party written notice thereof;

(ii) the Defaulting Party shall commence a voluntary Insolvency Proceeding or shall take any corporate action to authorize any such Insolvency Proceeding;

(iii) a governmental authority or self-regulatory organization having jurisdiction over either the Defaulting Party or its assets in the country of its organization or principal office (A) shall commence an Insolvency Proceeding with respect to the Defaulting Party or its assets or (B) shall take any action under any bankruptcy, insolvency or other similar law or any banking, insurance or similar law or regulation governing the operation of the Defaulting Party which may prevent the Defaulting Party from performing its obligations under the Agreement as and when due;

(iv) an involuntary Insolvency Proceeding shall be commenced with respect to the Defaulting Party or its assets by a person other than a governmental authority or self-regulatory organization having jurisdiction over either the Defaulting Party or its assets in the country of its organization or principal office and such Insolvency Proceeding (A) results in the appointment of a Custodian or a judgment of insolvency or bankruptcy or the entry of an order for winding-up, liquidation, reorganization or other similar relief, or (B) is not dismissed within five (5) days of its institution or presentation;

(v) the Defaulting Party is bankrupt or insolvent, as defined under any bankruptcy or insolvency law applicable to it;

(vi) the Defaulting Party fails, or shall otherwise be unable, to pay its debts as they become due;

(vii) the Defaulting Party or any Custodian acting on behalf of the Defaulting Party shall disaffirm, disclaim or repudiate any Currency Obligation or Option;

(viii) any representation or warranty made or given or deemed made or given by the Defaulting Party pursuant to the Agreement or any Credit Support Document shall prove to have been false or misleading in any material respect as at the time it was made or given or deemed made or given and one (1) Business Day has elapsed after the Non-Defaulting Party has given the Defaulting Party written notice thereof;

(ix) the Defaulting Party consolidates or amalgamates with or merges into or transfers all or substantially all its assets to another entity and (A) the creditworthiness of the resulting, surviving or transferee entity is materially weaker than that of the Defaulting Party prior to such action, or (B) at the time of such consolidation, amalgamation, merger or transfer the resulting, surviving or transferee entity fails to assume all the obligations of the Defaulting Party under the Agreement by operation of law or pursuant to an agreement satisfactory to the Non-Defaulting Party;

(x) by reason of any default, or event of default or other similar condition or event, any Specified Indebtedness (being Specified Indebtedness of an amount which, when expressed in the Currency of the Threshold Amount, is in aggregate equal to or in excess of the Threshold Amount) of the Defaulting Party or any Credit Support Provider in relation to it: (A) is not paid on the due date therefor and remains unpaid after any applicable grace period has elapsed, or (B) becomes, or becomes capable at any time of being declared, due and payable under agreements or instruments evidencing such Specified Indebtedness before it would otherwise have been due and payable;

(xi) the Defaulting Party is in breach of or default under any Specified Transaction and any applicable grace period has elapsed, and there occurs any liquidation or early termination of, or acceleration of obligations under, that Specified Transaction, or the Defaulting Party (or any Custodian on its behalf) disaffirms, disclaims or repudiates the whole or any part of a Specified Transaction;

(xii) (A) any Credit Support Provider of the Defaulting Party or the Defaulting Party itself fails to comply with or perform any agreement or obligation to be complied with or performed by it in accordance with the applicable Credit Support Document and such failure is continuing after any applicable grace period has elapsed; (B) any Credit Support Document relating to the Defaulting Party expires or ceases to be in full force and effect prior to the satisfaction of all obligations of the Defaulting Party under the Agreement, unless otherwise agreed in writing by the Non-Defaulting Party; (C) the Defaulting Party or any Credit Support Provider of the Defaulting Party (or, in either case, any Custodian acting on its behalf) disaffirms, disclaims or repudiates, in whole or in part, or challenges the validity of, any Credit Support Document; (D) any representation or warranty made or given or deemed made or given by any Credit Support Provider of the Defaulting Party pursuant to any Credit Support Document shall prove to have been false or misleading in any material respect as at the time it was made or given or deemed made or given and one (1) Business Day has elapsed after the Non-Defaulting Party has given the Defaulting Party written notice thereof; or (E) any event set out in (ii) to (vii) or (ix) to (xi) above occurs in respect of any Credit Support Provider of the Defaulting Party; or

(xiii) any other condition or event specified in Part IX of the Schedule or in Section 11.14 if made applicable to the Agreement in Part XI of the Schedule.

"Exercise Date", in respect of any Option, means the day on which a Notice of Exercise received by the applicable Designated Office of the Seller becomes effective pursuant to Section 5.1.

"Expiration Date", in respect of any Option, means the date agreed to as such at the time the Option is entered into, as evidenced in a Confirmation.

"Expiration Time", in respect of any Option, means the latest time on the Expiration Date on which the Seller must accept a Notice of Exercise as agreed to at the time the Option is entered into, as evidenced in a Confirmation.

"FX Transaction" means any transaction between the Parties for the purchase by one Party of an agreed amount in one Currency against the sale by it to the other of an agreed amount in another Currency, both such amounts either being deliverable on the same Value Date, or, if the Parties have so agreed in Part VI of the Schedule, being cash-settled in a single Currency, which is or shall become subject to the Agreement and in respect of which

transaction the Parties have agreed (whether orally, electronically or in writing): the Currencies involved, the amounts of such Currencies to be purchased and sold, which Party will purchase which Currency and the Value Date.

"In-the-money Amount" means (i) in the case of a Call, the excess of the Spot Price over the Strike Price, multiplied by the aggregate amount of the Call Currency to be purchased under the Call, where both prices are quoted in terms of the amount of the Put Currency to be paid for one unit of the Call Currency; and (ii) in the case of a Put, the excess of the Strike Price over the Spot Price, multiplied by the aggregate amount of the Put Currency to be sold under the Put, where both prices are quoted in terms of the amount of the Call Currency to be paid for one unit of the Put Currency.

"Insolvency Proceeding" means a case or proceeding seeking a judgment of or arrangement for insolvency, bankruptcy, composition, rehabilitation, reorganization, administration, winding-up, liquidation or other similar relief with respect to the Defaulting Party or its debts or assets, or seeking the appointment of a trustee, receiver, liquidator, conservator, administrator, custodian or other similar official (each, a "Custodian") of the Defaulting Party or any substantial part of its assets, under any bankruptcy, insolvency or other similar law or any banking, insurance or similar law governing the operation of the Defaulting Party.

"LIBOR", with respect to any Currency and date, means the average rate at which deposits in the Currency for the relevant amount and time period are offered by major banks in the London interbank market as of 11:00 a.m. (London time) on such date, or, if major banks do not offer deposits in such Currency in the London interbank market on such date, the average rate at which deposits in the Currency for the relevant amount and time period are offered by major banks in the relevant foreign exchange market at such time on such date as may be determined by the Party making the determination.

"Local Banking Day" means (i) for any Currency, a day on which commercial banks effect deliveries of that Currency in accordance with the market practice of the relevant foreign exchange market, and (ii) for any Party, a day in the location of the applicable Designated Office of such Party on which commercial banks in that location are not authorized or required by law to close.

"Master Agreement" means the terms and conditions set forth in this Master Agreement (including the Schedule).

"Matched Pair Novation Netting Office(s)", in respect of a Party, means the Designated Office(s) specified in Part V of the Schedule.

"Non-Defaulting Party" has the meaning given to it in the definition of Event of Default.

"Notice of Exercise" means telex, telephonic or other electronic notification (excluding facsimile transmission) providing assurance of receipt, given by the Buyer prior to or at the Expiration Time, of the exercise of an Option, which notification shall be irrevocable.

"Novation Netting Office(s)", in respect of a Party, means the Designated Office(s) specified in Part V of the Schedule.

"Option" means a Put or a Call, as the case may be, which is or shall become subject to the Agreement.

"Parties" means the parties to the Agreement, including their successors and permitted assigns (but without prejudice to the application of clause (ix) of the definition of Event of Default); and the term "Party" shall mean whichever of the Parties is appropriate in the context in which such expression may be used.

"Premium", in respect of any Option, means the purchase price of the Option as agreed upon by the Parties, and payable by the Buyer to the Seller thereof.

"Premium Payment Date", in respect of any Option, means the date on which the Premium is due and payable, as agreed to at the time the Option is entered into, as evidenced in a Confirmation.

"Proceedings" means any suit, action or other proceedings relating to the Agreement, any FX Transaction or any Option.

"Put" means an Option entitling, but not obligating (except upon exercise), the Buyer to sell to the Seller at the Strike Price a specified quantity of the Put Currency.

"Put Currency" means the Currency agreed to as such at the time an Option is entered into, as evidenced in a Confirmation.

"Schedule" means the Schedule attached to and part of this Master Agreement, as it may be amended from time to time by agreement of the Parties.

"Seller" means the Party granting an Option.

"Settlement Date" means, in respect of: (i) an American Style Option, the Spot Date of the Currency Pair on the Exercise Date of such Option, and (ii) a European Style Option, the Spot Date of the Currency Pair on the Expiration Date of such Option; and, where market practice in the relevant foreign exchange market in relation to the two Currencies involved provides for delivery of one Currency on one date which is a Local Banking Day in relation to that Currency but not to the other Currency and for delivery of the other Currency on the next Local Banking Day in relation to that other Currency, "Settlement Date" means such two (2) Local Banking Days.

"Settlement Netting Office(s)", in respect of a Party, means the Designated Office(s) specified in Part V of the Schedule.

"Specified Indebtedness" means any obligation (whether present or future, contingent or otherwise, as principal or surety or otherwise) in respect of borrowed money, other than in respect of deposits received.

"Specified Transaction" means any transaction (including an agreement with respect thereto) between one Party to the Agreement (or any Credit Support Provider of such Party) and the other Party to the Agreement (or any Credit Support Provider of such Party) which is a rate swap transaction, basis swap, forward rate transaction, commodity swap, commodity option, equity or equity linked swap, equity or equity index option, bond option, interest rate option, foreign exchange transaction, cap transaction, floor transaction, collar transaction, currency swap transaction, cross-currency rate swap transaction, currency option or any other similar transaction (including any option with respect to any of these transactions) or any combination of any of the foregoing.

"Spot Date" means the spot delivery day for the relevant Currency Pair as generally used by the relevant foreign exchange market.

"Spot Price" means the rate of exchange at the time at which such price is to be determined for foreign exchange transactions in the relevant Currency Pair for value on the Spot Date, as determined in good faith: (i) by the Seller, for purposes of Section 5, and (ii) by the Non-Defaulting Party, for purposes of Section 8.

"Strike Price", in respect of any Option, means the price at which the Currency Pair may be exchanged, as agreed to at the time the Option is entered into, as evidenced in a Confirmation.

"Threshold Amount" means the amount specified as such for each Party in Part VIII of the Schedule.

"Value Date" means, with respect to any FX Transaction, the Business Day (or where market practice in the relevant foreign exchange market in relation to the two Currencies involved provides for delivery of one Currency on one date which is a Local Banking Day in relation to that Currency but not to the other Currency and for delivery of the other Currency on the next Local Banking Day in relation to that other Currency ("Split Settlement") the two (2) Local Banking Days in accordance with that market practice) agreed by the Parties for delivery of the Currencies to be purchased and sold pursuant to such FX Transaction, and, with respect to any Currency Obligation, the Business Day (or, in the case of Split Settlement, Local Banking Day) upon which the obligation to deliver Currency pursuant to such Currency Obligation is to be performed.

SECTION 2. FX TRANSACTIONS AND OPTIONS

2.1 Scope of the Agreement

The Parties (through their respective Designated Offices) may enter into (i) FX Transactions, for such quantities of such Currencies, as may be agreed subject to the terms of the Agreement, and (ii) Options, for such Premiums, with such Expiration Dates, at such Strike Prices and for the purchase or sale of such quantities of such Currencies, as may be agreed subject to the terms of the Agreement; provided that neither Party shall be required to enter into any FX Transaction or Option with the other Party (other than in connection with an exercised Option). Unless otherwise agreed in writing by the Parties, each FX Transaction and Option entered into between Designated Offices of the Parties on or after the Effective Date shall be governed by the Agreement. All FX Transactions and Options between Designated Offices of the Parties outstanding on the Effective Date which are identified in Part I of the Schedule shall be FX Transactions and Options governed by the Agreement.

2.2 Single Agreement

This Master Agreement, the terms agreed between the Parties with respect to each FX Transaction and Option (and, to the extent recorded in a Confirmation, each such Confirmation), and all amendments to any of such items shall together form the agreement between the Parties (the "Agreement") and shall together constitute a single agreement between the Parties. The Parties acknowledge that all FX Transactions and Options are entered into in reliance upon such fact, it being understood that the Parties would not otherwise enter into any FX Transaction or Option.

2.3 Confirmations

FX Transactions and Options shall be promptly confirmed by the Parties by Confirmations exchanged by mail, telex, facsimile or other electronic means from which it is possible to produce a hard copy. The failure by a Party to issue a Confirmation shall not prejudice or invalidate the terms of any FX Transaction or Option.

2.4 Inconsistencies

In the event of any inconsistency between the provisions of the Schedule and the other provisions of the Agreement, the Schedule will prevail. In the event of any inconsistency between the terms of a Confirmation and the other provisions of the Agreement, (i) in the case of an FX Transaction, the other provisions of the Agreement shall prevail, and the Confirmation shall not modify the other terms of the Agreement, and (ii) in the case of an Option, the terms of the Confirmation shall prevail, and the other terms of the Agreement shall be deemed modified with respect to such Option, except for the manner of confirmation under Section 2.3 and, if applicable, discharge of Options under Section 4.

SECTION 3. OPTION PREMIUM

3.1 Payment of Premium

Unless otherwise agreed in writing by the Parties, the Buyer shall be obligated to pay the Premium related to an Option no later than its Premium Payment Date.

3.2 Late Payment or Non-Payment of Premium

If any Premium is not received on or before the Premium Payment Date, the Seller may elect: (i) to accept a late payment of such Premium; (ii) to give written notice of such non-payment and, if such payment shall not be received within two (2) Business Days of such notice, treat the related Option as void; or (iii) to give written notice of such non-payment and, if such payment shall not be received within two (2) Business Days of such notice, treat such non-payment as an Event of Default under clause (i) of the definition of Event of Default. If the Seller elects to act under either clause (i) or (ii) of the preceding sentence, the Buyer shall pay all out-of-pocket costs and actual damages incurred in connection with such unpaid or late Premium or void Option, including, without limitation, interest on such Premium from and including the Premium Payment Date to but excluding the late payment date in the same Currency as such Premium at overnight LIBOR and any other losses, costs or expenses incurred by the Seller in connection with such terminated Option, for the loss of its bargain, its cost of funding, or the loss incurred as a result of terminating, liquidating, obtaining or re-establishing a delta hedge or related trading position with respect to such Option.

SECTION 4. TERMINATION AND DISCHARGE OF OPTIONS; NETTING OF OPTION PREMIUMS

4.1 Discharge and Termination

Unless otherwise agreed in Part V of the Schedule, any Call or any Put written by a Party will automatically be terminated and discharged, in whole or in part, as applicable, against a Call or a Put, respectively, written by the other Party, such termination and discharge to occur automatically upon the payment in full of the last Premium payable in respect of such Options; provided that such termination and discharge may only occur in respect of Options:

(i) each being with respect to the same Put Currency and the same Call Currency;

(ii) each having the same Expiration Date and Expiration Time;

(iii) each being of the same style, i.e. either both being American Style Options or both being European Style Options;

(iv) each having the same Strike Price;

(v) each being transacted by the same pair of Designated Offices of Buyer and Seller; and

(vi) neither of which shall have been exercised by delivery of a Notice of Exercise;

and, upon the occurrence of such termination and discharge, neither Party shall have any further obligation to the other Party in respect of the relevant Options or, as the case may be, parts thereof so terminated and discharged. Such termination and discharge shall be effective notwithstanding that either Party may fail to record such termination and discharge in its books. In the case of a partial termination and discharge (i.e., where the relevant Options are for different amounts of the Currency Pair), the remaining portion of the Option which is partially discharged and terminated shall continue to be an Option for all purposes of the Agreement, including this Section 4.1.

4.2 Netting of Option Premiums

If, on any date, and unless otherwise mutually agreed by the Parties, Premiums would otherwise be payable under the Agreement in the same Currency between the same respective Designated Offices of the Parties, then, on such date, each Party's obligation to make payment of any such Premium will be automatically satisfied and discharged and, if the aggregate Premium(s) that would otherwise have been payable by such Designated Office of one Party exceeds the aggregate Premium(s) that would otherwise have been payable by such Designated Office of the other Party, replaced by an obligation upon the Party by whom the larger aggregate Premium(s) would have been payable to pay the other Party the excess of the larger aggregate Premium(s) over the smaller aggregate Premium(s) and, if the aggregate Premiums are equal, no payment shall be made.

SECTION 5. EXERCISE AND SETTLEMENT OF OPTIONS

5.1 Exercise of Options

The Buyer may exercise an Option by delivery to the Seller of a Notice of Exercise. Subject to Section 5.3, if a Notice of Exercise with respect to an Option has not been received by the Seller prior to or at the Expiration Time, the Option shall expire and become void and of no effect. Any Notice of Exercise shall (unless otherwise agreed):

(i) in respect of an American Style Option, (A) if received at or prior to 3:00 p.m. on a Business Day, be effective upon receipt thereof by the Seller, and (B) if received after 3:00 p.m. on a Business Day, be effective only as of the opening of business of the Seller on the first Business Day subsequent to its receipt; and

(ii) in respect of a European Style Option, if received on or, if the parties have so agreed, before the Expiration Date, prior to or at the Expiration Time, be effective upon receipt thereof by the Seller.

5.2 No Partial Exercise

Unless otherwise agreed by the Parties, an Option may be exercised only in whole.

5.3 Automatic Exercise

Unless otherwise agreed in Part VI of the Schedule or unless the Seller is otherwise instructed by the Buyer, if an Option has an In-the-money Amount at its Expiration Time that equals or exceeds the product of (x) 1% of the Strike Price (or such other percentage or amount as may have been agreed by the Parties) and (y) the amount of the Call Currency or Put Currency, as appropriate, then the Option shall be deemed automatically exercised. In such case, the Seller may elect to settle such Option either in accordance with Section 5.4 or by payment to the Buyer on the Settlement Date for such Option of the In-the-money Amount, as determined at the Expiration Time or as soon thereafter as practicable. In the latter case, the sole obligations of the Parties with respect to settlement of such Option shall be to deliver or receive the In-the-money Amount of such Option on the Settlement Date. The Seller shall notify the Buyer of its election of the method of settlement of an automatically exercised Option as soon as practicable after the Expiration Time.

5.4 Settlement of Exercised Options

An exercised Option shall settle on its Settlement Date. Subject to Section 5.3 and 5.5, on the Settlement Date, the Buyer shall pay the Put Currency to the Seller for value on the Settlement Date and the Seller shall pay the Call Currency to the Buyer for value on the Settlement Date. An exercised Option shall be treated as an FX Transaction and a Currency Obligation (unless it is to be settled at its In-the-money Amount), and for this purpose the relevant Settlement Date shall be treated as the Value Date of the FX Transaction.

5.5 Settlement at In-the-Money Amount

An Option shall be settled at its In-the-money Amount if so agreed by the Parties at the time such Option is entered into. In such case, the In-the-money Amount shall be determined based upon the Spot Price at the time of exercise or as soon thereafter as practicable. The sole obligations of the Parties with respect to settlement of such Option shall be to deliver or receive the In-the-money Amount of such Option on the Settlement Date.

SECTION 6. SETTLEMENT AND NETTING OF FX TRANSACTIONS

6.1 Settlement of FX Transactions

Subject to Sections 6.2 and 6.3, each Party shall deliver to the other Party the amount of the Currency to be delivered by it under each Currency Obligation on the Value Date for such Currency Obligation.

6.2 Payment Netting

If, on any date, more than one delivery of a particular Currency under Currency Obligations is to be made between a pair of Settlement Netting Offices, then each Party shall aggregate the amounts of such Currency deliverable by it and only the difference between these aggregate amounts shall be delivered by the Party owing the larger aggregate amount to the other Party, and, if the aggregate amounts are equal, no delivery of the Currency shall be made.

6.3 Novation Netting

(a) **By Currency.** If the Parties enter into an FX Transaction through a pair of Novation Netting Offices giving rise to a Currency Obligation for the same Value Date and in the same Currency as a then existing Currency Obligation between the same pair of Novation Netting Offices, then immediately upon entering into such FX Transaction, each such Currency Obligation shall automatically and without further action be individually canceled and simultaneously replaced by a new Currency Obligation for such Value Date determined as follows: the amounts of such Currency that would otherwise have been deliverable by each Party on such Value Date shall be aggregated and the Party with the larger aggregate amount shall have a new Currency Obligation to deliver to the other Party the amount of such Currency by which its aggregate amount exceeds the other Party's aggregate amount, provided that if the aggregate amounts are equal, no new Currency Obligation shall arise. This Section 6.3 shall not affect any other Currency Obligation of a Party to deliver any different Currency on the same Value Date.

(b) **By Matched Pair.** If the Parties enter into an FX Transaction between a pair of Matched Pair Novation Netting Offices then the provisions of Section 6.3(a) shall apply only in respect of Currency Obligations arising by virtue of FX Transactions entered into between such pair of Matched Pair Novation Netting Offices and involving the same pair of Currencies and the same Value Date.

6.4 General

(a) **Inapplicability of Sections 6.2 and 6.3.** The provisions of Sections 6.2 and 6.3 shall not apply if a Close-Out Date has occurred or a voluntary or involuntary Insolvency Proceeding or action of the kind described in clause (ii), (iii) or (iv) of the definition of Event of Default has occurred without being dismissed in relation to either Party.

(b) **Failure to Record.** The provisions of Section 6.3 shall apply notwithstanding that either Party may fail to record the new Currency Obligation in its books.

(c) **Cut-off Date and Time.** The provisions of Section 6.3 are subject to any cut-off date and cut-off time agreed between the applicable Novation Netting Offices and Matched Pair Novation Netting Offices of the Parties.

SECTION 7. REPRESENTATIONS, WARRANTIES AND COVENANTS

7.1 Representations and Warranties

Each Party represents and warrants to the other Party as of the Effective Date and as of the date of each FX Transaction and each Option that: (i) it has authority to enter into the Agreement (including such FX Transaction or Option, as the case may be); (ii) the persons entering into the Agreement (including such FX Transaction or Option), as the case may be, have been duly authorized to do so; (iii) the Agreement is binding upon it and enforceable against it in accordance with its terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors' rights generally and applicable principles of equity) and does not and will not violate the terms of any agreements to which such Party is bound; (iv) no Event of Default, or event which, with notice or lapse of time or both, would constitute an Event of Default, has occurred and is continuing with respect to it; (v) it acts as principal in entering into each FX Transaction and Option and exercising each and every Option; and (vi) if the Parties have so specified in Part XV of the Schedule, it makes the representations and warranties set forth in such Part XV.

7.2 Covenants

Each Party covenants to the other Party that: (i) it will at all times obtain and comply with the terms of and do all that is necessary to maintain in full force and effect all authorizations, approvals, licenses and consents required to enable it lawfully to perform its obligations under the Agreement; (ii) it will promptly notify the other Party of the occurrence of any Event of Default with respect to itself or any Credit Support Provider in relation to it; and (iii) if the Parties have set forth additional covenants in Part XVI of the Schedule is applicable, it makes the covenants set forth in such Part XVI.

SECTION 8. CLOSE-OUT AND LIQUIDATION

8.1 Manner of Close-Out and Liquidation

(a) **Close-Out.** If an Event of Default has occurred and is continuing, then the Non-Defaulting Party shall have the right to close out all, but not less than all, outstanding Currency Obligations (including any Currency Obligation which has not been performed and in respect of which the Value Date is on or precedes the Close-Out Date) and Options, except to the extent that in the good faith opinion of the Non-Defaulting Party certain of such Currency Obligations or Options may not be closed out under applicable law. Such close-out shall be effective upon receipt by the Defaulting Party of notice that the Non-Defaulting Party is terminating such Currency Obligations and Options, or, if "Automatic Termination" is specified as applying to a Party in Part X of the Schedule, then, in the case of an Event of Default specified in clauses (ii), (iii) or (iv) of the definition thereof with respect to such Party and any other Event of Default so specified in Part IX of the Schedule with respect to such Party, such close-out shall be automatic as to all outstanding Currency Obligations and Options, as of the time immediately preceding the institution of the relevant Insolvency Proceeding or action. The Non-Defaulting Party shall have the right to liquidate such closed-out Currency Obligations and Options as provided below.

(b) **Liquidation of Currency Obligations.** Liquidation of Currency Obligations terminated by close-out shall be effected as follows:

(i) **Calculating Closing Gain or Loss.** The Non-Defaulting Party shall calculate in good faith, with respect to each such terminated Currency Obligation, except to the extent that in the good faith opinion of the Non-Defaulting Party certain of such Currency Obligations may not be liquidated as provided herein under applicable law, as of the Close-Out Date or as soon thereafter as reasonably practicable, the Closing Gain, or, as appropriate, the Closing Loss, as follows:

(w) for each Currency Obligation calculate a "Close-Out Amount" as follows:

(A) in the case of a Currency Obligation whose Value Date is the same as or is later than the Close-Out Date, the amount of such Currency Obligation; or

(B) in the case of a Currency Obligation whose Value Date precedes the Close-Out Date, the amount of such Currency Obligation increased, to the extent permitted by applicable law, by adding interest thereto from and including the Value Date to but excluding the Close-Out Date at overnight LIBOR;

(x) for each Close-Out Amount in a Currency other than the Non-Defaulting Party's Base Currency, convert such amount into the Non-Defaulting Party's Base Currency at the rate of exchange at which, at the time of the calculation, the Non-Defaulting Party can buy such Base Currency with or against the Currency of the relevant Currency Obligation for delivery (A) if the Value Date of such Currency Obligation is on or after the Spot Date as of such time of calculation for the Base Currency, on the Value Date of that Currency Obligation, or (B) if such Value Date precedes such Spot Date, for delivery on such Spot Date; and

(y) determine in relation to each Value Date: (A) the sum of all Close-Out Amounts relating to Currency Obligations under which, and of all Currency Obligations in the Non-Defaulting Party's Base Currency under which, the Non-Defaulting Party would otherwise have been obliged to deliver the relevant amount to the Defaulting Party on that Value Date, adding (to the extent permitted by applicable law), in the case of a Currency Obligation in the Non-Defaulting Party's Base Currency whose Value Date precedes the Close-Out Date, interest for the period from and including the Value Date to but excluding the Close-Out Date at LIBOR as at such Value Date for such period; and (B) the sum of all Close-Out Amounts relating to Currency Obligations under which, and of all Currency Obligations in the Non-Defaulting Party's Base Currency under which, the Non-Defaulting Party would otherwise have been entitled to receive the relevant amount on that Value Date, adding (to the extent permitted by applicable law), in the case of a Currency Obligation in the Non-Defaulting Party's Base Currency whose Value Date precedes the Close-Out Date, interest for the period from and including the Value Date to but excluding

the Close-Out Date at LIBOR as at such Value Date for such period; and

(z) if the sum determined under (y)(A) is greater than the sum determined under (y)(B), the difference shall be the Closing Loss for such Value Date; if the sum determined under (y)(A) is less than the sum determined under (y)(B), the difference shall be the Closing Gain for such Value Date.

(ii) **Determining Present Value.** To the extent permitted by applicable law, the Non-Defaulting Party shall adjust the Closing Gain or Closing Loss for each Value Date falling after the Close-Out Date to present value by discounting the Closing Gain or Closing Loss from and including the Value Date to but excluding the Close-Out Date, at LIBOR with respect to the Non-Defaulting Party's Base Currency as at such Value Date or at such other rate as may be prescribed by applicable law.

(iii) **Netting.** The Non-Defaulting Party shall aggregate the following amounts so that all such amounts are netted into a single liquidated amount payable by or to the Non-Defaulting Party: (x) the sum of the Closing Gains for all Value Dates (discounted to present value, where appropriate, in accordance with the provisions of Section 8.1(b)(ii)) (which for the purposes of the aggregation shall be a positive figure); and (y) the sum of the Closing Losses for all Value Dates (discounted to present value, where appropriate, in accordance with the provisions of Section 8.1(b)(ii)) (which for the purposes of the aggregation shall be a negative figure).

(c) **Liquidation of Options.** To liquidate unexercised Options and exercised Options to be settled at their In-the-money Amounts that have been terminated by close-out, the Non-Defaulting Party shall:

(i) **Calculating Settlement Amount.** Calculate in good faith with respect to each such terminated Option, except to the extent that in the good faith opinion of the Non-Defaulting Party certain of such Options may not be liquidated as provided herein under applicable law, as of the Close-Out Date or as soon as reasonably practicable thereafter a settlement amount for each Party equal to the aggregate of:

(A) with respect to each Option purchased by such Party, and which the other Party has not elected to treat as void pursuant to Section 3.2(ii) for lack of payment of the Premium, the current market premium for such Option;

(B) with respect to each Option sold by such Party, and which such Party has not elected to treat as void pursuant to Section 3.2(ii) for lack of payment of the Premium, any unpaid Premium, provided that, if the Close-Out Date occurs before the Premium Payment Date, such amount shall be discounted from and including the Premium Payment Date to but excluding the Close-Out Date at a rate equal to LIBOR on the Close-Out Date and, if the Close-Out Date occurs after the Premium Payment Date, to the extent permitted by applicable law, the settlement amount shall include interest on any unpaid Premium from and including the Premium Payment Date to but excluding the Close-Out Date in the same Currency as such Premium at overnight LIBOR;

(C) with respect to any exercised Option to be settled at its In-the-money Amount (whether or not the Close-Out Date occurs before the Settlement Date for such Option), any unpaid amount due to such Party in settlement of such Option and, if the Close-Out Date occurs after the Settlement Date for such Option, to the extent permitted by applicable law, interest thereon from and including the applicable Settlement Date to but excluding the Close-Out Date at overnight LIBOR; and

(D) without duplication, the amount that the Non-Defaulting Party reasonably determines in good faith, as of the Close-Out Date or as of the earliest date thereafter that is reasonably practicable, to be its additional losses, costs and expenses in connection with such terminated Option, for the loss of its bargain, its cost of funding, or the loss incurred as a result of terminating, liquidating, obtaining or re-establishing a delta hedge or related trading position with respect to such Option;

(ii) **Converting to Base Currency.** Convert any settlement amount calculated in accordance with clause (i) above, in a Currency other than the Non-Defaulting Party's Base Currency into such Base Currency at the Spot Price at which, at the time of

the calculation, the Non-Defaulting Party could enter into a contract in the foreign exchange market to buy the Non-Defaulting Party's Base Currency in exchange for such Currency; and

(iii) **Netting.** Net such settlement amounts with respect to each Party so that all such amounts are netted to a single liquidated amount payable by one Party to the other Party.

(d) **Final Netting.** The Non-Defaulting Party shall net (or, if both are payable by one Party, add) the liquidated amounts payable under Sections 8.1(b) and 8.1(c) with respect to each Party so that such amounts are netted (or added) to a single liquidated amount payable by one Party to the other Party as a settlement payment.

8.2 Set-Off Against Credit Support

Where close-out and liquidation occurs in accordance with Section 8.1, the Non-Defaulting Party shall also be entitled (i) to set off the net payment calculated in accordance with Section 8.1(d) which the Non-Defaulting Party owes to the Defaulting Party, if any, against any credit support or other collateral ("Credit Support") held by the Defaulting Party pursuant to a Credit Support Document or otherwise (including the liquidated value of any non-cash Credit Support) in respect of the Non-Defaulting Party's obligations under the Agreement or (ii) to set off the net payment calculated in accordance with Section 8.1(d) which the Defaulting Party owes to the Non-Defaulting Party, if any, against any Credit Support held by the Non Defaulting Party (including the liquidated value of any non-cash Credit Support) in respect of the Defaulting Party's obligations under the Agreement; provided that, for purposes of either such set-off, any Credit Support denominated in a Currency other than the Non-Defaulting Party's Base Currency shall be converted into such Currency at the rate specified in Section 8.1(c)(ii).

8.3 Other Foreign Exchange Transactions and Currency Options

Where close-out and liquidation occurs in accordance with Section 8.1, the Non-Defaulting Party shall also be entitled to close-out and liquidate, to the extent permitted by applicable law, any other foreign exchange transaction or currency option entered into between the Parties which is then outstanding in accordance with the provisions of Section 8.1, with each obligation of a Party to deliver a Currency under such a foreign exchange transaction (including exercised options) being treated as if it were a Currency Obligation and each unexercised option being treated as if it were an Option under the Agreement.

8.4 Payment and Late Interest

The net amount payable by one Party to the other Party pursuant to the provisions of Sections 8.1 and 8.3 above shall be paid by the close of business on the Business Day following the receipt by the Defaulting Party of notice of the Non-Defaulting Party's settlement calculation, with interest at overnight LIBOR from and including the Close-Out Date to but excluding such Business Day (and converted as required by applicable law into any other Currency, any costs of conversion to be borne by, and deducted from any payment to, the Defaulting Party). To the extent permitted by applicable law, any amounts owed but not paid when due under this Section 8 shall bear interest at overnight LIBOR (or, if conversion is required by applicable law into some other Currency, either the overnight LIBOR with respect to such other Currency or such other rate as may be prescribed by such applicable law) for each day for which such amount remains unpaid. Any addition of interest or discounting required under this Section 8 shall be calculated on the basis of a year of such number of days as is customary for transactions involving the relevant Currency in the relevant foreign exchange market.

8.5 Suspension of Obligations

Without prejudice to the foregoing, so long as a Party shall be in default in payment or performance to the other Party under the Agreement and the other Party has not exercised its rights under this Section 8, or, if "Adequate Assurances" is specified as applying to the Agreement in Part XI of the Schedule, during the pendency of a reasonable request to a Party for adequate assurances of its ability to perform its obligations under the Agreement, the other Party may, at its election and without penalty, suspend its obligation to perform under the Agreement.

8.6 Expenses

The Defaulting Party shall reimburse the Non-Defaulting Party in respect of all out-of-pocket expenses incurred by the Non-Defaulting Party (including fees and disbursements of counsel, including attorneys who may be employees of the Non-Defaulting Party) in connection with any reasonable collection or other enforcement proceedings related to the payments required under the Agreement.

8.7 Reasonable Pre-Estimate

The Parties agree that the amounts recoverable under this Section 8 are a reasonable pre-estimate of loss and not a penalty. Such amounts are payable for the loss of bargain and the loss of protection against future risks and, except as otherwise provided in the Agreement, neither Party will be entitled to recover any additional damages as a consequence of such losses.

8.8 No Limitation of Other Rights; Set-Off

The Non-Defaulting Party's rights under this Section 8 shall be in addition to, and not in limitation or exclusion of, any other rights which the Non-Defaulting Party may have (whether by agreement, operation of law or otherwise), and, to the extent not prohibited by law, the Non-Defaulting Party shall have a general right of set-off with respect to all amounts owed by each Party to the other Party, whether due and payable or not due and payable (provided that any amount not due and payable at the time of such set-off shall, if appropriate, be discounted to present value in a commercially reasonable manner by the Non-Defaulting Party). The Non-Defaulting Party's rights under this Section 8.8 are subject to Section 8.7.

SECTION 9. FORCE MAJEURE, ACT OF STATE, ILLEGALITY AND IMPOSSIBILITY

9.1 Force Majeure, Act of State, Illegality and Impossibility

If either Party is prevented from or hindered or delayed by reason of force majeure or act of State in the delivery or receipt of any Currency in respect of a Currency Obligation or Option or if it becomes or, in the good faith judgment of one of the Parties, may become unlawful or impossible for either Party to deliver or receive any Currency which is the subject of a Currency Obligation or Option, then the Party for whom such performance has been prevented, hindered or delayed or has become illegal or impossible shall promptly give notice thereof to the other Party and either Party may, by notice to the other Party, require the close-out and liquidation of each affected Currency Obligation and Option in accordance with the provisions of Section 8.1 and, for such purposes, the Party unaffected by such force majeure, act of State, illegality or impossibility (or, if both Parties are so affected, whichever Party gave the relevant notice) shall perform the calculation required under Section 8.1 as if it were the Non-Defaulting Party. Nothing in this Section 9.1 shall be taken as indicating that the Party treated as the Defaulting Party for the purpose of calculations required by Section 8.1 has committed any breach or default.

9.2 Transfer to Avoid Force Majeure, Act of State, Illegality or Impossibility

If Section 9.1 becomes applicable, unless prohibited by law, the Party which has been prevented, hindered or delayed from performing shall, as a condition to its right to designate a close-out and liquidation of any affected Currency Obligation or Option, use all reasonable efforts (which will not require such Party to incur a loss, excluding immaterial, incidental expenses) to transfer as soon as practicable, and in any event before the earlier to occur of the expiration date of the affected Options or twenty (20) days after it gives notice under Section 9.1, all its rights and obligations under the Agreement in respect of the affected Currency Obligations and Options to another of its Designated Offices so that such force majeure, act of State, illegality or impossibility ceases to exist. Any such transfer will be subject to the prior written consent of the other Party, which consent will not be withheld if such other Party's policies in effect at such time would permit it to enter into transactions with the transferee Designated Office on the terms proposed, unless such transfer would cause the other Party to incur a material tax or other cost.

SECTION 10. PARTIES TO RELY ON THEIR OWN EXPERTISE

Each Party will be deemed to represent to the other Party on the date on which it enters into an FX Transaction or Option that (absent a written agreement between the Parties that expressly imposes affirmative obligations to the contrary for that FX Transaction or Option): (i)(A) it is acting for its own account, and it has made its own independent decisions to enter into that FX Transaction or Option and as to whether that FX Transaction or Option is appropriate or proper for it based upon its own judgment and upon advice from such advisors as it has deemed necessary; (B) it is not relying on any communication (written or oral) of the other Party as investment advice or as a recommendation to enter into that FX Transaction or Option, it being understood that information and explanations related to the terms and conditions of an FX Transaction or Option shall not be considered investment advice or a recommendation to enter into that FX Transaction or Option; and (C) it has not received from the other Party any assurance or guarantee as to the expected results of that FX Transaction or Option; (ii) it is capable of evaluating and understanding (on its own behalf or through independent professional advice), and understands and accepts, the terms, condi-

tions and risks of that FX Transaction or Option; and (iii) the other Party is not acting as a fiduciary or an advisor for it in respect of that FX Transaction or Option.

SECTION 11. MISCELLANEOUS

11.1 Currency Indemnity

The receipt or recovery by either Party (the "first Party") of any amount in respect of an obligation of the other Party (the "second Party") in a Currency other than that in which such amount was due, whether pursuant to a judgment of any court or pursuant to Section 8 or 9, shall discharge such obligation only to the extent that, on the first day on which the first Party is open for business immediately following such receipt or recovery, the first Party shall be able, in accordance with normal banking practice, to purchase the Currency in which such amount was due with the Currency received or recovered. If the amount so purchasable shall be less than the original amount of the Currency in which such amount was due, the second Party shall, as a separate obligation and notwithstanding any judgment of any court, indemnify the first Party against any loss sustained by it. The second Party shall in any event indemnify the first Party against any costs incurred by it in making any such purchase of Currency.

11.2 Assignment

Neither Party may assign, transfer or charge or purport to assign, transfer or charge its rights or obligations under the Agreement to a third party without the prior written consent of the other Party and any purported assignment, transfer or charge in violation of this Section 11.2 shall be void.

11.3 Telephonic Recording

The Parties agree that each may electronically record all telephonic conversations between them and that any such recordings may be submitted in evidence to any court or in any Proceedings for the purpose of establishing any matters pertinent to the Agreement.

11.4 Notices

Unless otherwise agreed, all notices, instructions and other communications to be given to a Party under the Agreement shall be given to the address, telex (if confirmed by the appropriate answerback), facsimile (confirmed if requested) or telephone number and to the individual or department specified by such Party in Part III of the Schedule. Unless otherwise specified, any notice, instruction or other communication given in accordance with this Section 11.4 shall be effective upon receipt.

11.5 Termination

Each of the Parties may terminate the Agreement at any time by seven (7) days' prior written notice to the other Party delivered as prescribed in Section 11.4, and termination shall be effective at the end of such seventh day; provided, however, that any such termination shall not affect any outstanding Currency Obligations or Options, and the provisions of the Agreement shall continue to apply until all the obligations of each Party to the other under the Agreement have been fully performed.

11.6 Severability

In the event any one or more of the provisions contained in the Agreement should be held invalid, illegal or unenforceable in any respect under the law of any jurisdiction, the validity, legality and enforceability of the remaining provisions contained in the Agreement under the law of such jurisdiction, and the validity, legality and enforceability of such and any other provisions under the law of any other jurisdiction shall not in any way be affected or impaired thereby. The Parties shall endeavor in good faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

11.7 No Waiver

No indulgence or concession granted by a Party and no omission or delay on the part of a Party in exercising any right, power or privilege under the Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power or privilege preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

11.8 Master Agreement

Where one of the Parties to the Agreement is domiciled in the United States, the Parties intend that the Agreement shall be a master agreement, as referred to in 11 U.S.C. Section 101(53B)(C) and 12 U.S.C. Section 1821(e)(8)(D)(vii).

11.9 Time; Time of Essence

Unless otherwise agreed, the times referred to in the Agreement with respect to Options shall in each case refer to the local time of the relevant Designated Office of the Seller of the relevant Option. Time shall be of the essence in the Agreement.

11.10 Headings

Headings in the Agreement are for ease of reference only.

11.11 Wire Transfers

All payments to be made under the Agreement shall be made by wire transfer or its equivalent in same day (or immediately available) and freely transferable funds, and, unless otherwise specified, shall be delivered to such office of such bank, and in favor of such account, as shall be specified by the Party entitled to receive such payment in Part IV of the Schedule or in a notice given in accordance with Section 11.4.

11.12 Amendments

No amendment, modification or waiver of the Agreement will be effective unless in writing executed by each of the Parties; provided that the Parties may agree in a Confirmation that complies with Section 2.3 to amend the Agreement solely with respect to the Option that is the subject of the Confirmation.

11.13 Credit Support

A Credit Support Document between the Parties may apply to obligations governed by the Agreement. If the Parties have executed a Credit Support Document, such Credit Support Document shall be subject to the terms of the Agreement and is hereby incorporated by reference in the Agreement. In the event of any conflict between a Credit Support Document and the Agreement, the Agreement shall prevail, except for any provision in such Credit Support Document in respect of governing law.

11.14 Adequate Assurances

If the Parties have so agreed in Part XI of the Schedule, the failure by a Party to give adequate assurances of its ability to perform any of its obligations under the Agreement within two (2) Business Days of a written request to do so when the other Party has reasonable grounds for insecurity shall be an Event of Default under the Agreement.

11.15 Correction of Confirmations

Unless either Party objects to the terms contained in any Confirmation sent by the other Party or sends a corrected Confirmation within three (3) Business Days of receipt of such Confirmation, or such shorter time as may be appropriate given the Value Date of an FX Transaction, the terms of such Confirmation shall be deemed correct and accepted absent manifest error. If the Party receiving a Confirmation sends a corrected Confirmation within such three (3) Business Days, or shorter period, as appropriate, then the Party receiving such corrected Confirmation shall have three (3) Business Days, or shorter period, as appropriate, after receipt thereof to object to the terms contained in such corrected Confirmation.

SECTION 12. LAW AND JURISDICTION

12.1 Governing Law

The Agreement shall be governed by, and construed in accordance with, the laws of the jurisdiction set forth in Part XII of the Schedule without giving effect to conflict of laws principles.

12.2 Consent to Jurisdiction

(a) With respect to any Proceedings, each Party irrevocably (i) submits to the non-exclusive jurisdiction of the courts of the jurisdiction set forth in Part XIII of the Schedule and (ii) waives any objection which it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have jurisdiction over such Party. Nothing in the Agreement precludes either Party from bringing Proceedings in any other jurisdiction nor will the bringing of Proceedings in any one or more jurisdictions preclude the bringing of Proceedings in any other jurisdiction.

(b) Each Party irrevocably appoints the agent for service of process (if any) specified with respect to it in Part XIV of the Schedule. If for any reason any Party's process agent is unable to act as such, such Party will promptly notify the other Party and within thirty (30) days will appoint a substitute process agent acceptable to the other Party.

12.3 Waiver of Jury Trial

Each Party irrevocably waives any and all right to trial by jury in any Proceedings.

12.4 Waiver of Immunities

Each Party irrevocably waives, to the fullest extent permitted by applicable law, with respect to itself and its revenues and assets (irrespective of their use or intended

use), all immunity on the grounds of sovereignty or other similar grounds from (i) suit, (ii) jurisdiction of any court, (iii) relief by way of injunction, order for specific performance or for recovery of property, (iv) attachment of its assets (whether before or after judgment) and (v) execution or enforcement of any judgment to which it or its revenues or assets might otherwise be entitled in any Proceedings in the courts of any jurisdiction and irrevocably agrees, to the extent permitted by applicable law, that it will not claim any such immunity in any Proceedings.

____

By: _______________________________________

Name: _____________________________________

Title: ______________________________________

____

By: _______________________________________

Name: _____________________________________

Title: ______________________________________

SCHEDULE

SCHEDULE TO THE FOREIGN EXCHANGE AND OPTIONS MASTER AGREEMENT

dated as of ___________________________, 199________

between ____________________________ ("Party A") and

_____________________________________ ("Party B").

Part I. Scope of Agreement

The Agreement shall apply to [all][the following] FX Transactions outstanding between any two Designated Offices of the Parties on the Effective Date.

The Agreement shall apply to [all][the following] Options outstanding between any two Designated Offices of the Parties on the Effective Date.

Part II. Designated Offices

Each of the following shall be a Designated Office:

Party A:

Party B:

Part III. Notices

If sent to Party A:

Address:

Telephone Number:

Telex Number:

Facsimile Number:

Name of Individual or Department
to whom Notices are to be sent:

If sent to Party B:

Address:

Telephone Number:

Telex Number:Facsimile Number:

Name of Individual or Department
to whom Notices are to be sent:

Part IV. Payment Instructions

[ ] Name of Bank and Office, Account Number and Reference with respect to relevant Currencies

[ ] With respect to each Party, as may be set forth in such Standard Settlement Instructions as may be specified by such Party in a notice given in accordance with Section 11.4.

Part V. Netting and Discharge

A. Discharge of Options

Section 4.1 [shall] [shall not] apply to Options other than Barrier Options.

Section 4.1 [shall] [shall not] apply to Barrier Options.

B. Settlement Netting Offices

Each of the following shall be a Settlement Netting Office:

Party A:

Party B:

C. Novation Netting Offices

Each of the following shall be a Novation Netting Office:

Party A:

Party B:

D. Matched Pair Novation Netting Offices

Each of the following shall be a Matched Pair Novation Netting Office:

Party A:

Party B:

Part VI. Automatic Exercise of Options; Cash Settlement of FX Transactions

A. Automatic Exercise of certain In-the-money Options pursuant to Section 5.3 [shall] [shall not] apply to Party A.

Automatic Exercise of certain In-the-money Options pursuant to Section 5.3 [shall] [shall not] apply to Party B.

B. The following provision [shall][shall not] apply:

The definition of FX Transaction in Section 1 shall include foreign exchange transactions for the purchase and sale of one Currency against another but which shall be settled by the delivery of only one Currency based on the difference between exchange rates as agreed by the Parties as evidenced in a Confirmation. Section 6.1 is modified so that only one Currency shall be delivered for any such FX Transaction in accordance with the formula agreed by the Parties. Section 8.1(b)(i)(w) is modified so that the Close-Out Amount for any such FX Transaction for which the cash settlement amount has been fixed on or before the Close-Out Date pursuant to the terms of such FX Transaction shall be equal to the Currency Obligation arising therefrom (increased by adding interest in the manner provided in clause (w)(B) if the Value Date precedes the Close-Out Date) and for any such FX Transaction for which the cash settlement amount has not yet been fixed on the Close-Out Date pursuant to the terms of such FX Transaction, shall be [to be negotiated between the Parties when completing Part VI of the Schedule].

Part VII. Base Currency

Party A's Base Currency is

Party B's Base Currency is

Part VIII. Threshold Amount

For purposes of clause (x) of the definition of Event of Default:

Party A's Threshold Amount is [$]

Party B's Threshold Amount is [$]

Part IX. Additional Events of Default

The following provisions which are checked shall constitute Events of Default:

[ ] (a) Occurrence of garnishment or provisional garnishment against a claim against the Defaulting Party acquired by the Non-Defaulting Party;

[ ] (b) Suspension of payment by the Defaulting Party in accordance with the Bankruptcy Law or the Corporate Reorganization Law in Japan; or

[ ] (c) Disqualification by any relevant bill clearing house located in Japan.

Part X. Automatic Termination

The Automatic Termination provision of Section 8.1 [shall][shall not] apply to Party A.

The Automatic Termination provision of Section 8.1 [shall][shall not] apply to Party B.

Part XI. Adequate Assurances

Adequate Assurances under Section 11.14 [shall] [shall not] apply to the Agreement.

Part XII. Governing Law

In accordance with Section 12.1 of the Agreement, the Agreement shall be governed by the laws of:

[ ] the State of New York

[ ] England and Wales

Part XIII. Consent to Jurisdiction

In accordance with Section 12.2 of the Agreement, each Party irrevocably submits to the non-exclusive jurisdiction of:

[ ] the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City

[ ] the courts of England

Part XIV. Agent for Service of Process

[Not applicable]

[Party A appoints the following as its agent for service of process in any Proceedings in [the State of New York][England and Wales]:]

[Party B appoints the following as its agent for service of process in any Proceedings in [the State of New York][England and Wales]:]

Part XV. Certain Regulatory Representations

A. The following FDICIA representation [shall] [shall not] apply:

1. Party A represents and warrants that it qualifies as a "financial institution" within the meaning of the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA") by virtue of being a:

   [ ] broker or dealer within the meaning of FDICIA;

   [ ] depository institution within the meaning of FDICIA;

   [ ] futures commission merchant within the meaning of FDICIA;

   [ ] "financial institution" within the meaning of Regulation EE (see below).

2. Party B hereby represents and warrants that it qualifies as a "financial institution" by virtue of being a:

   [ ] broker or dealer within the meaning of FDICIA;

   [ ] depository institution within the meaning of FDICIA;

   [ ] futures commission merchant within the meaning of FDICIA;

   [ ] "financial institution" within the meaning of Regulation EE (see below).

3. A Party representing that it is a "financial institution" as that term is defined in 12 C.F.R. Section 231.3 of Regulation EE issued by the Board of Governors of the Federal Reserve System ("Regulation EE") represents that:

   (a) it is willing to enter into "financial contracts" as a counterparty "on both sides of one or more financial markets" as those terms are used in Section 231.3 of Regulation EE and

   (b) during the 15-month period immediately preceding the date it makes or is deemed to make this representation, it has had on at least one (1) day during such period, with counterparties that are not its affiliates (as defined in Section 231.3(b) of Regulation EE) either:

      (i) one or more financial contracts of a total gross notional principal amount of $1 billion outstanding; or

      (ii) total gross mark-to-market positions (aggregated across counterparties) of $100 million; and

   (c) agrees that it will notify the other Party if it no longer meets the requirements for status as a financial institution under Regulation EE.

4. If both Parties are financial institutions in accordance with the above, the Parties agree that the Agreement shall be a netting contract, as defined in 12 U.S.C. Section 4402(14), and each receipt or payment or delivery obligation under the Agreement shall be a covered contractual payment entitlement or covered contractual payment obligation, respectively, as defined in FDICIA.

B. The following ERISA representation [shall] [shall not] apply:

   Each Party represents and warrants that it is neither (i) an "employee benefit plan" as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974 which is subject to Part 4 of Subtitle B of Title I of such Act; (ii) a "plan" as defined in Section 4975(e)(1) of the Internal Revenue Code of 1986; nor (iii) an entity the assets of which are deemed to be assets of any such "employee benefit plan" or "plan" by reason of the U.S. Department of Labor's plan asset regulation, 29 C.F.R. Section 2510.3-101.

C. The following CFTC trade option representation [shall][shall not] apply:

   Each Party represents and warrants that it is a commercial user of or a merchant handling the Currencies subject to each Option and was offered or entered into each Option solely for purposes related to its business as such.

D. The following CFTC eligible swap participant representation [shall][shall not] apply:

   Each Party represents and warrants that it is an "eligible swap participant" under, and as defined in, 17 C.F.R. Section 35.1.

Part XVI. Additional Covenants

The following covenants shall apply to the Agreement:

THE FOREIGN EXCHANGE COMMITTEE

in association with

THE BRITISH BANKERS' ASSOCIATAION

INTERNATIONAL CURRENCY OPTIONS MARKET MASTER AGREEMENT

(ICOM)

February 15, 1996

INTERNATIONAL CURRENCY OPTIONS MARKET MASTER AGREEMENT
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INTERNATIONAL CURRENCY OPTIONS MARKET (ICOM) MASTER AGREEMENT

MASTER AGREEMENT dated as of ________________, 199___,by and between___________________________, a ____, and ____, a ____.

SECTION 1. DEFINITIONS

Unless otherwise required by the context, the following terms shall have the following meanings in the Agreement:

"Agreement" has the meaning given to it in Section 2.2.

"American Style Option" means an Option which may be exercised on any Business Day up to and including the Expiration Time.

"Base Currency", as to a Party, means the Currency agreed to as such in relation to it in Part VII of the Schedule.

"Business Day" means for purposes of:

(i) Section 3.2, a day which is a Local Banking Day for the applicable Designated Office of the Buyer;

(ii) Section 5.1 and the definition of American Style Option and Exercise Date, a day which is a Local Banking Day for the applicable Designated Office of the Seller;

(iii) clauses (i), (viii) and (xii) of the definition of Event of Default, a day which is a Local Banking Day for the Non-Defaulting Party; and

(iv) any other provision of the Agreement, a day which is a Local Banking Day for the applicable Designated Offices of both Parties; provided, however, that neither Saturday nor Sunday shall be considered a Business Day for any purpose.

"Buyer" means the owner of an Option.

"Call" means an Option entitling, but not obligating (except upon exercise), the Buyer to purchase from the Seller at the Strike Price a specified quantity of the Call Currency.

"Call Currency" means the Currency agreed to as such at the time an Option is entered into, as evidenced in a Confirmation.

"Close-Out Date" means a day on which, pursuant to the provisions of Section 8.1, the Non-Defaulting Party closes out Options, or such close-out occurs automatically.

"Confirmation" means a writing (including telex, facsimile or other electronic means from which it is possible to produce a hard copy) evidencing an Option, which shall specify:

(i) the Parties thereto and the Designated Offices through which they are respectively acting,

(ii) whether the Option is a Call or a Put,

(iii) the Call Currency and the Put Currency that are the subject of the Option and their respective quantities,

(iv) which Party is the Seller and which is the Buyer,

(v) the Strike Price,

(vi) the Premium and the Premium Payment Date,

(vii) the Expiration Date,

(viii) the Expiration Time,

(ix) whether the Option is an American Style Option or a European Style Option, and

(x) such other matters, if any, as the Parties may agree.

"Credit Support" has the meaning given to it in Section 8.2.

"Credit Support Document", as to a Party (the "first Party"), means a guaranty, hypothecation agreement, margin or security agreement or document, or any other document containing an obligation of a third party ("Credit Support Provider") or of the first Party in favor of the other Party supporting any obligations of the first Party under the Agreement.

"Credit Support Provider" has the meaning given to it in the definition of Credit Support Document.

"Currency" means money denominated in the lawful currency of any country or the Ecu.

"Currency Pair" means the two Currencies which potentially may be exchanged upon the exercise of an Option, one of which shall be the Put Currency and the other the Call Currency.

"Custodian" has the meaning given to it in the definition of Insolvency Proceeding.

"Defaulting Party" has the meaning given to it in the definition of Event of Default.

"Designated Office(s)", as to a Party, means the office or offices specified in Part II of the Schedule.

"Effective Date" means the date of this Master Agreement.

"European Style Option" means an Option for which Notice of Exercise may be given only on the Option's Expiration Date up to and including the Expiration Time, unless otherwise agreed.

"Event of Default" means the occurrence of any of the following with respect to a Party (the "Defaulting Party", the other Party being the "Non-Defaulting Party"):

(i) the Defaulting Party shall (A) default in any payment when due under the Agreement (including, but not limited to, a Premium payment) to the Non-Defaulting Party with respect to any Option and such failure shall continue for two (2) Business Days after the Non-Defaulting Party has given the Defaulting Party written notice of non-payment, or (B) fail to perform or comply with any other obligation assumed by it under the Agreement and such failure is continuing thirty (30) days after the Non-Defaulting Party has given the Defaulting Party written notice thereof;

(ii) the Defaulting Party shall commence a voluntary Insolvency Proceeding or shall take any corporate action to authorize any such Insolvency Proceeding;

(iii) a governmental authority or self-regulatory organization having jurisdiction over either the Defaulting Party or its assets in the country of its organization or principal office (A) shall commence an Insolvency Proceeding with respect to the Defaulting Party or its assets or (B) shall take any action under any bankruptcy, insolvency or other similar law or any banking, insurance or similar law or regulation governing the operation of the Defaulting Party which may prevent the Defaulting Party from performing its obligations under the Agreement as and when due;

(iv) an involuntary Insolvency Proceeding shall be commenced with respect to the Defaulting Party or its assets by a person other than a governmental authority or self-regulatory organization having jurisdiction over either the Defaulting Party or its assets in the country of its organization or principal office and such Insolvency Proceeding (A) results in the appointment of a Custodian or a judgment of insolvency or bankruptcy or the entry of an order for winding-up, liquidation, reorganization or other similar relief, or (B) is not dismissed within five (5) days of its institution or presentation;

(v) the Defaulting Party is bankrupt or insolvent, as defined under any bankruptcy or insolvency law applicable to it;

(vi) the Defaulting Party fails, or shall otherwise be unable, to pay its debts as they become due;

(vii) the Defaulting Party or any Custodian acting on behalf of the Defaulting Party shall disaffirm, disclaim or repudiate any Option;

(viii) any representation or warranty made or given or deemed made or given by the Defaulting Party pursuant to the Agreement or any Credit Support Document shall prove to have been false or misleading in any material respect as at the time it was made or given or deemed made or given and one (1) Business Day has elapsed after the Non-Defaulting Party has given the Defaulting Party written notice thereof;

(ix) the Defaulting Party consolidates or amalgamates with or merges into or transfers all or substantially all its assets to another entity and (A) the creditworthiness of the resulting, surviving or transferee entity is materially weaker than that of the Defaulting Party prior to such action, or (B) at the time of such consolidation, amalgamation, merger or transfer the resulting, surviving or transferee entity fails to assume all the obligations of the Defaulting Party under the Agreement by operation of law or pursuant to an agreement satisfactory to the Non-Defaulting Party;

(x) by reason of any default, or event of default or other similar condition or event, any Specified Indebtedness (being Specified Indebtedness of an amount which,

when expressed in the Currency of the Threshold Amount, is in aggregate equal to or in excess of the Threshold Amount) of the Defaulting Party or any Credit Support Provider in relation to it: (A) is not paid on the due date therefor and remains unpaid after any applicable grace period has elapsed, or (B) becomes, or becomes capable at any time of being declared, due and payable under agreements or instruments evidencing such Specified Indebtedness before it would otherwise have been due and payable;

(xi) the Defaulting Party is in breach of or default under any Specified Transaction and any applicable grace period has elapsed, and there occurs any liquidation or early termination of, or acceleration of obligations under, that Specified Transaction or the Defaulting Party (or any Custodian on its behalf) disaffirms, disclaims or repudiates the whole or any part of a Specified Transaction;

(xii) (A) any Credit Support Provider of the Defaulting Party or the Defaulting Party itself fails to comply with or perform any agreement or obligation to be complied with or performed by it in accordance with the applicable Credit Support Document and such failure is continuing after any applicable grace period has elapsed; (B) any Credit Support Document relating to the Defaulting Party expires or ceases to be in full force and effect prior to the satisfaction of all obligations of the Defaulting Party under the Agreement, unless otherwise agreed in writing by the Non-Defaulting Party; (C) the Defaulting Party or any Credit Support Provider of the Defaulting Party (or, in either case, any Custodian acting on its behalf) disaffirms, disclaims or repudiates, in whole or in part, or challenges the validity of, any Credit Support Document; (D) any representation or warranty made or given or deemed made or given by any Credit Support Provider of the Defaulting Party pursuant to any Credit Support Document shall prove to have been false or misleading in any material respect as at the time it was made or given or deemed made or given and one (1) Business Day has elapsed after the Non-Defaulting Party has given the Defaulting Party written notice thereof; or (E) any event set out in (ii) to (vii) or (ix) to (xi) above occurs in respect of any Credit Support Provider of the Defaulting Party; or

(xiii) any other condition or event specified in Part IX of the Schedule or in Section 11.14 if made applicable to the Agreement in Part XI of the Schedule.

"Exercise Date", in respect of any Option, means the day on which a Notice of Exercise received by the applicable Designated Office of the Seller becomes effective pursuant to Section 5.1.

"Expiration Date", in respect of any Option, means the date agreed to as such at the time the Option is entered into, as evidenced in a Confirmation.

"Expiration Time", in respect of any Option, means the latest time on the Expiration Date on which the Seller must accept a Notice of Exercise as agreed to at the time the Option is entered into, as evidenced in a Confirmation.

"In-the-money Amount" means (i) in the case of a Call, the excess of the Spot Price over the Strike Price, multiplied by the aggregate amount of the Call Currency to be purchased under the Call, where both prices are quoted in terms of the amount of the Put Currency to be paid for one unit of the Call Currency; and (ii) in the case of a Put, the excess of the Strike Price over the Spot Price, multiplied by the aggregate amount of the Put Currency to be sold under the Put, where both prices are quoted in terms of the amount of the Call Currency to be paid for one unit of the Put Currency.

"Insolvency Proceeding" means a case or proceeding seeking a judgment of or arrangement for insolvency, bankruptcy, composition, rehabilitation, reorganization, administration, winding-up, liquidation or other similar relief with respect to the Defaulting Party or its debts or assets, or seeking the appointment of a trustee, receiver, liquidator, conservator, administrator, custodian or other similar official (each, a "Custodian") of the Defaulting Party or any substantial part of its assets, under any bankruptcy, insolvency or other similar law or any banking, insurance or similar law governing the operation of the Defaulting Party.

"LIBOR", with respect to any Currency and date, means the average rate at which deposits in the Currency for the relevant amount and time period are offered by major banks in the London interbank market as of 11:00 a.m. (London time) on such date, or, if major banks do not offer deposits in such Currency in the London interbank market on such date, the average rate at which deposits in the Currency for the relevant amount and time period are offered by major banks in the relevant foreign exchange market at such time on such date as may be determined by the Party making the determination.

"Local Banking Day" means

(i) for any Currency, a day on which commercial banks effect deliveries of that Currency in accordance with the market practice of the relevant foreign exchange market, and

(ii) for any Party, a day in the location of the applicable Designated Office of such Party on which commercial banks in that location are not authorized or required by law to close.

"Master Agreement" means the terms and conditions set forth in this Master Agreement, including the Schedule.

"Non-Defaulting Party" has the meaning given to it in the definition of Event of Default.

"Notice of Exercise" means telex, telephonic or other electronic notification (excluding facsimile transmission) providing assurance of receipt, given by the Buyer prior to or at the Expiration Time, of the exercise of an Option, which notification shall be irrevocable.

"Option" means a Put or a Call, as the case may be, which is or shall become subject to the Agreement.

"Parties" means the parties to the Agreement, including their successors and permitted assigns (but without prejudice to the application of clause (ix) of the definition of Event of Default); and the term "Party" shall mean whichever of the Parties is appropriate in the context in which such expression may be used.

"Premium", in respect of any Option, means the purchase price of the Option as agreed upon by the Parties, and payable by the Buyer to the Seller thereof.

"Premium Payment Date", in respect of any Option, means the date on which the Premium is due and payable, as agreed to at the time the Option is entered into, as evidenced in a Confirmation.

"Proceedings" means any suit, action or other proceedings relating to the Agreement or any Option.

"Put" means an Option entitling, but not obligating (except upon exercise), the Buyer to sell to the Seller at the Strike Price a specified quantity of the Put Currency.

"Put Currency" means the Currency agreed to as such at the time an Option is entered into, as evidenced in a Confirmation.

"Schedule" means the Schedule attached to and part of this Master Agreement, as it may be amended from time to time by agreement of the Parties.

"Seller" means the Party granting an Option.

"Settlement Date" means, in respect of:

(i) an American Style Option, the Spot Date of the Currency Pair on the Exercise Date of such Option, and

(ii) a European Style Option, the Spot Date of the Currency Pair on the Expiration Date of such Option; and, where market practice in the relevant foreign exchange market in relation to the two Currencies involved provides for delivery of one Currency on one date which is a Local Banking Day in relation to that Currency but not to the other Currency and for delivery of the other Currency on the next Local Banking Day in relation to that other Currency, "Settlement Date" means such two Local Banking Days.

"Specified Indebtedness" means any obligation (whether present or future, contingent or otherwise, as principal or surety or otherwise) in respect of borrowed money, other than in respect of deposits received.

"Specified Transaction" means any transaction (including an agreement with respect thereto) between one Party to the Agreement (or any Credit Support Provider of such Party) and the other Party to the Agreement (or any Credit Support Provider of such Party) which is a rate swap transaction, basis swap, forward rate transaction, commodity swap, commodity option, equity or equity linked swap, equity or equity index option, bond option, interest rate option, foreign exchange transaction, cap transaction, floor transaction, collar transaction, currency swap transaction, cross-currency rate swap transaction, currency option or any other similar transaction (including any option with respect to any of these transactions) or any combination of any of the foregoing.

"Spot Date" means the spot delivery day for the relevant Currency Pair as generally used by the relevant foreign exchange market.

"Spot Price" means the rate of exchange at the time at which such price is to be determined for foreign exchange transactions in the relevant Currency Pair for value on the Spot Date, as determined in good faith:

(i) by the Seller, for purposes of Section 5, and

(ii) by the Non-Defaulting Party, for purposes of Section 8.

"Strike Price", in respect of any Option, means the price at which the Currency Pair may be exchanged, as agreed to at the time the Option is entered into, as evidenced in a Confirmation.

"Threshold Amount" means the amount specified as such for each Party in Part VIII of the Schedule.

SECTION 2. OPTIONS

2.1 Scope of the Agreement

The Parties (through their respective Designated Offices) may enter into Options (neither being obliged to do so) for such Premiums, with such Expiration Dates, at such Strike Prices and for the purchase or sale of such quantities of such Currencies, as may be agreed subject to the terms of the Agreement. Unless otherwise agreed in writing by the Parties, each Option entered into between Designated Offices of the Parties on or after the Effective Date, and the settlement thereof in accordance with Section 5.4 or Section 5.5, shall be governed by the Agreement. Each outstanding Put or Call previously entered into by the Parties and identified in Part I of the Schedule shall also be governed by the terms and conditions set forth in the Agreement and in the Confirmation relating to such Option.

2.2 Single Agreement

This Master Agreement, the terms agreed between the Parties with respect to each Option (and, to the extent recorded in a Confirmation, each such Confirmation), and all amendments to any of such items shall together form the agreement between the Parties (the "Agreement") and shall together constitute a single agreement between the Parties. The Parties acknowledge that all Options are entered into in reliance upon such fact, it being understood that the Parties would not otherwise enter into any Option.

2.3 Confirmations

Options shall be promptly confirmed by the Parties by Confirmations exchanged by mail, telex, facsimile or other electronic means from which it is possible to produce a hard copy. The failure by a Party to issue a Confirmation shall not prejudice or invalidate the terms of any Option.

2.4 Inconsistencies

In the event of any inconsistency between the provisions of the Schedule and the other provisions of the Agreement, the Schedule will prevail. In the event of any inconsistency between the terms of a Confirmation and the other provisions of the Agreement, such Confirmation shall prevail, except for the manner of confirmation under Section 2.3 and, if applicable, discharge of Options under Section 4.

SECTION 3. THE PREMIUM

3.1 Payment of Premium

Unless otherwise agreed in writing by the Parties, the Buyer shall be obligated to pay the Premium related to an Option no later than its Premium Payment Date.

3.2 Late Payment or Non-Payment of Premium

If any Premium is not received on or before the Premium Payment Date, the Seller may elect: (i) to accept a late payment of such Premium; (ii) to give written notice of such non-payment and, if such payment shall not be received within two (2) Business Days of such notice, treat the related Option as void; or (iii) to give written notice of such non-payment and, if such payment shall not be received within two (2) Business Days of such notice, treat such non-payment as an Event of Default under clause (i) of the definition of Event of Default. If the Seller elects to act under either clause (i) or (ii) of the preceding sentence, the Buyer shall pay all out-of-pocket costs and actual damages incurred in connection with such unpaid or late Premium or void Option, including, without limitation, interest on such Premium from and including the Premium Payment Date to but excluding the late payment date in the same Currency as such Premium at overnight LIBOR and any other losses, costs or expenses incurred by the Seller in connection with such terminated Option, for the loss of its bargain, its cost of funding, or the loss incurred as a result of terminating, liquidating, obtaining or re-establishing a delta hedge or related trading position with respect to such Option.

SECTION 4. TERMINATION AND DISCHARGE OF OPTIONS

Unless otherwise agreed in Part V of the Schedule, any Call or any Put written by a Party will automatically be terminated and discharged, in whole or in part, as applicable, against a Call or a Put, respectively, written by the other Party, such termination and discharge to occur automatically upon the payment in full of the last Premium payable in respect of such Options; provided that such termination and discharge may only occur in respect of Options:

(i) each being with respect to the same Put Currency and the same Call Currency;

(ii) each having the same Expiration Date and Expiration Time;

(iii) each being of the same style, i.e. either both being American Style Options or both being European Style Options;

(iv) each having the same Strike Price;

(v) each being transacted by the same pair of Designated Offices of Buyer and Seller; and

(vi) neither of which shall have been exercised by delivery of a Notice of Exercise;and, upon the occurrence of such termination and discharge, neither Party shall have any further obligation to the other Party in respect of the relevant Options or, as the case may be, parts thereof so terminated and discharged. Such termination and discharge shall be effective notwithstanding that either Party may fail to record such termination and discharge in its books. In the case of a partial termination and discharge (i.e., where the relevant Options are for different amounts of the Currency Pair), the remaining portion of the Option which is partially discharged and terminated shall continue to be an Option for all purposes of the Agreement, including this Section 4.

SECTION 5. EXERCISE AND SETTLEMENT OF OPTIONS

5.1 Exercise of Options

The Buyer may exercise an Option by delivery to the Seller of a Notice of Exercise. Subject to Section 5.3, if a Notice of Exercise with respect to an Option has not been received by the Seller prior to or at the Expiration Time, the Option shall expire and become void and of no effect. Any Notice of Exercise shall (unless otherwise agreed):

(i) in respect of an American Style Option, (A) if received at or prior to 3:00 p.m. on a Business Day, be effective upon receipt thereof by the Seller, and (B) if received after 3:00 p.m. on a Business Day, be effective only as of the opening of business of the Seller on the first Business Day subsequent to its receipt; and

(ii) in respect of a European Style Option, if received on or, if the parties have so agreed, before the Expiration Date, prior to or at the Expiration Time, be effective upon receipt thereof by the Seller.

5.2 No Partial Exercise

Unless otherwise agreed by the Parties, an Option may be exercised only in whole.

5.3 Automatic Exercise

Unless otherwise agreed in Part VI of the Schedule or unless the Seller is otherwise instructed by the Buyer, if an Option has an In-the-money Amount at its Expiration Time that equals or exceeds the product of (x) 1% of the Strike Price (or such other percentage or amount as may have been agreed by the Parties) and (y) the amount of the Call Currency or Put Currency, as appropriate, then the Option shall be deemed automatically exercised. In such case, the Seller may elect to settle such Option either in accordance with Section 5.4 or by payment to the Buyer on the Settlement Date for such Option of the In-the-money Amount, as determined at the Expiration Time or as soon thereafter as practicable. In the latter case, the sole obligations of the Parties with respect to settlement of such Option shall be to deliver or receive the In-the-money Amount of such Option on the Settlement Date. The Seller shall notify the Buyer of its election of the method of settlement of an automatically exercised Option as soon as practicable after the Expiration Time.

5.4 Settlement of Exercised Options

An exercised Option shall settle on its Settlement Date. Subject to Section 5.3 and 5.5, on the Settlement Date, the Buyer shall pay the Put Currency to the Seller for value on the Settlement Date and the Seller shall pay the Call Currency to the Buyer for value on the Settlement Date.

5.5 Settlement at In-the-Money Amount

An Option shall be settled at its In-the-money Amount if so agreed by the Parties at the time such Option is entered into. In such case, the In-the-money Amount shall be determined based upon the Spot Price at the time of exercise or as soon thereafter as practicable. The sole obligations of the Parties with respect to settlement of such Option shall be to deliver or receive the In-the-money Amount of such Option on the Settlement Date.

SECTION 6. PAYMENT NETTING

6.1 Netting of Premiums

If, on any date, and unless otherwise mutually agreed by the Parties, Premiums would otherwise be payable under the Agreement in the same Currency between the same respective Designated Offices of the Parties, then, on such date, each Party's obligation to make payment of any such Premium will be automatically satisfied and discharged and, if the aggregate Premium(s) that would otherwise have been payable by such Designated Office of one Party exceeds the aggregate Premium(s) that would otherwise have been payable by such Designated Office of the other Party, replaced by an obligation upon the Party by whom the larger aggregate Premium(s) would have been payable to pay the other Party the excess of the

larger aggregate Premium(s) over the smaller aggregate Premium(s) and, if the aggregate Premiums are equal, no payment shall be made.

6.2 Netting of Other Amounts

If, on any date, and unless otherwise mutually agreed by the Parties, amounts other than Premium payments would otherwise be payable under the Agreement in the same Currency between the same respective Designated Offices of the Parties, then, on such date, each Party's obligation to make payment of any such amount will be automatically satisfied and discharged and, if the aggregate amount that would otherwise have been payable by such Designated Office of one Party exceeds the aggregate amount that would otherwise have been payable by such Designated Office of the other Party, replaced by an obligation upon the Party by whom the larger aggregate amount would have been payable to pay the other Party the excess of the larger aggregate amount over the smaller aggregate amount.

SECTION 7. REPRESENTATIONS, WARRANTIES AND COVENANTS

7.1 Representations and Warranties

Each Party represents and warrants to the other Party as of the Effective Date and as of the date of each Option that:

(i) it has authority to enter into the Agreement (including and such Option);

(ii) the persons entering into the Agreement (including such Option) on its behalf have been duly authorized to do so;

(iii) the Agreement is binding upon it and enforceable against it in accordance with its terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium or similar laws affecting creditors' rights generally and applicable principles of equity) and does not and will not violate the terms of any agreements to which such Party is bound;

(iv) no Event of Default, or event which, with notice or lapse of time or both, would constitute an Event of Default, has occurred and is continuing with respect to it;

(v) it acts as principal in entering into and exercising each and every Option; and (vi) if the Parties have so specified in Part XV of the Schedule, it makes the representations and warranties set forth in such Part XV.

7.2 Covenants

Each Party covenants to the other Party that:

(i) it will at all times obtain and comply with the terms of and do all that is necessary to maintain in full force and effect all authorizations, approvals, licenses and consents required to enable it lawfully to perform its obligations under the Agreement;

(ii) it will promptly notify the other Party of the occurrence of any Event of Default with respect to itself or any Credit Support Provider in relation to it; and

(iii) if the Parties have set forth additional covenants in Part XVI of the Schedule, it makes the covenants set forth in such Part XVI.

SECTION 8. CLOSE-OUT AND LIQUIDATION

8.1 Manner of Close-Out and Liquidation.

(a) **Close-Out of Options.** If an Event of Default has occurred and is continuing, then the Non-Defaulting Party shall have the right to close out all, but not less than all, outstanding Options, except to the extent that in the good faith opinion of the Non-Defaulting Party certain of such Options may not be closed out under applicable law. Such close-out shall be effective upon receipt by the Defaulting Party of notice that the Non-Defaulting Party is terminating such Options, or, if "Automatic Termination" is specified as applying to a Party in Part X of the Schedule, then, in the case of an Event of Default specified in clauses (ii), (iii) or (iv) of the definition thereof with respect to such Party and any other Event of Default so specified in Part IX of the Schedule with respect to such Party, such close-out shall be automatic as to all outstanding Options, as of the time immediately preceding the institution of the relevant Insolvency Proceeding or action. The Non-Defaulting Party shall have the right to liquidate such closed-out Options as provided below.

(b) **Liquidation of Options.** Liquidation of Options terminated by close-out shall be effected as follows:

(i) the Non-Defaulting Party shall calculate in good faith with respect to each such terminated Option, except to the extent that in the good faith opinion of the Non-Defaulting Party certain of such Options may not be liquidated as provided herein under applicable law, as of the Close-Out Date or as soon as reasonably practicable thereafter a settlement amount for each Party equal to the aggregate of:

(A) with respect to each Option purchased by such Party, and which the other Party has not elected to treat as void pursuant to Section 3.2(ii) for lack of payment of the Premium, the current market premium for such Option;

(B) with respect to each Option sold by such Party and which such Party has not elected to treat as void pursuant to Section 3.2(ii) for lack of payment of the Premium, any unpaid Premium, provided that, if the Close-Out Date occurs before the Premium Payment Date, such amount shall be discounted from and including the Premium Payment Date to but excluding the Close-Out Date at a rate equal to LIBOR on the Close-Out Date and, if the Close-Out Date occurs after the Premium Payment Date, to the extent permitted by applicable law, the settlement amount shall include interest on any unpaid Premium from and including the Premium Payment Date to but excluding the Close-Out Date in the same Currency as such Premium at overnight LIBOR;

(C) with respect to any exercised Option (whether or not the Close-Out Date occurs before the Settlement Date for such Option), any unpaid amount due to such Party in settlement of such Option and, if the Close-Out Date occurs after the Settlement Date for such Option, to the extent permitted by applicable law, interest thereon from and including the applicable Settlement Date to but excluding the Close-Out Date at overnight LIBOR; and

(D) without duplication, the amount that the Non-Defaulting Party reasonably determines in good faith, as of the Close-Out Date or as of the earliest date thereafter that is reasonably practicable, to be its additional losses, costs and expenses in connection with such terminated Option, for the loss of its bargain, its cost of funding, or the loss incurred as a result of terminating, liquidating, obtaining or re-establishing a delta hedge or related trading position with respect to such Option;

(ii) converting any settlement amount calculated in accordance with clause (i) above in a Currency other than the Non-Defaulting Party's Base Currency into such Base Currency at the Spot Price at which, at the time of the calculation, the Non-Defaulting Party could enter into a contract in the foreign exchange market to buy the Non-Defaulting Party's Base Currency in exchange for such Currency; and

(iii) netting such settlement amounts with respect to each Party so that all such amounts are netted to a single liquidated amount payable by one Party to the other Party as a settlement payment.

8.2 Set-Off Against Credit Support

Where close-out and liquidation occurs in accordance with Section 8.1, the Non-Defaulting Party shall also be entitled

(i) to set off the net payment calculated in accordance with clause (iii) of Section 8.1 which the Non-Defaulting Party owes to the Defaulting Party, if any, against any credit support or other collateral ("Credit Support") held by the Defaulting Party pursuant to a Credit Support Document or otherwise (including the liquidated value of any non-cash Credit Support) in respect of the Non-Defaulting Party's obligations under the Agreement or

(ii) to set off the net payment calculated in accordance with such clause (iii) which the Defaulting Party owes to the Non-Defaulting Party, if any, against any Credit Support held by the Non-Defaulting Party (including the liquidated value of any non-cash Credit Support) in respect of the Defaulting Party's obligations under the Agreement; provided that, for purposes of either such set-off, any Credit Support denominated in a Currency other than the Non-Defaulting Party's Base Currency shall be converted into such Currency at the rate specified in clause (ii) of Section 8.1.

8.3 Other Option Transactions

Where close-out and liquidation occurs in accordance with Section 8.1, the Non-Defaulting Party shall also be entitled to close-out and liquidate, to the extent permitted by applicable law, any other currency options entered into between the Parties which are then outstanding (including exercised options not fully performed) in accordance with the provisions of Section 8.1, as if each option were an Option under the Agreement.

8.4 Payment and Late Interest

The net amount payable by one Party to the other Party pursuant to the provisions of Sections 8.1 and 8.3 above shall be paid by the close of business on the

Business Day following the receipt by the Defaulting Party of notice of the Non-Defaulting Party's settlement calculation, with interest at overnight LIBOR from and including the Close-Out Date to but excluding such Business Day (and converted as required by applicable law into any other Currency, any costs of conversion to be borne by, and deducted from any payment to, the Defaulting Party). To the extent permitted by applicable law, any amounts owed but not paid when due under this Section 8 shall bear interest at overnight LIBOR (or, if conversion is required by applicable law into some other Currency, either overnight LIBOR with respect to such other Currency or such other rate as may be prescribed by such applicable law) for each day for which such amount remains unpaid. Any addition of interest or discounting required under this Section 8 shall be calculated on the basis of a year of such number of days as is customary for transactions involving the relevant Currency in the relevant foreign exchange market.

8.5 Suspension of Obligations

Without prejudice to the foregoing, so long as a Party shall be in default in payment or performance to the other Party under the Agreement and the other Party has not exercised its rights under this Section 8, or, if "Adequate Assurances" is specified as applying to the Agreement in Part XI of the Schedule, during the pendency of a reasonable request to a Party for adequate assurances of its ability to perform its obligations under the Agreement, the other Party may, at its election and without penalty, suspend its obligation to perform under the Agreement.

8.6 Expenses

The Defaulting Party shall reimburse the Non-Defaulting Party in respect of all out-of-pocket expenses incurred by the Non-Defaulting Party (including fees and disbursements of counsel, including attorneys who may be employees of the Non-Defaulting Party) in connection with any reasonable collection or other enforcement proceedings related to the payments required under the Agreement.

8.7 Reasonable Pre-Estimate

The Parties agree that the amounts recoverable under this Section 8 are a reasonable pre-estimate of loss and not a penalty. Such amounts are payable for the loss of bargain and the loss of protection against future risks and, except as otherwise provided in the Agreement, neither Party will be entitled to recover any additional damages as a consequence of such losses.

8.8 No Limitation of Other Rights; Set-Off

The Non-Defaulting Party's rights under this Section 8 shall be in addition to, and not in limitation or exclusion of, any other rights which the Non-Defaulting Party may have (whether by agreement, operation of law or otherwise), and, to the extent not prohibited by law, the Non-Defaulting Party shall have a general right of set-off with respect to all amounts owed by each Party to the other Party, whether due and payable or not due and payable (provided that any amount not due and payable at the time of such set-off shall, if appropriate, be discounted to present value in a commercially reasonable manner by the Non-Defaulting Party). The Non-Defaulting Party's rights under this Section 8.8 are subject to Section 8.7.

SECTION 9. FORCE MAJEURE, ACT OF STATE, ILLEGALITY AND IMPOSSIBILITY

9.1 Force Majeure, Act of State, Illegality and Impossibility

If either Party is prevented from or hindered or delayed by reason of force majeure or act of State in the delivery or receipt of any Currency in respect of an Option or if it becomes, or, in the good faith judgment of one of the Parties, may become unlawful or impossible for either Party to make or receive any payment in respect of an Option, then the Party for whom such performance has been prevented, hindered or delayed or has become illegal or impossible shall promptly give notice thereof to the other Party and either Party may, by notice to the other Party, require the close-out and liquidation of each affected Option in accordance with the provisions of Section 8 and, for such purposes, the Party unaffected by such force majeure, act of State, illegality or impossibility (or, if both Parties are so affected, whichever Party gave the relevant notice) shall perform the calculation required under Section 8.1. Nothing in this Section shall be taken as indicating that the Party treated as the Defaulting Party for the purpose of calculations required by Section 8.1 has committed any breach or default.

9.2 Transfer to Avoid Force Majeure, Act of State, Illegality or Impossibility

If Section 9.1 becomes applicable, unless prohibited by law, the Party which has been prevented, hindered or delayed from performing shall, as a condition to its right to designate a close-out and liquidation of any affected Option, use all reasonable efforts (which will not require such Party to incur a loss, excluding immaterial, incidental

expenses) to transfer as soon as practicable; and in any event before the earlier to occur of the expiration date of the affected Options or twenty (20) days after it gives notice under Section 9.1; all its rights and obligations under the Agreement in respect of the affected Options to another of its Designated Offices so that such force majeure, act of State, illegality or impossibility ceases to exist. Any such transfer will be subject to the prior written consent of the other Party, which consent will not be withheld if such other Party's policies in effect at such time would permit it to enter into transactions with the transferee Designated Office on the terms proposed, unless such transfer would cause the other Party to incur a material tax or other cost.

SECTION 10. PARTIES TO RELY ON THEIR OWN EXPERTISE

Each Party will be deemed to represent to the other Party on the date on which it enters into an Option that (absent a written agreement between the Parties that expressly imposes affirmative obligations to the contrary for that Option): (i)(A) it is acting for its own account, and it has made its own independent decisions to enter into that Option and as to whether that Option is appropriate or proper for it based upon its own judgment and upon advice from such advisors as it has deemed necessary; (B) it is not relying on any communication (written or oral) of the other Party as investment advice or as a recommendation to enter into that Option, it being understood that information and explanations related to the terms and conditions of an Option shall not be considered investment advice or a recommendation to enter into that Option; and (C) it has not received from the other Party any assurance or guarantee as to the expected results of that Option; (ii) it is capable of evaluating and understanding (on its own behalf or through independent professional advice), and understands and accepts, the terms, conditions and risks of that Option; and (iii) the other Party is not acting as a fiduciary or an advisor for it in respect of that Option.

SECTION 11. MISCELLANEOUS

11.1 Currency Indemnity

The receipt or recovery by either Party (the "first Party") of any amount in respect of an obligation of the other Party (the "second Party") in a Currency other than that in which such amount was due, whether pursuant to a judgment of any court or pursuant to Section 8 or 9, shall discharge such obligation only to the extent that, on the first day on which the first Party is open for business immediately following such receipt or recovery, the first Party shall be able, in accordance with normal banking practice, to purchase the Currency in which such amount was due with the Currency received or recovered. If the amount so purchasable shall be less than the original amount of the Currency in which such amount was due, the second Party shall, as a separate obligation and notwithstanding any judgment of any court, indemnify the first Party against any loss sustained by it. The second Party shall in any event indemnify the first Party against any costs incurred by it in making any such purchase of Currency.

11.2 Assignment

Neither Party may assign, transfer or charge or purport to assign, transfer or charge its rights or obligations under the Agreement to a third party without the prior written consent of the other Party and any purported assignment, transfer or charge in violation of this Section 11.2 shall be void.

11.3 Telephonic Recording

The Parties agree that each may electronically record all telephonic conversations between them and that any such recordings may be submitted in evidence to any court or in any Proceedings for the purpose of establishing any matters pertinent to the Agreement.

11.4 Notices

Unless otherwise agreed, all notices, instructions and other communications to be given to a Party under the Agreement shall be given to the address, telex (if confirmed by the appropriate answerback), facsimile (confirmed if requested) or telephone number and to the individual or department specified by such Party in Part III of the Schedule. Unless otherwise specified, any notice, instruction or other communication given in accordance with this Section 11.4 shall be effective upon receipt.

11.5 Termination

Each of the Parties may terminate the Agreement at any time by seven (7) days' prior written notice to the other Party delivered as prescribed in Section 11.4, and termination shall be effective at the end of such seventh day; provided, however, that any such termination shall not affect any outstanding Options, and the provisions of the Agreement shall continue to apply until all the obligations of each Party to the other under the Agreement have been fully performed.

11.6 Severability

In the event any one or more of the provisions contained in the Agreement should be held invalid, illegal or unenforceable in any respect under the law of any jurisdiction, the validity, legality and enforceability of the remaining provisions contained in the Agreement under the law of such jurisdiction, and the validity, legality and enforceability of such and any other provisions under the law of any other jurisdiction shall not in any way be affected or impaired thereby. The Parties shall endeavor in good faith negotiations to replace the invalid, illegal or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal or unenforceable provisions.

11.7 No Waiver

No indulgence or concession granted by a Party and no omission or delay on the part of a Party in exercising any right, power or privilege under the Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power or privilege preclude any other or further exercise thereof or the exercise of any other right, power or privilege.

11.8 Master Agreement

Where one of the Parties to the Agreement is domiciled in the United States, the Parties intend that the Agreement shall be a master agreement, as referred to in 11 U.S.C. Section 101(53B)(C) and 12 U.S.C. Section 1821(e)(8)(D)(vii).

11.9 Time; Time of Essence

Unless otherwise agreed, the times referred to in the Agreement shall in each case refer to the local time of the relevant Designated Office of the Seller of the relevant Option. Time shall be of the essence in the Agreement.

11.10 Headings

Headings in the Agreement are for ease of reference only.

11.11 Wire Transfers

All payments to be made under the Agreement shall be made by wire transfer, or its equivalent, in same day (or immediately available) and freely transferable funds and, unless otherwise specified, shall be delivered to such office of such bank, and in favor of such account as shall be specified by the Party entitled to receive such payment in Part IV of the Schedule or in a notice given in accordance with Section 11.4.

11.12 Amendments

No amendment, modification or waiver of the Agreement will be effective unless in writing executed by each of the Parties; provided that the Parties may agree in a Confirmation that complies with Section 2.3 to amend the Agreement solely with respect to the Option that is the subject of the Confirmation.

11.13 Credit Support

A Credit Support Document between the Parties may apply to obligations governed by the Agreement. If the Parties have executed a Credit Support Document, such Credit Support Document shall be subject to the terms of the Agreement and is hereby incorporated by reference in the Agreement. In the event of any conflict between a Credit Support Document and the Agreement, the Agreement shall prevail, except for any provision in such Credit Support Document in respect of governing law.

11.14 Adequate Assurances

If the Parties have so agreed in Part XI of the Schedule, the failure by a Party to give adequate assurances of its ability to perform any of its obligations under the Agreement within two (2) Business Days of a written request to do so when the other Party has reasonable grounds for insecurity shall be an Event of Default under the Agreement.

11.15 Correction of Confirmations

Unless either Party objects to the terms contained in any Confirmation sent by the other Party or sends a corrected Confirmation within three (3) Business Days of receipt of such Confirmation, the terms of such Confirmation shall be deemed correct and accepted absent manifest error. If the Party receiving a Confirmation sends a corrected Confirmation within such three (3) Business Days, then the Party receiving such corrected Confirmation shall have three (3) Business Days after receipt thereof to object to the terms contained in such corrected Confirmation.

SECTION 12. LAW AND JURISDICTION

12.1 Governing Law

The Agreement shall be governed by, and construed in accordance with, the laws of the jurisdiction set forth in Part XII of the Schedule, without giving effect to conflict of laws principles.

12.2 Consent to Jurisdiction

(a) With respect to any Proceedings, each Party irrevocably (i) submits to the non-exclusive jurisdiction of the courts of the jurisdiction set forth in Part XIII of the Schedule and (ii) waives any objection which it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have jurisdiction over such Party. Nothing in the Agreement precludes either Party from bringing Proceedings in any other jurisdiction nor will the bringing of Proceedings in any one or more jurisdictions preclude the bringing of Proceedings in any other jurisdiction.

(b Each Party irrevocably appoints the agent for service of process (if any) specified with respect to it in Part XIV of the Schedule. If for any reason any Party's process agent is unable to act as such, such Party will promptly notify the other Party and within thirty (30) days will appoint a substitute process agent acceptable to the other Party.

12.3 Waiver of Jury Trial

Each Party irrevocably waives any and all right to trial by jury in any Proceedings.

12.4 Waiver of Immunities

Each Party irrevocably waives, to the fullest extent permitted by applicable law, with respect to itself and its revenues and assets (irrespective of their use or intended use), all immunity on the grounds of sovereignty or other similar grounds from (i) suit, (ii) jurisdiction of any court, (iii) relief by way of injunction, order for specific performance or for recovery of property, (iv) attachment of its assets (whether before or after judgment) and (v) execution or enforcement of any judgment to which it or its revenues or assets might otherwise be entitled in any Proceedings in the courts of any jurisdiction and irrevocably agrees, to the extent permitted by applicable law, that it will not claim any such immunity in any Proceedings.

____

By: __________________________

Name: ________________________

Title: _________________________

____

By: __________________________

Name: ________________________

Title: _________________________

SCHEDULE

SCHEDULE TO THE INTERNATIONAL CURRENCY OPTIONS MARKET MASTER AGREEMENT

dated as of ___________________________, 199________

between ____________________________ ("Party A") and

_____________________________________ ("Party B").

Part I. Scope of the Agreement

The Agreement shall apply to [all] [the following] foreign exchange options outstanding between any two Designated Offices of the Parties on the Effective Date.

Part II. Designated Offices

Each of the following shall be a Designated Office:

Party A:

Party B:

Part III. Notices

If sent to Party A:

Address:

Telephone Number:

Telex Number:

Facsimile Number:

Name of Individual or Department to whom Notices are to be sent:

If sent to Party B:

Address:

Telephone Number:

Telex Number:

Facsimile Number:

Name of Individual or Department to whom Notices are to be sent:

Part IV. Payment Instructions

[ ] Name of Bank and Office, Account Number and Reference with respect to relevant Currencies

[ ] With respect to each Party, as may be set forth in such Standard Settlement Instructions as may be specified by such Party in a notice given in accordance with Section 11.4.

Part V. Discharge of Options

Section 4 [shall] [shall not] apply to Options other than Barrier Options.

Section 4 [shall] [shall not] apply to Barrier Options.

Part VI. Automatic Exercise of Options

Automatic Exercise of certain In-the-money Options pursuant to Section 5.3 [shall] [shall not] apply to Party A.

Automatic Exercise of certain In-the-money Options pursuant to Section 5.3 [shall] [shall not] apply to Party B.

Part VII. Base Currency

Party A's Base Currency is

Party B's Base Currency is

Part VIII. Threshold Amount

For purposes of clause (x) of the definition of Event of Default:

Party A's Threshold Amount is [$]

Party B's Threshold Amount is [$]

Part IX. Additional Events of Default

The following provisions which are checked shall constitute Events of Default:

[ ] (a) Occurrence of garnishment or provisional garnishment against a claim against the Defaulting Party acquired by the Non-Defaulting Party;

[ ] (b) Suspension of payment by the Defaulting Party in accordance with the Bankruptcy Law or the Corporate Reorganization Law in Japan, or

[ ] (c) Disqualification by any relevant bill clearing house located in Japan

Part X. Automatic Termination

The Automatic Termination provision of Section 8.1 [shall][shall not] apply to Party A.

The Automatic Termination provision of Section 8.1 [shall][shall not] apply to Party B.

Part XI. Adequate Assurances

Adequate Assurances under Section 11.14 [shall][shall not] apply to the Agreement

Part XII. Governing Law

In accordance with Section 12.1 of the Agreement, the Agreement shall be governed by the laws of:

[ ] the State of New York

[ ] England and Wales

Part XIII. Consent to Jurisdiction

In accordance with Section 12.2 of the Agreement, each Party irrevocably submits to the non-exclusive jurisdiction of:

[ ] the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City,

[ ] the courts of England

Part XIV. Agent for Service of Process

[Not applicable]

[Party A appoints the following as its agent for service of process in any Proceedings in [the State of New York][England and Wales]:]

[Party B appoints the following as its agent for service of process in any Proceedings in [the State of New York][England and Wales]:]

Part XV. Certain Regulatory Representations

A. The following FDICIA representation [shall][shall not] apply:

1. Party A represents and warrants that it qualifies as a "financial institution" within the meaning of the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA") by virtue of being a:

[ ] broker or dealer within the meaning of FDICIA;

[ ] depository institution within the meaning of FDICIA;

[ ] futures commission merchant within the meaning of FDICIA;

[ ] "financial institution" within the meaning of Regulation EE (see below).

2. Party B hereby represents and warrants that it qualifies as a "financial institution"by virtue of being a:

[ ] broker or dealer within the meaning of FDICIA;

[ ] depository institution within the meaning of FDICIA;

[ ] futures commission merchant within the meaning of FDICIA;

[ ] "financial institution" within the meaning of Regulation EE (see below).

3. A Party representing that it is a "financial institution" as that term is defined in 12 C.F.R. Section 231.3 of Regulation EE issued by the Board of Governors of the Federal Reserve System ("Regulation EE") represents that:

   (a) it is willing to enter into "financial contracts" as a counterparty "on both sides of one or more financial markets" as those terms are used in Section 231.3 of Regulation EE and

   (b) during the 15-month period immediately preceding the date it makes or is deemed to make this representation, it has had on at least one (1) day during such period, with counterparties that are not its affiliates (as defined in Section 231.3(b) of Regulation EE) either:

      (i) one or more financial contracts of a total gross notional principal amount of $1 billion outstanding; or

(ii) total gross mark-to-market positions (aggregated across counterparties) of $100 million; and(c) agrees that it will notify the other Party if it no longer meets the requirements for status as a financial institution under Regulation EE.

4. If both Parties are financial institutions in accordance with the above, the Parties agree that the Agreement shall be a netting contract, as defined in 12 U.S.C. Section 4402(14), and each receipt or payment or delivery obligation under the Agreement shall be a covered contractual payment entitlement or covered contractual payment obligation, respectively, as defined in FDICIA.

B. The following ERISA representation [shall][shall not] apply:

Each Party represents and warrants that it is neither (i) an “employee benefit plan” as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974 which is subject to Part 4 of Subtitle B of Title I of such Act; (ii) a “plan” as defined in Section 4975(e)(1) of the Internal Revenue Code of 1986; nor (iii) an entity the assets of which are deemed to be assets of any such “employee benefit plan” or “plan” by reason of the U.S. Department of Labor’s plan asset regulation, 29 C.F.R. Section 2510.3-101.

C. The following CFTC trade option representation [shall][shall not] apply:

Each Party represents and warrants that it is a commercial user of or a merchant handling the Currencies subject to each Option and was offered or entered into each Option solely for purposes related to its business as such.

D. The following CFTC eligible swap participant representation [shall][shall not] apply:

Each Party represents and warrants that it is an “eligible swap participant” under, and as defined in, 17 C.F.R. Section 35.1.

Part XVI. Additional Covenants

The following covenant[s] shall apply to the Agreement:

INTERNATIONAL CURRENCY OPTIONS MARKET MASTER AGREEMENT GUIDE

I. INTRODUCTION

Following the publication in August, 1985, of "LICOM Terms", which were intended to reflect and to encourage good market practice and to reduce the need for specific legal documentation between participants in the London interbank over-the-counter currency options market, the market continued to evolve internationally. By 1989, it became apparent that the original terms did not adequately reflect market practice. In particular, the number and diversity of market participants had increased substantially, and new practices had been adopted, such as volatility quoting, which were not envisaged in 1985.

Accordingly, in May, 1989, the British Bankers' Association ("BBA") re-established, through its Foreign Exchange Committee, a Working Party to liaise with market interests, including the Foreign Exchange and Currency Deposits Brokers' Association, with a view to updating the 1985 terms and to provide guidance as to market practice. The Working Party was comprised of members representing a broad spectrum of international financial institutions. In addition, emphasis was placed on the international acceptance of the revised terms, and a new title was developed: International Currency Options Market Terms and Conditions - "ICOM Terms". The Bank of England was represented as an observer on the Working Party.

During this same period, a similar effort was underway in the United States. In early 1986, The (U.S.) Foreign Exchange Committee issued draft Recommended Terms and Conditions For Dealing in the United States Market - "NYICOM Terms", which were drafted by the Financial Markets Lawyers Group. Both groups are sponsored by but independent of the Federal Reserve Bank of New York (the "FRBNY"), and their members are from institutions which participate in the interdealer foreign exchange market. The NYICOM Terms, which were based upon, and substantially similar to, the original LICOM Terms, were intended to reflect general market practice in the United States. Over a period of time, the NYICOM Terms were retitled "USICOM Terms", for United States Interbank Currency Options Market Terms.

Although the USICOM Terms generally reflected market practices in the U.S., they did not address the increasingly important issue of counterparty credit risk and, in particular, the substantive rights and obligations of the parties upon (i) the nonperformance of an option by one of the parties, (ii) the insolvency of one of the parties or (iii) the occurrence of force majeure or some other event which makes it illegal or impossible for one of the parties to perform. The USICOM Terms also did not provide a method for closing out and liquidating options upon the occurrence of one of these events. In 1990, the USICOM Terms were revised into a draft form of master agreement, which attempted to reflect market practice with respect to the formation, exercise and settlement of options (including such matters as net cash settlement and automatic exercise), as well as set forth the substantive legal rights and obligations of the parties.

In the summer of 1990, representatives of the Working Party and The Financial Markets Lawyers Group met to resolve the differences between the ICOM Terms and the USICOM Terms and to develop a single document for use in the international over-the-counter foreign currency options market. The result was the International Currency Options Market Master Agreement ("Original ICOM") which was published in the U.S. in April 1992 and in England in August 1992. Following publication of Original ICOM, the same representatives met to develop a master agreement for spot and forward foreign exchange. That agreement, the International Foreign Exchange Master Agreement ("IFEMA") was published in 1993.

Because the foreign exchange markets are continually evolving, and because IFEMA reflected new thinking about certain issues, IFEMA differed in certain respects from Original ICOM. For that reason, the two groups decided to revisit and update ICOM. The attached form (the "Master Agreement" or "ICOM") should be considered as reflective of normal market practice for international interdealer transactions and as appropriate for adoption by market participants as the standard agreement for dealing in this market.

At the same time they worked on the updated ICOM, the two groups decided to prepare a single form of agreement on which parties may document foreign exchange spot and forward transactions as well as foreign exchange options. That agreement, the Foreign Exchange and Options Master Agreement ("FEOMA") is being published at the same time as ICOM. Users of FEOMA may benefit not only from the ease of documenting multiple related transactions under a single agreement but also from an ability under the laws of many countries (including the U.K. Capital Adequacy Directive) to net exposures under their cash, forward and options transactions.

The Working Party and the Financial Markets Lawyers Group have confined themselves to practices in the interbank and professional markets, and have not been directly concerned with the terms and conditions upon which individual institutions may choose to deal with their clients (although the Master Agreement could be used in such circumstances). Banks and other professional market participants are, of course, free to deal with each other on the basis of other terms or agreements if they wish, but should consider themselves under an obligation to make clear to each other in what way their terms or agreements differ from the Master Agreement.

It will be standard practice for market participants in the United States market to execute Original ICOM or ICOM in the form of a Master Agreement. In the London market, the Original ICOM Terms or new ICOM Terms are presumed to apply if one of the parties is acting through an office in the United Kingdom. Nevertheless, parties acting through such an office may wish to consider dealing under a Master Agreement, for the benefits derived from a master agreement under the terms of the U.K. Capital Adequacy Directive.

The following sections of this Guide to the Master Agreement are intended (i) to provide further clarification of normal market practice and (ii) to explain various provisions of the Master Agreement with respect to foreign exchange options covered thereby ("Options") and the significance of their inclusion in the Master Agreement. Therefore, this Guide should be read carefully. Although the Master Agreement does, and is intended to, stand on its own as a legal document, the Guide provides important commentary on current market practice and the Master Agreement.

II. MARKET PRACTICE

A. Price Quotation

There are two generally accepted methods of price quotation - Premium and Volatility. In each case, the counterparties shall agree upon:

Option Style (American or European),

Call Currency and Amount,

Put Currency and Amount,

Expiration Date,

Expiration Time,

Premium Payment Date,

Settlement Date, and

Strike Price.

Counterparties should also agree upon whether they are entering into a contemporaneous foreign exchange transaction (commonly known as a Delta hedge).

Price quotation should be in the form of either:

(a) a Premium, where the counterparties agree upon the above terms and on how the premium price should be expressed, e.g. as a percentage of either currency or as one currency in terms of the other (it is also necessary to agree upon a spot rate in the case of a Premium quotation where a Delta hedge forms part of the trade); or

(b) Volatility, where the counterparties agree upon the above terms and that the Volatility be expressed as a percentage per annum. It is the factor which, when combined with the Spot Rate, interest factors of the Currency Pair concerned, the days to expiry of the Option and the Strike Price, is used to compute the Premium.

An Option is not a legally binding contract until, among other things, the Premium has been agreed.1 Therefore, to ensure the ongoing viability of the Volatility method of dealing, it is incumbent on the counterparties to agree on the Premium as soon as possible, and it is imperative that the calculation of the Premium accurately reflect the agreed Volatility and market conditions at the time Volatility was agreed. In the event of a dispute that cannot be resolved between the counterparties through good faith negotiation (or, in the first instance, by reference to recordings of conversations between the parties during which pricing was

discussed), prompt reference to mutually acceptable third-party arbitration is suggested. Market participants should note that, as Premium calculation differences are more likely to occur in transactions involving American Style Options, due care should be exercised in entering into such Options.

In addition, when trading Volatility, it is necessary that a spot rate be agreed upon by the counterparties immediately upon entering into the Option. This forms the basis of the underlying foreign exchange transaction (Delta hedge), if any.

B. Quotation of Expiration Dates

Generally, there are two methods for quotation of Expiration Dates - quotation of straight Expiration Dates and quotation of Expiration Dates by calendar month.

Straight Expiration Dates

An Option quoted for straight periods (such as 1 month, 2 months, etc.) has as its final Expiration Date the date preceding the equivalent forward date (as dealt in the interdealer foreign exchange market) that will result in settlement on the forward date, if it is exercised on the Expiration Date. If there is more than one solution, the furthest date from the Trade Date will be the Expiration Date.

Example:

Today's date: March 4

Spot date: March 6

1 month FX date:April 6

The Expiration Date for a one-month Option quoted on March 4 will be that date which will result in a Settlement Date of April 6, i.e., April 4, (assuming no weekends or holidays between). To avoid misunderstanding, in the case of periods under one month, it is recommended that the parties refer to an actual date.

Expiration Dates by Calendar Month

Currently, it is market practice to quote for expiration in a particular month without reference to the actual date. In these instances, it is generally understood that the Expiration Date of the Option is the Monday before the third Wednesday of that particular month.

Expiration on Non-Business Days

Although the Master Agreement does not provide that the Expiration Date must be a Business Day (i.e., a Local Banking Day for the office of the Seller that has written the Option), this will customarily be the case. However, some dealers regularly sell Options with Expiration Dates that are not Local Banking Days for their applicable Designated Office. (Similarly, some dealers will accept Notice of Exercise of European Style Options on a non-Business Day.) If the Expiration Date is not a Local Banking Day for the Seller's Designated Office (or if the Seller is willing to accept Notice of Exercise of a European Style Option on a non-Business Day), it is incumbent upon the Seller to make other arrangements (such as designating a different office or an agent for receipt) to enable the Buyer to exercise its Option. In these circumstances, the Seller should notify the Buyer of such arrangements as soon as possible and reconfirm them to the Buyer prior to the Expiration Date.

C. Confirmations

The significant terms of an Option should always be established by the parties at the time the Option is entered into. The agreement of the parties on those terms will be set forth in the Confirmation. However, there may be matters relating to an Option that are not required to be set forth in the Confirmation. Market participants are encouraged to include information as to such matters in the "Other terms and conditions" section of the Confirmation. The definition of "Confirmation" provides that a Confirmation may contain other matters that the parties may specify in a Confirmation. That may be particularly necessary for exotic types of Option, such as Barrier Options.

As in the spot and forward currency markets, the prompt exchange of Confirmations (preferably electronically) and their immediate and thorough checking upon receipt (and querying where necessary) is vital to the orderly functioning of the market place, as well as providing a principal defense against many types of fraud. The Option markets are more complex than the cash markets because of the greater number of parameters that need to be specified for each transaction and the different types of Options that may be transacted. This additional complexity reinforces the requirement for Confirmations to be issued promptly. Since, however, Confirmations with respect to Options often contain terms other than the economic terms of the Option, instead of the parties' exchanging confirmations, it is common for one party to send a Confirmation for the counter-signature of the other party. It is suggested that brokers also send to the counterparties Confirmations of any Options which they arrange. If there has been a misunderstanding between the parties as to the Option terms, this will usually be discovered upon the review of the

Confirmation or Confirmations. The non-receipt of an expected Confirmation or any inconsistencies or inaccuracies should be queried or objected to within the time period recognized by local market practice.

A recommended form of Confirmation is included as an example appended to this Guide. Market participants (including brokers) are encouraged to follow the format and terminology suggested in order to reduce the risk of misunderstandings.

Market participants frequently enter into a contemporaneous Delta hedge at the time they enter into an Option (either with the Option counterparty or a third party). It is market practice (and market participants are encouraged) to separately confirm such transactions. In addition, it is suggested that brokers send confirmations of any Delta hedges which they arrange to the parties involved.

Finally, market participants should indicate at the beginning of negotiations, and prior to entering into an Option, in which way their dealings and the formation, exercise or settlement of the relevant Option will differ from established market practice. Similarly, brokers should be mindful of, and adhere to, market practice with respect to the formation of Options and their dealings with Option counterparties (including the issuance of Confirmations in the recommended form).

III. MASTER AGREEMENT PROVISIONS

A. Definitions

For the most part, the definitions used in the Master Agreement are those commonly used by currency options market participants. However, because of the nature of the document (i.e. the form of a master agreement) and because an attempt has been made to define some common terms and phrases which have not heretofore been defined, some of these definitions deserve comment.

1. "Base Currency" is defined as the currency specified by a party on the Schedule to the Master Agreement. Upon an Event of Default, or some other event, which results in the liquidation of outstanding Options, the Base Currency of the Non-Defaulting Party is the currency in which the payment will be calculated and, probably, paid. (See Section III.H.5 and III.H.8 hereof.) It is expected that each party will have a single currency in which it prefers to receive settlement: For example, for U.S. market participants, this will likely be U.S. dollars. U.K. market participants entering into Master Agreements should specify Pounds Sterling as their Base Currency as a U.K. liquidation of a company is conducted in Pounds Sterling (i.e., all claims must be made, and all debts and credits are determined, in Pounds Sterling). The U.K. Terms provide that, if there is no writing between the parties, the Base Currency will automatically be Pounds Sterling.
2. "Business Day" has alternate definitions depending upon the context in which it is used. The Working Party/Financial Markets Lawyers Group found that a single definition would have affected, rather than reflected, market practice.
3. The Buyer of an Option (sometimes referred to as the "purchaser" or "holder") is defined as the owner of the Option. The Buyer may be either the original buyer, an assignee thereof or a subsequent assignee. In any event, for Options between counterparties to be subject to the Master Agreement, the parties must have executed the Master Agreement. If an Option is assigned by a Buyer to a party who has not entered into the Master Agreement with the Seller, the assignee will not have the rights and obligations with respect to automatic exercise, net cash settlement, set-off and termination, and liquidation and close-out set out in the Master Agreement. (Section 11.2 of the Master Agreement provides that neither party may assign nor delegate its rights or obligations, respectively, to a third party without the prior written consent of the non-assigning party.)
4. Counterparties are expected to specify their Designated Offices in Part II of the Schedule attached to the Master Agreement. These are the respective offices of the parties that will deal Options and whose transactions will be subject to the provisions of the Master Agreement.
5. The Effective Date of the Master Agreement is the date the Master Agreement is dated. The Working Party/Financial Markets Lawyers Group recommend that the parties date the Master Agreement the date the Agreement is signed. This date may be important in the event one of the parties becomes insolvent, as some jurisdictions will not give effect to an agreement entered into within a "suspect period" prior to the date of any insolvency proceeding. If the parties wish the Master Agreement to cover transactions entered into before the Effective Date of the Agreement, they should do so in Part I of the Schedule pursuant to Section 2.1 (Scope of the Agreement).

6. The definition of "European Style Option" provides that it is an Option which may be exercised only on its Expiration Date. After considerable discussion among the Working Party/Financial Markets Lawyers Group it was agreed that few European Style Options are exercised prior to this time and that operational problems could result from the earlier exercise of European Options (although this problem was not considered significant). However, the definition does provide that the parties may agree on the acceptability of earlier delivery of Notice of Exercise of these Options. One transaction in which earlier delivery may be contemplated is a Barrier Option.

7. The Events of Default are generally credit-related events, including insolvency, non-payment and the disaffirmation or repudiation of an Option.

   Involuntary bankruptcy proceedings are addressed in clauses (iii) and (iv). Clause (iii) covers such proceedings brought by a governmental authority or self-regulatory organization in the country of a party's organization or principal office; in this case, there is no grace period. Clause (iv) covers such proceedings brought by any other party (including a governmental authority or self-regulatory organization in a country other than that of a party's organization or principal office); in such a case, there is a grace period in which the defaulting party may attempt to have the proceeding dismissed. A breach of either clause (in the case of clause (iv), when matured) will result in automatic termination if the parties have specified "Automatic Termination" in Part IX of the Schedule. The Working Party/Financial Markets Lawyers Group believed that this extreme remedy was appropriate only for proceedings brought by a party's principal regulator.

   If the parties are using the ICOM Master Agreement, they may elect in Part XI of the Schedule to have Section 11.14 apply. If Section 11.14 applies, a party may request adequate assurances from its counterparty as to the counterparty's ability to perform an Option. If no such assurances are forthcoming, or the relevant assurances are not, in the good faith opinion of the party requesting the assurances, adequate, then two Business Days after the request for adequate assurances has been given that party may close out and liquidate all outstanding Options. Such a provision protects a party when it has genuine and valid concerns with respect to the ability of its counterparty to perform, even though no other Event of Default has occurred. The concern may be triggered by, for instance, unconfirmed information about the counterparty circulating in the market, the action of a rating agency or the acknowledged credit problems (such as the filing of a petition for bankruptcy or the occurrence of some other insolvency proceeding) of a parent, affiliate or subsidiary of the counterparty.

   This provision requires that the request for adequate assurances must be reasonable given all the facts and circumstances. If, for example, shortly before the Expiration Date of an Option, the Seller of an Option had defaulted on an obligation to the Buyer which arose out of a transaction not covered by the provisions of the Master Agreement (for example, a securities transaction), it might be reasonable for the Buyer to request adequate assurances of the Seller's ability to perform the Option should the Buyer exercise the Option. On the other hand, it would probably be unreasonable of the Seller to request adequate assurances of a Buyer's ability to perform an unexercised Option which is deep out-of-the-money and has an Expiration Date two months in the future. Similarly, what constitutes adequate assurances in any given situation will depend upon a number of factors, including the reason for the requesting party's concern and request, and whether the party from whom adequate assurances are requested is a Buyer or Seller (or both). For example, if the party which is requested to provide adequate assurances is a Seller of in-the-money Options who has already defaulted on other obligations, adequate assurances may be the delivery of a guarantee or letter of credit to support such party's obligations or the deposit into an escrow account of the currency (or currencies) required to be delivered by the Seller upon exercise of the Option(s). If, on the other hand, a party's concern is triggered by unconfirmed rumors about the financial position of its counterparty, it may be sufficient for the counterparty to provide information to the requesting party proving those rumors to be false. In all cases, the determination of both the reasonableness of the request and the adequacy of the assurances should be fact intensive.

   In addition, market participants may want to limit the circumstances that may give rise to a reasonable request for adequate assurances. Some market participants may want to use a side letter for this purpose. Such a side letter is neither required nor encouraged, and the provision described in Section 11.14 should be considered the standard language.

The failure to provide adequate assurances becomes an Event of Default only after two Business Days following the written request therefor. (Pursuant to the provisions of Section 8.5 of the Master Agreement, the party requesting such adequate assurances is entitled to suspend performance of its obligations with respect to any Option during the pendency of such request.)

Clause (viii) of the definition of "Event of Default" provides that it is an Event of Default with respect to a party if the representations and warranties made by such party in Section 7 shall have been false or misleading at the time they were made, provided that the counterparty has given one Business Day's notice of such fact. The representations and warranties made by a party pursuant to Section 7 are considered crucial to the validity and enforceability of an Option and a party's obligations thereunder. Therefore, if the representations and warranties are incorrect, it is deemed a material breach of the Master Agreement thereby allowing the counterparty to effect the close-out and liquidation of all Options pursuant to Section 8.

8. "Expiration Date" (sometimes referred to as the "maturity date" or "expiry date") is defined as the date agreed to as such by the parties. The two methods commonly used for determining the Expiration Date are explained in Section II.B above. Section II.B also contains a discussion of non-Business Day Expiration Dates.

9. "Expiration Time" (sometimes referred to as the "cut-off time") is defined as the time agreed to as such by the parties. It is expected that, in keeping with current market practice, the Expiration Time specified will generally be either 10:00 a.m. (New York time) or, for transactions entered into in the Pacific rim, 3:00 p.m. (Tokyo time).

10. The definition of FX Transaction which appears in FEOMA includes not only transactions where the parties exchange the underlying currencies, but, if the parties so choose in Part VI of the Schedule to FEOMA, cash settled transactions. These are usually forward transactions involving a currency where there is no local forward currency market. Where the parties decide to make cash-settled forward transactions subject to FEOMA, they must also determine how the close-out provisions should apply to such transactions, since the determination of a Close-Out Amount under Section 8.1(b)(i)(w) depends on knowing the amount of the forward Currency Obligation, and cash-settled forward transactions often provide that the amount of the forward Currency Obligation is not determined until two business days prior to the Value Date (using spot rates in effect at that time). Since cash-settled forward transactions often involve currencies for which there is no forward market, use of publicly available forward rates often will not be a viable alternative. Part VI of the Schedule allows the parties to choose their own method of valuing such FX Transactions. Parties might choose to use replacement cost, the loss incurred by the Non-Defaulting Party as a result of the default (including loss of bargain, cost of funding and loss incurred as a result of terminating or re-establishing a hedge), or a forward yield curve constructed by the Non-Defaulting Party in good faith using such factors as it may deem reasonable, such as interbank cash deposit rates, interest rate futures prices and interest rate swap rates. A subcommittee of the BBA Working Party/Financial Markets Lawyers Group is working on recommended provisions.

11. "LIBOR" is used throughout the Master Agreement to determine the rate of interest that is due on late payments, or the rate at which payments not yet due are discounted in the event of that Options are terminated and closed out. In Original ICOM, certain of these payments were based on the funding rate of the Non-Defaulting Party. The Working Party and the Financial Markets Lawyers Group determined to recommend the use of a market based rate, rather than a cost-of-funds rate, since market based rates are easier to prove, and LIBOR is a widely recognized rate. Where a LIBOR rate does not exist, the agreement looks to the average rate at which deposits in the applicable Currency are offered in the "relevant foreign exchange market". This will normally be the country of issuance of the relevant currency, other than in the case of the Ecu.

12. Notice of Exercise of an Option may be given by either telex, telephonic or other electronic means. However, in keeping with market practice, facsimile transmission is specifically excluded as an acceptable method of delivering a Notice of Exercise because of difficulties in ascertaining receipt. In order to avoid confusion, a Notice of Exercise is defined as being irrevocable. Section 5.1 contains the provisions regarding effectiveness of notices of exercise. Clause (i) of that section requires provides that a Notice of Exercise is effective only on a Business Day. Clause (ii) of that section recognizes that a Notice of Exercise is effective only on its

Expiration Date, which is the date agreed upon in a Confirmation. Some Sellers will write European Style Options that expire on a non-Business Day. Since they know the date when the Option will be exercised, if at all, they can prepare for this eventually. In this regard, see the discussion under "Expiration on Non-Business Days" in Section II.B above. An American Style Option, on the other hand, is not limited to exercise on a specified day and the Working Party/Financial Markets Lawyers Group does not believe that market participants normally accept exercise of such Options on non-Business Days.

13. "Premium Payment Date" is defined as the date agreed to as such by the parties. Generally, the Premium Payment Date will be the Spot Date for the Currency Pair (i.e. the currencies which will be exchanged upon the exercise of an Option). However, for some Options, the Premium will be payable in a currency other that the Put Currency or the Call Currency. In addition, certain Options (such as those commonly referred to as "Boston Options") call for payment of the Premium at a later date (in the case of Boston Options, on the Exercise Date of the Option). In these situations, it is imperative that market participants specifically agree on the Premium Payment Date. Market practice is that the Premium Payment Date is always specified in the Confirmation.

14. The term "Seller" has been used to describe the party that grants an Option. This is the term commonly used for such purpose, although the Seller is sometimes referred to as the "grantor" or the "writer".

15. Generally, the Spot Date will be the second Business Day after a transaction is entered into. However, this general rule is affected by domestic holidays and, at times, the respective principal financial centers of the currencies involved may be dealing for different Spot Dates. In addition, spot transactions in certain currencies, for example Canadian dollars and Mexican pesos, generally settle on the business day succeeding the date of the transaction. Therefore, the term "Spot Date" has been defined by reference to general usage by foreign exchange market participants.

16. "Spot Price" is used in two Sections of the Master Agreement: (i) Section 5, where it is used for purposes of determining the In-the-money Amount, or intrinsic value, of an Option for purposes of net cash settlement (Section 5.5) and automatic exercise (Section 5.3), and (ii) Section 8, where it is used for the purpose of converting the settlement amount calculated upon the liquidation of an Option into the Non-Defaulting Party's Base Currency. In Section 5, the determination of Spot Price is made by the Seller, and in Section 8 it is made by the Non-Defaulting Party. In either case, the definition requires that such determination be made in good faith.

17. The term "Currency" is defined in ICOM to include not only the lawful currency of any country, but also any composite currency, such as the European Currency Unit or ECU. The Working Party/Foreign Exchange Committee recognize that under the Treaty on European Union and the second stage of European monetary union, many European currencies and the Ecu would be replaced by a new currency, sometimes referred to as the "Euro". Plans for introducing the Euro are described in the Green Paper on the Practical Arrangements for the Introduction of the Single Currency, which was published by the European Commission on May 31, 1995. Under current proposals, there will be a period when existing national currencies and the new single currency will operate in tandem. Thereafter, national currencies in countries that have adopted the new currency will be replaced by the Euro. These proposals raise numerous issues of public international law which are beyond the scope of ICOM or this Guide. See generally, U.K. Financial Law Panel, Response to the European Commission's Green Paper dated 31 May 1995 on the Practical Arrangements for the Introduction of the Single Currency, October 1995. The parties to an Option under ICOM should be aware of developments which may affect Options settling after January 1, 1999 and should arrange their affairs accordingly.

B. General

1. ICOM governs all Options between two Designated Offices of the parties entered into on or after the Effective Date. Before using ICOM, the parties should agree in writing which Options then outstanding between any two Designated Offices are to be subject to the provisions of ICOM. In the case of the ICOM Master Agreement, the parties will complete Part I of the Schedule; in the case of the ICOM Terms, the parties will agree in a separate writing.

2. Section 2.2 states the general intention of the parties that the Master Agreement, the terms agreed between the parties with respect to each Option, and all Confirmations be considered a single agreement. It

further states that the parties enter into Options under the Master Agreement in reliance upon these facts. The intent of these provisions is to provide a legal basis in some jurisdictions for the close-out, liquidation and netting of all Options (as provided by Section 8) upon the occurrence of an Event of Default with respect to one of the parties. These provisions are considered crucial in those jurisdictions to avoid the possibility that a trustee, receiver or conservator of an insolvent party would be upheld by a court in affirming and enforcing some Options (e.g. those which it holds as Buyer which are In-the-money) and rejecting and repudiating others (e.g those as to which it is Seller), the practice commonly known as "cherry-picking".

3. An Option becomes a legally binding contract when the essential terms of the Option (Buyer and Seller, Premium, style, type, Strike Price, Put Currency and amount, Call Currency, Expiration Date, Expiration Time and Premium Payment Date) are agreed by the parties. The Option will usually be concluded orally by the traders, in which case the Confirmation will be evidence of the contract.

4. Section 11.15 provides that Confirmations shall be deemed correct absent manifest error three Business Days after receipt by a party. Such manifest error may be evidenced by a tape recording of the conversation of the traders who entered into a disputed Option or their back office personnel. Section 11.3 specifically provides for the tape recording of conversations between the parties and for the use of any such recordings as evidence in any court or in any proceeding. The User's Guide previously stated in Section III(B)(3) that manifest error might be evidenced by the tape recording of the conversation of the traders who entered into a disputed Option. This statement was somewhat at odds with Section III(K)(2), which stated that all tape recordings between the parties "are usually the best evidence of the essential terms of an Option". Upon further reflection, the Working Party/Financial Markets Lawyers Group believe that all tape recordings are some evidence of the agreement between the parties, and that no single piece of evidence should be deemed the "best evidence". The trier of fact is in the best position to give all evidence its proper weight.

C. Representations and Warranties: Contractual Status

1. The representations and warranties contained in Section 7 are made by each of the counterparties and are intended to satisfy each of the parties that (i) the Master Agreement and each of the Options entered into pursuant thereto are valid and enforceable obligations of its counterparty, (ii) no event which calls into question the credit of its counterparty (i.e. an Event of Default) has occurred, and (iii) the counterparty with which it is dealing is the party that is obligated to perform the Option and the terms of the Master Agreement.

2. Part XV of the Schedule contains four other representations that the parties may wish to add to their Master Agreement where one of the parties is subject to U.S. law or the law of any U.S. state.

   (a) The FDICIA representation is designed to ensure that the Non-Defaulting Party may take advantage of the provision of the (U.S.) Federal Deposit Insurance Corporation Improvement Act ("FDICIA"), which ensures the validity of close-out netting agreements with a "financial institution" as defined in FDICIA or in regulations adopted by the Board of Governors of the Federal Reserve System.

   (b) The ERISA representation is designed to ensure that Options do not violate the provisions of the (U.S.) Employee Retirement Income Security Act ("ERISA"), by ensuring that the counterparty is not, and is not acting for, an employee benefit plan as defined in ERISA.

   (c) The third and fourth additional representations are designed to ensure that Transactions do not violate the (U.S.) Commodity Exchange Act (the "CEA"), which is administered by the Commodity Futures Trading Commission (the "CFTC"), and governs the trading of futures contracts and options on futures contracts on U.S. commodity exchanges. The CEA also applies to the off-exchange trading of certain products and instruments. Section 2(a)(1)(A) of the Act, the so-called "Treasury Amendment", was adopted in 1974 and provides an exclusion from the Act for certain products as follows: "Nothing in this Act shall be deemed to govern or in any way be applicable to transactions in foreign currency, . . . unless such transactions involve the sale thereof for future delivery conducted on a board of trade".

   In 1986, the U.S. Court of Appeals for the Second Circuit held that an option on a foreign currency did not fall within this exclusion because it was not

a transaction "in" a foreign currency until it was exercised. Commodity Futures Trading Commission v. The American Board of Trade. Inc. et al., 803 F. 2d 1242 (2d Cir. 1986). The Second Circuit followed this ruling in Dunn v. Commodity Futures Trading Commission, 58 F. 3d 50 (2d Cir. 1995), despite a contrary ruling by the U.S. Court of Appeals for the Fourth Circuit in Salomon Forex, Inc. v. Tauber, 8 F.3d 966 (4th Cir. 1993) which held that the CEA did not apply to off-exchange foreign currency options with institutional customers. Unless the U.S. Supreme Court rules on this subject, there will continue to be uncertainty over whether currency options are subject to the provisions of the CEA.

If currency options are subject to that Act, then they may be offered in the U.S. only pursuant to a regulatory exemption from the general ban on the trading of such options contained in Section 4c(b) of the Act. The exemption most commonly relied upon for currency options is the so-called "Trade Option Exemption" contained in CFTC regulation Section 32.4. The Trade Option Exemption provides an exemption from the general ban for commodity options offered to a "producer, processor, or commercial user of, or a merchant handling, the commodity which is the subject of the commodity option transaction, or the products or byproducts thereof" where such party is offered or enters into the option transaction solely for purposes related to its business as such. As the Master Agreement has been drafted for use by the professional market, a representation addressing the status of the parties for purposes of assuring compliance with the Trade Option Exemption was believed to be unnecessary in the main body of the Agreement. However, in those cases in which the Master Agreement is made subject to the laws of the State of New York (or any other state in the United States) and either of the parties is not a professional market participant, the parties should consider the propriety of including in Part XV of the Schedule a representation as to the commercial status of the parties.

Another exemption which may be relied upon is the so-called Eligible Swap Participant Exemption contained in CFTC regulation Section 35. The Eligible Swap Participant Exemption provides an exemption from the off-exchange trading ban of the CEA for "swap agreements", including currency option agreements, entered into by "eligible swap participants".

3. Section 7.2 allows to the parties to add, in Part XVI of the Schedule, covenants that will apply to one or both parties. Other master agreement forms contain tax representations and covenants. The drafters of the ICOM Agreement determined that such representations and covenants are not standard in agreements covering FX Options. In many countries, the option premium and the exchange of currencies in connection with an FX Transaction are not the type of payments that are subject to withholding tax. Parties should, however, consult with their own advisers to determine whether tax or other covenants are appropriate.

D. The Premium

Section 3.2 provides for alternative courses of action in the event that a Premium is not received on the Premium Payment Date. As Premiums are sometimes paid late (due primarily to operational problems or mistakes), under appropriate circumstances a Seller should generally be willing to accept a late payment, and it is common practice in the market for a Seller to do so. However, where the failure to pay the Premium has not been remedied after a short period of time or is credit-related, the Seller may choose either to void the Option or to take the more drastic step of declaring an Event of Default. Regardless of the course of action chosen by the Seller, the Seller is entitled to recover its out-of-pocket costs and actual damages incurred, specifically including interest on the amount of any Premium (which would be calculated in the same manner as any other late payment) and any costs or expenses in covering its obligations (including a Delta hedge). Section 3.2 provides for such recovery in the case of either a late payment or the decision to treat the related Option as void. Where the Seller chooses to declare an Event of Default, such amounts are recoverable under the provisions of Section 8.1(b)(i).

The fact that clause (ii) of Section 3.2 allows the Seller to declare an Option void for failure of the Buyer to pay the Premium does not indicate that an Option only comes into being when the Premium has been paid (e.g. that it is otherwise unenforceable for failure of consideration). The consideration for each Option is the mutual promises of the counterparties and the fact that the Seller relies on the existence of a contract in making its hedging determinations. Such mutual promises and reliance also justify a

contractual agreement that the Premium will be paid in installments, or on a deferred payment date, such as the Exercise Date.

E. Exercise and Settlement of Options

1. Section 5.1 states that the Buyer may exercise an Option by delivery to the Seller of a timely Notice of Exercise and that, subject to the automatic exercise provisions contained in Section 5.3, an Option which has not been exercised by its Expiration Time shall expire and become void. Accordingly, market participants should exercise particular care when clocks worldwide are changed seasonally. In addition, it is the Buyer's responsibility to ensure that a Notice of Exercise is addressed to, and received by, the department or area specified by the Seller in Part III of the Schedule to the Master Agreement.

2. Section 5.1(a) reflects the general market practice that the close of business occurs at 3:00 p.m. (local time of the Seller) and that a Notice of Exercise received after that time is deemed received on the next Business Day. In accordance with the definition of "Notice of Exercise", such Notice should be given by telephone or other electronic means, but may not be given by facsimile transmission.

3. Options may be entered into on the understanding that physical delivery of the Put Currency and the Call Currency will not take place and that the Option will be net cash settled by a payment to the Buyer of the Option's In-the-money Amount (or intrinsic value) if the Option is exercised. The intrinsic value of an Option will be equal to the difference between the Spot Price and the Strike Price multiplied by the amount of the Put or Call Currency, as appropriate, to be exchanged upon exercise of the Option. Examples of the calculation of the intrinsic value of a United States Dollar/Deutsche Mark Call and Put are as follows:

   For Calls:

   Intrinsic value = (Spot Price - Strike Price)
   x Call Currency Amount

   IfPut Currency and Amount = DEM 1,600,000

   Call Currency and Amount = USD 1,000,000

   Strike Price = 1.60 DEM/USD2

   Spot Price = 1.6850 DEM/USD

   Then intrinsic value is:

   (1.6850 DEM/USD - 1.60 DEM/USD) x USD 1,000,000

   = .0850 DEM/USD x USD 1,000,000

   = DEM 85,000

   For Puts:

   Intrinsic value = (Strike Price - Spot Price)
   x Put Currency Amount

   IfPut Currency and Amount = DEM 1,600,000

   Call Currency and Amount = USD 1,000,000

   Strike Price = .625 USD/DEM

   Spot Price = .60 USD/DEM

   Then intrinsic value is:

   (.625 USD/DEM - .60 USD/DEM) x DEM 1,600,000

   = .0250 USD/DEM x DEM 1,600,000

   = USD 40,000

   The level of the Spot Price at the time of exercise is, therefore, crucial to the ultimate value of the net cash settlement. As the Spot Price that is used for such purposes is determined in good faith by the Seller, the Buyer should ascertain at the outset how the Seller will determine the Spot Price.

4. Section 5.3 provides for automatic exercise of Options which are in-the-money at the Expiration Time and have not been exercised by delivery of a Notice of Exercise, unless otherwise agreed in the Schedule. This provision is not meant to be a substitute for the delivery of a Notice of Exercise by the Buyer, which is good market practice and is encouraged. For this reason, (a) an Option will be deemed exercised under this Section only if, at its Expiration Time, it has an In-the-money Amount that equals or exceeds the product of (x) 1% of the Strike Price and (y) the amount of the Call or Put Currency, as appropriate, (b) the Seller determines the Spot Price that is used to calculate the In-the-money Amount, and (c) the Seller may choose to settle an automatically exercised Option either by physical delivery (in accordance with Section 5.4) or net cash settlement (in accordance with Section 5.5). In certain countries, automatic exercise of Options may have adverse tax consequences or may

be deemed to affect the "optionality" of an Option transaction, which, in turn, may affect the characterization of the Option under local gaming laws. Parties should consult their counsel before determining whether automatic exercise should apply to them.

5. Because an exercised Option settles on the Spot Date for the Currency Pair, it is common practice for market participants to process an Option which is to be settled by physical delivery as if it were a spot foreign exchange contract, including the exchange of settlement instructions and confirmations. (If confirmations are issued upon the exercise of an Option, it is desirable that such confirmations indicate that the spot foreign exchange transaction relates to an Option exercise.) Notwithstanding such treatment, unless otherwise specified by the parties, an exercised Option remains an Option and the parties' rights and obligations with respect thereto will continue to be governed by the Master Agreement. For example, should an Event of Default occur with respect to a party between the Exercise Date and the Settlement Date for an Option, the counterparty's rights to close out and liquidate such Option (and other Options entered into by the parties) are those set forth in Section 8. Parties wishing to have settlement of an exercised Option be governed by an IFEMA Master Agreement between them may wish to amend Section 2.1 to the following effect: "In the case of exercised Options where settlement will occur by delivery of the Currency Pair, settlement will be governed by the International Foreign Exchange Master Agreement dated [date] between the parties." In this case, Options settled at their In-the-money Amount would continue to be governed by ICOM.

6. Section 5.2 provides that, unless otherwise agreed by the parties, an Option may be exercised only in whole and not in part.

7. Options are settled by payment of the Put Currency amount by the Buyer to the Seller and by the payment of the Call Currency amount by the Seller to the Buyer. In each case, such payments shall be made in immediately available and freely transferable funds to the bank and account number specified by the recipient of the payment in Part IV of the Schedule attached to the Master Agreement. See Section 11.11.

8. Section 5.5 covers Options that are to be settled at their In-the-money Amount. The In-the-money Amount is determined based upon the Spot Price at the time of exercise, or as soon as practicable thereafter. Both traders ideally should agree on the Spot Price. Since Options may be exercised by electronic communication before the opening of business at the Seller's Designated Office, courtesy requires that the Spot Price by determined when the Seller's trader actually receives the Notice of Exercise.

F. Discharge and Termination of Options

Section 4 of the Master Agreement provides (unless the parties have provided otherwise in Part V of the Schedule) for the automatic discharge and termination of Call Options written by both parties and Put Options written by both parties, provided that (i) the material terms of such Options are the same, (ii) Premiums with respect to such Options have been paid, and (iii) such Options have not been exercised. The effect of this Section is to net Options in the limited circumstances in which Options can effectively be netted. The sole remaining rights and obligations of the parties with respect to Options discharged and netted under Section 4, are to exercise that portion, if any, of the one of the Options that is not discharged and terminated and to settle such portion upon the exercise thereof, respectively. Section 4 effectively allows counterparties to close out existing Options or to reduce their exposure to each other by entering into offsetting Options. Nevertheless, counterparties are encouraged to close out existing Options or to reduce their exposure to each other primarily by terminating existing Options, rather than entering into new Options, since entering into new Options may, depending upon the enforceability of the netting provisions, double credit exposure and capital usage.

Many Option dealers do not currently terminate offsetting Options, primarily because they do not have the operational capability to do so. Presumably, such parties will agree with their counterparties that offsetting Options will not be discharged or terminated.

G. Payment Netting

Section 6 contains two separate payment netting provisions. Section 6.1 provides for the automatic netting of any Premium payments that would otherwise be made by the parties in the same currency on the same date. Section 6.2 provides for the netting of any payments, other than Premium payments, to be made by the parties to each other in the same currency on the same date. These provisions do not alter the parties' legal rights and obligations with respect to the underlying Options (as Section 4 does). The intent of this Section is to reduce the number and size

of payments required to be made by the parties in connection with their Options transactions. Many Option dealers do not currently net Premium payments, primarily because they do not have the operational capability to do so. Presumably, such parties will agree with their counterparties not to net such payments (either by way of a side agreement or by striking Section 6.1 from the Master Agreement). However, since Premium payment netting reduces settlement exposure and the cost of transacting Options (because of the reduction in the number of payments), Premium payment netting is encouraged.

H. Default

1. The provisions of Section 8 should be read carefully and understood as they set forth the rights and obligations of counterparties upon the occurrence of an Event of Default with respect to either of them. (In addition, the close-out and liquidation procedures set forth in Section 8.1 will also be followed in the event that it becomes illegal or impossible for a party to perform its obligations under an Option under the provisions of Section 9 of ICOM.)

2. Section 8.1 sets forth the steps that a Non-Defaulting Party must take in closing out and liquidating Options. It requires that the Non-Defaulting Party close out and liquidate all outstanding Options, except to the extent that such party believes in good faith that applicable law prohibits the close-out and liquidation of certain Options. This requirement is intended to support the statement made in Section 2.2 that the Master Agreement and all Confirmations (and, therefore, the Options which they evidence), Schedules and amendments to the Master Agreement constitute a single agreement between the parties. The single agreement concept is intended to prevent cherry-picking by a trustee, receiver or conservator of an insolvent Defaulting Party. Close-out means that Options are terminated. Liquidation means that a settlement amount is calculated in accordance with Section 8.1. It does not require the Non-Defaulting Party to enter into replacement transactions for the terminated transactions. The decision whether to enter into replacement transactions is left to the Non-Defaulting Party. If the Non-Defaulting Party determines to enter into replacement transactions, the settlement amount would be based on the cost of such transactions. If the Non-Defaulting Party determines not to enter into replacement transactions, the settlement amount would be based on market prices, as reflected in quotations from brokers or dealers or reports or other evidence of actual trades.

   Section 8.1 further provides that, in the case of specified Events of Default relating to the insolvency of the Defaulting Party, if "Automatic Termination" is specified as applying to the Defaulting Party in Part X of the Schedule, such liquidation shall be automatic with respect to all outstanding Options. Where the law governing the insolvency proceedings of the Defaulting Party does not expressly allow liquidation to take place after the occurrence of the relevant Event of Default, automatic liquidation is considered preferable as it is less likely to be challenged in the insolvency proceedings of the Defaulting Party. The parties may wish to use Part IX of the Schedule to add other automatic Events of Default if deemed desirable under the bankruptcy laws of any country. Such events might include dissolution, a general assignment or composition for the benefit of creditors, a resolution for winding-up, seeking or becoming subject to the appointment of an administrator, liquidator, conservator, receivers, trustee or custodian, analogous events, and other events recommended by local counsel.

3. An Event of Default may occur at several stages in the life of an Option:

   (a) An Event of Default may occur with respect to Buyer after it has paid the Premium for an Option. If the only Options outstanding are those purchased by Buyer for which the Premium has been paid, an argument may be made that the Options should not be terminated. However, (1) the Seller is still subject to the Buyer's credit risk on the underlying FX Transaction, and (2) since the Buyer will be entitled to receive the market premium, it will not suffer any loss. (The Buyer is not entitled also to receive restitution of any Premium previously paid with respect to a terminated Option.) If the Buyer is both the writer and purchaser of Options, it is also fitting that all Options are closed out and netted.

   (b) An Event of Default may occur with respect to Buyer before it has paid the Premium with respect to one or more Options. Failure to pay Premium is covered by Section 3.2 of the Agreement, which allows the Seller to treat the non-payment as an Event of Default or to treat the Option as void. If the Option is void, no Premium is due. If it is treated as a defaulted Option, Seller is entitled to receive the unpaid Premium.

(c) An Event of Default may occur with respect to Seller before Seller has received the Premium. The Purchaser should have the right under contract law to cancel the Option for anticipatory breach. If the Purchaser does not cancel the Option, the Seller should have that right under Section 3.2.

(d) An Event of Default may occur with respect to Seller after it has received the Premium. Liquidation in this situation is covered in Section 8.1(b)(i)(A).

(e) An Event of Default may occur after an Option has been exercised but before settlement date for the Option. Under Section 8.1(b)(i)(C), each party is entitled to receive any unpaid amount due in settlement of the Option, with interest from the due date.

In the event that the close-out formula does not compensate the Non-Defaulting Party for all its costs and losses, including its cost of funding, its cost of terminating or re-establishing a hedge or the loss of its bargain, paragraph (D) allows it to add the amount of such loss as determined by it reasonably and in good faith.

4. Clause (i) of Section 8.1(b) provides for the calculation and aggregation of settlement amounts for each party for each Option closed out. The Non-Defaulting Party should endeavor to value all outstanding Options on a single day. However, if this is impracticable, the calculation of the settlement amount should be completed as soon as practicable. With respect to Options purchased by a party, the settlement amount will be the current market premium (or replacement cost) for such Options. With respect to Options sold by a party, the only settlement amount will be any unpaid Premium and any interest on such unpaid Premium. With respect to exercised, but unsettled, Options, the settlement amount will be the unpaid settlement amount plus interest thereon. In addition, the Non-Defaulting Party is entitled to include any costs or expenses incurred in covering its obligations related to such liquidated Options, such as the obligations on a Delta hedge. The determination of a settlement amount for each party in each instance must be made in good faith. Attached to this Guide is an example of a close-out under ICOM.

5. After calculation of each party's settlement amount, clause (ii) of Section 8.1(b) provides for the conversion of such amount into the Non-Defaulting Party's Base Currency. As such settlement amount may be in different currencies (corresponding to the different currencies in which Premiums and unpaid settlement amounts with respect to exercised Options were paid or payable), it is necessary to convert all such settlement amounts into a single currency if such amounts are to be aggregated (and netted pursuant to the provisions of clause (iii) of Section 8.1(b)). In addition, the Non-Defaulting Party is given the benefit of converting this settlement amount into its Base Currency (rather than the Defaulting Party's Base Currency). For purposes of this conversion, the Non-Defaulting Party should use the applicable Spot Rate.

6. Following the conversion and aggregation of each party's settlement amount, clause (iii) of Section 8.1(b) provides that such settlement amount will be netted, resulting in a single liquidated amount in the Non-Defaulting Party's Base Currency that will be due and payable as a settlement payment to the party having the larger aggregated settlement amount.

7. If one or both of the parties are holding any cash or non-cash collateral as margin or security for their respective obligations under outstanding Options or the Master Agreement generally, Section 8.2 allows the parties to set off the value thereof (following any necessary conversion into the Non-Defaulting Party's Base Currency) against the liquidated damage amount calculated under the preceding clauses.

8. Section 8.4 provides for the payment of the net amount calculated pursuant to Section 8.1 and Section 8.3. The Non-Defaulting Party is to send the Defaulting Party a notice of its close-out calculation as of the Close-out Date or as soon as reasonably practicable thereafter. Payment by the Defaulting Party of the settlement amount, with interest, is due by the close of business on the Business Day following receipt of such notice. In some countries, a judgment can only be rendered in the currency of that country. Therefore, Section 8.4 provides that, if required by applicable law, the net amount payable by one party to the other will be converted into a currency other than the Non-Defaulting Party's Base Currency. Any costs of such conversion will be borne by the Defaulting Party. If this amount is not paid when due, Section 8.4 provides for the payment of interest at overnight LIBOR in the Non-Defaulting Party's Base Currency for each day for which the amount remains unpaid. Section 8.8 also provides that Section 8 is not intended to limit, but rather that the rights provided for

therein shall be in addition to, any other rights which the Non-Defaulting Party may have under applicable law, by agreement or otherwise, and that the Non-Defaulting Party is granted a general right of set-off with respect to all amounts owed by either party to the other, whether due or not due.

9. Section 8.5 establishes the right of one party to suspend performance of its obligations under any Option or the Master Agreement (i) if the counterparty is currently in default in the payment or performance of any of its obligations under an Option or the Master Agreement or (ii) during the pendency of a reasonable request to the counterparty to provide adequate assurances of its ability to perform such obligations. The default need not constitute an Event of Default. Therefore, if a Buyer has not paid a Premium on the applicable Premium Payment Date, even though the Seller has not sent written notice of non-receipt (or, if such notice has been sent, but two Business Days have not elapsed), the Seller is, nonetheless, entitled to suspend its performance with respect to other Options between the parties until receipt of such Premium.

I. Force Majeure, Illegality, and Impossibility

Section 9.1 provides that, if either party is unable to perform, or is hindered or delayed in performing, its obligations in respect of any Option due to force majeure, or if it otherwise becomes illegal or impossible for either party to perform its obligations in respect of any Option, then either party may, after notice of the occurrence of such event, liquidate and close-out all affected Options. Although such events do not constitute Events of Default, the liquidation and close-out procedures to be followed are those provided for in Section 8. Either of the parties may take such action promptly upon notice to the other. Due to the volatile nature of the Option markets, it is important that the parties have the ability to liquidate positions promptly in order to limit their exposure to transactions which one of the parties may be unable to perform. If Section 9 is applicable to the obligations of both parties, the parties should mutually agree upon the close-out and liquidation of Options.

Section 9.2 provides that, if Section 9.1 becomes applicable, the party which is unable to perform must use all reasonable efforts to transfer the affected Options to another of its Designated Offices, unless prohibited by law. Such transfer requires the consent of the other party. Such transfer will not be required if the party unable to perform would incur a loss other than immaterial, incidental expenses or the transfer would cause the other party to incur a material tax or other cost.

J. Parties to Rely on Their Own Expertise

Section 10 establishes that each of the parties has relied on its own expertise and judgment in entering into each Option and as to all other subsequent actions or matters related thereto or any other currency option or transaction. The intent of this provision is to protect each of the parties from a claim or action by the other party wherein it is alleged that one of the parties exercised influence or control over the decisions or actions of the other to the extent that it is, therefore, liable for losses, costs, expenses or damages suffered or incurred as a result of such decisions or actions.

K. Miscellaneous

1. The intent of Section 11.1 is to insure that any settlement payment to a party resulting from the termination and liquidation of Options arising either as a result of an Event of Default or an event of illegality, impossibility or force majeure, and whether pursuant to the operation of Section 8 or the judgment of a court, is made in such party's Base Currency (or the Non-Defaulting Party's Base Currency) and is paid in the full amount in such Base Currency. If payment is made in some other currency, such payment is deemed to discharge the obligation of the payor only to the extent that the payee could purchase the full amount of the Base Currency (or the Non-Defaulting Party's Base Currency) with the amount of the currency received on the business day following the date of receipt. If the amount of the currency received is insufficient to purchase the full amount of the Base Currency, the payor indemnifies the payee against any loss and, in any event, the payor indemnifies the payee against any costs incurred in purchasing the Base Currency.

2. Pursuant to Section 11.3, the parties agree to the tape recording of any telephone conversations between them and agree that such tape recordings can be submitted in evidence in any proceeding relating to any Option transaction. It is standard market practice that conversations between traders and between traders and brokers are recorded. This practice is encouraged, as such recordings can substantially reduce the number of disputes that arise between market participants and the time which it takes to resolve such disputes.

3. Under Section 11.12, amendments to the Agreement are normally effective only if in writing executed by

each of the parties. The parties may, however, agree in a Confirmation to amend the Agreement solely with respect to the Option that is the subject of the Confirmation. Such a Confirmation is effective if sent by mail, telex, facsimile or other electronic means from which it is possible to produce a hard copy, even if not signed. Section 11.12 is consistent with Section 2.4, which provides that, in the event of an inconsistency between the Agreement and a Confirmation, the Confirmation prevails. The only subjects that cannot be changed in a Confirmation are the method of confirming Options and whether Options may be discharged under Section 4.

4. Some parties may choose to deal Options with each other on a margined or secured basis. Section 11.13 provides that, if the parties have entered into an agreement providing for such dealings, then such agreement is incorporated into the Master Agreement and is subject to the terms thereof. The possibility of such an arrangement is also addressed in Section 8.2, which provides for the set-off of any collateral held as margin or security against the settlement payment otherwise calculated pursuant to Section 8.1. If the margin or security agreement conflicts with the Master Agreement, the Master Agreement would govern.

L. Law and Jurisdiction

1. Counsel has opined with respect to Old ICOM that the form of Master Agreement is valid and enforceable under the laws of both the State of New York and the laws of England and Wales. The Working Party and the Financial Markets Lawyers Group expect to obtain updated enforceability opinions from time to time. It is expected that counterparties, and especially those physically located in either the U.K. or the U.S.A., will choose one of these systems of law to govern the Master Agreement and all Options entered into by the parties. It is also expected that parties will submit to the jurisdiction of either the courts in the State of New York or England consistent with their choice of governing law. However, as such submission to jurisdiction is non-exclusive, parties will be free to bring actions, suits or proceedings in other jurisdictions.

2. Pursuant to Section 12.4, each party explicitly waives any sovereign immunity it may be entitled to assert in any legal proceeding arising out of the Master Agreement.

M. Currency Option Confirmation

1. The recommended form of Confirmation, which is attached to this Guide as an example, is substantially the same as the form of confirmation generally used by market participants to evidence options. All of the material terms of an Option are to be set forth in the Confirmation. Material terms which are not otherwise required to be specified in the Confirmation should be included in the "Other terms and conditions" section.

2. There are three headings in the form of Confirmation which are not used or defined in the Master Agreement - Trade Date, Expiration Settlement Date and Price.

   The Trade Date is the day on which the parties agree to enter into an Option.

   The Expiration Settlement Date is the last possible day on which an exercised Option could settle. In keeping with market practice, this will generally be the Spot Date for the Currency Pair as determined on the Expiration Date.

   Price is the currency exchange rate or the percentage (of one of the Currency Pair) upon which the Premium of an Option is determined. See Section II.A above for an explanation of market practice with respect to price quotation.

3. Where dates are to be specified in the Confirmation (e.g. Trade Date), the market convention is to specify the day first (using two numbers), the month second (using three letters) and, finally, the year (using two numbers, being the last two numbers of the applicable year). For example, the date March 1, 1991 would be specified as "01/MAR/91".

N. Schedule

Each of the parties will complete a Schedule in the form attached to the Master Agreement. The Schedule contains particulars concerning each party, such as the address, telephone, telex and facsimile number, and contact person for notices and other communications, and each party's Base Currency. In addition, in Part II of the Schedule, the parties should designate their branches or offices whose transactions and dealings are intended to be covered by the Master Agreement. Either because of concerns with respect to applicable law or operational capabilities (which, for instance, may make the settlement, payment netting or set-off of Options between certain offices of the counterparties difficult), counterparties may

choose to limit the number of Designated Offices covered by a particular Master Agreement and may choose to put in place more than one Master Agreement between them, each covering a different set of Designated Offices.

ICOM contains a number of new Schedule Parts, to enable the parties to tailor the Agreement to their particular needs. For example, Part V allows the parties to determine whether exactly offsetting Options will be discharged pursuant to Section 4 of the Agreement. Part VI allows the parties to determine if they wish Options to be exercised automatically if they are in-the-money by a specific amount or percentage. Part VIII enables the parties to choose a Threshold Amount for cross-defaults. Part X allows them to determine whether Automatic Termination will apply to one or both of the parties. The parties may determine in Part XI whether they will be obligated to give "adequate assurances" of their ability to perform. Part IX allows the parties to add additional Events of Default, and Part XV allows them to add additional representations with respect to certain U.S. regulatory matters. Part XIV allows a party whose residence is not the same as its counterparty's to designate an agent for service of process.

O. The Barrier Option Addendum ("Barrier Addendum")

1. A Barrier Options Subcommittee of the Working Committee/Financial Markets Lawyers Group has developed forms which are recommended for use with Barrier Options. There is a Barrier Option Addendum to a Master Agreement Schedule, a short-form Confirmation for use with such Addendum, and two long-form confirmations for use where the parties have not executed such a Barrier Option Addendum. Copies are included herewith. The Barrier Addendum should be executed where the parties intend to enter into Barrier Options (e.g. Knock-In and Knock-Out Options). It contains definitions and other provisions which set forth the rights of the parties in relation to such Options. The Barrier Addendum has been prepared as a schedule to ICOM, although it could clearly be modified to serve as a schedule to another form of Master Agreement.

2. In each Barrier Option, the parties are expected to name a "Barrier Determination Agent", which will usually be either the Buyer or Seller. Some market participants suggested that the Barrier Determination Agent be the "non-aggressor" or the "market maker", i.e. the party which provided the price quotation for the Option. The Barrier Option Subcommittee believed that these terms were vague, since the "market maker" may change from transaction to transaction between the same two parties. Consequently, good practice demands that the Barrier Determination Agent for each Option be designated in the Confirmation.

3. It is the responsibility of the Barrier Determination Agent to determine whether a barrier has been breached, which determination must be made in good faith and in a commercially reasonable manner. There are a number of prerequisites for transactions which will be deemed to breach a barrier:

   (a) They must be actual transactions in the foreign exchange markets. Quotations, whether firm or indicative, obtained from a foreign exchange broker or dealer or a quotation screen or other information source which does not provide evidence of an actual transaction, are not acceptable evidence that a barrier has been breached. The Barrier Option Subcommittee rejected a suggestion that an independent source of price quotations (e.g. three independent dealers) be used, because time is of the essence to both parties, so that they may avoid economic losses related to purchasing or selling hedges in rapidly moving and sometimes whipsawing spot markets, and obtaining independent price quotations is often time-consuming.

   (b) Transactions known to be at off-market prices are not evidence that a barrier has been breached.

   (c) Transactions must occur between 6:00 a.m. Sydney time on Monday and 5:00 p.m. New York time on Friday. Trades occurring outside those hours are never included, even if there is an active foreign exchange market outside of those hours (for example, because of a particular world event). Trades are considered valid even if they occur on a holiday in the country where the trade takes place.

   (d) Transactions must of commercial size (the amount which is generally accepted by foreign exchange dealers for the applicable currency). The parties may wish, in the case of large transactions, to specify a larger minimum size for the breaching transaction, since Options may be exercised only in whole and not in part, and the existence of a single trade of commercial size may not indicate the ability to cover the exercise of the entire Option.

(e) Breaching transactions may include transactions of the Barrier Determination Agent with third parties, but not with its affiliates or other parties who are not dealing at arm's length or otherwise are not providing good faith fair market prices.

4. The Barrier Addendum provides that a Knock-In Event or Knock-Out Event has occurred if the Spot Exchange Rate is equal to or "beyond" the In-Strike or Out-Strike Price. The direction indicated by the term "beyond" will depend upon (a) the Initial Spot Rate (i.e. the Spot Rate at the time the Option was entered into), and (b) whether the Option is an "up and in", "up and out", "down and in" or "down and out" Barrier Option.

5. The Barrier Addendum contains a definition of the term "Initial Spot Rate". The Initial Spot Rate is not an operational term which is necessary for a Barrier Option. Nonetheless, the members of the Barrier Option Subcommittee believe the term should be included in Barrier Option Confirmations, since it is helpful for potential dispute resolution and risk management purposes. For example, to determine whether two Options with the same trade details (i.e. same strike, same type, same maturity and same out-strike or in-strike) are down-and-out calls or up-and-out calls, the parties must either specify the exact nature in the confirmation or indicate the level of spot rates at the time the Option was transacted. However, simply identifying the nature of the Option can be misleading. For example, a 1.40 DEM put that was transacted when the spot rate was 1.48 and knocks out when spot gets to or through 1.47 would usually be described as an up-and-out DEM put, despite the fact that 1.47 is lower than 1.48. Good practice therefore suggests that the Initial Spot Rate at the time of the transaction be provided.

6. Under the Barrier Addendum, the Barrier Determination Agent is required to inform the other party (or the parties, if the Barrier Determination Agent is not one of the parties) of the occurrence of a Knock-In or Knock-Out Event. Good practice requires that, upon request of one of the parties, the Barrier Determination Agent provide evidence of the trade which breaches the barrier. Such evidence may include a taped telephone conversation, a written confirmation of a transaction, a printout of a trading screen or a quotation in writing, and may include evidence provided by the counterparty. The existence of a dispute between the parties over whether a barrier has indeed been breached does not affect the validity of the Barrier Determination Agent's determination that a barrier has been breached unless the Barrier Determination Agent itself decides, based upon a reassessment of the available price information and information provided by the counterparty, that it is no longer able to conclude in good faith that the barrier has been breached.

7. The Barrier Addendum provides that Knock-In Options may be either American or European Style Options, as specified in the applicable Confirmation. Knock-Out Options must be European Options; they may be exercised only on the Expiration Date at the Expiration Time and provided that no Knock-Out Event has occurred at or prior to the time of exercise. In the case of Knock-Out Options, the parties may choose to use an Exercise Window. If there is no Exercise Window, a Buyer may give notice of exercise prior to the Expiration Time, but such notice will not be effective if a Knock-Out Event occurs thereafter prior to the Expiration Time. If the parties have chosen to use an Exercise Window Period, then the Buyer may give notice of exercise up to one hour prior to the Expiration Time, and such notice will be effective even if the barrier is breached between the time of the Notice and the Expiration Time. Nevertheless, a Notice of Exercise is irrevocable once given, notwithstanding the existence of an Exercise Window. An Exercise Window is sometimes considered to be desirable operationally.

8. The Barrier Addendum definition of "Spot Exchange Rate" includes cross rates. A cross rate is determined from two other exchange rates, e.g. the yen/DM rate may be derived from the yen/dollar rate and the dollar/DM rate. If the parties do not wish cross rates to be used to determine if a barrier has been breached (but instead to use only actual trades in the relevant currencies), it will be necessary to amend the definition of Spot Exchange Rate in the Schedule or to so specify in a Confirmation. It is the intention of the Barrier Option Subcommittee that a party using one or more cross rates to determine if a barrier has been breached must comply with a standard of "good faith" and in a "commercially reasonable manner".

9. The Barrier Addendum states that, unless otherwise agreed, a purchase and sale of the identical Barrier Option will not be offset and discharged under Section 4 of the Master Agreement. Parties wishing such Options to be offset should delete this provision. It should be noted that, in addition to the factors listed in

Section 4 of the Agreement that must be present in both Options, two Barrier Options may be discharged only if they have the same Barrier Determination Agent.

10. A user of the Barrier Addendum may wish to consider whether it would be appropriate to disclose to its counterparty that its ordinary course foreign exchange transactions and its activities in hedging or de-hedging its position under a barrier option may increase the probability that a knock-in or knock-out event will occur. Such disclosure might be added to the Barrier Addendum or to Confirmations for particular transactions, or might be provided in a separate disclosure statement sent to the counterparty before the commencement of transactions in barrier options, so that the disclosure may be tailored to the level of sophistication of the counterparty. Such disclosure might include all of part of the following:

    (a) As part of its business, it regularly trades in the foreign exchange spot, forward, futures and options markets for its own account and for the accounts of other customers. Such trading may affect spot prices in the Currency Pair.

    (b) It generally hedges its Barrier Option positions by buying or selling a quantity of the relevant currency, and may adjust (increase or decrease) its hedge as market conditions change during the life of the Options and it believes that it is more or less likely that a Barrier will be breached. Such hedging and de-hedging activity may affect spot prices and may thus affect the probability of a barrier being breached.

All Option counterparties are expected to act honestly and in good faith. Use of such disclosure language does not justify foreign exchange transactions that are undertaken to manipulate the Spot Exchange Rate and not as part of bona fide, good-faith foreign exchange transactions, hedging or de-hedging.

EXAMPLE OF CURRENCY OPTION CONFIRMATION

To: ____

________________________________hereby confirms the following terms of a currency option:

Reference:

Trade Date (DD/MMM/YY):

Buyer:

Seller:

Option Style (European or American):

Option Type (Put or Call):

Put Currency and Amount:

Call Currency and Amount:

Strike Price:

Expiration Date (DD/MMM/YY):

Expiration Time:

Expiration Settlement Date (DD/MMM/YY):

Premium:

Price:

Premium Payment Date (DD/MMM/YY):

Premium Payment Instructions:

Other terms and conditions:

This Option is subject to the International Currency Options Market Master Agreement

between ____

and ____

dated as of__________________, 19 _____.

Please confirm to us by return telex, mail, facsimile or other electronic transmission that the above details are correct.

ICOM CLOSE-OUT EXAMPLE

Bank A, a U.S. bank ("Party A"), and Corporation B, a French corporation ("Party B"), have signed a New ICOM Agreement or otherwise have an agreement subject to New ICOM terms (in either case, the "Agreement"). Party A's Base Currency is the U.S. Dollar.

Party B files for bankruptcy on September 1, 1995 (a Friday). Party A learns of the bankruptcy on Tuesday, September 5. (Monday, September 4, was Labor Day, a U.S. bank holiday). In Part IX of the Schedule to the Agreement, the Parties have chosen "Automatic Termination" upon an Event of Default.

At the time of the bankruptcy filing, the parties had six unexercised Options and one partly performed exercised Option as follows (the FMV amounts in parentheses represent the current bid-ask spread for an equivalent Option on September 5, 1995):

1. B sold to A for 100 (premium due 12/1/95)(FMV 90-95 bid-ask)
2. B sold to A for 100 (FMV 90-95)
3. B sold to A for 100 (FMV 110-115)
4. A sold to B for 100 (premium due 8/15/95 and is past due)(FMV 110-115)
5. A sold to B for 100 (premium due 12/1/95)(FMV 105-110)
6. A sold to B for 100 (FMV 95-100)
7. B sold to A for 100. A exercised the option (yen/DEM) on August 25. Resulting trade should have closed on August 29 [the 27th was a Sunday]. A delivered 730,900,000 yen in Tokyo on August 29, but the 10 million DEM were never delivered.

TERMINATION

Because the Parties chose Automatic Termination under Section 8.1, all Options were terminated automatically on September 1 as of the time immediately preceding the institution of the bankruptcy proceeding. Section 8.1(i) requires Party A (the Non-Defaulting Party) to calculate in good faith, as of the Close-out Date or as soon as reasonably practicable thereafter, a settlement amount for each Party. Although the Close-out Date was September 1, it probably will not be practicable for Party A to do its close-out calculations as of September 1, because (a) option prices as of September 1 may not be available on September 5, and (b) the market may have moved between September 1 and September 5 (since September 4 was a Business Day outside the U.S.), and September 5 prices will be a more accurate reflection of the cost to Party A of replacing the terminated Options.

DETERMINING THE SETTLEMENT AMOUNT FOR PARTY A'S OPTIONS

Party A bought the first three Options. Section 8.1(i)(a) states that the settlement amount for each Option is the current market premium for the Option (in the case of an Option purchase, the offer side).

Option 1. Party A is entitled to the current market premium = 95. [8.1(i)(a)]

Option 2. Party A is entitled to the current market premium = 95. [8.1(i)(a)]

Option 3. Party A is entitled to the current market premium = 115. [8.1(i)(a)]

Party A sold the next three options. Section 8.1(i)(b) states that the settlement amount of each Option is any unpaid Premium.

Option 4. The Premium was due on August 15. Is there an Option? Under Section 3.2(ii), Party A had the right, within 48 hours after the Premium Payment Date, to terminate the Option or declare an Event of Default. It apparently did not terminate the Option, so it must have decided to accept late payment. Accordingly, there is an Option, and Party A is entitled to the overdue Premium

($100) with interest from August 15 to but excluding September 1 at 1% over Party A's Funding Rate. [8.1(i)(b)].

Option 5. There is $100 in unpaid Premium, which is not due until December 1. Party A is entitled to $100 discounted from December 1 to but not including September 1 at 1% over Party A's Funding Rate. [8.1(i)(b)]

Option 6. Premium has been paid. Party A is entitled to 0.

Option 7. Party A is owed the DEM 10 million plus interest from August 29 to September 1 at a rate equal to 1% over Party A's Funding Rate, which will be it's cost to fund that amount of DEM.

Party A is entitled to any additional losses determined under Section 8.1(d).

The Premium payments owed to Party A are apparently already denominated in U.S. Dollars. Thus there is no need to convert the aggregate Premium amounts set forth above into dollars, which is Party's A's Base Currency, in accordance with Section 8.1(ii). However, Party B owes Party A DEM 10 million, which must be converted into Party A's Base Currency of USD. At the exchange rate at which Party A could have bought USD with DEM on September 5, 1995, this amount is approximately $7,028,889.

DETERMINING THE SETTLEMENT AMOUNT FOR PARTY B'S OPTIONS

Party B sold the first three options. It is entitled to any unpaid Premium, with interest to the payment date if the Premium is overdue, or discounted from the Premium Payment Date, if the Premium is not yet due.

Option 1. The Premium is not due until December 1. Party B is owed $100 Premium, discounted from December 1 to but not including September 1, at LIBOR on September 1. [8.1(i)(b)].

Option 2. Party B has already received the Premium, so the settlement amount = 0.

Option 3. Party B has already received the Premium, so the settlement amount = 0.

Party B purchased the next three Options, and is entitled to the current market premium.

Option 4. Party B is entitled to the current market premium for the Option = 115.

Option 5. Party B is entitled to the current market premium for the Option = 110

Option 6. Party B is entitled to the current market premium for the Option = 100

Option 7. Party B has already been paid with respect to the FX Transaction that resulted from the Option exercise, so settlement amount = 0

No currency amounts need to be converted to Party A's Base Currency.

NETTING OF SETTLEMENT AMOUNTS

After settlement amounts are calculated for each Option, a net amounts must be derived. The net amount in the above example is shown on the following chart:

	Party A	Party B
Option 1	$95	$100 discounted
Option 2	$95	0
Option 3	$115	0
Option 4	$100 plus interest	$115
Option 5	$100 discounted	$110
Option 6	0	$100
Option 7	$7,028,889	0
Total	$505 + $7,028,889	$425
Total	$7,108,889	

SET OFF AGAINST CREDIT SUPPORT

If there were a Credit Support Agreement between the Parties, Party A would be entitled to set off the amount owed it against the amount of any collateral held by it. There is no such collateral in this case.

NOTICE OF SETTLEMENT CALCULATION

Under Section 8.3, Party A should send Party B a notice of its calculation of the settlement amount. If Party B received such notice on September 5, it would be obligated to pay to Party A, on September 6, the net settlement amount with interest at Party A's Funding Rate from September 1 to but excluding September 6. To the extent such amount were not paid on September 6, it would bear interest at 1% over Party A's Funding Rate.

ADDENDUM TO THE [INTERNATIONAL CURRENCY OPTIONS MASTER AGREEMENT][FOREIGN EXCHANGE AND OPTIONS MASTER AGREEMENT] DATED [ ] BETWEEN PARTY A AND PARTY B

The Schedule to the Master Agreement is amended by adding the following Part XVII:

The following additional terms shall govern Barrier Options transacted between the Parties.

1. DEFINITIONS

Unless otherwise specified in a Confirmation, the following terms when used in a Confirmation shall have the meanings set forth below.

"Barrier Option" means a Knock-In Option or a Knock-Out Option.

"Barrier Determination Agent" means the Party who determines whether or not a Knock-in Event or Knock-Out Event has occurred and shall be either the Buyer or Seller or a third person as agreed at the time the Barrier Option is entered into.

"Barrier Period" means, unless otherwise agreed, the period commencing on the date and at the time the Barrier Option is entered into and ending at the Expiration Time on the Expiration Date.

"Exercise Time Window" means a period on the Expiration Date commencing one hour prior to the Expiration Time and ending at the Expiration Time, during which exercise of a Knock-Out Option may be made as referred to in paragraph 4.1 below.

"Initial Spot Rate" means the spot rate at the time a Barrier Option is entered into, as evidenced in a Confirmation.

"In-Strike Price" means that Spot Price (for the Currency Pair which is the subject of a Knock-In Option) agreed to as such between the Parties as evidenced in a Confirmation.

"Knock-In Event", with respect to a Knock-In Option, means that, at any time during the Barrier Period, the Spot Exchange Rate is equal to or beyond the In-Strike Price as determined by the Barrier Determination Agent, acting in good faith and in a commercially reasonable manner.

"Knock-In Option" means an Option which may only be exercised in the event that a Knock-In Event has occurred.

"Knock-Out Event", with respect to a Knock-Out Option, means that, at any time during the Barrier Period, the Spot Exchange Rate is equal to or beyond the Out-Strike Price, as determined by the Barrier Determination Agent, acting in good faith and in a commercially reasonable manner provided that, if an Exercise Time Window is applicable, the Barrier Period shall be deemed to end at the time during the Exercise Time Window when the Option is exercised.

"Knock-Out Option" means an Option which may only be exercised if no Knock-Out Event has occurred.

"Out-Strike Price" means that Spot Price (for the Currency Pair which is the subject of a Knock-Out Option) agreed as such between the Parties as evidenced in a Confirmation.

"Spot Exchange Rate" means the price, at the time at which such price is to be determined, in the Spot Market for foreign exchange transactions involving the Currency Pair which is the subject of the Option determined by reference either to rates for the exchange of the Currencies in such Currency Pair or to cross rates, as the Barrier Determination Agent shall determine acting in good faith and in a commercially reasonable manner.

"Spot Market" means the global spot foreign exchange market, which, for these purposes, shall, unless otherwise agreed, be treated as being open continuously from 6:00 a.m. Sydney time on a Monday in any week to 5:00 p.m. New York time on the Friday of that week.

2. DESIGNATED OFFICES

The offices of the Parties through which a Barrier Option has been entered into shall be Designated Offices for the purposes of the Agreement.

3. NOTIFICATION OF KNOCK-IN/OUT EVENT

The Barrier Determination Agent shall promptly notify the other Party (or Parties if the Barrier Determination Agent is not a Party) of the occurrence of a Knock-In or Knock-Out Event, as the case may be, in relation to a Barrier Option. A failure to give such notice shall not however prejudice or invalidate the occurrence or effect of the Knock-In Event or Knock-Out Event.

4. EXERCISE AND SETTLEMENT

4.1 (a) If an Exercise Time Window is applicable, a Knock-Out Option may be exercised at any time during the Exercise Time Window, provided that no Knock-Out Event has occurred at or prior to exercise.

(b) If an Exercise Time Window is not applicable, a Knock-Out Option may be exercised only on the Expiration Date at the Expiration Time and provided that no Knock-Out Event has occurred at or prior to exercise. Notice of exercise may be given prior to the Expiration Time but shall be effective only as at the Expiration Time and provided that no Knock-Out Event as occurred at or prior to the Expiration Time.

(c) A Knock-In Option may be an American or European Style Option, as agreed by the Parties, as evidenced in a Confirmation. In either event, a Knock-In Option may be exercised only if a Knock-In Event has occurred prior to any such exercise.

4.2 Unless otherwise agreed, an exercised Barrier Option shall be settled on its Settlement Date by the payment by each Party to the other of the full amount of either the Put Currency or Call Currency, as the case may be, subject to the Barrier Option.

4.3 Unless otherwise agreed, Section 4 of the Agreement shall not apply to a Barrier Option.

Accepted and agreed:

PARTY A

By____________________________________

PARTY B

By____________________________________

EXAMPLE OF CONFIRMATION - FX KNOCK-OUT/KNOCK-IN OPTION

Date:(DD MM YY)

To:Ref No.:

From:Telephone:Reuters Code:

Facsimile:Telex:

We confirm we have entered into the following [Knock-Out][Knock-In] Option with you, as an Option under the [ICOM/FEOMA Agreement between us][dated [date] (the "Master Agreement")]. This Option has features that differ from a standard currency option as a result of which it may only be exercised if [no Knock-Out][a Knock-In] Event has occurred in relation to it.

Trade Date and Time:

Initial Spot Rate:

Buyer:

Seller:

[Out-Strike][In-Strike] Price:

Barrier Determination Agent: [Insert full name]

Exercise Time Window : None/One Hour

[Knock-Outs only]

Option Style: [European][American]

Call Currency and Amount:

Put Currency and Amount:

Strike Price:

Expiration Date:

Expiration Time:

Settlement Date:

Premium:

Premium Payment Date:

Premium Payment Instructions:

Other terms:

This constitutes a "Confirmation" as referred to in the Master Agreement. Capitalized terms used herein within definitions have the meanings set forth in the Master Agreement, including any Schedules thereto. In the event of any inconsistency between the Master Agreement and the provisions of this Confirmation, this Confirmation will govern.

Please confirm to us by return telex, mail, facsimile or other electronic transmission that the above details are correct.

[Party A]

By______________________________

Name:

Title:

Confirmed as of the date below:

[Party B]

By______________________________

Name:

Title:

Dated:

1. The Master Agreement contemplates, however, that an Option is a legally binding contract before the Premium is paid. See Section III(D), below.

2. In a Call, the Strike Price and Spot Price are quoted in terms of the amount of the Put Currency per unit of the Call Currency. In a Put, the Strike Price and Spot Price are quoted in terms of the amount of the Call Currency per unit of the Put Currency.

COMMITEE LETTER IN SUPPORT OF THE NATIONAL ASSOCIATION OF INSURANCE COMMISIONERS PROPOSED CHANGES TO THEIR MODEL ACT

September 7, 1995

Mr. Michael E. Surguine
National Association of
Insurance Commissioners
120 West 12th Street, Suite 1100
Kansas City, MO 64105-1925

Dear Mr. Surguine:

The Foreign Exchange Committee (Committee) is a group of approximately 30 foreign exchange professionals from a variety of institutions, including: money center, regional, and foreign commercial banks; investment banks; and foreign exchange brokers. The Committee's main purpose is to advise officials at the Federal Reserve Bank of New York on issues related to the foreign exchange market. Attached you will find our Document of Organization as well as a list of 1995 Committee members.

The Committee strongly supports the NAIC's amendment of the Model Act to incorporate the concept of enforcing the close-out and netting provisions of master agreements relating to derivative transactions. However, the Committee believes that certain aspects of the proposed amendments should be modified or clarified in order to facilitate their implementation by market participants. The Committee's suggestions are outlined below.

DEFINITION OF "DERIVATIVE INSTRUMENTS"

The definition of Derivative Instruments contained in section 2P of the Investments of Insurers Model Act and incorporated by reference into the proposed amendments should be clarified to expressly include spot transactions which settle in two days or less. Such transactions are common in foreign exchange as well as in commodities and bullion markets. Otherwise, it would remain uncertain as to whether spot transactions were included in the terms "forwards . . . and transactions substantially similar thereto."

Further, the definition of Derivative Instruments should be revised to clarify that the term would include any derivative transactions, regardless of whether they are related to interest rates, foreign exchange, commodities, or equity securities.

DEFINITION OF "NETTING AGREEMENT"

The proposed definition of Netting Agreement should be modified to state that the master agreement, together with "any and all schedules and supplements thereto, and all confirmations exchanged thereunder" must be treated as one netting agreement in order to avoid the possibility of "cherry picking."

The proposed definition of Netting Agreement should also be expanded to address the possibility that (I) there may be a cross-product master master netting agreement which does not directly document derivative transactions and (ii) some master agreements may concern non-derivative transactions (e.g., securities lending).

CLOSE-OUT AND NETTING PROVISIONS

Section 46.A.1. of the proposed amendment should be modified to permit the enforcement of the close-out and netting provisions of a master agreement upon any delinquency proceeding (not simply upon commencement of a formal delinquency proceeding). A counterparty should have the option to close-out and net exposures under an existing agreement, upon the commencement of a conservatorship proceeding in respect of an insurer.

MULTIJURISDICTION ISSUE

The NAIC should ensure that, to the extent that only certain states adopt the proposed amendments, the determination of governing law and the treatment of the enforcement of the close-out and netting provision of a master agreement upon any default by an insurer doing business in several states (not all of which have adopted the proposed amendments) should be clear, regardless of the type of default.

TRANSFER PROVISIONS

Section 46.C of the proposed amendment suggests that a receiver may transfer an insurer's rights under a netting agreement to another insurer. This Section should be made subject to the right of a non-defaulting counterparty to exercise its right to terminate the netting agreement, and to close-out and net any transactions with the insolvent insurer, as provided in Section 46.A.1.

REPUDIATION PROVISION

Section 46.F of the proposed amendment suggests that a receiver may repudiate a netting agreement. This Section should be clarified to provide that the receiver's right to repudiate is subject to the requirement that the receiver treat any netting agreement, and all schedules and supplements thereto and all transactions thereunder, as one agreement as provided in the definition of netting agreement. A receiver should not be able to "cherry pick" between derivative transactions and repudiate only those transactions which are unprofitable to the insolvent insurer.

* * * * *

We appreciate the opportunity to comment on the proposed amendments to the Rehabilitation and Liquidation Model Act. Should you have any questions regarding our comments, please contact me at 415/622-1677 or David Carangelo, the Committee's Executive Assistant, at 212/720-2226.

Sincerely yours,

Lewis W. (Woody) Teel
Chairman

COMMITTEE LETTER ON HISTORICAL-RATE ROLLOVERS

HISTORICAL-RATE ROLLOVERS: A DANGEROUS PRACTICE

December 26, 1991

Dear Sir/Madam:

The Foreign Exchange Committee's recently revised Guidelines for the Management of Foreign Exchange Trading Activity (December 1990) raised questions about the use of historical rates in pricing forward contracts. The Committee recommended that non-market rates should not be permitted in interbank dealing and should be permitted in other circumstances only with strict management oversight.

In recent Committee discussions, however, members have concluded that the risks involved in rolling contracts at historical rates are often not fully appreciated in the marketplace, notwithstanding well-publicized problems involving the use of such rollovers. At a time when market practices and risk controls are the subjects of increased focus in the financial community, the Committee has decided to draw attention to the potential dangers of historical-rate rollovers and to suggest ways to help management limit the risks, should they continue to provide such services to their customers.

Historical-rate rollovers involve the extension of a forward foreign exchange contract by a dealer on behalf of his customer at off-market rates. In a typical rollover, the customer will ask his dealer to apply the historical rate of a maturing contract to the spot end of a new pair of contracts which, in effect, extends the maturing contract, thereby deferring any gains or losses.

Historical-rate rollovers virtually always involve the extension of credit by one party to the other. If the customer has a loss on the maturing contract, the rollover would in effect represent a loan by the dealer to his customer. If the customer has a profit, the dealer would in effect be borrowing from the customer. The resulting loan or borrowing amount and associated interest rate charges are typically built into the forward points the dealer quotes his customer. While accounting conventions do not require that these amounts be recognized in the books as loans or borrowings, proper risk control requires that they be treated as such.

Certain uses of historical-rate rollovers may be justified, as when used by a company seeking to hedge the currency risk of a commercial or financial transaction with an uncertain date. Companies, for example, may hedge the currency risk of a purchase of foreign goods based on an estimated delivery date, but subsequently "roll" the hedge out or in so as to coincide with the actual date of the delivery. In this way, corporate treasurers can avoid the cash flows which might occur if the gain or loss on the forward hedge does not coincide with the currency gain or loss on the underlying commercial transaction.

However, because rollovers could be used to shift income from one institution to another or from one reporting period to another, they can also serve illegitimate purposes. A dealer who routinely offers to rollover his customers' maturing contracts at historical rates could unwittingly participate in efforts to conceal losses, evade taxes, or defraud his or another trading institution. His involvement in these efforts could potentially subject him and his bank to legal action, not to mention damage his and his institution's reputation.

Even a dealer who carefully examines each request for off-market trades may face serious problems if senior management at both the corporate counterparty and his own institution have not fully evaluated and approved of the transaction. At the counterparty firm, failure to insure that senior management has understood and signed off on the deal may risk the possibility that the terms of the transaction come into dispute. This is particularly common if the trader who arranged the deal has left the customer firm. At the dealer institution, failure to record the implied loan or borrowing amount in an historical-rate extension could

threaten centralized control over the management of interest rate and credit risks.

Thus, use of historical-rate rollovers introduces risks above and beyond those normally faced by dealing institutions in the day-to-day trading of foreign exchange, including: (i) the risk that the dealer institution unknowingly aids and abets illegal or inappropriate activities; (ii) the risk that customer management is unaware of the special nature of the transaction and/or of the associated credit exposures; and (iii) the risk that management at the dealer institution is unaware of the special nature of the transaction and/or of the associated credit exposures.

RECOMMENDATIONS OF THE FOREIGN EXCHANGE COMMITTEE

The Foreign Exchange Committee believes that rolling contracts at historical rates is a dangerous practice which should be avoided absent compelling justification and procedural safeguards. Because of the special risks, the Committee urges dealers that continue to accommodate customer requests for historical-rate rollovers to take the following three steps: (i) inquire about the customer's motivation in requesting an off-market rate trade to gauge the commercial justification; (ii) make sure that senior customer management is aware of the transaction and the special risks involved; and (iii) obtain the informed consent of one's own senior management to take on the additional risk and any effective credit extension.

The Committee further recommends that all dealer institutions have written procedures for historical-rate rollovers. An example of procedures that satisfy the above conditions would include the following:

(a) A letter from senior customer management (treasurer or above) should be kept on file explaining (i) that the customer will occasionally request to rollover cotracts at historical rates; (ii) the reasons why such requests will be made; and (iii) that such requests are consistent with the customer firm's internal policies; this letter should be kept current;

(b) The dealer should solicit an explanation from the customer for each request for an off-market rate deal at the time the request is made;

(c) Senior management and/or appropriate credit officers at the dealer institution should be informed of and approve each transaction and any effective extension of credit;

(d) A letter should be sent to senior customer management immediately after each off-market transaction is executed explaining the particulars of the trade and explicitly stating the implied loan or borrowing amount; and

(e) Normally, forward contracts should not be extended for more than three months, nor extended more than once; however, any extension of a rollover should itself meet the requirements of (b), (c) and (d) above.

Attached is the 1991 membership list for the Foreign Exchange Committee. Please feel free to contact myself, members of the Committee, or the Committee's Executive Assistant with any questions or comments regarding this letter.

Very truly yours,

John T. Arnold
Chairman

APRIL 1995 SURVEY OF FOREIGN EXCHANGE MARKET ACTIVITY IN THE UNITED STATES

Federal Reserve Bank of New York

Revised October 6, 1995[1]

Beginning informally in the 1960's, and evolving into a global market survey conducted simultaneously by 26 central banks, the Foreign Exchange Survey has been conducted every three years, most recently in April 1995. In coordination with other central banks, which are also releasing their national results at this time, this report describes the results of the United States survey conducted by the Federal Reserve Bank of New York. The Bank for International Settlements (BIS) will aggregate the data from each of the national surveys to produce global market statistics to be reported in a forthcoming BIS publication.

The focus of the Survey is the size and structure of the foreign exchange market, and its evolution over time. In contrast to previous surveys, the April 1995 survey also included financial derivatives on currencies, interest rates, equity markets, and some commodities. The results described below, however, cover only the results of the foreign exchange part of the Survey. The results of the financial derivatives section of the survey will be presented in a later publication.

The products included in this survey are: foreign exchange-spot; foreign exchange-forwards; and foreign exchange-swaps. (Cross-currency interest rate swaps/ currency swaps are not included here, but are in the derivatives survey.)

SUMMARY

Volume:

The foreign exchange market has continued to grow rapidly, though at a slower pace than during the 1980's.

In April 1995, turnover volume in the U.S. was 46% higher than in April 1992; an annualized growth rate of 13% (somewhat less than the 20% annualized growth rates seen in the 1980's).

Average daily turnover volume of foreign exchange transactions in the U.S. was $244 billion in April 1995. (This figure has been adjusted for double counting of transactions between dealers in the survey—see item (g) in the Definitions and Explanatory Notes.)

Currency pair highlights:

The U.S. dollar (USD), Deutsche Mark (DEM), and Japanese Yen (JPY) remain the most actively traded currencies, in that order, with total turnover in each roughly twice as large as the next largest.

The most traded currency pairs, by a large margin, were: USD/DEM with 30% of turnover volume; and USD/JPY with 20% of turnover volume.

A notable development since the last survey was the rapid growth of transactions in the French Franc, other European Union, and emerging market currencies. (Other European Union currencies are those other than the Deutsche Mark, the British Pound, and the French Franc.) Turnover volume in these currencies grew at a rate almost three times higher than the overall market growth.

The growth of transactions in these currencies has created demand for greater use of direct trading in non-U.S. dollar trades—transactions that do not go through the U.S. dollar as a vehicle currency. This development is evident in the higher share (to 13% from 10%) of Deutsche Mark/non-U.S. dollar trades (DEM transactions excluding USD/DEM trades), and the fall in the share of U.S. dollar/Deutsche Mark trades (to 30% from 33%).

Market structure:

Competition. The market structure statistics suggest that the foreign exchange market is highly competitive. Among the top ten dealers, only four dealers' ranking remained unchanged between 1992 and 1995. Among the dealers who were in the top ten in either 1992 or 1995, four dealers saw their ranking fall by five or more places, while four dealers saw their ranking rise by five places or more.

1. This revision corrects figures relating to the brokers' market. The results relating to the overall market remain unchanged, and the overall market figures are identical to those in the initial report.

Electronic trading. The use of automated brokerage (electronic order matching) has grown rapidly from virtually nothing in 1992. Almost a third of brokered spot transactions, and 6% of total market volume was conducted through automated brokerage systems.

They also trade in the afternoon. The percentage of volume traded in the afternoon (12pm - 4pm) has grown (to 34% from 29% in 1992). Most trading still occurs in the morning, however, with almost twice as much volume in the morning than the afternoon (58% between 8am and 12pm, and 34% between 12pm and 4pm).

Cross border transactions. Transactions between a dealer located in the U.S. and a counterparty abroad accounted for more than half of turnover volume (58% of turnover). Since most of the U.S. trading occurred in the morning, much of the cross-border volume was probably with counterparties in Europe.

Counterparty types. Most trading was between financial counterparties (83% of volume). However, the percentage of trading volume with non-financial customers has grown (to 17% from 14% in 1992).

DEFINITIONS AND EXPLANATORY NOTES

Additional discussion of the survey method and definition of terms can be found in Annex I.

(a) This report provides information about the over-the-counter foreign exchange market, where virtually all wholesale foreign exchange transactions take place.

- Foreign exchange related transactions on organized exchanges (futures exchanges) account for only a small fraction of total currency related trading (less than 6 percent of total volume in the 1992 Survey). Figures for exchange-traded contracts are not included in this report, but will be included in a forthcoming report on the financial derivatives survey.

(b) Turnover volume is the amount of transaction volume (measured in US dollar equivalents) that occurred in April 1995 in the United States, defined as:

> the gross value of all new transactions entered into by a dealer located in the United States, regardless of where the transaction is ultimately booked and regardless of the location of the other counterparty.

(c) The products included in the survey are: foreign exchange spot; foreign exchange forwards; and foreign exchange swaps (see Annex I for definitions).

- Other currency products (FX futures, FX options, and cross currency interest rate swaps/currency swaps) are in the financial derivatives survey and will be reported at a future date.
- The 1992 Survey included FX futures and FX options which amounted to 13% of the 1992 turnover volume. For comparability, the 1992 turnover figures used in this report were recalculated to exclude options and futures. For this reason, the 1992 figures in this report will be about 13% smaller than the turnover totals reported in the 1992 survey report.

(d) The participants in the Survey included active foreign exchange dealers located in the United States regardless of the nationality of their parent (130 firms), and also foreign exchange brokers active in the United States (17 brokers). The foreign exchange dealers and brokers were surveyed separately.

(e) The market size statistics were compiled from the data reported by the foreign exchange dealers.

- All transactions in the foreign exchange market are conducted with a foreign exchange dealer as a counterparty, so that the data provided by the dealers capture activity in the entire market. Unless otherwise stated, the market figures in this report were produced from the dealers' data; figures that were produced from the brokers' data are identified as brokers' market figures.

(f) Statistics describing activity in the brokers' market were obtained directly from brokers.

- Some transactions in the foreign exchange market are arranged by a broker who matches the bid and ask quotes of interbank traders. While trades arranged in the brokers' market are already included in the market totals obtained from the dealers' data, the brokers' market was surveyed separately in order to obtain a more complete picture of the brokers' market (a separate survey of the brokers market also provides an independent check of trends in the dealers' data).

(g) Due to the fact that a transaction between two participating dealers will be reported twice (once by each of them), the figures for market totals must be adjusted for that double counting in the gross market totals.

- Adjusted figures are market totals after adjusting for double counting while unadjusted figures are gross totals without adjusting for double counting. The results reported are based on adjusted figures unless otherwise stated.

SURVEY RESULTS

1. Turnover volume

(a) The foreign exchange market has continued to grow rapidly, though at a slower pace than during the 1980's (see Chart 1).

- In April 1995, turnover volume of foreign exchange transactions in the United States was 46% higher than three years ago; an annualized growth rate of 13% (somewhat less than the 20% annualized growth rate of the 1980's).
- In April 1995, average daily turnover volume of foreign exchange transactions in the United States was $244 billion. (This figure was obtained after adjusting for double counting of transactions between dealers in the survey; the unadjusted total was $295 billion—see the Methodology section for further details.)

(b) The percentage of turnover going through the brokers' market was slightly lower than the proportion of three years ago, and noticeably lower than during the 1980's (see Chart 2).

- Turnover through the brokers' market has fallen to 30% of total turnover in 1995 from 35% in 1992, and from about 50% in the 1980's.
- Average daily turnover of transactions in the brokers' market was $73 billion in April 1995, about 27% higher than in April 1992—with most of the growth (or 82%) occurring in automated brokerage systems (see Chart 8).

2. Which Currencies were most actively traded?

(a) The U.S. dollar (USD), German Deutsche Mark (DEM), Japanese Yen (JPY), British Pound (GBP), Swiss Franc (CHF), and French Franc (FRF) were the most actively traded currencies (see Chart 3).

(b) The most traded currency pairs, by a large margin, were: USD/DEM with 30% of turnover volume; and USD/JPY with 20% of turnover volume.

(c) Virtually all foreign exchange trades involved either the USD, DEM, or JPY. Transactions in which neither leg of the trade involved one of these three currencies amounted to only 1% of total turnover.

- The USD, DEM, and JPY remain the most actively traded currencies, in that order, with total turnover volume in each twice as large as the next largest. The multiple-of-two relationship in the relative volume in these currencies was also present in the 1992 Survey (both in the U.S. and globally), but not in the 1989 Survey.
- The sum of transactions in which one leg was the:
  - USD amounted to $209 billion daily, or 86% of total turnover;
  - DEM amounted to $104 billion daily, or 43% of total turnover;
  - JPY amounted to $55 billion daily, or 23% of turnover;

  where the sum will exceed 100% because the figure for each currency includes transactions with the others. (For example, a USD/DEM transaction appears in both the USD total and the DEM total.)

3. Currency trends

Entire market

(a) A notable development since the last survey was the growth of volume in the French Franc (FRF), other European Union, and emerging market currencies. Transaction volume in these currencies more than doubled—a growth rate almost three times higher than the overall market growth (see Charts 4a and 4b). (Other European Union currencies are those currencies other than DEM, GBP, and FRF)

- Turnover volume in the French Franc, other European Union, and emerging market currencies:
  - increased by 130% against the USD;
  - increased by 143% against the DEM.
- The share of these currencies in total turnover is now 22%.

- Table 2 lists the currencies in the "other" category that were traded in significant volume.

(b) The growth of transactions in "other" currencies has created demand for greater use of direct trading in non-USD currencies—trades that do not go through the U.S. dollar as a vehicle currency. The volume of these direct trades was concentrated in Deutsche Mark transactions.

- This change in trading patterns can be seen from the data in Chart 4a, with the following partition of the currency pairs, where the share of:
  - DEM/non-USD transactions rose (to 13% from 10%);
  - USD/DEM transactions fell (to 30% from 33%);
  - the share of USD/non-DEM transactions remained unchanged at 57%.
- The smaller share of the USD was a trend present in the 1992 survey, and is also apparent in the 1995 Brokers' data.

(c) Turnover volume in the French Franc has increased notably, and is now approximately equal to turnover in the Swiss Franc.

- Among non-USD transactions, the DEM/French Franc was the most actively traded currency pair, with average daily turnover of $8.5 billion, or 3.5% of turnover volume.

Brokers' market

(a) The share of the DEM in the brokers' market increased by a large amount—to 60% from 47% in 1992 (see Charts 5a and 5b).

- The DEM is now a close second to the USD in the brokers' market. For example, the sum of transactions in the brokers' market in which one leg was the:
  - USD amounted to 82% of brokers' turnover;
  - DEM amounted to 60% of brokers' turnover;
  - JPY amounted to 22% of brokers' turnover;

  where the sum exceeds 100% because the figures for each currency includes transactions with the others.
- The increase in the volume of brokered DEM transactions occurred against almost all currencies. The growth in transactions between the DEM and currencies other than the USD was most notable, with an increase to 18% of brokered transactions from 11% in 1992.

(b) The smaller share of the USD in turnover volume was more noticeable in the brokers' market than in the market as a whole. The USD's share of the brokers' market fell to 82% from 88% in 1992 (though the absolute volume rose).

- The decline of the share of brokered USD transactions was due to very little growth in volume of brokered transactions between the USD and currencies other than the DEM. For example, the volume of USD/JPY transactions in the brokers' market remained constant at $13 billion daily.

(c) The increase in the share of DEM transactions in the brokers' market was due to greater use of direct trading in non-USD currency pairs, as was the case in the overall market.

- This development is apparent in the following partition of the currency pairs in the brokers' market (see Chart 5a), where the share of:
  - DEM/non-USD trades rose (to 18% from 11%);
  - USD/non-DEM transactions fell (to 40% from 52%);
  - USD/DEM trades rose (to 42% from 37%).

4. Foreign exchange products

(a) As in 1992, turnover volume was concentrated in spot transactions (55%), followed by FX swaps (34%), and FX forwards (11%)—see Chart 7. (Note: cross-currency interest rate swaps/currency swaps are not included in the category FX swaps.)

(b) While total volume of spot transactions increased, the share of spot transactions in total volume fell slightly (by 2 percentage points) between 1992 and 1995. This rise in the proportion of forwards and swaps is a continuation of a trend present in earlier surveys.

- The disaggregated figures for forwards and swaps may be unreliable, because (in both the 1992 and 1995 surveys) a few firms whose internal databases combined forward and swap transactions had difficulty disaggregating the two products for the survey. In any event, the sum of forwards and swaps can be taken with confidence.

(c) The maturity breakdown of forward and swap transactions remained comparable to the proportions in the last survey. However, the percentage of volume in contracts with maturity longer than one year rose (to 2% from 1%). The proportions of forward and swap volume by maturity were:

- up to seven days, 66%;
- over seven days to one year, 32%
- over one year, 2%.

(d) In contrast to the overall market, the volume of spot transactions in the brokers' market rose to 67% from 56% in 1992 (see Chart 8).

- This increase in the share of spot transactions in the brokers' market was due to:
  - the rise of automated brokerage systems which still broker only spot transactions;
  - a decline in brokered FX swap transactions.

5. Market Structure

Competition

(a) The market structure statistics suggest that the foreign exchange market is highly competitive. The most notable development in support of this inference was the change in the composition of the set of largest dealers.

- Among the top ten dealers, only four dealers' rankings remained unchanged between 1992 and 1995, and three of the top ten were not among the top ten in 1992.
- Among the top ten dealers in either 1992 or 1995, four dealers saw their ranking fall by five places or more, while four dealers saw their ranking rise by five or more places.

(b) Another development regarding the degree of competition in the market was the gain in market share of a "second" tier of dealers in the top twenty firms. The gain in market shares of this group suggests that not only do the top five or ten compete with each other, but the rapidly growing "second" tier provides competition to the top tier as well.

- While the market shares of the larger dealers rose, the highest growth rate of market shares was in the group between the top ten and top 20 dealers (to 23% from 19%).
- The cumulative market shares of the largest dealers in the survey were:
  - the cumulative share of the largest five: 30% (26% in 1992);
  - the cumulative share of the largest ten: 47% (41% in 1992);
  - the cumulative share of the largest 20: 70% (60% in 1992);
  - the top half of dealers had a cumulative share of: 96% (95% in 1992).

Counterparty types

(a) Most trading was between financial counterparties (83% of volume). However, the percentage of trading volume with non-financial customers has grown (to 17% from 14% in 1992).

(b) The share of interdealer transactions in total turnover fell (to 56% from 68% in 1992)—see Chart 9.

- While the volume of interdealer transactions rose, the volume of transactions between dealers and customers grew at an even faster pace. Transaction volume of:
  - interdealer trades grew by 22%;
  - trades with non-financial customers grew by 78%;
  - trades with financial customers rose by 100%.

Some of this change could be attributed to the twenty small firms who participated in the 1992 survey but did not in the 1995 survey. If these firms are still actively trading, then dealers' trades with these firms would appear in the "financial customers" category. These firms accounted for 7.5% of volume in the 1992 survey —but probably a smaller share of turnover in 1995, if we infer from their dropping out of the survey that they were less active in the market. In any event, even if the larger estimate of the missing firms' share of volume (7.5%) were used to adjust the 1995 counterparty breakdowns, the fall in the inter-dealer share of volume would still be present.

(c) Cross-border transactions accounted for more than half of total turnover, with transactions between a dealer located in the U.S. and a counterparty abroad accounting for 58% of total turnover.

- Notably, the high proportion of cross-border activity was conducted across all types of counterparties: inter-dealer, other financial customers, and non-financial customers (see Chart 10).
- Relative to 1992, the proportion of cross-border activity in the interdealer market increased slightly, to 63% of interdealer volume from 60% in 1992.

(d) The majority of volume traded with non-financial customers was in forwards and swaps, while the majority of interdealer volume was in spot transactions.

   - Among interdealer trades, spot amounted to 60% of interdealer volume.
   - Among trades with non-financial customers, forwards and swaps amounted to 53% of volume with non-financial customers (50% in the case of financial customers).

Looking at the data from a different perspective, the majority of forwards volume was traded with customers (financial and non-financial), while the majority of spot volume was traded with other dealers, and swaps were about evenly split between dealers and customers.

   - In the forward market, customer trades amounted to 63% of forward volume.
   - In the spot market, interdealer trades amounted to 61% of spot volume.

(e) Other changes between the 1992 and 1995 surveys:

- Among the top twenty dealers, the dealers whose ranking rose between 1992 and 1995 had a slightly higher credit rating, on average, than the average credit rating of the dealers whose ranking fell.
- The share of non-banks in turnover volume of the top twenty dealers remained comparable to their 1992 share. The share of non-banks in the turnover volume of the top ten dealers fell (to 15% from 20%), but their share of the top twenty firms' volume rose (to 24% from 21%).

5. Trading patterns

Electronic trading systems

(a) The use of automated brokerage (electronic order matching) has grown rapidly, to almost a third of brokered spot transactions from almost nothing in 1992 (see Charts 11 and 12).

- The volume of turnover conducted through automated brokerage amounted to:
   - 6% of total market volume;
   - 19% of volume in the brokers' market;
   - 29% of brokered spot volume.

Activity by time of day

(a) While more than half of turnover volume was transacted in the morning, the percentage of volume traded in the afternoon has grown.

- Almost twice as much volume was conducted in the morning than the afternoon (58% between 8am and 12pm, and 34% between 12pm and 4pm).
- The percentage of volume traded in the afternoon (12pm - 4pm) has grown (to 34% from 29% in 1992) —see Chart 13.
- In spite of the global nature of the foreign exchange market, trading activity follows the path of sunlight around the globe. In the United States, only 8% of daily turnover occurs overnight (4pm - 8am)—but that share has grown from 5% in 1992.
- The bottom half of the dealer population (65 firms with a market share of about 4%) did 65% of their turnover in the morning—as opposed to 58% for the market as a whole.

Average Deal Size

(a) The average size of a deal in the market as a whole remained comparable to 1992.

- The average size of a transaction was largest for FX-swaps at $15 million per trade, while spot transactions were much smaller at $3.5 million per trade.
- In the brokers' market, the average size of forward and swap trades were much larger than in the market as a whole—as was the case in 1992.

Catherine Benadon

John Kambhu

DOCUMENT OF ORGANIZATION[1]

It was generally agreed that any new forum for discussing matters of mutual concern in the foreign exchange market (and where appropriate off-shore deposit markets) should be organized as an independent body under the sponsorship of the Federal Reserve Bank of New York. Such a Committee should:

1. be representative of institutions participating in the market rather than individuals;
2. be composed of individuals with a broad knowledge of the foreign exchange markets and in a position to speak for their respective institutions;
3. have sufficient stature in the market to engender respect for its views, even though the Committee would have no enforcement authority;
4. be constituted in such a manner as to insure at all times fair presentation and consideration of all points of view and interests in the market, and
5. notwithstanding the need for representation of all interests, be small enough to deal effectively with issues that come before this group.

The objectives of the Committee are:

- To provide a forum for discussing technical issues in the foreign exchange and related international financial markets.
- To serve as a channel of communication between these markets and the Federal Reserve and, where appropriate, to other official institutions within the United States and abroad.
- To enhance knowledge and understanding of the foreign exchange and related international financial markets, in practice and theory.
- To foster improvements in the quality of risk management in these markets.
- To develop recommendations and prepare issue papers on specific market-related topics for circulation to market participants and their management.

It is understood that the Committee would seek to work closely with the FOREX and other formally established organizations representing other relevant financial markets.

THE COMMITTEE

In response to the results of the study, the Federal Reserve Bank of New York agreed to sponsor the establishment of a Foreign Exchange Committee. It was agreed that:

1. The Committee should consist of no more than 30 members. In addition, the president of FOREX is invited to participate.
2. Institutions participating in the Committee should be chosen in consideration of their participation in the exchange market here as well as of the size and general importance of the institution. Selection of participants should remain flexible to reflect changes as they occur in the foreign exchange market.
3. Responsibility for choosing member institutions rests with the Federal Reserve Bank of New York. The Membership Subcommittee, chaired by a Federal Reserve Bank official, advises the Federal Reserve on membership issues.
4. The membership term is four calendar years. A member may be renominated for additional terms; however, an effort will be made to maximize participation in the Committee by institutions eligible for membership.

1. A feasibility study recommending the creation of the Foreign Exchange Committee was first conducted in June 1978. The resulting Document of Organization represents the study's conclusions and has been periodically updated to reflect the Committee's evolution (most recently in January 1996).

The composition of the Committee should include: New York Banks; Other U.S. Banks; Foreign Banks; Investment Banks and other Dealers; Foreign Exchange Brokerage Firms (preferably to represent both foreign exchange and Euro-deposit markets); the president of FOREX USA, Inc. (*ex officio*); and the Federal Reserve Bank of New York (*ex officio*).

COMMITTEE PROCEDURES

The Committee will meet with a specified agenda of items at least eleven time per year (monthly with the exception of August). The format of the discussion, however, will be informal.

Members are expected to attend all meetings.

Any recommendation the Committee wishes to make on market related topics will be discussed and decided upon only at its meetings. Any recommendation or issue paper agreed to by the Committee will be distributed not only to member institutions, but also more widely, to institutions that participate in the foreign exchange market.

The Committee will have four standing Subcommittees: Membership, Trading Practices, Market Structure, and Risk Management. A representative of the Federal Reserve Bank of New York will serve as Chairman of the Membership Subcommittee. The Membership Subcommittee will aid in the selection and orientation of new members and assign members to the other standing Subcommittees. Each Subcommittee other than the Membership Subcommittee will meet at least quarterly and report periodically to the full Committee.

The Committee or any of its standing Subcommittees may designate ad hoc working groups to focus on specific issues.

Depending on the agenda of items to be discussed, the Committee or its standing Subcommittees may choose to invite other institutions to participate in discussions and deliberations.

Summaries of discussions of topics on the formal agenda of Committee meetings will be made available to market participants by the Federal Reserve Bank of New York on behalf of the Committee. The Committee will also publish an annual report which will be distributed widely to institutions that participate in the foreign exchange market.

Meetings of the Committee will be held either at the Federal Reserve Bank of New York or at other member institutions.

In addition to the meetings provided for above, a meeting of the Committee may be requested at any time by two or more members.

RESPONSIBILITIES OF COMMITTEE MEMBERS

The Foreign Exchange Committee is composed of institutions who participate actively in the foreign exchange markets as well as other financial markets world-wide. As a senior officer of such an institution, the Committee member has acquired expertise that is invaluable to attaining the Committee's objectives. The member's continuous communication with the markets worldwide generates knowledge which is necessary to the Committee's deliberations of market issues or problems. Effective individual participation is critical if the collective effort is to be successful.

The responsibilities of membership apply equally to all associated with the Committee, whether they are serving currently as a formal member or an alternate member.

The specific responsibilities of each member are:

- To function as a communicator to the Committee and to the marketplace on matters of mutual interest, bringing issues and information to the Committee, contributing to discussion and research, and sounding out colleagues on issues of concern to the Committee.
- To represent to the Committee the concerns of his/her own institution. In addition, to reflect the concerns of a market professional as well as the constituency from which his/her institution is drawn or the professional organization on which he/she serves.
- To participate in Committee work and to volunteer the resources of his/her institution to support the Committee's projects and general needs.

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