

# Chairman's Letter

## **THE FOREIGN EXCHANGE COMMITTEE WELCOMED THE NEW CENTURY**

with a growing appreciation for—and perhaps even a sense of awe at—the technological innovations transforming the financial markets. In 2000, e-commerce applications unheard of just months earlier were being meticulously planned by many institutions. Now, as we look to the year ahead, innovations in the e-commerce arena promise even more change for the foreign exchange market.

Many financial institutions likely breathed a sigh of relief when the costly efforts undertaken to prepare for the new century proved to be a catalyst for the technological innovations. In periods such as these, the Committee's responsibility for supporting market efficiencies and reducing risk by facilitating communication within the industry, broadening market knowledge, and developing recommendations takes on added significance.

Over the past year, the Committee's efforts on behalf of the marketplace included interaction with numerous industry and special working groups, discussions at various meetings, and publication of new materials, such as our updated *Guidelines for Foreign Exchange Trading Activities*. However, much of our work has only begun. Here I refer particularly to the analysis of e-commerce and the CLS Bank and other efforts to facilitate trading and settlement. The preliminary steps taken in 2000 to understand these trends fully will no doubt be refined in the coming months.

We recognize, for example, that we will have to update our *Guidelines* regularly to ensure the document's timeliness. In addition, the barrier options market, because of its complexities, would benefit from a continuous review of its documentation and best practices. Furthermore, we must be prepared to address the many questions about CLS procedures and processes that are likely to arise as we move to the inauguration of this system.

As I reflect on the year and on the Committee's accomplishments and key works in progress—which I describe in this letter—I am proud of our members, who have worked tirelessly to prepare us for this new era. I am equally proud of our increased involvement with the other industry associations. Cooperative efforts such as these have spurred the progress made in improving global market conditions and have helped us all to take meaningful steps to reduce risk.

### REVISING THE COMMITTEE'S GUIDELINES

The past few years have been busy ones for the Foreign Exchange Committee. The introduction of the euro was followed quickly by concerns about Y2K-related failures. With those issues behind us, we turned our attention last year to a key project, revising the *Guidelines for Foreign Exchange Trading Activities*. The *Guidelines*, last updated in 1996, understandably had become outdated.

When revising the *Guidelines*, we had to bear in mind the fact that the industry is undergoing a great deal of change. For instance, we know how the market currently functions, but how will it operate when most clients convert to on-line trading? Moreover, what will happen to the current best practices once trading platforms are introduced and consortiums offer their services? Rather than waiting for these developments to take place, the Committee opted to address them now in the updated *Guidelines*.

The new *Guidelines*, which appear on pages 69-92 of this report, present some standard best practices while also acknowledging that the industry is undergoing a transformation. The Committee is aware that as the market evolves, changes in procedures could quickly alter today's best practices. Nevertheless, we believe that the best practices that espouse, support, and promote ethical behavior will always be an important part of any core of standards for a successful foreign exchange trading operation.

Of course, we recognize that there are many market participants who may not have ready access to special legal counsel or professional risk managers and therefore may have to consult our *Guidelines* regularly. As such, the document is meant to assist all market participants by providing a clear statement of industry practices—one that is easily accessible and, importantly, provides a variety of suggestions for managing and reducing risk effectively.

Our revised *Guidelines* reflect the solicited comments and recommendations of our colleagues in various industry groups, to whom we are most grateful.

### FACILITATING IMPROVEMENTS IN PROCESSING

#### Efforts with SWIFT

The Foreign Exchange Committee strongly supports efforts that promote and facilitate straight-through processing as a way to reduce settlement and other types of risk. Assisted by our Operations Managers Working Group, the Committee has been working with SWIFT to suggest ways to amend trade confirmation messages to ensure "machine-readability"—the ability of institutional electronic systems to input SWIFT trade information easily.

In addition, the Committee, in conjunction with the Singapore Foreign Exchange Market Committee, formally recommended that SWIFT restrict the type of information that counterparties can add to SWIFT trade confirmation messages (see page 99). This change was suggested to eliminate the confusion in the marketplace that occurs when counterparties amend trade terms on SWIFT confirmation messages.

#### Steps to Improve Options Procedures

Continuing the prior year's work on revising best practices for barrier options, the Foreign Exchange Committee, in collaboration with a legal subgroup, proposed two new barrier options templates (see page 59). The group created the templates after reviewing several

institutional confirmation agreements. Use of these templates is strongly encouraged by the Committee.

In another initiative, the Committee, working with the Federal Reserve Bank of New York's Markets Group, updated the series on implied volatility rates for foreign exchange options (published monthly by the Federal Reserve Bank of New York) in line with the industry's needs. The revisions to the series, made on the basis of responses to an industry survey, include:

- obtaining and posting mid-level rates of bid-and-ask indications, rather than separate bid- and ask-rates,
- adding one-week and two-month maturities to the already published one-, three-, six-, and twelve-month maturities and two-year maturities,
- shifting the pricing time to 11 a.m. New York time so that the series can be compiled and posted on the Federal Reserve Bank of New York's web site on the month-end date.

As always, we encourage market participants to use these data and publicize their availability to others in the market. A more detailed description of the series can be found on page 107 as well as on the Federal Reserve Bank of New York's web site, <[www.newyorkfed.org](http://www.newyorkfed.org)>.

#### **Preparations for the Introduction of CLS**

Over the past year, the Foreign Exchange Committee helped members to gain a fuller understanding of the new CLS Bank, which, when operational, will provide a streamlined payment system for foreign exchange transactions. To that end, we identified several CLS issues that required further review and discussion, such as liquidity, third-party payments, and operational efficiencies. At our May meeting, for example, the liquidity discussions centered on such topics as the potential providers of liquidity and their expected roles, the criteria to be used to determine the cost of funds, and the possibility of spikes in liquidity needs.

By focusing on these and other key issues related to the CLS Bank start-up, we provided our membership with opportunities to ask important questions, make vital decisions, and take additional steps to ensure that their organizations as well as the industry are prepared for the introduction of this new system.

#### **OTHER ISSUES**

On several occasions during the year, some Foreign Exchange Committee members raised specific industry concerns with the full Committee with the intention that a joint action might improve both market conditions and general risk management. Some of the key discussions and subsequent actions are summarized below.

- The posting of new European holidays early in the year prompted a discussion of the problem of changing settlement dates when holidays are announced with relatively short notice. After a thorough review, the Committee agreed that the circumstances surrounding these infrequent occurrences tend to be complicated and event-specific, and therefore they might be addressed more effectively through ad hoc solutions. The Committee believed that an official recommendation on this issue was unnecessary and might even be counterproductive.

- The Committee was updated frequently on the progress made in developing a market for contracts for differences (CFDs): foreign exchange contracts that do not exchange principal. We had reviewed the pros and cons of a CFD market in prior years, and published a study in our *1998 Annual Report*. We will continue to examine developments in this area going forward.
- In March and April, the Committee surveyed twenty-two financial firms, many of which are represented on the Committee, to assess the industry's progress in reducing the number of legal-entity names used by a single institution's trading operation. As the survey results indicate, most firms considered this a worthwhile objective (see page 27). However, for various reasons—mostly institutional in nature—many organizations are falling short of meeting the objective of dealing under one legal-entity name.

#### **CONTINUING OUR COLLABORATION WITH THE SINGAPORE COMMITTEE**

One of the key events of 2000 was our annual meeting with the Singapore Foreign Exchange Market Committee. Throughout the year, the two committees exchanged agendas and kept each other apprised of activities, which culminated in the November meeting in New York. The committees plan another meeting in November 2001, in Singapore, and will continue to update one another on important developments.

Our close relationship with the Singapore Committee yields valuable benefits, as it enables both committees to maintain an ongoing dialogue on issues such as regional price-disruption events, which affect the entire global foreign exchange community.

#### **LOOKING TO 2001 AND BEYOND**

As 2001 progresses, the foreign exchange market may very well look and operate differently than it did in 2000. Nevertheless, the Foreign Exchange Committee plans to stay ahead of market changes through our continuous review of new systems and our efforts to understand and anticipate ways in which the industry might evaluate and manage risks more effectively.

This year, I ended my two-year tenure as Chairman of the Foreign Exchange Committee, a highlight of my career in the foreign exchange market. At the start of 1999, when I assumed this role, the Committee worked diligently to ensure that there would be no unpleasant surprises related to Y2K. Now, ironically, the market and the Committee are moving into a new century in which the effects of technology surprise us almost every day. Even with these uncertainties, I feel that we on the Committee, working closely with our sister global organizations, must continue to strive to create a foreign exchange industry that is more transparent, cooperative, and grounded in a set of best practices reflecting the highest standards of integrity and sound business behavior.

*Paul Kimball*

# Committee Relationships with Other Organizations

## **THE GLOBAL TRADING COMMUNITY BENEFITS GREATLY FROM EFFECTIVE**

communication and interaction among its various international organizations and industry associations, including the Foreign Exchange Committee. Indeed, a primary focus of the Committee over the years has been to foster camaraderie and collaboration within the foreign exchange market. Of course, our success in these efforts depends heavily on international support. In 2000, the Committee worked with a number of industry groups on a variety of initiatives to strengthen existing relationships and forge new ones.

## **JOINT EFFORTS ON A DAILY BASIS**

On a regular basis, the Committee works with the Financial Markets Lawyers Group (FMLG), specifically on legal issues. The FMLG, in turn, often coordinates work on its projects with other organizations, such as the Bond Market Association, the British Bankers' Association, the International Swaps and Derivatives Association, and the European Financial Markets Lawyers Group.

In addition, the Foreign Exchange Committee often interacts with the Financial Markets Association—USA, whose president holds a seat on the Committee. We also anticipate increasingly close involvement with the CLS (Continuous Linked Settlement) Bank as the start-up of its new system approaches.

## **COORDINATING WITH THE SINGAPORE FOREIGN EXCHANGE MARKET COMMITTEE**

The Foreign Exchange Committee values its close relationship with the Singapore Foreign Exchange Market Committee. Both groups are committed to improving market efficiencies and reducing global settlement risk by disseminating information and recommending best practices.

On November 2, 2000, the committees met in New York for their fourth annual combined session. The agenda included the following issues of mutual interest:

- a review by the Singapore Committee of the growth and recent changes in Singapore's debt and foreign exchange markets,
- an agreement by both committees to send a letter to SWIFT proposing stricter guidelines for trade documentation,
- a critique of the latest version of the New York Committee's *Guidelines for Foreign Exchange Trading Activities*, and
- a discussion of an acceptable Monday morning market opening time in Sydney.

The Committee also routinely exchanges minutes and agendas with the Canadian Foreign Exchange Committee, the Foreign Exchange Joint Standing Committee, the European Central Bank Foreign Exchange Market Contact Group, and the Tokyo Foreign Exchange Market Practices Committee.

#### SUPPORTING EMTA'S EFFORTS

In recent years, the Emerging Markets Traders Association (EMTA) has spearheaded international efforts to improve documentation in the nondeliverable forwards (NDF) market. The group's initial work focused on Latin American currencies, but in 2000 EMTA spent considerable time addressing NDF documentation needs in Asian markets.

The Foreign Exchange Committee has supported EMTA in its recent efforts. A number of the region's industry associations have also supported EMTA, including the Singapore Foreign Exchange Market Committee, the Financial Markets Association, and the Tokyo Foreign Exchange Market Practices Committee.

The Committee is aware of the special efforts and close review required to write specific currency templates for the NDF market and has strongly endorsed EMTA's work by encouraging the use of

these templates by all market participants.

The Committee also provides a link on its web site to Annex A of the 1998 *FX and Currency Option Definitions*, a document that supplements the Committee's master agreements. Annex A contains currency and currency spot rate definitions as well as other related definitions and provisions—a useful tool for traders in emerging market currencies.

#### NEW COLLABORATIONS

The Foreign Exchange Committee is now working with the Securities Industry Association on its long-term project to encourage and facilitate a change in securities settlement from three days to one.

# Advisory Role of the Committee

## **THE FOREIGN EXCHANGE COMMITTEE SUPPORTS THE FOREIGN EXCHANGE**

community in various ways. In its advisory role, the Committee functions as teacher and counselor by

- providing information to the market,
- interacting with its sponsoring organization, the Federal Reserve Bank of New York,
- encouraging improvements in the quality of risk management, and
- developing market recommendations.

Equally important is how well the Committee listens to the needs of the market. Indeed, the effectiveness of the Committee in its role as advisor depends on how responsive it is to the industry's needs and innovations.

At its regular meetings, Committee members, who represent a cross section of the market, are encouraged to raise concerns and discuss other industry-related issues that are high on their agendas.

The Committee recognizes the value of having multiple viewpoints represented when addressing industry concerns or bottlenecks. Because the Committee represents a cross section of industry providers, it is often in a position to orchestrate solutions to market problems, as well as provide the necessary resources to support revisions or changes to procedures or practices. For example, over this past year, industry issues brought to the Committee meetings included:

- e-commerce and its expected impact on prevailing best practices and procedures,
- the expected operation of the CLS (Continuous Linked Settlement) Bank and how the CLS will affect different institutions,
- ring-fencing<sup>1</sup> and possible ways to avert industry disruptions,

---

<sup>1</sup>Ring-fencing refers to attempts by market participants to insulate a head office from liability on trades executed by a branch office.

- possible solutions to the problems caused by unscheduled holidays, and
- ways to improve the operations of the barrier options market.

The Committee is also charged with providing feedback to its sponsoring organization, the Federal Reserve Bank of New York. To accomplish this objective, the Committee holds regular meetings with the Federal Reserve Bank of New York to give it a more

thorough understanding of members' market views. Market topics covered this past year included outlooks for the major global currencies—specifically the euro, the U.S. dollar, and the yen—and market liquidity and trading volume.



# Report of Works in Progress

## **IN 2000, THE FOREIGN EXCHANGE COMMITTEE'S KEY PROJECTS**

included preparation for the start-up of the CLS (Continuous Linked Settlement) Bank and documentation of industry guidelines for the new century. More than ever, these and other Committee projects are becoming multistaged, with longer term horizons. For example, the updated *Guidelines for Foreign Exchange Trading Activities*, reprinted on pages 69-92, was published with the expectation that more frequent updates may be needed, particularly when e-commerce trading becomes more widespread and new industry best practices are better defined.

Major projects begun in 2000 that will continue into 2001 are listed below.

### **CLS BANK**

The Committee expects to continue focusing on specialized issues involving the start-up of the CLS Bank. As in 2000, we plan to commission study groups to address specific CLS-related issues. In addition, the Committee's Operations Managers Working Group plans to continue its interaction with the CLS Bank's operations-related policy group—the North American User Group—to maintain a high level of expertise in CLS.

### **E-COMMERCE**

The Committee understands the important role played by e-commerce in the foreign exchange industry and, as such, plans to monitor its effects and update the *Guidelines* with best practices that might be appropriate in the new setting. The Committee will work with the Financial Markets Lawyers Group (FMLG) on this initiative.

### **NONDELIVERABLE FORWARDS**

The Committee will continue to support the efforts of the Emerging Markets Traders Association (EMTA) to improve the documentation of nondeliverable forwards. We will also work with EMTA on supporting the use of such documentation.

**“T+1”**

The Committee, along with representatives from the FMLG and the Operations Managers Working Group, has been working with the Securities Industry Association (SIA) to add a foreign exchange perspective to the SIA’s effort to

shorten securities settlement to one day from three.

**BARRIER OPTIONS**

Following the publication of new best practices for barrier options and two new templates for docu-

mentation, the Committee, working group representatives, and the FMLG will begin work on publishing a list of common terminology used in foreign exchange barrier options trading.

# Membership Subcommittee Report

**THE FOREIGN EXCHANGE COMMITTEE'S ONLY PERMANENT SUBGROUP,** the Membership Subcommittee, is responsible for membership and other related organizational duties. A representative from the Federal Reserve Bank of New York chairs this group.

Although the process of choosing members is ongoing, most deliberations and decisions occur at the end of each year. During September and October, the Subcommittee assesses the current composition of the Committee, taking into consideration those who will leave at the end of the year, those whose terms will expire, and those who have expressed interest in becoming members. The objective of this analysis is to ensure that the composition of the Committee closely reflects the makeup of the industry and represents the diverse interests of the marketplace.

Prospective members generally should represent an institution with a leading market presence, be respected individuals in the financial community, and be able to speak on behalf of their institutions. Members are expected to be active in the Committee, to attend all meetings, and to participate in projects when needed. The complete membership lists for 2000 and 2001 appear on pages 115-118.

The Subcommittee also helps to orient new members, chooses administrative leaders such as working group heads, and makes the necessary administrative changes to the operating structure of the Committee. The administrative leaders of the Committee for 2000 and 2001 are listed on page 23.

In late 2000, the Membership Subcommittee opted not to fill, at least for now, the role of liaison to the Risk Managers Working Group because that group had been inactive in recent years. In addition, the Subcommittee in 2000 decided not to renew the post of issue coordinator. In the past, the issue coordinator brought before the Committee pertinent issues affecting the industry. However, in recognition of member participation, the Subcommittee acknowledged that the full Committee has more than adequately fulfilled this function, as members consistently raise important industry issues with the Committee.

# Meetings of the Committee

**THE FOREIGN EXCHANGE COMMITTEE MET EIGHT TIMES IN 2000.**

Meetings were held each month, except in April, July, August, and December. Of the eight meetings, six were afternoon sessions that included dinners. Various Committee members hosted many of these functions. Two meetings were working luncheons held at the Federal Reserve Bank of New York; the November 2 meeting was a joint session with the Singapore Foreign Exchange Market Committee.

For 2001, eight meetings are planned. The November 8 session will be another joint event with the Singapore Committee, to be held in Singapore.

**2000 Meetings**

January 13  
February 3  
March 2  
May 4  
June 8  
September 7  
October 5  
November 2

**2001 Meeting Schedule**

January 11  
February 8  
March 8  
May 3  
June 7  
September 13  
October 11  
November 8

# Committee Assignments, 2000 and 2001

## 2000

### COMMITTEE CHAIRMAN

Paul Kimball

### LIAISONS FOR THE WORKING GROUPS<sup>1</sup>

#### Operations Managers<sup>2</sup>

Peter Mesrobian  
Robert White

#### Risk Managers<sup>3</sup>

Peter Gallant

### ISSUE COORDINATORS FOR TRADING PRACTICES

David Puth  
Jamie Thorsen

### MEMBERSHIP SUBCOMMITTEE

Dino Kos (Chairman)  
David Puth  
Mark Snyder  
Michael Williams

## 2001<sup>4</sup>

### COMMITTEE CHAIRMAN

David Puth

### LIAISONS FOR THE WORKING GROUPS

#### Operations Managers

Peter Mesrobian  
Robert White

#### Chief Dealers Working Group

James Kemp  
Susan Storey

### MEMBERSHIP SUBCOMMITTEE

Dino Kos (Chairman)  
Peter Bartko  
Mark Snyder  
Michael Williams

<sup>1</sup>A working group handles special projects and operates in lieu of a subcommittee primarily because a working group facilitates a more flexible agenda for addressing specific issues. The Committee may also appoint members as liaisons to working groups. These members attend working group meetings, articulate the Committee's directives, and promote communication between the working group and the Committee.

<sup>2</sup>The Operations Managers Working Group was the Committee's only standing working group in 2000.

<sup>3</sup>The Risk Managers Working Group was not active during 2000.

<sup>4</sup>Because the Risk Managers Working Group has not been active since 1997, the Committee opted not to designate a liaison for 2001. A liaison, however, will be appointed if the group is activated during the year. The Membership Subcommittee, as discussed on page 21, decided to eliminate—at least for now—the role of issue coordinator.

# Trading under One Legal-Entity Name

---

In March and April 2000, the Foreign Exchange Committee conducted a short survey to determine the recent progress made in reducing the number of legal-entity names used in global trading activities. The survey, which drew on the experiences of the largest financial institutions involved in foreign exchange trading, solicited opinions on the important benefits of, and the roadblocks to, having fewer trading names. The Committee believes that trading under fewer names may help simplify the trading, payment, and settlement processes as well as reduce risk.

Twenty-two institutions responded to the survey.<sup>1</sup> Many noted that they book different foreign exchange products in different locations. Approximately one-third execute trades under seven or more entity names, another third trade under four to six names, and the remaining third use one to three names.

The institutions reported mixed priorities in the objective to reduce the number of trading names. Somewhat less than half considered trading under one legal name a top priority; the other half considered it a moderate priority. None deemed it a low priority.

Many of the surveyed institutions identified increased netting and operational efficiencies as the most beneficial aspects of trading under one legal name. Credit support, more efficient risk management, and simplicity and transparency of structure were viewed as other important benefits. Those institutions that did pare the number of names indicated that their biggest obstacle was their own operational procedures.

The survey questions and responses are reprinted here.

---

<sup>1</sup>Institutions (as of April 2000) participating in the survey were: AIG, Bank of America, Bank of Montreal, Bank of New York, Bank of Tokyo-Mitsubishi, Bank One, Chase Manhattan Bank, CIBC Wood Gundy, Citibank, Credit Suisse, Deutsche Bank, Goldman Sachs, HSBC, Lehman Brothers, Mellon Bank, Merrill Lynch, J.P. Morgan, Morgan Stanley, Natwest Bank, Standard Chartered, State Street, and UBS-Warburg.

**TRADING UNDER ONE LEGAL-ENTITY NAME SURVEY**

**1. (a) Your institution can be broadly categorized as?**  
 Investment bank .....5  
 Commercial bank .....17

**(b) You are primarily organized?**  
 In the United States .....12  
 Outside the United States .....10

**(c) In how many jurisdictions do you have a foreign exchange trading desk?**  
 1 to 5 .....10  
 More than 5 .....12

**(d) Do you book different foreign exchange products or currencies in different booking locations?**  
 Yes .....18  
 No .....4

**2. How high a priority in your organization is the goal of trading under one legal name? (Ranked 0 to 10; 0=no interest, 10=a top priority)**  
 8+ .....9  
 4 to 7 .....13  
 0 to 3 .....0

**3. What are the benefits of trading under one legal name as perceived by your organization?**  
 (a) Increased netting of counterparty exposures and associated credit risk management and regulatory benefits.....21  
 (b) Reduced credit support requirements.....14

(c) More efficient management of market risk.....13  
 (d) Operational efficiencies, including the need for less trading documentation .....21  
 (e) Simplicity/transparency of structure to marketplace.....9  
 (f) Other .....1  
 (g) No benefit .....0

**4. How long has your organization worked on this goal?**  
 Less than six months.....6  
 One year .....5  
 More than one year.....11

**5. How would you rate your progress on this goal? (Ranked 0 to 10; 0=no progress, 10=progress greater than expectations)**  
 8+ .....3  
 4 to 7 .....10  
 0 to 3 .....6  
 Not applicable.....3

**6. How many names do you trade under at the present time? (1), (1 to 3), (4 to 6), (more than 7)**  
 7+ names .....8  
 4 to 6 names .....7  
 2 to 3 names .....4  
 1 name .....3

**7. Has the inability to trade under one legal name... (Mark all answers that are applicable)**  
 (a) Negatively impacted any customer relationships? .....3  
 (b) Resulted in your organization having to provide guarantees or other credit support for affiliates?.....5



- (c) Negatively impacted your ability to net customer exposures? .....12
- (d) Had no perceivable negative impact?.....3

**8. Have you purposely maintained separate trading entities to avoid “head office liability” for trades executed in certain foreign countries?**

- Yes .....2
- No .....17
- Not applicable.....3

**9. What impediments to trading under one legal name have you overcome? (Mark all answers that are applicable)**

- (a) Regulatory capital issues .....3
- (b) Other regulatory issues.....5
- (c) Tax issues .....8
- (d) Other legal impediments .....1
- (e) Operational issues unique to your organization .....17
- (f) Corporate structural issues unique to your organization .....7
- (g) Other or not applicable.....5

**10. What impediments to trading under one legal name are you currently experiencing? (Mark all answers that are applicable)**

- (a) Regulatory capital issues .....6
- (b) Other regulatory issues.....10
- (c) Tax issues .....6
- (d) Other legal impediments .....3
- (e) Operational issues unique to your organization .....9
- (f) Corporate structural issues unique to your organization .....8

# The 1999 Collateral Annex

*to FEOMA, IFEMA,  
or ICOM Master Agreement*

***(c) The Foreign Exchange Committee 1999  
All Rights Reserved***

### PREFACE

The attached Collateral Annex provides model contractual terms for one-way collateralization of foreign exchange or currency option transactions governed by the International Foreign Exchange and Options Master Agreement ("FEOMA"), International Foreign Exchange Master Agreement ("IFEMA"), or International Currency Options Market Master Agreement ("ICOM") published by the Foreign Exchange Committee ("FX Committee"), in association with the British Bankers' Association, the Canadian Foreign Exchange Committee, and the Tokyo Foreign Exchange Market Practices Committee. Although the Collateral Annex is designed for use with the 1997 versions of these Master Agreements, practitioners may wish to adapt it to prior versions by modifying appropriate provisions of the Collateral Annex.

The Financial Markets Lawyers Group ("FMLG"), which includes representatives from commercial and investment banks active in the foreign exchange market, is publishing the Collateral Annex in conjunction with the Foreign Exchange Committee.

---

#### DISCLAIMER

The attached Collateral Annex does not necessarily reflect the views of the Federal Reserve Bank of New York or any other component of the Federal Reserve System, or of the Foreign Exchange Committee, the Financial Markets Lawyers Group, or any of their members. The Collateral Annex does not purport to be legal advice with respect to a particular transaction or situation. If legal advice or other expert assistance is required, the services of a qualified professional should be obtained.

# Collateral Annex to Master Agreement

---

## Heading Sheet<sup>1</sup>

This Collateral Annex, dated as of \_\_\_\_\_<sup>2</sup> (this "Collateral Annex"), between \_\_\_\_\_<sup>3</sup> ("Pledgor") and \_\_\_\_\_<sup>4</sup> ("Secured Party") sets forth the terms and conditions for the provision of Collateral by Pledgor to Secured Party as security for Pledgor's obligations under the \_\_\_\_\_<sup>5</sup> dated as of \_\_\_\_\_<sup>6</sup> (the "Master Agreement") between Pledgor and Secured Party. This Collateral Annex, together with the Schedule hereto, constitutes a Credit Support Document under the Master Agreement and supplements, forms a part of, and is subject to the Agreement between the Parties.

---

<sup>1</sup>Parties entering into this Collateral Annex should complete this Heading Sheet and duly execute this Collateral Annex as provided on the signature page (p. 42) herein.

<sup>2</sup>Insert date of execution of this Collateral Annex.

<sup>3</sup>Insert name of Pledgor.

<sup>4</sup>Insert name of Secured Party.

<sup>5</sup>Insert "International Foreign Exchange Master Agreement ("IFEMA"), "International Currency Options Market Master Agreement ("ICOM)," or "International Foreign Exchange and Options Master Agreement ("FEOMA")."

<sup>6</sup>Insert date of relevant Master Agreement.

## TABLE OF CONTENTS

### HEADING SHEET.....33

#### 1. DEFINITIONS AND INCONSISTENCIES.....35

1.1 Definitions.....35

1.2 Inconsistencies.....37

#### 2. SECURITY INTEREST AND TRANSFER.....37

2.1 Security Interest.....37

2.2 Transfer.....37

2.3 Other Action.....38

#### 3. VALUATIONS AND COLLATERAL MAINTENANCE.....38

3.1 Valuations.....38

3.2 Collateral Delivery.....38

3.3 Collateral Return.....38

3.4 Cut-Off Time.....38

3.5 Minimum Delivery/Return Amount.....38

3.6 Rounding Convention.....39

#### 4. DISPUTE RESOLUTION.....39

4.1 Dispute Resolution.....39

#### 5. OTHER PROVISIONS RELATING TO COLLATERAL.....39

5.1 Substitutions.....39

5.2 Use of Collateral.....39

5.3 Standard of Care.....39

5.4 Interest and Dividends.....40

5.5 Earnings on U.S. Dollar Collateral.....40

5.6 Business Day.....40

#### 6. REPRESENTATIONS AND WARRANTIES.....40

6.1 Representations and Warranties.....40

#### 7. RIGHTS AND REMEDIES.....40

7.1 Event of Default.....40

7.2 Rights and Remedies.....41

7.3 Notice of Sale.....41

7.4 Proceeds of Liquidation.....41

#### 8. MISCELLANEOUS.....41

8.1 Confirmation.....41

8.2 Governing Law.....41

8.3 Notices.....41

8.4 Schedule.....42

8.5 Taxes.....42

8.6 Termination.....42

#### SIGNATURE PAGE.....42

#### SCHEDULE.....43

## TERMS

### Section 1. Definitions and Inconsistencies

#### 1.1 Definitions:

Capitalized terms not otherwise defined in this Collateral Annex have the respective meanings ascribed to them in other provisions of the Agreement. In addition, the following terms shall have the following meanings:

- (a) **"Business Day"** means a day on which commercial banks are not authorized or required by law to close:
  - (i) for purposes of transfer of Collateral hereunder, in the place(s) where the relevant account(s) are located and, if different and with respect to U.S. Dollar Collateral, a day that is a Local Banking Day in relation to U.S. Dollars;
  - (ii) for purposes of a Party receiving notice or communication hereunder, in the location of the collateral management office of such Party specified in Part XII of the Schedule hereto; and
  - (iii) for any other purpose hereunder, in the location of the relevant office of the relevant Party.

Neither Saturday nor Sunday shall be considered a Business Day for any purpose.

- (b) **"Close-Out Netting Provision"** means Section 8.1 if the Master Agreement is the 1997 FEOMA, with Part VI.B thereof (if applicable); Section 5.1 if the Master Agreement is the 1997 IFEMA, with Part VI thereof

# The 1999 Collateral Annex

*to FEOMA, IFEMA, or ICOM Master Agreement*

(if applicable); or Section 8.1 if the Master Agreement is the 1997 ICOM.

- (c) **"Collateral"** means all Eligible Collateral and other property that have been transferred to Secured Party pursuant to Section 2.2 below or otherwise received by Secured Party, together with all payments, distributions, and proceeds received or to be received in respect thereof or in exchange therefor (including income, interest, principal, cash, dividends, instruments, and discounts) and all products thereof, including any earnings on U.S. Dollar Collateral pursuant to Section 5.5 below.
- (d) **"Collateral Annex Event of Default"** has the meaning set forth in Part VI of the Schedule hereto.
- (e) **"Collateral Percentage"** means the amount specified in Part I of the Schedule hereto as applicable to each type of Eligible Collateral or, with respect to Eligible Collateral not listed in Part I of the Schedule, that the Parties otherwise agree to apply to that particular type of Eligible Collateral.
- (f) **"Collateral Value"** means the aggregate fair market value of all Collateral that is Eligible Collateral, as Secured Party determines at any time in good faith and in a commercially reasonable manner, multiplied by the applicable Collateral Percentage(s). Unless otherwise specified in Part I of the Schedule hereto, in the case of U.S. Dollar Collateral, the Collateral Value will be deemed to be the amount of U.S. Dollars. The Collateral Value of any Collateral that is not Eligible Collateral is zero.
- (g) **"Credit Support Priority Provision"** means Section 11.13 if the Master Agreement is the 1997 FEOMA, Section 8.13 if the Master Agreement is the 1997 IFEMA, or Section 11.13 if the Master Agreement is the 1997 ICOM.
- (h) **"Cut-Off Time"** means the time specified as such in Part VII of the Schedule hereto.
- (i) **"Eligible Collateral"** means the Currencies, securities, or instruments that are permitted

in Part I of the Schedule hereto, or that at any time Secured Party agrees to accept as Eligible Collateral.

- (j) **"Force Majeure, Act of State, Illegality, and Impossibility Provision"** means Section 9 if the Master Agreement is the 1997 FEOMA, Section 6 if the Master Agreement is the 1997 IFEMA, or Section 9 if the Master Agreement is the 1997 ICOM, with any amendments to the relevant Section.
- (k) **"Independent Amount"** means the amount specified as such in, or calculated in accordance with, Part IV of the Schedule hereto. If not otherwise specified in Part IV of the Schedule, the Independent Amount shall be zero.
- (l) **"Master Agreement"** has the meaning set forth in the Heading Sheet hereto.
- (m) **"Minimum Delivery Amount"** means the amount specified as such in Part VIII of the Schedule hereto. If not otherwise specified in Part VIII of the Schedule, the Minimum Delivery Amount shall be zero.
- (n) **"Minimum Return Amount"** means the amount specified as such in Part VIII of the Schedule hereto. If not otherwise specified in Part VIII of the Schedule, the Minimum Return Amount shall be zero.
- (o) **"Net Exposure"** means the net amount (if any) that would be payable to Secured Party by Pledgor under the Close-Out Netting Provision of the Master Agreement, calculated at any time in accordance with such Provision and with Secured Party as the Non-Defaulting Party, excluding any classes of FX Transaction, Option or Premium specified in Part XIII of the Schedule hereto.
- (p) **"Pledgor"** has the meaning set forth in the Heading Sheet hereto.
- (q) **"Required Collateral Amount"** has the meaning set forth in Section 3.2 below.
- (r) **"Secured Party"** has the meaning set forth in the Heading Sheet hereto.

- (s) **"Set-Off Provision"** means Sections 8.2 and 8.8 if the Master Agreement is the 1997 FEOMA, Sections 5.2 and 5.8 if the Master Agreement is the 1997 IFEMA, or Sections 8.2 and 8.8 if the Master Agreement is the 1997 ICOM.
- (t) **"Suspension of Obligations Provision"** means Section 8.5 if the Master Agreement is the 1997 FEOMA, Section 5.5 if the Master Agreement is the 1997 IFEMA, or Section 8.5 if the Master Agreement is the 1997 ICOM.
- (u) **"Termination Provision"** means Section 11.5 if the Master Agreement is the 1997 FEOMA, Section 8.5 if the Master Agreement is the 1997 IFEMA, or Section 11.5 if the Master Agreement is the 1997 ICOM.
- (v) **"Threshold Amount"** means the amount specified as such in, or calculated in accordance with, Part V of the Schedule hereto; provided, however, that if an Event of Default or Collateral Annex Event of Default has occurred and is continuing with respect to Pledgor, then the Threshold Amount is zero.
- (w) **"Total Exposure"** means the Independent Amount plus the Net Exposure.
- (x) **"TRADES Regulations"** means the regulations of the United States Department of the Treasury published at 31 C.F.R. Part 357, Subpart B and Sections 357.41-.44 of Subpart D (including related defined terms in 31 C.F.R. § 337.2), or any successor regulations thereto.

## 1.2 Inconsistencies:

- (a) In the event of any inconsistency between this Collateral Annex and any other provisions of the Agreement, this Collateral Annex will prevail with respect to the subject matter hereof, unless otherwise specified herein. Such rule of priority will apply notwithstanding any provision to the contrary in the Master Agreement, including any Credit Support Priority Provision.
- (b) In the event of any inconsistency between any provisions of the Schedule hereto and

other provisions of this Collateral Annex, the provisions of the Schedule will prevail.

## SECTION 2. SECURITY INTEREST AND TRANSFER

### 2.1 Security Interest:

As security for the payment and performance of Pledgor's obligations to Secured Party under the Agreement, Pledgor pledges to Secured Party and grants to Secured Party, a first priority continuing security interest in, lien on, and right of set-off against, all Collateral which is transferred to or otherwise received by Secured Party hereunder. Such security interest and lien will be released on Collateral that Secured Party returns to Pledgor, immediately upon transfer of such Collateral to Pledgor.

### 2.2 Transfer:

Transfer of Eligible Collateral to Secured Party or to Pledgor under this Collateral Annex (the Party to which Eligible Collateral is to be transferred being the "receiving Party") will be effective when, pursuant to the instructions of the receiving Party or its agent (given in accordance with this Collateral Annex):

- (a) In the case of U.S. Dollar Collateral, funds are credited to one or more accounts specified by the receiving Party or its agent.
- (b) In the case of a Treasury Security (as such term and other capitalized terms in this Section 2.2(b) are defined in the TRADES Regulations),
  - (i) a Federal Reserve Bank indicates by book entry that such Treasury Security has been credited to a Participant's Securities Account, which Participant is the receiving Party; or
  - (ii) a Federal Reserve Bank indicates by book entry that such Treasury Security has been credited to a Participant's Securities Account, which Participant is a Securities Intermediary specified in Part III of the Schedule hereto or otherwise designated by the receiving Party or its agent, and



such Securities Intermediary indicates by book entry that a Security Entitlement to such Treasury Security has been credited to the securities account (as defined under the law of such Securities Intermediary's jurisdiction) of the receiving Party, its agent, or a nominee of either.

- (c) In the case of any other Eligible Collateral, a payment or delivery is made in the manner specified in Part II of the Schedule hereto as sufficient to transfer control of the Eligible Collateral to the receiving Party.

### 2.3 Other Action:

Pledgor agrees to take any other action that Secured Party reasonably requires in order to perfect Secured Party's first priority continuing security interest in, lien on, and right of Set-Off against, any Collateral.

## Section 3. Valuations and Collateral Maintenance

### 3.1 Valuations:

At any time, but not less frequently than as of the close of business on each Business Day, Secured Party will calculate the Total Exposure and the Collateral Value.

### 3.2 Collateral Delivery:

If Secured Party determines that the Total Exposure exceeds the Threshold Amount (such excess referred to hereinafter as the "Required Collateral Amount"), Secured Party by notice to Pledgor on a Business Day may require Pledgor to deliver by transfer to Secured Party an amount of Eligible Collateral, so that the Collateral Value is at least equal to the Required Collateral Amount.

### 3.3 Collateral Return:

If Secured Party determines that the Collateral Value exceeds the Required Collateral Amount, Pledgor by notice to Secured Party on a Business Day may require Secured Party to return by transfer to Pledgor an amount of Collateral, subject to the following conditions:

- (a) the Collateral Value after such transfer is at least equal to the Required Collateral Amount;
- (b) no Event of Default or Collateral Annex Event of Default has occurred and is continuing with respect to Pledgor;
- (c) Pledgor is not in default in payment or performance to Secured Party under the Agreement, such that Secured Party may suspend its obligation to perform under the Agreement pursuant to the Suspension of Obligations Provision of the Master Agreement; and
- (d) if the performance of Pledgor under the Agreement has become subject to the Force Majeure, Act of State, Illegality, and Impossibility Provision of the Master Agreement, the Pledgor otherwise would not have failed in payment or performance under the Agreement.

### 3.4 Cut-Off Time:

If Pledgor or Secured Party provides notice to the other Party for delivery of Eligible Collateral or return of Collateral as provided by Section 3.2 or 3.3 above, respectively, at or before the Cut-Off Time on a Business Day, all Eligible Collateral or Collateral required to be transferred by the other Party as a result of such notice will be transferred by such other Party by the close of business on the same Business Day. If Pledgor or Secured Party provides such a notice for delivery of Eligible Collateral or return of Collateral to the other Party after the Cut-Off Time on a Business Day, all Eligible Collateral or Collateral required to be transferred by the other Party as a result of such notice will be transferred by such other Party no later than the close of business on the immediately following Business Day. The provisions of this Section are subject to the provisions of Section 5.6 below.

### 3.5 Minimum Delivery/Return Amounts:

Eligible Collateral will be delivered pursuant to Section 3.2 only if Secured Party requests delivery of Eligible Collateral with a market value (after

applying the applicable Collateral Percentage[s]) at least equal to the Minimum Delivery Amount. Collateral will be returned pursuant to Section 3.3 only if Pledgor requests return of Collateral with a market value (after applying the applicable Collateral Percentage[s]) at least equal to the Minimum Return Amount.

### 3.6 Rounding Convention:

All amounts of Eligible Collateral to be delivered and of Collateral to be returned pursuant to Sections 3.2 and 3.3 above, respectively (and subject to Section 3.5 above), will be rounded in accordance with the convention (if any) specified in Part IX of the Schedule hereto.

## Section 4. Dispute Resolution

### 4.1 Dispute Resolution:

If a dispute arises as to a calculation performed by Secured Party pursuant to Section 3 of this Collateral Annex relating to the Total Exposure, Collateral Value, or amount or value of Eligible Collateral to be delivered to Secured Party or Collateral to be returned to Pledgor:

- (a) Pledgor will provide notice to Secured Party of such dispute promptly upon receipt of any notice or other communication from Secured Party giving rise to such dispute;
- (b) Pledgor will timely perform its obligations to Secured Party based on such calculation absent manifest error;
- (c) the Parties will confer in good faith with a view toward mutually agreeing on the relevant value or amount; and
- (d) if the Parties are unable to agree on the relevant value or amount, and Secured Party's calculation has been made in good faith and in a commercially reasonable manner, such calculation will be binding on the Parties.

## Section 5. Other Provisions Relating to Collateral

### 5.1 Substitutions:

Unless otherwise specified in Part X of the Schedule hereto, Pledgor may specify items of Collateral to be exchanged in a notice to Secured Party on a Business Day. Pledgor may transfer to Secured Party substitute Eligible Collateral specified in such notice. Subject to Section 5.6 below, not later than the close of business on the immediate Business Day in the location of the collateral management office of the Secured Party (specified in Part XII of the Schedule hereto) following the date of such transfer, Secured Party will transfer to Pledgor the Collateral specified in such notice; provided, however, that the market value of such substitute Eligible Collateral (after applying the applicable Collateral Percentage[s]) must at least be equal to that of the Collateral being replaced.

### 5.2 Use of Collateral:

Unless otherwise specified in Part X of the Schedule hereto, Pledgor agrees that Secured Party has the right to sell, pledge, rehypothecate, assign, invest, use, commingle, or otherwise dispose of or use in its business any Collateral, free from any claim or right of any nature whatsoever of Pledgor, including any equity or right of redemption by Pledgor, and to register any Collateral in the name of Secured Party or its agent, or any nominee for either. Regardless of whether Secured Party has exercised any rights with respect to any Collateral pursuant to this Section 5.2, such Collateral will continue to be deemed to be pledged to Secured Party for all purposes of this Collateral Annex.

### 5.3 Standard of Care:

Without limiting Secured Party's rights under Section 5.2 above, Secured Party will exercise reasonable care to assure the safe custody of all Collateral to the extent required by applicable law. Secured Party will be deemed to have exercised reasonable care if it exercises at least the same

degree of care as it would exercise with respect to its own property. Except as specified in this Section 5.3, Secured Party will have no duty with respect to Collateral, including but not limited to any duty to collect distributions, or to enforce or preserve any rights pertaining thereto.

#### 5.4 Interest and Dividends:

Any payments of interest or dividends received by Secured Party with respect to Collateral will be held as additional Collateral (net of any applicable deduction or withholding on account of taxes) and will be subject to return to Pledgor in accordance with Section 3.3 above.

#### 5.5 Earnings on U.S. Dollar Collateral:

If the Parties provide in Part XI of the Schedule hereto for any earnings on U.S. Dollar Collateral, such earnings will be held as additional Collateral and will be subject to return to Pledgor in accordance with Section 3.3 above.

#### 5.6 Business Day:

If Pledgor or Secured Party is not able to transfer any Eligible Collateral or Collateral on the day required by the relevant provision of this Collateral Annex because such day is not a Business Day for purposes of transfer of Collateral hereunder, such Eligible Collateral or Collateral will be transferred by such party by the close of business on the next available Business Day for purposes of transfer of Collateral hereunder.

### Section 6. Representations and Warranties

#### 6.1 Representations and Warranties:

Pledgor represents and warrants to Secured Party, as of the date of this Collateral Annex, of any other document constituting a part of the Agreement that is executed on or after the date of this Collateral Annex, of each FX Transaction or Option governed by the Agreement, and as of each date on which Pledgor transfers Collateral to Secured Party hereunder, that:

- (a) Pledgor has the power under the laws of the jurisdiction of its organization or incorporation and under its organizational documents to grant to Secured Party a security interest in and lien on any Collateral it transfers to Secured Party hereunder, and has taken all necessary actions to authorize the granting of such security interest and lien;
- (b) Pledgor is the sole owner of or otherwise has the right to transfer all Eligible Collateral it transfers to Secured Party hereunder, free and clear of any security interest, lien, encumbrance, or other restrictions other than the security interest and lien granted hereunder;
- (c) upon transfer of any Collateral to Secured Party in accordance with the terms of this Collateral Annex, Secured Party will have a valid and first priority perfected security interest in such Collateral free of any adverse claim; and
- (d) Pledgor's performance of its obligations under this Collateral Annex will not violate the provisions of any applicable law, its organizational documents, or any other indenture, agreement or other document to which Pledgor or its assets are bound, or result in the creation of any security interest, lien, or other encumbrance on it or any of its property, other than the security interest granted hereunder.

### Section 7. Rights and Remedies

#### 7.1 Event of Default:

- (a) Secured Party may exercise one or more of the rights and remedies specified in Section 7.2 below, subject to Section 7.1(b) below and provided that (i) any amount is payable by Pledgor under the Agreement to Secured Party; and (ii) an Event of Default or Collateral Annex Event of Default has occurred and is continuing with respect to Pledgor under the Agreement.

- (b) The Parties agree that there will be no grace period with respect to Pledgor's failure to comply with or perform any agreement or obligation to Secured Party under this Collateral Annex, and that upon such failure an Event of Default will have occurred with respect to Pledgor under the Agreement, subject to any grace period specified in Part VI of the Schedule hereto with regard to a Collateral Annex Event of Default. Secured Party will attempt in good faith and use reasonable efforts to provide notice of such failure to Pledgor; provided, however, that failure to provide such notice will not prejudice the right of Secured Party to proceed under Section 7.2 below.

#### 7.2 Rights and Remedies:

In the event that the conditions in Section 7.1 above are satisfied, Secured Party may exercise one or more of the following rights and remedies:

- (a) all rights and remedies available to a secured party under applicable law, including without limitation any rights of Set-Off and taking such steps as Secured Party deems necessary to effect the registration or re-registration of any Collateral in its name or the name of its agent or nominee;
- (b) the right to liquidate any Collateral then held by Secured Party through one or more public or private sales or other dispositions with such notice, if any, as may be required under applicable law, free from any claim or right of any nature whatsoever of Pledgor, including any equity or right of redemption by Pledgor (with Secured Party having the right to purchase any or all Collateral to be sold); and
- (c) the right to apply Collateral or the proceeds from liquidation of Collateral to the discharge of the amounts payable by Pledgor under the Agreement, or otherwise to Secured Party, in accordance with the Set-Off Provision of the Master Agreement.

#### 7.3 Notice of Sale:

Each Party agrees that Collateral in the form of securities may decline speedily in value and is of a type customarily sold on a recognized market and, accordingly, Pledgor is not entitled to prior notice of sale of such Collateral by Secured Party, except any notice that is required under applicable law and cannot be waived.

#### 7.4 Proceeds of Liquidation:

Secured Party will transfer to Pledgor any proceeds and Collateral remaining after liquidation and application pursuant to Section 7.2 above, and after satisfaction in full of all amounts payable by Pledgor under the Agreement. Pledgor in all events will remain liable for any amounts remaining unpaid after liquidation and application pursuant to Section 7.2 above.

### Section 8. Miscellaneous

#### 8.1 Confirmation:

Anything referred to in this Collateral Annex as being specified in the Schedule also may be specified in a Confirmation, and this Collateral Annex will be construed accordingly.

#### 8.2 Governing Law:

This Collateral Annex will be governed by, and construed in accordance with, the laws of the State of New York.

#### 8.3 Notices:

All notices, instructions, and other communications to be given to a Party under this Collateral Annex will be provided to the address, telex (if confirmed by appropriate answerback), facsimile (confirmed if requested), or telephone number and to the individual or department specified in Part XII of the Schedule hereto, except as otherwise provided in Section 8.6 below. If the Parties specify electronic messaging system details or an e-mail address in Part XII of the Schedule hereto, any notice, instruction or communication to be given to a Party under

this Collateral Annex may be provided by electronic messaging system or e-mail. Unless otherwise specified in this Collateral Annex, any notice, instruction, or other communication will be effective upon receipt.

**8.4 Schedule:**

Parts I, IV, and V of the Schedule hereto may be amended or supplemented at any time by Secured Party in its sole discretion upon notice to Pledgor. Any such amendment or supplement will be effective with respect to any FX Transactions or Options governed by the Agreement outstanding at the time such notice is given, unless Secured Party otherwise agrees in writing.

**8.5 Taxes:**

Pledgor will pay when due all taxes, assessments, or charges imposed with respect to Collateral and not arising from the exercise of Secured Party's rights under Section 5.2.

**8.6 Termination:**

Unless Secured Party otherwise agrees in writing, this Collateral Annex may be terminated only pursuant to the Termination Provision of the Master Agreement but, in any event, will remain in effect until all obligations of Pledgor under the Agreement have been fully performed.

In witness thereof, the Parties have caused this Collateral Annex to be duly executed by their respective authorized officers as of the date written on the Heading Sheet above.

**Pledgor:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

**Secured Party:**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

# Schedule to the Collateral Annex

Dated as of \_\_\_\_\_  
between \_\_\_\_\_ ("Pledgor")  
and \_\_\_\_\_ ("Secured Party").

## Part I. Eligible Collateral

| Types of Eligible Collateral  | Collateral Percentage |
|---|-----------------------|
| (1) U.S. Dollars  | _____                 |
| (2) U.S. Treasury Securities  |                       |
| (a) U.S. Treasury Securities having a remaining maturity as of the relevant valuation date of not more than one year.                               | _____                 |
| (b) U.S. Treasury Securities having a remaining maturity as of the relevant valuation date of more than one year but not more than five years.      | _____                 |
| (c) U.S. Treasury Securities having a remaining maturity as of the relevant valuation date of more than five years (but not more than _____ years). | _____                 |
| (3) Other Eligible Collateral   |                       |
| _____   | _____                 |
| _____   | _____                 |
| _____   | _____                 |

## Part II. Transfer of Other Eligible Collateral

For purposes of Section 2.2(c) of this Collateral Annex, a payment or delivery of the following Eligible Collateral will be made in accordance with the following provisions: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Part III. Securities Intermediary

For purposes of Section 2.2(b)(ii) of this Collateral Annex:

A. The Securities Intermediary for Pledgor is: \_\_\_\_\_

B. The Securities Intermediary for Secured Party is: \_\_\_\_\_

**Part IV. Independent Amount**

Independent Amount means \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Part V. Threshold Amount**

Threshold Amount means \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Part VI. Collateral Annex Event of Default**

Each of the following is a Collateral Annex Event of Default: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Part VII. Cut-Off Time**

For purposes of Section 3.4 of this Collateral Annex, the Cut-Off Time is \_\_\_\_\_ in the location of the collateral management office of the Party receiving notice (specified in Part XII of the Schedule hereto).

**Part VIII. Minimum Delivery/Return Amounts**

For purposes of Section 3.5 of this Collateral Annex, the Minimum Delivery Amount is U.S. \$ \_\_\_\_\_ and the Minimum Return Amount is U.S. \$ \_\_\_\_\_.

**Part IX. Rounding Convention**

For purposes of Section 3.6 of this Collateral Annex, all deliveries of Eligible Collateral and returns of Collateral will be rounded \_\_\_\_\_ down or \_\_\_\_\_ up and down, respectively (check mark indicates whichever is applicable) to the nearest integral multiple of U.S. \$ \_\_\_\_\_.

**Part X. Substitutions and Use of Collateral**

Section 5.1 of this Collateral Annex will/will not apply.

Section 5.2 of this Collateral Annex will/will not apply.

**Part XI. U.S. Dollar Collateral**

For purposes of Section 5.5 of this Collateral Annex, Pledgor will be paid earnings on U.S. Dollar Collateral in accordance with the following provisions: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Part XII. Collateral Management Offices**

Pledgor: \_\_\_\_\_

Address: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Telex No.: \_\_\_\_\_

Electronic Messaging System Details: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Name of Individual or Department to Whom Notices Are to Be Sent: \_\_\_\_\_

Secured Party: \_\_\_\_\_

Address: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Telex No.: \_\_\_\_\_

Electronic Messaging System Details: \_\_\_\_\_ E-Mail Address: \_\_\_\_\_

Name of Individual or Department to Whom Notices Are to Be Sent: \_\_\_\_\_

**Part XIII. Net Exposure**

The following classes of FX Transaction, Option, or Premium will not be taken into account when calculating Net Exposure under this Collateral Annex: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



# Cross-Product Master Agreement

*February 2000*

---

Dated as of \_\_\_\_\_

BETWEEN

\_\_\_\_\_ ("Party A")

and \_\_\_\_\_ ("Party B")

## I. INTERPRETATION

### 1.1 Definitions

"Agreement" means this Cross-Product Master Agreement and its Schedule. Section and Schedule references are to this Agreement unless otherwise specified.

"Base Currency" means the currency chosen as such in Part VI of the Schedule.

"Base Currency Equivalent" has the meaning given to it in Section 3.2.

"Business Day" means a day on which commercial banks effect deliveries of the Base Currency in accordance with the market practice of the principal foreign exchange market for the Base Currency or, if the Base Currency is the euro, any day on which the Trans-European Automated Real-Time Gross Settlement Express Transfer (TARGET) System is open.

"Close Out" means, when used as a verb, to accelerate, terminate, liquidate, or cancel (including by way of automatic early termination) transactions under a Principal Agreement; and "Close-Out" means the act of Closing Out.

"Close-Out Event" means any event on the basis of which a Party has the contractual right to Close Out all of the transactions under a Principal Agreement or which causes automatically the

# Cross-Product Master Agreement

*February 2000*

Close-Out of all of the transactions under a Principal Agreement and which is not specified in Part II of the Schedule.

“Close-Out Notice” has the meaning given to it in Section 2.2(a).

“Closed-Out Agreement” means a Principal Agreement under which all transactions that legally may be Closed Out have been Closed Out.

“Closed-Out Party” means the Party that is not the Closing-Out Party.

“Closing-Out Party” has the meaning given to it in Section 2.1.

“Final Net Settlement Amount” has the meaning given to it in Section 4.4(a)

“Final Settlement Date” has the meaning given to it in Section 4.4(b).

“Net Set-Off Amount” has the meaning given to it in Section 4.1.

“Principal Agreements” means the agreements (each as from time to time amended or supplemented) between the Parties hereto designated in Part I of the Schedule.

“Section 2 Notice” means a notice provided under either Section 2.2(a) or Section 2.2(b).

“Set-Off Date” has the meaning given to it in Section 4.1.

“Settlement Amount” means, in respect of any Closed-Out Agreement, the net amount which is due and payable by one Party to the other upon (i) such agreement having been Closed Out, (ii) the resulting obligations of the Parties having been determined, and (iii) in accordance with the applicable Closed-Out Agreement, those obligations having been set off, and/or having been otherwise reduced, by the exercise of rights to apply any margin, collateral, or other credit support delivered under or held in connection with such Closed-Out Agreement.

“Settlement Date” means each Set-Off Date and the Final Settlement Date.

## 1.2 Other Definitional Provisions

The term “Party” means a party to this Agreement and a reference herein to either “Party” includes a reference to its successors and permitted assigns.

## 2. CLOSE-OUT OF ALL PRINCIPAL AGREEMENTS

### 2.1 Right to Close Out

If any of the following events has occurred and is continuing:

- (a) a Close-Out Event in respect of a Party under the terms of a Principal Agreement,
- (b) a representation or warranty made or repeated by a Party hereunder proves to have been incorrect or misleading in any material respect when made or repeated, or
- (c) a Party is in violation of a covenant made hereunder, then, the Party which has the right to Close Out the Principal Agreement referred to in paragraph (a) above or Party to whom the representation, warranty or covenant was made as referred to in paragraph (b) or (c) above (in each case, the “Closing-Out Party”) shall be entitled to Close Out all (but not fewer than all) of the Principal Agreements, which in the good faith judgment of the Closing-Out Party, legally may be Closed Out under applicable law by providing a Close-Out Notice under Section 2.2(a) hereof, except that no Close-Out Notice shall be required for the Close-Out of any Principal Agreement that has been Closed Out by its terms prior to the delivery of a Close-Out Notice.

For the purposes of paragraph (a) above, a Close-Out Event under the terms of a Principal Agreement will be deemed to be continuing until the earlier of such time as the conditions that constituted the Close-Out Event under such Principal Agreement cease to exist or the Settlement Amount that is due and payable under such Principal has been paid in full. Each Principal Agreement is hereby amended accordingly.

## 2.2 Exercise of Rights

### (a) Close-Out Notice

The Closing-Out Party shall specify in a notice to the Closed-Out Party (the "Close-Out Notice") the date on which the Principal Agreements are Closed Out pursuant to Section 2.1. The Close-Out Notice given in the manner specified in this Agreement shall satisfy the notification requirements (if any) under each Principal Agreement for accelerating and/or terminating transactions under such Principal Agreement. Each Principal Agreement is hereby amended accordingly.

### (b) Notice for Settlement of Automatically Closed-Out Agreements

If all of the Principal Agreements have Closed Out automatically by their terms, the Settlement Amount under each such Principal Agreement shall be settled at the times and in the manner set forth in Sections 3.3 and 4 hereof if the Closing-Out Party so specifies in a notice to the Closed-Out Party promptly after all Principal Agreements are Closed Out. Each Principal Agreement is hereby amended accordingly.

### (c) The Closing-Out Party's Election

For the avoidance of doubt, the Closing-Out Party may elect to exercise its rights under this Agreement by providing a Section 2 Notice. If one of the events listed in Section 2.1 hereof has occurred, unless and until a Closing-Out Party gives a Section 2 Notice, each Party shall retain its rights and obligations under each Principal Agreement without regard to Sections 3 and 4 hereof.

## 3. DETERMINATION AND SETTLEMENT OF SETTLEMENT AMOUNTS

### 3.1 Determination of Settlement Amount

The Settlement Amount under each Closed-Out Agreement shall be determined in accordance with the terms of such Closed-Out Agreement.

### 3.2 Determination of the Base Currency Equivalent of the Settlement Amount

When a Section 2 Notice has been given and there is more than one Settlement Amount and a Settlement Amount is denominated in a currency other than the Base Currency (the "Other Currency"), the Closing-Out Party shall determine the amount in the Base Currency (the "Base Currency Equivalent") that would result from the conversion of such Settlement Amount into the Base Currency at the spot exchange rate at which the Closing-Out Party can buy the Base Currency with the Other Currency, as determined in any commercially reasonable manner, for value on the relevant Settlement Date for the Settlement Amount under Section 4 hereof. If all Settlement Amounts are denominated in a single currency other than the Base Currency, the Closing-Out Party may designate such other currency to be the Base Currency.

### 3.3 Settlement of Settlement Amounts in Accordance with this Agreement

When a Section 2 Notice has been given, all Settlement Amounts of Principal Agreements Closed Out pursuant to Section 2 (or Closed Out according to their terms on or prior to the delivery of the Section 2 Notice) shall be settled at the times and in the manner set forth in this Section 3.3 and Section 4 hereof (unless, in the good faith judgment of the Closing-Out Party, it is unlawful to do so), notwithstanding any provision to the contrary in any Closed-Out Agreement, and notwithstanding that Settlement Amounts may be payable by different branches of a Party at different locations or in different currencies pursuant to the terms of the relevant Principal Agreements. The date for settlement of such Settlement Amounts shall be deferred (with interest accruing at the rate and for the period specified in Section 4.5(a) hereof) until the occurrence of a Settlement Date hereunder. Each Principal Agreement is hereby amended accordingly.

#### 4. SET-OFF OF SETTLEMENT AMOUNTS; ACCRUAL OF INTEREST

##### 4.1 Set-Off

On the first date and any subsequent date on which both Parties owe one or more Settlement Amounts under two or more Closed-Out Agreements (a "Set-Off Date"), the Closing-Out Party shall aggregate and set off all Settlement Amounts and accrued interest thereon owed by Party A to Party B against the aggregate of the Settlement Amounts and accrued interest thereon owed by Party B to Party A, and only the difference between the aggregate amounts (a "Net Set-Off Amount") shall be owed on such Set-Off Date by the Party with the larger aggregate obligation. The obligation of a Party to settle a Net Set-Off Amount on the Set-Off Date shall be deferred (with interest accruing at the rate and for the period specified in Section 4.5(b) hereof) until the occurrence of the first subsequent Settlement Date if any Settlement Amount is still to be determined.

##### 4.2 Discharge of Settlement Amount

If a Settlement Amount has been set off in whole or in part on a Set-Off Date, such Settlement Amount shall, to the extent of such set-off, be deemed to have been discharged and no longer due under the relevant Closed-Out Agreement.

##### 4.3 Further Set-Offs

Subject to Section 4.4 hereof, each Net Set-Off Amount shall be treated as if it were a Settlement Amount for purposes of Section 4.1 hereof and shall, with the interest accrued thereon, be included in the set-off on the first subsequent Set-Off Date.

##### 4.4 Final Net Settlement Amount

###### (a) Final Net Settlement Amount for Closed-Out Agreements

On the first date on which the Settlement Amounts in respect of all Closed-Out Agreements have been determined, the Closing-Out Party shall determine the single amount (if any) payable by one Party hereunder (the "Final Net Settlement Amount") and provide to the Closing-Out Party a statement showing the

calculation of the Final Net Settlement Amount (which may be provided at the same time and as part of the Section 2 Notice).

###### (b) Final Settlement Date; Place of Payment

The Final Net Settlement Amount shall be payable by the Party from whom such payment is due on the same Business Day on which the statement is provided under Section 4.4(a) hereof, if such statement is delivered by 10:00 a.m. on a Business Day (or, if the euro is the Base Currency, 10:00 a.m. Central European time); otherwise payment shall be made on the following Business Day (the "Final Settlement Date"). Subject to the last sentence of Section 3.2 hereof, the Final Net Settlement Amount shall be paid in the Base Currency, together with interest thereon, from (and including) the Final Settlement Date to (but excluding) the date such amount is paid, at the rate specified in Section 4.5(c) hereof. If the Party owing the Final Net Settlement Amount has more than one branch, there shall be no limitation as to the place of payment of the obligation, unless otherwise specified by the Parties hereto.

##### 4.5 Interest

###### (a) Interest on Settlement Amounts

Each Settlement Amount shall bear interest at the relevant rate specified in the relevant Principal Agreement from (and including) the date on which it falls due under the Principal Agreement to (but excluding) the relevant Settlement Date for such Settlement Amount.

###### (b) Interest on Net Set-Off Amounts

Each Net Set-Off Amount shall bear interest (computed on the basis of daily compounding and the actual number of days elapsed over a year of such number of days as is customary for transactions involving the Base Currency in the London interbank market) at a rate per annum equal to the average of the rates at which overnight deposits in the Base Currency are offered by two major banks (selected by the Closing-Out Party) in the London interbank market at or about

11:00 a.m. (London time) on the Set-Off Date and each day for which such amount remains unpaid, or, if no such rate is available, at such rate as the Closing-Out Party may reasonably select, from (and including) the Set-Off Date therefor to (but excluding) the earlier of the next subsequent Set-Off Date or the Final Settlement Date.

- (c) **Interest on the Final Net Settlement Amount**  
The Final Net Settlement Amount shall bear interest at the rate specified in Section 4.5(b) hereof plus 1% per annum from (and including) the Final Settlement Date to (but excluding) the date of actual payment.

#### **4.6 No Limitation of Other Rights**

The Closing-Out Party's rights under this Section 4 shall be in addition to, and not in limitation or exclusion of, any other rights, including rights of Set-Off which the Closing-Out Party may have (whether by agreement, operation of law, or otherwise).

### **5. REPRESENTATIONS, WARRANTIES, AND COVENANTS**

Each Party represents and warrants to the other that (a) it is duly authorized to execute and deliver this Agreement and to perform its obligations hereunder and has taken all necessary actions to authorize such execution, delivery, and performance; (b) the person signing this Agreement on its behalf is duly authorized to do so on its behalf; and (c) this Agreement constitutes a legal, valid, and binding obligation, enforceable against it in accordance with its terms, subject to applicable bankruptcy, reorganization, insolvency, conservatorship, receivership, moratorium, or other similar laws affecting creditors' rights generally, and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law).

Each Party represents and warrants to the other that it has not assigned, transferred, created, or permitted to exist any lien or other encumbrance on, or otherwise disposed of, or purported to assign, transfer, create, or permit to exist any lien or

other encumbrance on, or otherwise dispose of, any of its rights to any amounts that may be owed to it under any Principal Agreement to any third party, and covenants that, so long as this Agreement is in effect, it will not assign, transfer, create, or permit to exist any lien or other encumbrance on, or otherwise dispose of or purport to assign, transfer, create or permit to exist any lien or other encumbrance on, or otherwise dispose of, any of its rights to any amounts that may be owed to it under any Principal Agreement, to any third party.

### **6. GOVERNING LAW AND JURISDICTION; WAIVERS**

The rights of the Parties under this Agreement shall be in addition to, and not in limitation or exclusion of, any other rights that they may have (whether by agreement, operation of law, or otherwise). This Agreement shall be governed by, and construed in accordance with, the laws of the jurisdiction specified in Part IV of the Schedule. The provisions regarding jurisdiction, waiver of immunities, waiver of trial by jury and process agent contained in the Principal Agreement specified in Part IV of the Schedule shall apply to this Agreement in the same manner and to the same extent as if such references were contained in this Agreement.

### **7. TRANSFER/ASSIGNMENT**

Neither this Agreement nor any interest in or under this Agreement may be transferred (whether by way of security or otherwise) or assigned by either Party without the prior written consent of the other Party, except that (a) a Party may make such a transfer or assignment of this Agreement to another entity pursuant to a consolidation or amalgamation with, or merger with or into, or transfer of all or substantially all of its assets to, such other entity (but without prejudice to any right or remedy under this Agreement or any Principal Agreement); and (b) a Closing-Out Party may make such a transfer or assignment of all or any part of its interest in any Final Net Settlement Amount payable to it under Section 4.4(b) hereof (and any of the interest thereon payable to it under Section 4.5(c) hereof). Any purported transfer or assign-

ment that is not in compliance with this Section 7 shall be void.

**8. NOTICES AND OTHER COMMUNICATIONS**

Any and all notices, statements, demands, or other communications hereunder may be given by a Party to the other by telephone, mail, facsimile, e-mail, electronic message, telegraph, messenger, or otherwise to the individuals and at the facsimile numbers and addresses specified with respect to it in Part V of the Schedule, or sent to such Party at any other place specified in a notice of change of number or address hereafter received by the other Party. Any notice, statement, demand or other communication hereunder will be deemed delivered on the day and at the time on which it is received or, if not received, on the day and at the time on which its delivery was in good faith attempted; provided, however, that any notice given by a Party to the other Party by telephone shall be deemed delivered only if: (a) such notice is followed by written confirmation thereof, and (b) at least one of the other means of providing notice that are specifically listed above has previously been attempted in good faith by the notifying Party.

**9. COUNTERPARTS**

This Agreement (and each amendment, modification, and waiver in respect of it) may be executed and delivered in counterparts (including by facsimile transmission), each of which will be deemed an original.

[Name of Party A]

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

[Name of Party B]

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

# Schedule to the Cross-Product Master Agreement

---

This Schedule forms a part of the Cross-Product Master Agreement dated as of \_\_\_\_\_ (the "Agreement") between \_\_\_\_\_ ("Party A") and \_\_\_\_\_ ("Party B"). Capitalized terms used but not defined in this Schedule shall have the meanings ascribed to them in the Agreement.

## Part I. The Principal Agreements

1. Master Securities Loan Agreement dated as of \_\_\_\_\_.
2. Master Repurchase Agreement dated as of \_\_\_\_\_.
3. Master Dealer Agreement—OTC Options/U.S. Treasury Securities dated as of \_\_\_\_\_.
4. Master Securities Forward Transaction Agreement dated as of \_\_\_\_\_.
5. International Foreign Exchange Master Agreement dated as of \_\_\_\_\_.
6. International Currency Options Market Master Agreement dated as of \_\_\_\_\_.
7. Foreign Exchange and Options Master Agreement dated as of \_\_\_\_\_.
8. ISDA Master Agreement (Multicurrency—Cross Border) dated as of \_\_\_\_\_.
9. ISDA Master Agreement (Local Currency—Single Jurisdiction) dated as of \_\_\_\_\_.
10. BFE/ESBG Master Agreement for Financial Transactions (European Master Agreement) dated as of \_\_\_\_\_.
11. Global Master Repurchase Agreement dated as of \_\_\_\_\_.
12. FOA Master Netting Agreement dated as of \_\_\_\_\_.
13. Overseas Securities Lender's Agreement (OSLA) dated as of \_\_\_\_\_.
14. EMTA Master Agreement for Options on Emerging Markets Instruments dated as of \_\_\_\_\_.
15. Any master agreement between the Parties covering securities contracts, forward contracts, commodity contracts, spot or forward currency contracts, repurchase agreements, swap agreements, or any other financial transactions whether currently in existence or arising hereafter.
16. All transactions between the parties similar to the transactions covered by the master agreements in 1-15 above that are documented under a confirmation or similar document that incorporates by reference the terms of a master agreement.
17. Other (specify): \_\_\_\_\_.

## Part II. Events Excluded from the Definition of "Close-Out Event"

The following event(s) shall be excluded from the definition of "Close-Out Event" for purposes of this Agreement:

1. The following Termination Events under the terms of the ISDA Master Agreement identified in Paragraphs 8 and 9 of Part I of this Schedule or any similar event under any Principal Agreement: Illegality, Tax Event, Tax Event Upon Merger, and Credit Event Upon Merger.



2. Any Close-Out Event under a Principal Agreement which is (i) a "Disruption Event" as that term is described in Section 5.1 of the 1998 *FX and Currency Option Definitions* published by ISDA, EMTA, and the Foreign Exchange Committee or (ii) any other event that (a) is in the nature of *force majeure* or act of state, (b) is beyond the control of a Party, (c) such Party, with reasonable diligence cannot overcome, and (d) prevents, hinders, or delays such Party from performing or makes it illegal or impossible for such Party to perform its obligations when due under a Principal Agreement.
3. Other events: \_\_\_\_\_.

### Part III. Additional Acknowledgments and Representations

1. The Parties [do] [do not] agree to the following: Each Party intends that this Agreement constitutes a "netting contract" as defined in and subject to Title VI of the Federal Deposit Insurance Corporation Improvement Act of 1991 ("FDICIA"), each payment entitlement and payment obligation under the Agreement constitutes a "covered contractual payment entitlement" or "covered contractual payment obligation," respectively, as defined in and subject to FDICIA, and each Party represents that it is a "financial institution" as defined in and pursuant to FDICIA.
2. The Parties [do] [do not] agree to the following: Each Party intends that each payment to be made under this Agreement is a "margin payment" or a "settlement payment" or a "transfer" within the meaning of Sections 362 and 546 of Title 11 of the United States Code (the "Bankruptcy Code") and a "payment amount" within the meaning of Section 560 of the Bankruptcy Code.

### Part IV. Governing Law and Jurisdiction; Waiver of Jury Trial

Governing Law: [the State of New York] [England and Wales] Jurisdiction, Waiver of Immunities and Jury Trials and Process Agent: The provisions contained in Section(s) \_\_\_\_\_ of the Principal Agreement designated in Paragraph \_\_\_\_\_ of Part I of this Schedule shall apply as provided in Section 6 of this Agreement, irrespective of whether such Principal Agreement remains in effect.

### Part V. Addresses for Communications between Parties

For the purposes of Section 8 of this Agreement:

#### Address for notices or communications to Party A:

Address: \_\_\_\_\_

Attention: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Electronic Messaging System Details: \_\_\_\_\_

#### Address for notices or communications to Party B:

Address: \_\_\_\_\_

Attention: \_\_\_\_\_

Facsimile No.: \_\_\_\_\_ Telephone No.: \_\_\_\_\_

Electronic Messaging System Details: \_\_\_\_\_

### Part VI. Base Currency; Payment Instructions

The Base Currency is: \_\_\_\_\_. Payments due under this Agreement in the Base Currency shall be made to the following accounts:

Name of Bank and Office: \_\_\_\_\_

Account Number: \_\_\_\_\_ and Reference for Party A: \_\_\_\_\_

Name of Bank and Office: \_\_\_\_\_

Account Number: \_\_\_\_\_ and Reference for Party B: \_\_\_\_\_

## Part VII. Optional Provisions

### 1. Adequate Assurances.

The following [shall] [shall not] be included as a new Section 2.3 of this Agreement:

2.3 The failure by a Party to give adequate assurances of its ability to perform any of its obligations under any Principal Agreement within [ ] Business Days of a written request to do so when the other Party has reasonable grounds for insecurity shall be a Close-Out Event for the purposes of each Principal Agreement. Each Principal Agreement is hereby amended accordingly.

### 2. Terminating Transactions Not Documented by a Master Agreement.

The Parties [agree] [do not agree] to amend the Agreement to restate Section 2.1 as follows:

#### 2.1 Right to Close Out

If any of the following events has occurred and is continuing:

- (a) a breach of any of a Party's obligations under any financial transaction entered into by the Parties that is not subject to a master agreement (an "Uncovered Transaction"),
- (b) a Close-Out Event in respect of a Party under the terms of a Principal Agreement,
- (c) a representation or warranty made or repeated by a Party hereunder proves to have been incorrect or misleading in any material respect when made or repeated, or
- (d) a Party is in violation of a covenant made hereunder, then, the Party which has the right to Close Out the Uncovered Transaction referred to in paragraph (a) above and/or the Principal Agreement referred to in paragraph (b) above or the Party to whom the representation, warranty, or covenant was made as referred to in paragraphs (c) or (d) above (in each case, the "Closing-Out Party") shall be entitled to Close Out all (but not fewer than all) of the Uncovered Transactions and the Principal Agreements which in the good faith judgment of the Closing-Out Party legally may be Closed Out under applicable law by providing a Close-Out Notice under Section 2.2(a) hereof, except that no Close-Out Notice shall be required for the Close-Out of any Uncovered Transaction or Principal Agreement which has been Closed Out by its terms prior to the delivery of a Close-Out Notice.

For the purposes of paragraphs (a) and (b) above, a breach of the terms of an Uncovered Transaction and a Close-Out Event under the terms of a Principal Agreement will be deemed to be continuing until the earlier of such time as the conditions that constituted the Close-Out Event under such Uncovered Transaction or Principal Agreement cease to exist or the Settlement Amount that is due and payable under such Uncovered Transaction or such Principal Agreement has been paid in full.

Each Principal Agreement and the terms of each Uncovered Transaction are hereby amended accordingly. With respect to each Uncovered Transaction, "Settlement Amount" means the net amount which would be due and payable by one Party to the other Party pursuant to agreement or applicable law as a result of a breach by the Closed-Out Party of its obligations under such Uncovered Transaction. In addition, each reference in every other section of this Agreement to the term "Principal Agreement" shall be construed to include the term "Uncovered Transaction."

### 3. Elimination of Closing-Out Party's Election.

The Parties [agree] [do not agree] to amend the Agreement as follows:

3.1 Section 2.1 of the Agreement [as restated in Part VII.2 of the Schedule] \* is amended (a) to delete, in the first sentence thereof, the words "be entitled to" and to insert in lieu thereof, "when any Principal Agreement is Closed Out" and (b) to delete the second sentence thereof.

3.2 Section 2.2(b) is amended to delete the words "Notice for" in the title thereof and the phrase "if the Closing-Out Party so specifies in a notice to the Closed-Out Party promptly after all Principal Agreements are Closed Out," in the first sentence thereof and is restated as follows: \* Include the bracketed language only if the Parties have agreed to include Part VII.2 of the Schedule in the Agreement.

#### (b) Settlement of Automatically Closed-Out Agreements

If all of the Principal Agreements have been Closed Out automatically by their terms, the Settlement Amount under each such Principal Agreement shall be settled at the times and in the manner set forth in Sections 3.3 and 4 hereof. Each Principal Agreement is hereby amended accordingly.

3.3 Section 2.2(c) is deleted in its entirety.

Part VIII. Credit Support

First Alternative:

Security Interest.

With respect to [Principal Agreement Nos. [\_\_\_\_\_] in Part I of the Schedule]:

1. The Parties hereto agree that any property in which a Party has been or will be granted a security interest to secure obligations owed to it by the other Party (the "Other Party") under a Principal Agreement (the "Collateral") shall also secure the Other Party's obligation to pay a Final Net Settlement Amount under Section 4.4 of the Agreement.
2. The Parties hereby agree that the Party to whom any Final Net Settlement Amount is owed (the "Secured Party") shall be entitled to realize against any Collateral and apply the proceeds thereof to satisfy the obligation of the Other Party to pay the Final Net Settlement Amount or, if the Secured Party so determines in its sole discretion, to set off any Final Net Settlement Amount payable by the Other Party against the amount of any Collateral or the market value thereof (such market value to be determined in a commercially reasonable manner).
3. Each Principal Agreement and Credit Support Document related thereto is hereby amended as set forth in paragraphs 1 and 2 above. "Credit Support Document" means any agreement, registration, filing, or comparable document creating or perfecting a security interest in financial assets, general intangibles, contract rights, securities accounts, security entitlements, or other property to secure performance of the obligations of a Party under a Principal Agreement, excluding any guarantee by a third party of a Party's obligations.

Second Alternative:

With respect to [Principal Agreement Nos. [\_\_\_\_\_] in Part I of the Schedule]:

Certain Set-Off Rights.

In respect of any Closed-Out Agreement, the Closing-Out Party shall have the right to (i) determine in good faith an amount equal to the fair market value of any securities or other property that either Party has obtained under such Closed-Out Agreement or Credit Support Document related thereto and is or may be obligated to return or otherwise transfer to the other Party, and (ii) include such amount as an amount payable by such Party in determining the Settlement Amount under such Closed-Out Agreement. Each Principal Agreement and Credit Support Document related thereto is hereby amended accordingly.

"Credit Support Document" means any agreement, registration, filing, or comparable document creating an interest in financial assets, general intangibles, contract rights, securities accounts, security entitlements, or other property to secure performance of the obligations of a Party under a Principal Agreement, excluding any guarantee by a third party of a Party's obligations.

Part IX. Additional Terms

The following additional terms and conditions shall apply: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

[Name of Party A]

[Name of Party B]

By: \_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

# Barrier Options

***Suggested Templates  
for European Knock-Out/  
Knock-In Options  
and Binary Options***

## TRANSMITTAL LETTER

September 28, 2000

### Committee Recommends Use of Two New Templates

The Foreign Exchange Committee recommends the use of two new templates: (1) the European knock-out/knock-in option template, and (2) the binary option template.

At the request of various market participants, the Committee convened a special study group to produce foreign exchange exotic option templates that are designed to reflect current market practice. The first template, on pages 61-63, applies to European knock-out options and knock-in options. The second template, on pages 65-67, applies to binary options. The Foreign Exchange Committee thinks the templates will improve and streamline the documentation process for these specific options and strongly encourages the use of these templates by market participants.

The Foreign Exchange Committee expresses its appreciation to Hamish Findlater (Credit Suisse First Boston), Patricia Hogan and Daniel Ruperto (Goldman Sachs), Gigi Chavez and Laura DeForest (Morgan Stanley), and Ruth Laslo and Annette Spencer (UBS-Warburg) for the substantial time and effort spent on this project.

# European Knock-Out/Knock-In Options

## Suggested Template

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Dear Sirs:

The purpose of this document (this "Confirmation") is to confirm the terms and conditions of the Transaction entered into on the Trade Date specified below (the "Transaction"). This Confirmation constitutes a "Confirmation" as referred to in the Agreement below.

The definitions and provisions contained in the 1998 ISDA *FX and Currency Option Definitions*—as published by the International Swaps and Derivatives Association, Inc., the Emerging Markets Traders Association, and the Foreign Exchange Committee—are incorporated into this Confirmation. In the event of any inconsistency between those definitions and provisions and this Confirmation, this Confirmation will govern.

1. This Confirmation supplements, forms a part of, and is subject to, the ISDA Master Agreement dated as of [date], as amended and supplemented from time to time (the "Agreement"), between [\_\_\_\_\_] ("Party A") and [\_\_\_\_\_] ("Party B"). All provisions contained in the Agreement govern this Confirmation except as expressly modified below.

2. The terms of the Transaction to which this Confirmation relates are as follows:

Trade Date: \_\_\_\_\_

Seller: \_\_\_\_\_

Buyer: \_\_\_\_\_

Currency Option Style: European Knock-Out<sup>1</sup> Option

Call Currency and Call Currency Amount: \_\_\_\_\_

Put Currency and Put Currency Amount: \_\_\_\_\_

Strike Price: \_\_\_\_\_

Out-Strike Price<sup>2</sup>: \_\_\_\_\_

<sup>1</sup>For Knock-In Option, amend description accordingly.

<sup>2</sup>For Knock-In Option, amend accordingly to **In-Strike Price**.

[Event Period Start Time and Date: \_\_\_\_\_ Time Currency Option Is Entered into; Trade Date: \_\_\_\_\_  
 Event Period End Time and Date: \_\_\_\_\_ Expiration Time; Expiration Date]<sup>3</sup>: \_\_\_\_\_  
 Initial Spot Rate: \_\_\_\_\_ Expiration Time: \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_ Applicable: \_\_\_\_\_  
 [Automatic Exercise: \_\_\_\_\_ Deliverable]<sup>4</sup>: \_\_\_\_\_  
 Settlement: \_\_\_\_\_ Settlement Date: \_\_\_\_\_  
 Premium: \_\_\_\_\_ Premium Payment Date: \_\_\_\_\_  
 Calculation Agent: \_\_\_\_\_

### 3. Additional definitions for the Transaction to which this Confirmation relates are as follows:

"Event Period" means the period commencing on the date and at the time this Currency Option is entered into and ending at the Expiration Time on the Expiration Date.<sup>5</sup>

"Knock-Out Event" means that, at any time during the Event Period,<sup>6</sup> the Spot Exchange Rate (in comparison to the Initial Spot Rate) is equal to or beyond the Out-Strike Price,<sup>7</sup> as determined by the Calculation Agent.<sup>8</sup>

"Spot Exchange Rate" means the price<sup>9</sup> in the Spot Market for one or more actual foreign exchange transactions involving the Currency Pair (or cross-rates constituting such Currency Pair) which is the subject of this Currency Option as determined by the Calculation Agent.

"Spot Market" means the global spot foreign exchange market, open continuously from 5:00 a.m. Sydney time on a Monday in any week to 5:00 p.m. New York time on the Friday of that week.

### 4. Additional terms of the Transaction to which this Confirmation relates are as follows:

Notification of event: The Calculation Agent shall promptly notify the other Party (or Parties if the Calculation Agent is not a Party) of the occurrence of an event relating to this Currency Option. A failure to give such notice shall not prejudice or invalidate the occurrence or effect of an event.

<sup>3</sup>Specify for flexible ("window") event periods. Can be used for normal options—see note 5.

<sup>4</sup>Not necessary to specify, as presumed by 1998 *Definitions*.

<sup>5</sup>This is the "vanilla" formulation. For flexible ("window") event periods, or in any event, specify commencing **at the Event Period Start Time and Date, and ending at the Event Period End Time and Date.**

<sup>6</sup>For At-Expiration Option, specify at the Expiration Time on the Expiration Date.

<sup>7</sup>For At-Expiration Option, omit the Initial Spot Rate and specify the direction in which the barrier must be breached. That is: **the Spot Exchange Rate is greater than or equal to the Out-Strike Price [for "Call" type]; the Spot Exchange Rate is less than or equal to the Out-Strike Price [for "Put" type].**

<sup>8</sup>For Knock-In Option, amend accordingly to Knock-In Event and In-Strike Price.

<sup>9</sup>Previous versions added the text "at the time at which such price is to be determined." This was considered to be superfluous.

Exercise: This Currency Option may be exercised or deemed exercised only if a Knock-Out Event has not occurred at or prior to the Expiration Time on the Expiration Date.<sup>10</sup>

Settlement: Unless otherwise agreed, this Currency Option if exercised shall be settled on its Settlement Date by the payment by each Party to the other of the full amount of the Put Currency Amount or Call Currency Amount, as the case may be.

5. Account Details: \_\_\_\_\_

#### 6. Offices:

The Office of [Party A] for this Transaction is \_\_\_\_\_ and

the Office of [Party B] for this Transaction is \_\_\_\_\_.

This confirmation supersedes and replaces any other confirmation, if any, sent in connection with this transaction on or prior to the date hereof.

Please confirm that the foregoing correctly sets forth the terms of our agreement by executing a copy of this Confirmation enclosed for that purpose and returning it to us or by sending to us a letter substantially similar to this letter, which sets forth the material terms of the Transaction to which this Confirmation relates and indicates your agreement to those terms.

Yours sincerely,

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Confirmed as of the date first above written:

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

---

<sup>10</sup>This condition prevails over Section 3.6 of the FX *Definitions*. Although a Notice of Exercise can otherwise be irrevocable and “effective” as provided in that section, or the option has prima facie been automatically exercised, the absence of a Knock-Out Event is an overriding condition. For Knock-In Option, amend accordingly to a **Knock-In Event has occurred**.



# Binary Options

## Suggested Template

Date: \_\_\_\_\_

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Dear Sirs:

The purpose of this document (this "Confirmation") is to confirm the terms and conditions of the Transaction entered into on the Trade Date specified below (the "Transaction"). This Confirmation constitutes a "Confirmation" as referred to in the Agreement below.

The definitions and provisions contained in the 1998 ISDA *FX and Currency Option Definitions*—as published by the International Swaps and Derivatives Association, Inc., the Emerging Markets Traders Association, and the Foreign Exchange Committee—are incorporated into this Confirmation. In the event of any inconsistency between those definitions and provisions and this Confirmation, this Confirmation will govern.

1. This Confirmation supplements, forms a part of, and is subject to, the ISDA Master Agreement dated as of [date], as amended and supplemented from time to time (the "Agreement"), between [\_\_\_\_\_] ("Party A") and [\_\_\_\_\_] ("Party B"). All provisions contained in the Agreement govern this Confirmation except as expressly modified below.

2. The terms of the Transaction to which this Confirmation relates are as follows:

Trade Date: \_\_\_\_\_

Seller: \_\_\_\_\_

Buyer: \_\_\_\_\_

Currency Option Style: One-Touch Binary Option<sup>1</sup>

Currency Pair: \_\_\_\_\_

Binary Payout: \_\_\_\_\_

Binary Level: \_\_\_\_\_

<sup>1</sup>Or specify as appropriate: **no-touch**; **at expiration**; **call/put**.

[Event Period Start Time and Date: \_\_\_\_\_ Time Currency Option Is Entered into; Trade Date: \_\_\_\_\_  
 Event Period End Time and Date: \_\_\_\_\_ Expiration Time; Expiration Date]<sup>2</sup>: \_\_\_\_\_  
 Initial Spot Rate<sup>3</sup>: \_\_\_\_\_  
 Expiration Date: \_\_\_\_\_ Expiration Time: \_\_\_\_\_  
 Settlement Date: \_\_\_\_\_ [Date]<sup>4</sup>  
 Premium: \_\_\_\_\_ Premium Payment Date: \_\_\_\_\_  
 Calculation Agent: \_\_\_\_\_

### 3. Additional definitions for the Transaction to which this Confirmation relates are as follows:

"Event Period" means the period commencing on the date and at the time this Currency Option is entered into and ending at the Expiration Time on the Expiration Date.<sup>5</sup>

"Binary Event" means that, at any time during the Event Period,<sup>6</sup> the Spot Exchange Rate (in comparison to the Initial Spot Rate) is equal to or beyond the Binary Level,<sup>7</sup> as determined by the Calculation Agent.

"Spot Exchange Rate" means the price in the Spot Market for one or more actual foreign exchange transactions involving the Currency Pair (or cross-rates constituting such Currency Pair) which is the subject of this Currency Option as determined by the Calculation Agent.

"Spot Market" means the global spot foreign exchange market, open continuously from 5:00 a.m. Sydney time on a Monday in any week to 5:00 p.m. New York time on the Friday of that week.

### 4. Additional terms of the Transaction to which this Confirmation relates are as follows:

Notification of event: The Calculation Agent shall promptly notify the other Party (or Parties if the Calculation Agent is not a Party) of the occurrence of an event relating to this Currency Option. A failure to give such notice shall not prejudice or invalidate the occurrence or effect of an event.

Settlement: If a Binary Event has occurred,<sup>8</sup> the Seller will pay the Buyer the Binary Payout on the Settlement Date.

---

<sup>2</sup>Specify for flexible ("window") event periods. Can be used for normal options (see note 5 in Knock-Out/Knock-In template).

<sup>3</sup>Not required for at-expiration options.

<sup>4</sup>For an instant payout (not applicable for at-expiration binaries) specify: **Two Business Days after the date that the Binary Event (if any) occurs.**

<sup>5</sup>This is the "vanilla" formulation. For flexible ("window") event periods, or in any event, specify **commencing at the Event Period Start Time and Date, and ending at the Event Period End Time and Date.**

<sup>6</sup>For At-Expiration Binary, specify **at the Expiration Time on the Expiration Date.**

<sup>7</sup>For an At-Expiration Binary, omit the Initial Spot Rate and specify the direction in which the barrier must be breached. That is: **the Spot Exchange Rate is greater than or equal to the Binary Level [for "Call" type]; the Spot Exchange Rate is less than or equal to the Binary Level [for "Put" type].**

<sup>8</sup>For No-touch Binary, specify **if no Binary Event has occurred.**

5. Account Details: \_\_\_\_\_

6. Offices:

The Office of [Party A] for this Transaction is \_\_\_\_\_ and

the Office of [Party B] for this Transaction is \_\_\_\_\_.

This confirmation supersedes and replaces any other confirmation, if any, sent in connection with this transaction on or prior to the date hereof.

Please confirm that the foregoing correctly sets forth the terms of our agreement by executing a copy of this Confirmation enclosed for that purpose and returning it to us or by sending to us a letter substantially similar to this letter, which sets forth the material terms of the Transaction to which this Confirmation relates and indicates your agreement to those terms.

Yours sincerely,

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Confirmed as of the date first above written:

\_\_\_\_\_

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

# Guidelines for Foreign Exchange Trading Activities

---

## TABLE OF CONTENTS

|                      |    |
|----------------------|----|
| Introduction.....    | 71 |
| Trading.....         | 72 |
| Sales.....           | 76 |
| Ethics.....          | 78 |
| Legal Issues.....    | 80 |
| Risk Management..... | 81 |
| Operations.....      | 82 |
| Human Resources..... | 84 |
| Other Issues.....    | 85 |
| Addendum A.....      | 87 |
| Addendum B.....      | 89 |
| Index.....           | 92 |

This document and others published by the Committee are available on the Committee's web site, <[www.newyorkfed.org/fxc](http://www.newyorkfed.org/fxc)>.

## ACKNOWLEDGMENTS

The Foreign Exchange Committee extends particular thanks to Richard Mahoney of the Bank of New York for his invaluable help in updating the *Guidelines for Foreign Exchange Trading Activities*.

The Committee also expresses its appreciation to the Singapore Foreign Exchange Market Committee, the European Central Bank Foreign Exchange Contact Group, the Financial Markets Lawyers Group, and the Operations Managers Working Group. These groups reviewed drafts of the document and provided very helpful comments and suggestions.

## INTRODUCTION

The development and dissemination of useful trading practice guidelines are key priorities of the Foreign Exchange Committee. With the distribution of these new *Guidelines*, the Committee seeks to:

- ~ provide all participants in the wholesale foreign exchange community (individuals and firms, intermediaries and end users) with a common set of best practices that will assist them in conducting their business activities,
- ~ promote discussions about practices that further market efficiencies and transparencies,
- ~ highlight pertinent issues meant to facilitate informed decision making, and
- ~ refer the global community to useful research materials and related initiatives of the Foreign Exchange Committee.<sup>1</sup>

The Committee published its first version of the *Guidelines* in 1979. As the industry evolved and trading processes changed, the Committee periodically updated the paper. This latest version, the Committee's fifth, revises a 1996 document.

## RAPID TECHNOLOGICAL CHANGE = UNCERTAINTY

The explosive growth of electronic communication and electronic commerce has driven the foreign exchange industry headlong into reassessment. Best practices that appeared

# Guidelines for Foreign Exchange Trading Activities

appropriate a few years ago are now being rethought and reshaped to better fit the electronic age.

In this new environment, access to market making seems easier, and more organizations are considering initiating activities in the foreign exchange market. Moreover, although automation has streamlined many transactions and procedures, the foreign exchange market may be becoming more, rather than less, complex. Given these changes, firms are encouraged to put in place mechanisms for a continued reassessment of their procedures.

The guidelines presented in this document merit serious consideration by those who are currently involved in, or seeking to be involved in, the foreign exchange market. Compliance with these guidelines should give both firms and individuals confidence that they are pursuing sound business practices.

## TRADING

### In this section:

- ~ **Time-proven best practices for all trading staff**
- ~ **Safeguards to adopt when trading with your electronic broker**
- ~ **Procedures for special trading practices, including historical rate rollovers, stop-loss orders, and switches**
- ~ **Solutions for trade-related problems**

### General best practices for all trading staff

The smooth functioning and integrity of the market are facilitated by the trust, honesty, and good faith of all participants, including direct dealers and electronic or voice brokers.<sup>2</sup> This high standard of behavior should extend to all transactions, including

those made through electronic communication. The following best practices are recommended as standard procedure for all trading parties:

#### Always use clear market terminology.

At every stage of a transaction, staff should use market terminology that is clear, precise, and understood by all counterparties. The language used should reflect changes in industry practice. Market participants should not use obscure market jargon that may lead to confusion or miscommunication.

#### Be aware of confidentiality requirements.

Financial market professionals often have access to confidential, proprietary, and other nonpublic information. Accordingly, an organization should have appropriate measures in place to protect the confidentiality and integrity of all information entrusted to it. Customer anonymity should not be circumvented with the use of slang or pseudonyms. If confidentiality is broken, management must act promptly to correct the conditions that allowed the event to occur. Parties should attempt to remedy the breach of confidentiality as soon as possible.

Staff should not pass on confidential and nonpublic information outside of their institution. Such information includes discussions with unrelated parties concerning their trades, their trading positions, or the firm's position. Institutions should develop policies and procedures governing the internal distribution of confidential information.

Trading room staff should take special precautions to avoid situations involving or appearing to involve trading on nonpublic information.

#### Be responsible in quoting prices.

Staff responsible for dealing prices and authorized to quote such prices electronically or verbally

<sup>1</sup>More information about the Committee, including its most recent annual reports, is available on its web site, <[www.newyorkfed.org/fix](http://www.newyorkfed.org/fix)>.

<sup>2</sup>The Committee targeted dealer and broker wholesale activity in its 1995 report, *Principles and Practices for Wholesale Market Transactions*. Because of recent market changes, portions of this report may appear dated. However, other sections, including those treating reliance on advice, confidentiality, and valuation, are still pertinent.

should comply with all pertinent internal as well as generally accepted market practices. It is unethical (and in many cases illegal) to post firm prices for rate-fixing purposes without having a valid commercial intent to deal at those prices.

Traders are expected to commit to their bids and offers for generally accepted market amounts unless otherwise specified or until

- a) the bid or offer is either dealt on or canceled,
- b) the bid or offer is superseded by a better bid or offer, or
- c) a broker closes another transaction in that currency with another counterparty at a price other than that originally proposed.

In the cases of (b) or (c), the broker should consider the original bid or offer invalid unless the dealer reinstates it.

### Electronic trading with brokers

The use of electronic interfaces<sup>3</sup> among the dealer/brokering community is encouraged as it reduces trading- and operations-related errors. To maximize the effectiveness of electronic brokering, the following best practices are suggested:

- ~ Participants should ensure that the rules of electronic trading systems are consistent with current market convention or that any variation from market convention is clearly understood. In any event, participants should ensure that the rules of the trading system are very clear.
- ~ Users of electronic trading systems need to act according to established market conventions and the rules of the system. If there is any departure from convention, all parties need to indicate their acceptance at the time a deal is transacted.

- ~ Management must actively monitor the use of systems to ensure that staff is properly trained, disputes are identified promptly, and proper interaction exists with vendors.
- ~ Procedures involving trade disputes should be documented and fully understood by all parties before any trades are executed.
- ~ Participants should fully integrate electronic trading systems with their own internal processing systems to avoid exceeding credit and other risk limits.
- ~ Firms should be fully aware of their system capabilities, including obligations of all offered services and potential liability if they fail to satisfy their obligations.
- ~ Contingency, recovery, and security procedures should be continually assessed.

### Electronic trading with customers

The introduction of Electronic Communication Networks (ECNs) and Automated Trading Systems (ATSS)—extending cyber communication from dealers and brokers to dealers and their customers—will present new challenges to the entire industry.

Because trading activity will increasingly be centered on remote electronic workstations, trading parties may need to take special precautions concerning passwords and system access. Such measures would include:

- ~ working with one's counterparties to ensure that individual passwords are utilized,
- ~ recognizing the importance of guarding individual passwords, and
- ~ guarding the software and hardware of one's own workstation. Trading parties will need to have up-to-date virus protection and must use caution in downloading and accessing external information.

<sup>3</sup>For additional commentary and analysis on electronic trading, see the Committee paper, *A Survey Assessing the Impact of Electronic Brokering on the Foreign Exchange Market*, November 1997.



### The importance of good judgment in a changing market

Rules that govern customer confidentiality and privacy could be complicated when information on counterparty roles is shared with numerous financial institutions on the same electronic platform.

Market participants should be alert to the possibility that the development of multiple, discrete electronic communication networks could fundamentally change the way the market operates. Organizations are encouraged to monitor relevant developments in electronic commerce and to devise appropriate responses and strategies.

### Suggestions for special trading practices and procedures

#### Off-market rates/historical rate rollovers

As a general rule, all transactions are executed at current market rates. At times, however, commercial considerations may dictate otherwise. In that event, the Committee recommends explicit controls and specific procedures. Details of these procedures are provided in a letter published by the Foreign Exchange Committee.<sup>4</sup>

As noted in the document, deviation from prevailing market rates involves accounting, credit, and propriety risks. Accommodation of customer requests for off-market transactions (OMTs) or historical rate rollovers (HRROs) should be selective, restricted, and well documented, and should not be allowed if the sole intent is to hide a loss or extend a profit or loss position. Counterparties should also show that a requested HRRO is matched by a real commercial flow.

Finally, no contract for OMTs/HRROs should extend for more than six months from the original

settlement date or over a fiscal year-end unless justified by an exceptional circumstance such as a delayed shipment.

#### Stop-loss/profit order-path-dependent transactions

Trading institutions' stop-loss orders involve the purchase or sale of a fixed amount of currency when and if the exchange rate for that currency reaches a specified level. These orders may be intended for execution during the day, overnight, or until finalized or canceled.

Fluctuations in market liquidity, multiple price-discovery mechanisms, and evolving channels of distribution often obscure transparency and may complicate the execution of such business. To avoid disputes, institutions and their counterparties should share a clear understanding of the basis on which these orders will be undertaken.<sup>5</sup> In particular, the price mechanism that will trigger the execution of any transaction should be clear.

An institution that engages in stop-loss transactions assumes an obligation to make every reasonable effort to execute the order quickly at the established price. Management should also make certain that their dealers and operations departments 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.

#### Name substitution or switches

In the traditional foreign exchange market, the names of the institutions placing bids or offers with a broker are not revealed until a transaction's size and exchange rate are agreed on.<sup>6</sup> Even then,

<sup>4</sup>The Committee's letter on historical rate rollovers, first published in December 1991, continues to offer sound advice to those who need to execute these transactions. The letter, reprinted in the Committee's *1995 Annual Report*, is available on the Committee's web site, <[www.newyorkfed.org/ffc](http://www.newyorkfed.org/ffc)>.

<sup>5</sup>For detailed information on best practices and procedures for stop-loss orders, please visit the Committee's web site for the *Guide to the International Currency Options Market Master Agreement*. This agreement was published in 1995 and was followed by a February 2000 revision to the barrier options guidelines and a new stop-loss template that was posted on the Committee's web site in September 2000.

<sup>6</sup>The Committee published a letter in September 1993 outlining best practices for brokers' switches. A summary of that letter was included in the *1994 Annual Report*, page 6.

only the counterparties receive this information. If one of the counterparties is unacceptable to the other, the substitution of a new counterparty may be agreed on. The procedures for such substitutions include the following:

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

An institution can minimize name substitution requests by providing a broker with the names of institutions it is willing to deal with or, alternatively, the names of the institutions it will always reject. A broker that proposes a transaction on behalf of an institution not usually regarded as an acceptable counterparty could also make the potential counterparty aware that the transaction may need to be referred to management for credit approval (that is, the counterparty may be “refer-able”).

Name substitutions rarely occur in the brokered forward market. Participants in this market generally recognize and understand that a broker’s forward bids and offers, even though firm, cannot result in an agreed upon 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. The allocation of counterparty credit lines to automated trading systems should be sufficient to support an institution’s normal trading. Manipulation of credit lines to influence prices or transactions on such systems is unethical.

## How to resolve trade-related problems<sup>7</sup>

### Mistrades

Difficulties may arise when a trader discovers that a broker did not complete a transaction. 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 was presented.

### Disputes

Disputes may 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.”

### Resolution

Disputes, however, are inevitable, and management should establish clear policies for resolution. The informal dispute resolution practices that sometimes develop in the market can be inconsistent with sound business practices.

Care must be taken that informal dispute resolutions are achieved through good faith, arm’s-length negotiation. Differences should routinely be referred to senior management for resolution, a process that effectively shifts the dispute from the trading level to the institution. In addition, institutions might arrange to keep written records of transactions so as to be able to review disputed transactions.

<sup>7</sup>Many of these trade-related problems are addressed in *Principles and Practices for Wholesale Market Transactions*, published in the Committee’s 1995 Annual Report, pages 37-50.

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 counterparties may act to address and solve the issues. 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.

### Reciprocity

Two institutions may agree to provide timely, competitive rate quotations for marketable amounts on a reciprocal basis. However, because of changes in channels of distribution, the possibility of multiple prices in fragmented ECNs, and unpredictable oscillations in market liquidity, bilateral arrangements should be regularly revisited by trading room management.

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

### Unintentional trades

In an electronic brokering environment, unintentional trades may take place. Management of all trading parties should take steps to reduce the likelihood of unintentional trades. This can be accomplished when management assumes a key role in training new employees to deal with a voice broker or an electronic system.

## SALES

### In this section:

- ~ **The crucial importance of knowing your customer**
- ~ **When you should be suspicious of customer activities**
- ~ **Appropriate actions when dealing with your customer**
- ~ **Dealing with unnamed and undisclosed counterparties**
- ~ **Watching out for money laundering**

### Know your customer

The concept *know your customer* is essential to the basic operation of any financial institution. By fully absorbing and complying with their institution’s know-your-customer guidelines, staff protect their institution from liability, including legal, criminal, and reputation risk.

Management should ensure that sales staff have sufficient knowledge of their customers and of the types of transactions they are likely to perform, regardless of whether they are dealing by voice, electronically, or through an intermediary. Specifically:

- ~ Customer information should be reviewed periodically and updated as necessary.
- ~ Significant book profits or losses, unusual requests, and transactions or patterns of activity inconsistent with a customer’s profile should be referred to management.
- ~ No salesperson should make a conscious effort to avoid learning the truth about a client’s suspected activities.
- ~ Salespeople should not assist any customer in structuring financial transactions that would hamper proper disclosure to governmental or law enforcement authorities under applicable law.
- ~ Trading management should develop policies to protect the institution’s premises and systems from being used as a vehicle for money-laundering activities. Sales staff should be made aware of “high-risk” geographies and industries for money laundering.

### Be on the alert for money laundering

Management needs to be aware of the risks presented to an institution by money laundering. All applicable money-laundering laws, regulations, and industry guidelines must be strictly followed. Internal controls, including account openings, documentation procedures, and management information/monitoring systems, must be adequate to detect suspicious activity. Any irregular or suspicious activity needs to be communicated to management in a timely manner.

Customer actions that should be viewed with caution include the following:

- ~ large cash deposits
- ~ the purchase or sale of large amounts of foreign currencies with the use of cash
- ~ using accounts to clear large sums of money without an apparent business purpose
- ~ needlessly maintaining large balances in non-interest-bearing accounts
- ~ buying or selling securities with cash
- ~ settling bearer securities outside of a recognized clearing system
- ~ transacting securities with no discernible purpose
- ~ unnecessary use of an intermediary
- ~ unexpected repayment of a problem loan
- ~ regular payment of large sums, including wire transfers, that cannot be explained in the context of the customer's normal business
- ~ customers whose identity proves unusually difficult or expensive to verify
- ~ use of an address that is not the customer's permanent business address (for example, utilization of a home address for business correspondence)
- ~ customers who purposefully avoid needed contact with bank staff.

### Relating to customers

Confidentiality and customer anonymity are essential to the operation of a professional foreign exchange market. Market participants and their customers expect that their interests and activity will be known only by the other party to the transaction (including accountants, lawyers, and

other advisors on a need-to-know basis) and an intermediary, if one is used.<sup>8</sup>

It is inappropriate to disclose, or to request others to disclose, proprietary information relating to a customer's involvement in a transaction except to the extent required by law or upon the request of the appropriate regulatory body. Any exceptional request should be referred to management for review.

Sales professionals need to assure themselves of a customer's authority to act (capacity), the authority of third parties (intermediaries) to act for the customer, and the authority of individuals to act for the customer or third party.

### Providing proper disclosures to ensure good client relationships

It is acceptable for a salesperson to convey economic or market information, trading parameters, the institution's views, and personal views. It is not prudent for a salesperson to provide investment advice in the context of a dealing relationship unless this service is specifically contracted for or stipulated in writing. Sales staff should communicate effectively with clients to ensure that the clients have a full understanding of their trades. For complicated or structured transactions, the principal risks should be clearly identified for the client. It may be advisable to have transactions set forth in writing and a summary prepared of the transaction's principal risks, possible outcomes, and related cash flow information. Any such documents should include necessary disclaimers.

### Dealing with *unnamed* counterparties

Investment advisors at times may conduct trades on behalf of their investment management clients and not provide the name of the ultimate counterparty on the grounds of confidentiality. Such situations raise legal, credit, and reputation risks. Management should obtain the appropriate

<sup>8</sup>A thorough discussion of the concept of arm's-length transactions is included in the Committee document, *Principles and Practices for Wholesale Market Transactions*.

representations and warranties from the investment advisor on a variety of issues concerning compliance with local and national laws and regulations. Particular credit and settlement limits and procedures for unnamed accounts may be appropriate.

When trading on an unnamed basis, the intermediary discloses that it is acting as an agent but does not provide the name of the client for which it is acting (except perhaps in the case of a default). Trading on an unnamed basis is sometimes confused with trading on an *undisclosed* basis (when an intermediary does not explicitly acknowledge that it is acting as an agent at any point in the relationship).

Senior management must approve of any trading done on an unnamed basis. Local law in regard to the practice should be reviewed to determine who, under local law, is obligor on such trades and whether anti-money-laundering regulations prohibit this practice. The due diligence process for business on an unnamed basis should include stronger authority documentation and any other extraordinary measures deemed appropriate.<sup>9</sup>

#### Accounting for customer block trades

Investment advisors frequently bundle trades together for several clients (particularly in the case of mutual funds), later advising the institution with whom they are trading of the allocation among various clients (or funds). It is suggested that such allocations be done on a timely basis. It is also recommended that management adopt policies requiring that all transactions be allocated within some minimum period of time (for example, by the end of the business day). The credit department should be involved in any exceptions to this policy.<sup>10</sup>

#### Making sure all instruments are valued fairly

From time to time, institutions receive customers' requests for portfolio valuations or pricing on specific outstanding financial contracts. It is important that any reported valuations not differ from what is posted on the institution's own books.<sup>11</sup>

It is the responsibility of a salesperson to determine whether the customer is requesting pricing for dealing purposes or for valuation purposes.<sup>12</sup>

At the same time, it is advisable to make appropriate disclosures when providing any information on pricing. Finally, it is recommended that any valuation be provided only after consultation with both senior management and the institution's legal department.

## ETHICS

### In this section:

- ~ **What management should do to create an ethical environment**
- ~ **Policies on entertainment and gifts**

Senior management should establish ethical standards governing the activities of trading and sales professionals to protect the institution's reputation with clients and counterparties. Dealing room staff must at all times conduct themselves with integrity.

### Visitors

Managers should make sure proper confidential procedures are followed when there are visitors to the trading room. Visits should be prearranged and an employee should accompany all visitors. A

<sup>9</sup>See the Financial Markets Lawyers Group's *Guidelines on Undisclosed Counterparties*, <[www.newyorkfed.org/fmlg](http://www.newyorkfed.org/fmlg)>.

<sup>10</sup>More detail on the process of allocating block trades is available in two Committee reports: *Management of Operational Risks in Foreign Exchange* (1995) and *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants* (1999).

<sup>11</sup>This implies a specification of whether the posting is in bid-, mid-, or ask-prices.

<sup>12</sup>Indicative basis quotes should be given either verbally or in writing with the appropriate disclosure. While an indicative quote may be used for evaluation purposes, it should not be understood as the price at which a firm would have dealt.

visitor from another trading institution should not be permitted to trade for his or her own institution from the premises of the host.

### Avoiding questionable practices

Traders are often presented with opportunities to accelerate a gain or postpone a loss. Such opportunities may be particularly attractive when staff are dealing in less liquid times, products, or markets. But if the action taken is ethically questionable, it may hurt the reputation of both the trader and his or her institution and may also incur liability. Examples include:

- ~ dissemination of rumors or false information,
- ~ renegeing on deals,
- ~ unduly delaying or inconsistently establishing a price, and
- ~ manipulating market practice or convention by, for example, acting in concert with other parties to influence prices.

For all staff, management should

- a) establish a code of conduct that conforms to applicable laws, industry conventions, and bank policies;
- b) acknowledge the importance of maintaining the highest ethical standards;
- c) ensure that policies and procedures are well circulated and understood;
- d) periodically review ethics policies to ensure that they cover new products, business initiatives, and market developments;
- e) establish the proper oversight mechanisms for monitoring compliance and dealing swiftly and firmly with violations and complaints; and
- f) be alert to aberrant behavior, such as frequent involvement in disputes or acceptance of deals that are obvious misquotes.

### Trading for a personal account

All staff should be aware that a conflict of interest or an appearance of a conflict of interest may arise if employees are permitted to deal for themselves in commodities or other financial instruments closely related to the ones in which they deal for their institution.

It is management's responsibility to develop and disseminate a clear written policy on trading for a personal account and to establish specific procedures and controls to avoid actual conflicts of interest. Managers must require staff to give full attention to their institution's business activities without being distracted by personal financial affairs or biased by personal financial positions.

Staff should never use their institutional affiliation or take advantage of nonpublic trading information to create trading opportunities for personal gain. Finally, staff must recognize that they are responsible for identifying and avoiding all conflicts of interest or the appearance of conflicts.

### Entertainment and gifts

Staff should conduct themselves in such a way as to avoid embarrassing situations and the appearance of improper inducement. They should fully understand their institution's guidelines on what constitutes an appropriate gift or entertainment. Staff should also be expected to notify management of any unusual favors offered them by virtue of their position.

Management should make certain that the institution's general guidelines on entertaining and the exchange of gifts address the particular circumstances of their employees. Special attention should be given to the style, frequency, and cost of entertainment afforded trading desks.

## LEGAL ISSUES

### In this section:

- ~ Why it is important to work closely with your compliance department
- ~ Types of documentation that should be in place before trading with a customer

Market evolution, increased product sophistication, and technological advances have combined to make financial crimes more complex. The legal, regulatory, and reputation-related risks encountered by individuals and institutions active in financial markets have grown, and infractions are more difficult to detect. Awareness, training, and enhanced due diligence are management responsibilities that can help mitigate such risks. Management's specific policies and procedures should focus on money laundering, knowing your customer, fiduciary responsibility, and appropriateness (see the section on sales for more details).

#### Compliance plays a key role in trading practices

The legal and compliance departments support trading practices and procedures by identifying laws and regulations that apply to the foreign exchange business. Trading departments should familiarize themselves with the legal and compliance functions. Management should encourage fluid interaction between these two divisions. Specifically, a compliance department may support an institution by

- ~ ensuring that programs conforming to applicable laws, rules, and obligations are implemented. Such support may include documenting and circulating appropriate policies and procedures and providing training to employees.

- ~ observing operations, alerting management and trading staff to gaps in compliance, and providing leadership in addressing specific gaps and other compliance issues.

### Basic documentation for an effective trading operation

The use of industry standard documents is strongly encouraged to provide a sound mutual basis for conducting financial market transactions. Market participants should assure themselves, through consultation with counsel, that all documentation is enforceable and effective. There are a variety of documents that ensure the smooth functioning of the markets and protect participants:

**Authority documents** provide evidence of capacity—the right to enter into a transaction—and authority—permission for individuals to implement the capacity to act on behalf of a counterparty.

**Confirmations** reflect economic ties agreed to in a transaction between the parties to a trade. The agreement covers the significant terms and conditions of the trades (see the 1998 *FX and Currency Option Definitions*, published by the Committee, the International Swaps and Derivatives Association, and the Emerging Markets Traders Association).<sup>13</sup>

**Master Agreements** contain terms that will apply to broad classes of transactions, expressions of market practice and convention, and terms for netting, termination, and liquidation.

Other forms of documentation may include credit support documents, compensation agreements, margin agreements, and assignment agreements.

<sup>13</sup>For certain types of transactions—for example, a nondeliverable forward (NDF)—confirmations play a more significant role in outlining the full extent of the transaction's terms and conditions, including the impact of market disruption events.

## RISK MANAGEMENT

### In this section:

- ~ **What effective risk management requires**
- ~ **Types of risk facing every foreign exchange trading business**
- ~ **Suggestions for limiting risk**

The goal of risk management is to ensure that an institution's trading, positioning, sales, credit extension, and operational activities do not expose the institution to excessive losses. The primary components of sound risk management include:

- ~ a comprehensive risk measurement strategy for the entire organization,
- ~ detailed internal policies on risk taking,
- ~ strong information systems for managing and reporting risks, and
- ~ a clear indication of the individuals or groups responsible for assessing and managing risk within individual departments.

The qualitative and quantitative assumptions implicit in an institution's risk management system should be revisited periodically. Risk management methodologies vary in complexity; the rule of thumb is that the sophistication of a risk management method should be commensurate with the level of risk undertaken by the institution. While systems and reports are elements of risk control, effective communication and awareness are just as vital in a risk management program.

### Types of risk with foreign exchange transactions

Institutions and staff should be aware of the various types of risk exposure in foreign exchange transactions:

**Market risk** refers to adverse changes in financial markets. It can include exchange rate risk, interest rate risk, basis risk, and correlation risk.

**Credit risk** occurs with counterparty default and may include delivery risk and sovereign risk.

**Settlement risk**<sup>14</sup> is specifically defined as the capital at risk from the time an institution meets its obligation under a contract (through the advance of funds or securities) until the counterparty fulfills its side of the transaction.

**Liquidity risk** refers to the possibility that a reduction in trading activity will leave a firm unable to liquidate, fund, or offset a position at or near the market value of the asset.

**Operational/technology risk** emanates from inadequate systems and controls, human error, or management failure. Such risk can involve problems of processing, product pricing, and valuation.

**Legal risk** relates to the legal and regulatory aspects of financial transactions or to problems involving suitability, appropriateness, and compliance.

In addition to these types of risk, there are also overall business risks such as reputation risk and fraud. Institutions and staff should also be aware of the risks associated with the accounting and tax treatment of transactions.

### Best practices for risk management

Specific divisions or functions within a financial institution can implement a number of practices to limit risk. Some examples of specific best practices follow:

<sup>14</sup>The Committee's 1994 document, *Reducing Foreign Exchange Settlement Risk*, provides a detailed assessment of how to measure settlement risk and numerous suggestions to limit institutional exposure. While many of these suggestions have been implemented by the industry, others have yet to become common practice.



**In accounting**

Adherence to company-approved accounting policies and standards for all products; periodic independent reviews by internal auditors; daily oversight by an independent risk management unit; annual review by external auditors; annual or more frequent examinations by the regulators.

**In trading**

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; independent daily reporting of risk positions and trader profit/loss to senior management; well-documented and appropriately approved operating procedures.

**In personnel**

Provision of sufficient human resources and systems support to ensure that deal processing and risk reporting remain timely and accurately documented and supported.

**Applying risk management policies**

Independent valuation-model testing and approval process; independent approval and monitoring of customer credit limits and market risk position limits; exception reporting and independent approval of limit excesses; use of credit-related industry agreements, such as the Cross-Product Master Agreement.

**In all areas of an institution**

Contingency provisions can document and help regularly test disaster recovery and backup procedures involving both systems (front-, mid-, and back-office) and off-site facilities.

Documentation procedures ensure the proper confirmation of all trades with a specific format chosen by the institution.

New product development needs to be supported by approval and implementation procedures,

including signoffs by legal, tax, audit, systems, operations, risk management, and accounting departments.

In diversified institutions, market and credit risk can extend across departments, legal entities, and product lines, challenging both management information systems and documentation procedures. Management should develop discipline and experience in prudently managing the risk of transactions. Risks should be weighed against potential returns and long-term organizational goals. (Details on risk management—including definitions of risk measures, risk limits, and steps to improve a credit position—are included in Addendum A at the end of this document.)

**OPERATIONS****In this section:**

- ~ **Sources for learning about operational best practices**
- ~ **Some suggested actions when dealing with third-party transactions**
- ~ **Requirements and benefits of netting**

Operational risk may arise from unusual events, such as a natural disaster, or from ordinary occurrences—say, the differences in payment conventions between two trading partners. With increased use of technology, the prospect of electronic disruptions has emerged as a larger concern for all operational areas.

**Best practices for operations**

Failure to adequately manage any type of operational risk—whether it is sophisticated or elementary—can have the same impact: it can alter an institution's profit or loss, cause an incorrect reading of the institution's trading positions, and raise credit risk for the institution and its counterparty. The Foreign Exchange Committee has published three papers that are essential reading on this topic—two that offer

best practices for operations management<sup>15</sup> and a third specifying operational procedures for collateralized transactions.<sup>16</sup>

These papers recommend specific measures, including ensuring a separation of duties between operations and trading, confirming trades in a timely manner, and understanding the extent to which counterparties are responsible for electronic problems and disruptions.

### The risks of third-party payments

Third-party payments—the 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—raise important issues that need to be closely considered by any organization. The risk involved in ensuring payment to a third, unrelated party can be significant.

Before customers are accommodated with third-party payments, management should have a clear policy concerning the appropriateness of honoring these requests. For example, traders should know what constitutes a third party: a subsidiary of the counterparty is a legally separate third party, but a foreign branch of an institution is not.

Third-party payments are historically more likely to be subject to question than routine trades. The trade could mask fraud by a current or former employee of the counterparty who is diverting payment to a personal account. A misinterpretation of the payment instructions could also occur; in that

event, funds transferred to an erroneous beneficiary may be difficult to recover. In many cases, the ability to recover the funds will depend upon the outcome of legal proceedings or regulation.

Many institutions establish special controls for this type of transaction as a matter of policy. The controls include various measures to verify third-party payments, such as requirements that the counterparty provide

- ~ standing payment and settlement instructions,
- ~ an authenticated confirmation on the transaction date, and
- ~ a list of individuals authorized to transact business and to confirm deals.

Finally, on the transaction date, operations staff should confirm the transaction and its specifics in a telephone conversation with the third-party individual identified by the counterparty.

### The benefits and requirements of netting trades<sup>17</sup>

Payment netting—the practice of combining all trades between two counterparties and calculating a single net payment in each currency—can provide significant benefits to an institution.

It is in the dealer's best interest to institute netting only through the use of legally enforceable documents.<sup>18</sup> Dealers may also want to provide for closeout netting in their netting agreements to reduce additional market risk in the event of default.

<sup>15</sup>The Committee, supported primarily by the efforts of the Operations Managers Working Group, published *Management of Operational Risks in Foreign Exchange* in April 1996. The Committee released *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants* in November 1999.

<sup>16</sup>Operations issues specifically related to collateralized transactions are addressed in the paper, *Managing Operational Risk in Collateralized Foreign Exchange*, published in 1997.

<sup>17</sup>*Guidelines for Foreign Exchange Settlement Netting*, published by the Committee in 1996, includes passages that may not appear up-to-date (such as the details on available netting services) but the introduction, review of legal documentation, and discussion of the decision to net still provide timely information.

<sup>18</sup>The Financial Markets Lawyers Group (FMLG), an industry organization of lawyers representing major financial institutions, helped draft netting agreements, including the International Foreign Exchange Master Agreement, the International Foreign Exchange and Options Master Agreement, and the International Currency Options Market Master Agreement. These documents, endorsed by the Committee, are available on the FMLG's and the Committee's web sites, <[www.newyorkfed.org/fmlg](http://www.newyorkfed.org/fmlg)> and <[www.newyorkfed.org/fxc](http://www.newyorkfed.org/fxc)>, respectively.

More detail on payment and close-out netting is available in *Managing Operational Risk in Collateralized Foreign Exchange*.<sup>19</sup>

## HUMAN RESOURCES

### In this section:

- ~ **How to hire the best employee for your trading operation**
- ~ **Why training is an ongoing process**
- ~ **The importance of support staff**
- ~ **General advice on substance and gambling abuse**

Good staffing is a prerequisite for success in the demanding foreign exchange trading and sales environment. It is a primary management responsibility to recruit, develop, and lead capable individuals and effective teams.

Trading room employees occupy 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 staff thought to have the work experience or academic training that would prepare them for trading, sales, and other related activities.

### How to select new employees

Managers should

- ~ ensure that prospective trading room staff meet predetermined standards of aptitude, integrity, and stability;
- ~ exercise caution in delegating hiring decisions;
- ~ encourage fair and inclusive hiring practices and fully screen job candidates by arranging

a variety of interviews with different staff members;

- ~ thoroughly check candidates' references; and
- ~ make sure that candidates are fully informed of the firm's expectations concerning a trader's responsibilities, profitability requirements, ethical standards, and behavior before they are hired.

### Guidelines for training trading desk staff

- a) Ensure that each trader is fully acquainted with the policies and procedures that the institution follows in the conduct of its business.
- b) Consider providing a complete orientation for new employees at all levels and implement formal procedures to ensure that each trader periodically reviews the institution's rules and policies.
- c) Encourage awareness of and respect for market procedures and conventions.
- d) Make sure roles, responsibilities, and reporting obligations are unambiguous. Procedures, technologies, and contingency protocol should be thoroughly explained. For example, risk measurements and risk reporting should be understood by all involved in trading activities.
- e) As new products, policies, and technologies are introduced, ensure that all trading room staff have the appropriate level of ongoing training.
- f) Review ethical standards with trading employees at least annually.

### 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,

<sup>19</sup>See note 16.

however, is an efficient “back-office,” or operating, staff. Guidelines applying to the work of the support staff include the following:

- ~ 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,
- ~ underlying results of transactions should be properly evaluated and accounts quickly reconciled.

Time-consuming and costly reconciliation of disputed or improperly executed transactions mars the efficiency of the market, hurts profitability, and can impair the willingness of others to trade with the offending institution.

Management must be aware of its responsibility to create an operating staff adequate to support the scope of the 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 be 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 trading units.

### **Compensation**

Compensation systems should encourage appropriate behavior that reflects institutional goals and reinforces organizational values.

### **Substance abuse and gambling**

Managers should educate themselves, their traders, and associates about the signs of drug use and the potential damage from the abuse of alcohol, drugs, or other substances. Policies for dealing with individuals who are found to be substance abusers should be developed and communicated to all staff.

Excessive gambling by market participants has obvious dangers and should be discouraged.

## **OTHER ISSUES**

**In this section:**

- ~ **Why an audit trail is so important**
- ~ **Some rules of the road when doing twenty-four-hour trading**

### **Accounting and audit**

Accurate information, reported in a timely manner, provides a strong basis for good decision making. Accounting has become so complex that it tends to obscure the information process. This is particularly true for cash market instruments and their correspondent derivatives, each of which is treated differently (in the United States) for accounting purposes.

### **Audit trail**

Management should ensure that procedures are in place to provide a clear and fully documented audit trail of all foreign exchange transactions and should make every effort to automate the process fully. The audit trail should provide information about the counterparty, currencies, amount, price, trade date, and value of each transaction.

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 and by internal and external auditors. Documentation procedures should be adequate to inform management of trading activities and to facilitate detection of any lack of compliance with policy directives.

Technological innovations in trading and execution systems have enhanced data capture and allowed for the creation of more precise audit records. Most electronic dealing systems independently generate trade data that serve as an effective audit trail. Trades executed through automated dealing systems 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 take into consideration its audit trail procedures when considering trading room configuration and mechanics for dealing with counterparties. (More information on accounting issues is included in Addendum B to this document.)

### **Twenty-four-hour trading and off-site trading**

With foreign exchange trading taking place on a continuous twenty-four-hour basis, management should be certain that adequate control procedures are in place for trading that is conducted outside of normal business hours either at the office or elsewhere.

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 identify those individuals, if any, who are

authorized to deal outside the office and should make their names known to counterparties. 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.

Institutions increasingly 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.

Trading staff should be cautious about entering into a transaction with a counterparty outside of the counterparty's normal dealing hours. Arrangements should be specified and procedures agreed upon in advance to accommodate the counterparty's need and to ensure that the counterparty's traders are acting within the scope of their authority.

## ADDENDUM A

**This addendum offers supplemental information designed to support efforts by financial institutions to understand and manage risk in their portfolios. It includes**

- ~ **various industry-accepted techniques for measuring the amount of market risk,**
- ~ **methods and measures used by institutions to establish acceptable limits for market risk,**
- ~ **measures used in credit risk analysis, and**
- ~ **steps that can be taken by institutions to improve their credit positions.**

### Techniques for measuring market risk

#### Nominal measure

Also called notional measure. One of the basic gauges of market risk, nominal measure refers to the amount of holdings or transactions on either a gross or net basis. An institution would use this measure, for example, when trying to determine an aggregate limit on a spot currency position, or when calculating a limit on the percentage of open interest on an exchange-traded contract.

#### Factor sensitivity measure

Used to ascertain the sensitivity of an instrument or portfolio to a change in a primary risk factor. Examples of factor sensitivity measures are duration risk and beta risk.<sup>20</sup>

#### Optionality measure

Includes the "Greek" measures delta, vega, theta, rho, and gamma. The optionality measure estimates the sensitivity of an option's value to changes in the underlying variables in a value function (corresponding, in the first four cases, to price, volatility, time, and interest rates). Gamma

measures the degree to which an options delta will change as the underlying price changes.

#### Value at risk

Represents the estimated maximum loss on an instrument or portfolio that can be expected over a given time interval and with a specified level of probability.

#### Stress testing

Involves the testing of positions or portfolios to determine their possible value under exceptional conditions. Any assumptions used in stress testing should be critically questioned and should mirror changes in market conditions such as variations in liquidity.

Most stress testing models rely on dynamic hedging or some other method to estimate a portfolio's hypothetical response to certain market movements. In disrupted or chaotic markets, the difficulty in executing trades tends to rise and actual market risk may also be higher than measured.

#### Scenario simulation

Assesses the potential change in the value of instruments or portfolios under different conditions or in the presence of different risk factors.

### Measures used to establish limits for market risk

Many institutions use combinations of the following:

- ~ Aggregate limits may be gross (restricting the size of a long or short position) or net (recognizing the natural offset of some positions or instruments). Institutions generally employ both forms.
- ~ Maximum allowable loss (stop loss) limits are designed to prevent an accumulation of excessive losses. They usually specify some

<sup>20</sup>Duration risk is defined as the sensitivity of the present value of a financial instrument to a change in interest rates; beta risk in equities is defined as the sensitivity of an equity's or portfolio's value to a change in a broad equity index.

time framework—for example, cumulative losses for a day, week, or month. If reached, a maximum allowable loss limit generally requires a management response.

- ~ Value-at-risk limits specify loss targets for a portfolio given a particular change in the underlying environment (for example, a 100-basis-point change in interest rates) or for scenarios defined at some specific confidence interval (for example, 99 percent of possible occurrences over a time horizon).
- ~ Maturity gap limits are used to control losses that may result from nonparallel shifts in the yield curve and/or changes in a forward yield curve. Acceptable amounts of exposure are established for specific time frames.
- ~ Option limits are nominal limits for each of the Greek risks (the delta, gamma, vega, theta, and rho functions).
- ~ Liquidity limits restrict the exposure that may occur when an institution is unable to hedge, offset, or finance its position because of volatile market conditions or other adverse events.

### Credit risk measures

Credit risk in financial markets is measured as a combination of the position's current value (also termed replacement cost) and an estimate of potential future exposure relative to the change in replacement cost over the life of the contract. More specific types of credit risk exposure are listed below:

- ~ **Presettlement risk**  
Measured by the current carrying value (market or fair value) of the instrument or position prior to its maturity and settlement.  
If a counterparty defaults on a financial contract before settlement, and the contract is in the money for the nondefaulting party, the nondefaulting party has suffered a credit loss equal to the current replacement cost of the contract.

- ~ **Potential future exposure**  
Represents risk and credit exposure given future changes in market prices.  
In calculating potential future exposure, some institutions add on factors for tenor and volatility. Others use statistical techniques to estimate the maximum probable value of a contract over a specified time horizon or the life of the contract.
- ~ **Aggregate exposure**  
Refers to the sum of pre-settlement credit risk with a single counterparty. This measure is obtained by combining all transactions, by netting (if legally enforceable bilateral netting agreements are in place), or by measuring potential credit exposure on a portfolio basis.
- ~ **Global exposure**  
Refers to the total credit risk to a single counterparty from both capital market products and loans. Many institutions convert both on- and off-balance-sheet capital market exposures to loan-equivalent amounts.

### Methods of enhancing credit positions

Institutions may reduce their credit risk exposure through a variety of means:

- ~ **Collateral arrangements**  
Arrangements in which one or both parties to a transaction agree to post collateral (usually cash or liquid securities) for the purpose of securing credit exposures that may arise from their financial transactions.
- ~ **Special purpose vehicles**  
Specially capitalized subsidiaries or designated collateral programs organized to obtain high third-party credit ratings.
- ~ **Mark-to-market cash settlement techniques**  
The scheduling of periodic cash payments prior to maturity that equal the net present value of the outstanding contracts.
- ~ **Close-out contracts, or options to terminate**  
Arrangements in which either counterparty, after an agreed upon interval, has the option

to instruct the other party to cash-settle and terminate a transaction.

- ~ **Material change triggers**  
Arrangements in which a counterparty has the right to change the terms of, or to terminate, a contract if a pre-specified credit event, such as a ratings downgrade, occurs.
- ~ **Netting agreements**  
Agreements that reduce the size of counterparty exposures by requiring the counterparties to offset trades so that only a net amount in each currency is settled.
- ~ **Multilateral settlement systems (such as CLS)**  
Collaborations that may reduce settlement risk among groups of wholesale market counterparties.

## ADDENDUM B

**This addendum covers**

- ~ **the different types of asset portfolios held by financial institutions,**
- ~ **accounting issues relating to derivatives,**
- ~ **the accounting treatment of foreign currency hedges, and**
- ~ **accounting issues relating to forward transactions.**

### Asset portfolio categories

All institutions that deal in foreign exchange should seek independent professional accounting counsel. Although accounting practices vary by country, the generally accepted accounting principles (GAAP) will provide any institution with a basic general framework for proper trading activities and securities holdings.

Under accounting rules, asset portfolios of financial institutions are usually divided into the following categories, according to the function of the asset:

- ~ **Investment account**  
Investment assets are carried on the books of a financial institution at amortized cost. The institution must have the intent and the ability to hold these securities for long-term investment purposes. The market value of the investment account is fully disclosed in the footnotes to the financial statements.
- ~ **Trading account**  
Trading assets are marked to market, and unrealized gains and losses are recognized as income. Trading accounts are characterized by the high volume of purchases and sales.
- ~ **Held-for-sale account**  
In this account, assets are carried at the lower of either the cost or the market value. Unrealized losses on these securities are recognized as income. This account is characterized by intermittent sales activity.

### Accounting for derivatives

Transactions are typically booked on the trade date. Off-balance-sheet derivative instruments, however, are accounted for as follows:

- ~ If the instrument meets certain specified hedge-accounting criteria, the gains or losses (income or expense) associated with the derivative can be deferred and realized on a basis consistent with the income and expense of the hedged instrument.
- ~ Otherwise, gains or losses must be recognized as they occur, and off-balance-sheet derivative instruments must be marked to the market's prices. This requirement would apply to derivatives used for trading purposes.

An important accounting issue for derivative instruments involves their proper categorization. Institutions should maintain adequate documentation to support the categories they have selected. Inappropriate accounting treatment may affect both income and regulatory capital.

Regardless of its designation, a derivative is reported at fair value on a balance sheet. Under



SFAS 133,<sup>21</sup> derivative instruments are placed in one of the following categories:

- ~ "No hedge" designation  
The gains or losses from changes in the fair value of the derivative contract are included in current income.
- ~ Fair-value hedge  
The gains or losses from changes in the fair value of the derivative and the item attributable to the risk being hedged are both included in current income.
- ~ Cash-flow hedge  
The effective portion of gains or losses in the fair value of a derivative is included in other comprehensive income (outside of net income). The remaining gain or loss on the derivative is included in income.

### Accounting for foreign currency hedges

- ~ Foreign currency fair-value hedge  
The gain or loss on a derivative that is hedging a foreign currency commitment or a held-for-sale security and the offsetting gain or loss on the asset are recognized as current income.
- ~ Foreign currency cash-flow hedge  
The effective portion of the gain or loss on the derivative that hedges a foreign exchange transaction is reported as a component of other comprehensive income. It is reclassified into earnings in the same period or periods in which the hedged foreign exchange transaction affects earnings. The remaining gain or loss in the hedging derivative instrument is recognized as current earnings.
- ~ Hedge of net investment in a foreign operation  
The gain or loss on the hedging derivative is reported in other comprehensive income as part of the cumulative translation adjustment to the extent that it is effective as a hedge.

### Accounting for forward transactions

Net present value accounting (NPV) is the preferred approach for marking foreign exchange forward books to market. NPV 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 necessary 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.

The choice of accounting methods is the prerogative of firm management. However, if management does not use NPV for valuing its foreign exchange forward books, it must devise an alternative means of controlling the inherent risks. The risks of these actions 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 the accounting treatment accorded 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.

<sup>21</sup>The Financial Accounting Standards Board's Statement of Financial Accounting Standards no. 133, *Accounting for Derivative Instruments and Hedging Activities*, was released in June 1998.

collusion between traders who work at institutions that practice NPV accounting methods and traders who work at 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 on the books of a firm that is not practicing NPV accounting methods.

## INDEX

- Accounting and audit, page 85
- Accounting and risk, page 82
- Audit trail, page 85
- Authority documents, page 80
- Automated trading systems, page 73
  
- Compensation, page 85
- Compliance, pages 79, 80
- Confidentiality, page 72
- Confirmations, page 80
- Contingency provisions, pages 73, 82
- Credit risk, page 81
- Cross-Product Master Agreement, page 82
- Customer anonymity, page 72
- Customer block trades, page 78
  
- Disputes, page 75
- Dispute resolution, page 75
- Documentation, page 80
  
- Electronic communication, page 73
- Electronic communication networks (ECNs), pages 73, 76
- Electronic interfaces, page 73
- Electronic trading systems, page 73
- Electronic trading with brokers, page 73
- Electronic trading with customers, page 73
- Entertainment and gifts, page 79
  
- Financial Markets Lawyers Group, pages 78, 83
  
- Gambling, page 85
  
- Hiring practices, page 84
- Historical rate rollovers, page 74
  
- Know your customer, pages 76, 80
  
- Liquidity risk, page 81
  
- Market risk, page 81
- Master Agreements, pages 80, 83
- Mistrades, page 75
- Money laundering, pages 76, 78, 80
  
- Name substitution, page 74
- Netting trades, page 83
- New employees, page 84
- New product development, page 82
  
- Off-market rates/transactions, page 74
- Off-site trading, page 86
- Operational risks, pages 78, 81, 82
  
- Passwords, page 73
- Path-dependent transactions, page 74
- Personal account, page 79
- Personnel and risk, page 82
- Proper disclosures, page 77
  
- Questionable practices, page 79
  
- Reciprocity, page 76
- Remote workstations, page 73
- Responsibility for prices, page 72
- Risk management, page 81
  
- Settlement risk, page 81
- Stop-loss, page 74
- Substance abuse, page 85
- Support staff, page 84
- Survey of electronic brokering, page 73
- Switches, page 74
  
- Technology risk, page 81
- Terminology, page 72
- Third-party payments, page 83
- Trading, page 72
- Trading on an undisclosed basis, page 78
- Training staff, page 84
- Twenty-four-hour trading, page 86
  
- Undisclosed counterparties, page 78
- Unintentional trades, page 76
- Unnamed counterparties, pages 77, 78
  
- Valuations of portfolios, page 82
- Visitors, page 78
  
- Wholesale financial market transactions, pages 72, 75, 77

212-720-6651 • Fax: 212-720-1655 • [fx.committee@ny.frb.org](mailto:fx.committee@ny.frb.org) • <http://www.newyorkfed.org/fxc>

## COMMITTEE LETTER

### Commending the Commodity Futures Trading Commission for Its Regulatory Relief Proposal

April 7, 2000

William J. Rainer  
Chairman  
Commodity Futures Trading Commission  
Three Lafayette Centre  
1155 21st Street, NW  
Washington, D.C. 20581

Dear Chairman Rainer:

We are writing in connection with the recent report by the Commission's staff task force on regulatory reform. We believe that the regulatory relief proposal contained in the report is a constructive step toward modernizing the Commission's regulatory framework, and applaud the task force's work on this initiative.

We are also encouraged by the explicit commitments to enhance legal certainty contained in the task force report. The Commission should be particularly commended for making this process an inclusive one and for its willingness to give serious and substantial consideration to the views of those industry participants who are stakeholders in the outcome.

As you know, the undersigned represent a broad spectrum of constituencies that are actively engaged in the over-the-counter (OTC) derivatives markets. These firms are affected most directly by the legal uncertainty of the Commodity Exchange Act (CEA) and by the obstacles to innovation that arise under the CEA's current framework. Clearly, legislation remains essential to the successful and comprehensive modernization of the CEA and the elimination of legal uncertainty, and we look forward to working with the Commission in enacting CEA reform legislation as soon as possible.

There is much that the Commission can do administratively to foster these objectives. In this regard, we particularly appreciate your willingness and the staff's willingness to avoid regulatory measures that increase legal uncertainty and to explore opportunities to enhance legal certainty that are consistent with the recommendations of the President's Working Group on Financial Markets and the Commission's administrative authority.

We do not underestimate the difficulty in preserving and enhancing legal certainty through administrative action within the parameters of the CEA. There are important substantive issues for the OTC derivatives markets that must be resolved in an appropriate manner as the regulatory process moves forward, and we remain committed to working with you and your colleagues at the Commission to structure a new regulatory framework and resolve these issues.

We look forward to providing constructive assistance to the Commission in connection with its efforts to accomplish these objectives.

Very truly yours,

*The Ad Hoc Coalition of Commercial and Investment Banks*

*The American Bankers Association*

*The ABA Securities Association*

*The Bond Market Association*

*The Emerging Markets Traders Association*

*The Financial Services Roundtable*

*The Foreign Exchange Committee*

*The Futures Industry Association*

*The International Swaps and Derivatives Association*

*The Securities Industry Association*

cc: Commissioner Barbara Pedersen Holum  
Commissioner David D. Spears  
Commissioner James Newsome  
Commissioner Thomas J. Erickson

## COMMITTEE LETTER

### Regarding Legal Certainty Provisions of the Commodity Futures Modernization Act of 2000

July 18, 2000

The Honorable James A. Leach  
Chairman  
Committee on Banking and Financial Services  
2186 Rayburn House Office Building  
Washington, D.C. 20515

Dear Chairman Leach:

The undersigned industry organizations commend to you those provisions of H.R. 4541, as reported by the House Agriculture Committee, that would provide "legal certainty" with respect to the status of over-the-counter (OTC) derivatives under the Commodity Exchange Act. These provisions enjoy broad and bipartisan support within the Congress and build upon the unanimous recommendations of the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, the Chairman of the Securities and Exchange Commission, and the Chairman of the Commodity Futures Trading Commission, as set forth in the report of the President's Working Group on Financial Markets, "Over-the-Counter Derivatives Markets and the Commodity Exchange Act" (November 1999).

Legislation to provide legal certainty for OTC derivatives and Treasury Amendment products is an important public policy objective for which the undersigned have worked actively for many years. Ensuring that OTC derivatives transactions will continue to be enforceable in accordance with their terms, in the words of the President's Working Group, will foster "an environment of legal certainty . . . [that] will help to reduce systemic risk in the financial markets and enhance the competitiveness of the U.S. financial sector."

H.R. 4541 would provide *statutory* legal certainty for a broad range of OTC derivatives, including virtually all OTC transactions based on financial commodities, as well as many other OTC transactions such as those based on energy commodities and “hybrid” transactions. In addition, H.R. 4541 would retain and strengthen the so-called Treasury Amendment to the Commodity Exchange Act, which provides legal certainty for OTC transactions in foreign currencies, government securities, and other similar, enumerated commodities.

We believe that the legal certainty provisions of H.R. 4541 provide a workable and pragmatic resolution to the issues involved and should provide the catalyst for final and bipartisan congressional action this year. We look forward to working with the other congressional committees, which will now consider this legislation, and with other key members of Congress, the Administration, the regulatory agencies, and the interested parties in the private sector, to achieve this result.

Very truly yours,

*The Ad Hoc Coalition of Commercial and Investment Banks*

*The American Bankers Association*

*The ABA Securities Association*

*The Bond Market Association*

*The Emerging Markets Traders Association*

*The Financial Services Roundtable*

*The Foreign Exchange Committee*

*The Futures Industry Association*

*The International Swaps and Derivatives Association*

*The Securities Industry Association*

212-720-6651 • Fax: 212-720-1655 • [fx.committee@ny.frb.org](mailto:fx.committee@ny.frb.org) • <http://www.newyorkfed.org/fxc>

## COMMITTEE LETTER

### Urging Support for the Commodity Futures Modernization Act of 2000

October 18, 2000

The Honorable J. Dennis Hastert  
Speaker of the House of Representatives  
Washington, D.C. 20515

The Honorable Richard Gephardt  
Minority Leader of the House of Representatives  
Washington, D.C. 20515

Dear Speaker Hastert and Minority Leader Gephardt:

The undersigned organizations, representing the full range of the interested U.S. financial sector, strongly urge you and each of your colleagues to support the Commodity Futures Modernization Act of 2000 (H.R. 4541) when it is considered by the House of Representatives this week.

This legislation would provide "legal certainty" that over-the-counter (OTC) derivatives transactions will continue to be enforceable in accordance with their terms. Enhanced legal certainty for OTC derivatives will reduce systemic risk, and the core legal certainty provisions of H.R. 4541 are based on the unanimous recommendations of the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, and the Chairmen of both the Securities and Exchange Commission and the Commodity Futures Trading Commission.

These core legal certainty provisions were approved by overwhelming and bipartisan majorities of the House Agriculture, Banking, and Commerce Committees and they have the virtually unanimous support of the private sector.

Final congressional approval of H.R. 4541 this year is urgently needed. In addition to providing legal certainty for OTC derivatives, H.R. 4541 will modernize the extremely outmoded Commodity Exchange Act. It will reduce



systemic risk, promote financial innovation, and enable the United States to retain its leadership role in the global financial markets.

Very truly yours,

*The Ad Hoc Coalition of Commercial and Investment Banks*

*The Bond Market Association*

*The Emerging Markets Traders Association*

*The Financial Services Roundtable*

*The Foreign Exchange Committee*

*The Futures Industry Association*

*The International Swaps and Derivatives Association*

*The Securities Industry Association*

**COMMITTEE LETTER • ISSUED JOINTLY WITH THE SINGAPORE FOREIGN EXCHANGE MARKET COMMITTEE****Regarding the Format of SWIFT Trade Confirmations**

December 15, 2000

Robert Virgilio  
Regional Manager, Financial Trading  
SWIFT  
200 Park Avenue, 38th Floor  
New York, NY 10166

Dear Mr. Virgilio:

When the Foreign Exchange Committee and the Singapore Foreign Exchange Market Committee met in New York on November 2, 2000, a key item on the agenda was the recent trading uncertainties related to the format of SWIFT confirmation messages. The two groups, working with the Foreign Exchange Committee's Operations Managers Working Group, discussed steps that might simplify trading procedures and limit error and confusion.

Pursuant to this discussion, the two committees respectfully suggest the following:

**I. REDEFINING FIELD 77D OF THE SWIFT TRADE (MT3XX) CONFIRMATION**

The committees recognize the importance of trade confirmations for both cash and options transactions because these documents verify trade details previously agreed upon between counterparties. The committees reiterate that short-form confirmations should not be used to impose any new or additional provisions on trades nor make reference to other financial conditions that may significantly alter aspects of the transaction. Indeed, master agreements published by the foreign exchange industry prohibit the addition of new terms or the amendment of existing terms by means of a confirmation.

Field 77D, as currently defined by SWIFT, is a reference for master agreements, local regulations, and any other specific conditions that may be applicable to the trade. Given this broad definition, the field has been utilized to attach additional provisions to the agreed upon terms of the trade.

Accordingly, the committees suggest that SWIFT narrow the published terms and conditions of Field 77D. Specifically, we encourage use of following language:

#### **Field 77D: Terms and Conditions**

**Definition:** Field 77D specifies the underlying master agreement, if any, which governs the transaction being confirmed.

**Rules:** Field 77D is to be used to refer to specific agreements between the parties to the trade. This field is not to be used to impose any additional conditions or references to local regulations that are not covered in master agreements. If the field is not present, the deal conforms to the usual banking practice.

## **2. TAKING FURTHER STEPS TO SUPPORT STRAIGHT-THROUGH PROCESSING REQUIREMENTS**

The committees applaud SWIFT's efforts in recent years to introduce new fields to assist trading procedures. Fields such as 82 and 87 provide the tags needed to identify the exact party to a trade. However, because the fields were initially labeled as optional, they had the effect of complicating coding. SWIFT's move to make fields mandatory as of November 2001, therefore, is very welcome.

Going forward, we suggest that SWIFT consider other actions to promote straight-through processing. Specifically, we recommend converting Fields 82, 83 (used to determine the underlying fund or beneficiary), and 87 to a mandatory, *machine-readable format*.

We appreciate your attention to this letter and to our requests. Please feel free to contact us if you have any questions or you would like to discuss these subjects further.

Very truly yours,

*Paul Kimball*  
Chairman  
Foreign Exchange Committee  
paul.kimball@msdw.com

*Jeanette Wong*  
Chairman  
Singapore Foreign Exchange  
Market Committee  
wong\_jeanette@jpmorgan.com

## ANNOUNCEMENT

May 30, 2000

### Industry Statement Supporting Legal Certainty Provisions of the Ewing Bill

The undersigned industry groups commend Representative Tom Ewing, Chairman of the House Subcommittee on Risk Management and Specialty Crops, for the legal certainty provisions of H.R. 4541, the Commodity Futures Modernization Act of 2000. Legal certainty for over-the-counter (OTC) derivatives transactions is an important public policy objective for which the undersigned have worked actively for many years.

The legal certainty provisions of Chairman Ewing's legislation build upon the unanimous recommendations of the Secretary of the Treasury, the Chairman of the Board of Governors of the Federal Reserve System, the Chairman of the Commodity Futures Trading Commission, and the Chairman of the Securities and Exchange Commission (the members of the President's Working Group on Financial Markets) that Congress enact legislation that generally would exclude from the Commodity Exchange Act OTC derivatives transactions based on financial commodities. This action will provide legal certainty that these transactions continue to be enforceable in accordance with their terms and in turn promote financial innovation and reduce systemic risk. We are also pleased to note that Chairman Ewing's legislation retains and strengthens the Treasury Amendment, which provides legal certainty for OTC transactions in or involving foreign currency, government securities, and other enumerated commodities. The Treasury Amendment should be retained as a key component of a modernized Commodity Exchange Act. We also welcome the decision by Chairman Ewing to include in his bill provisions intended to provide statutory legal certainty for other categories of OTC derivatives transactions, including transactions based on energy and metals commodities and so-called hybrid transactions.

We look forward to working with Chairman Ewing, his colleagues in the House and Senate, the various congressional committees, the Administration, the regulatory agencies, and the interested parties in the private sector as the legislative process moves forward.

**FOR MORE INFORMATION, CONTACT:**

The Ad Hoc Coalition of Commercial and Investment Banks

Mary Whalen, 202-973-5907

George Baker, 202-973-5920

The American Bankers Association and the ABA Securities Association

Sally Miller, 202-663-5325

The Bond Market Association

Micah Green, 202-434-8400

The Emerging Markets Traders Association

Aviva Werner, 212-908-5028

The Financial Services Roundtable

Edward Hill or Lisa McGreevy, 202-289-4322

The Foreign Exchange Committee

Michael Nelson, 212-720-8194

The Futures Industry Association

John Damgard or Barbara Wierzynski, 202-466-5460

The International Swaps and Derivatives Association

Ruth Ainslie, 212-332-2562

The Securities Industry Association

Jonathan Paret, 202-296-9410

Gerard Quinn, 212-618-0507

## ANNOUNCEMENT

March 14, 2000

### EMTA, ISDA, and the Foreign Exchange Committee Announce Addition of New Brazilian Real Rate Source Definition

The Emerging Markets Traders Association (EMTA), the International Swaps and Derivatives Association (ISDA), and the Foreign Exchange Committee jointly announced on March 14, 2000, the following amendment to the Brazilian real rate source definition in Annex A of the 1998 *FX and Currency Option Definitions* (the "1998 Definitions"):

Section 4.5 (c) (ii) of Annex A of the 1998 *Definitions* is amended, effective as of March 14, 2000, to add the following new Brazilian real rate source definition:

- (K) "BRL Industry Survey Rate" and "BRL11" each mean that the spot rate for a rate calculation date will be the Brazilian real/U.S. dollar offered rate for U.S. dollars, expressed as the amount of Brazilian reals per one U.S. dollar, for settlement in two business days, which is calculated by the Chicago Mercantile Exchange pursuant to the BRL Methodology and which appears on the Reuters screen EMTA page at approximately 12:30 p.m. São Paulo time, or as soon thereafter as practicable, on the business day following the rate calculation date. "BRL Methodology" as used herein means the methodology dated November 8, 1999, establishing a centralized industry-wide survey of financial institutions in Brazil that are active participants in the Brazilian real/U.S. dollar spot market for the purpose of determining the BRL industry survey rate.

## ANNOUNCEMENT

September 22, 2000

### ISDA, EMTA, and the Foreign Exchange Committee Announce Web Site Publication of the Revised Annex A to the 1998 *FX and Currency Option Definitions*

The International Swaps and Derivatives Association (ISDA), the Emerging Markets Traders Association (EMTA), and the Foreign Exchange Committee (the FX Committee) announced today that a revised version of Annex A of the 1998 *FX and Currency Option Definitions* (the "1998 Definitions") has been published on their respective web sites: <[www.isda.org](http://www.isda.org)>, <[www.emta.org](http://www.emta.org)>, and <[www.newyorkfed.org/fxc](http://www.newyorkfed.org/fxc)>.

Annex A contains currency and currency spot rate definitions and other related definitions and provisions for use in documenting foreign exchange and currency option transactions, including nondeliverable transactions, under the 1998 *Definitions*.

The revised Annex A, dated and effective September 25, 2000, incorporates all previously issued amendments to the March 1998 version of Annex A. In addition, obsolete rate source definitions have been deleted, several new rate source definitions have been added, and modifications have been made to existing rate source definitions to render them more accurate.

Other terms have been revised in the September 25, 2000, version of Annex A to reflect more accurately market practice in the nondeliverable foreign exchange markets. Most notably, the definition of currency-reference dealers has been revised to differentiate when the term is used under ordinary circumstances to determine a settlement rate from when the term is used as a fallback rate mechanism in the event of a market disruption. The definition of specified amount has also been revised.

The three sponsoring organizations will continue to issue amendments to Annex A to ensure that it remains an accurate, current, and useful resource for market participants. A new version of Annex A will be published periodically to incorporate these amendments. In addition, the original version of Annex A is currently posted, and future versions will be posted, on the web sites of the sponsoring organizations. Under the 1998 *Definitions*, unless the trade parties agree otherwise, the version of Annex A that is current as of the trade date applies to the transaction.



## ANNOUNCEMENT

September 2000

### Implied Volatility Rates for Foreign Exchange Options

The implied volatility rates for foreign exchange options, posted on the Federal Reserve Bank of New York's and the Foreign Exchange Committee's web sites—[www.newyorkfed.org](http://www.newyorkfed.org) and [www.newyorkfed.org/fxc](http://www.newyorkfed.org/fxc), respectively—are a month-end data series offered as a service to the foreign exchange community, auditors, and examiners.

The Foreign Exchange Committee—sponsored by the Federal Reserve Bank of New York and comprised of institutions representing the foreign exchange market in the United States—undertook the work on this series. The Committee believed that the auditing and management of options would be strengthened by supplemental and independently prepared information.

#### DETAILS ON THE VOLATILITY RATES

The web-posted implied volatility rates:

- ∞ are averages of mid-level rates on bid and ask "at-money quotations" on selected currencies,
- ∞ are provided voluntarily by approximately ten foreign exchange dealers,
- ∞ reflect quotes as of 11 a.m. New York time on the last business day of each month,
- ∞ exclude the extremes—"the highest and lowest quotes"—received from dealers,<sup>1</sup> and
- ∞ reflect rates on contracts of at least \$10 million made with a prime counterparty.

The contracts currently are the euro, the Japanese yen, the Swiss franc, the British pound, the Canadian dollar, and the Australian dollar. The euro/sterling

and the euro/yen cross rates are also used. The maturities are one-week; one-, two-, three-, six-, and twelve-month; and two-year.

### **COMPILING THE VOLATILITY RANGES**

On the final dealing day of each month, each participating institution completes an electronic worksheet sent to them by the Foreign Exchange Department of the Federal Reserve Bank of New York. The department, at the Committee's request, is the collector and publisher of this series.

The Federal Reserve Bank of New York treats all volatility quotes received as confidential and does not disclose the rates supplied by any individual survey participant. In the event that a minimum of five quotes is not submitted for a particular option, a volatility range is not published for that contract.

### **PUBLISHING THE DATA**

The survey results are released on the last business day of each month at approximately 4:30 p.m. New York time.

### **USE OF THE DATA**

The ranges of foreign currency implied volatility rates are intended solely for use by bank management, auditors, and examiners in their review of options portfolios. The publication of the data does not indicate Foreign Exchange Committee or Federal Reserve approval, or disapproval, of particular options activities. Furthermore, the data should in no way replace the proper risk analysis and management techniques necessary for managing an options position.

Although the volatility rates are collected from sources considered to be reliable, the ranges are provided only for informational purposes without guarantee of their accuracy, completeness, and correctness.

Comments and suggestions on the series are welcomed and may be sent to [fx.committee@ny.frb.org](mailto:fx.committee@ny.frb.org).

---

<sup>1</sup>The intent here is to not count outliers. A consequence of such an adjustment is that the indicated rates may not completely reflect the full range of market transactions.

# Document of Organization

**IT WAS GENERALLY AGREED THAT ANY NEW FORUM FOR DISCUSSING** matters of mutual concern in the foreign exchange market (and, where appropriate, offshore 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, rather than individuals, participating in the market,
2. be composed of individuals with a broad knowledge of the foreign exchange market 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 ensure fair presentation and consideration of all points of view and interests in the market at all times, 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 in theory,

---

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 (most recently in January 1997) to reflect the Committee's evolution.

- 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, and
- to work closely with the Financial Markets Association—USA and other formally established organizations representing 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 thirty members. In addition, the president of the Financial Markets Association—USA is invited to participate.
2. Institutions participating in the Committee should be chosen in consideration of a) their participation in the foreign exchange market here and b) 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.
5. Members are chosen with regard to the firm for which they work, their job responsibilities within that firm, their market stature, and their ongoing role in the market.

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 Eurodeposit markets); the president of the Financial Markets Association—USA (*ex officio*); and the Federal Reserve Bank of New York (*ex officio*).

### COMMITTEE PROCEDURES

The Committee will meet at least eight times per year (that is, monthly, with the exception of April, July, August, and December). The meetings will follow a specified agenda; 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 to institutions that participate in the foreign exchange market.

The Membership Subcommittee will be the Committee's one standing subcommittee. 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. Additional subcommittees composed of current Committee members may be organized on an ad hoc basis in response to a particular need.

Standing working groups may include an Operations Managers Working Group and a Risk Managers Working Group. The working groups will be composed of market participants with an interest and expertise in projects assigned by the Committee.

Committee members will be designated as working group liaisons. The liaison's role is primarily one of providing guidance to the working group members and fostering effective communication between the working group and the Committee. In addition, a representative of the Federal Reserve Bank of New York will also be assigned as an advisor to each working group.

The Committee may designate additional ad hoc working groups to focus on specific issues.

Depending on the agenda of items to be discussed, the Committee 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 that participate actively in the foreign

exchange markets as well as other financial markets worldwide. 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 information that is necessary to the Committee's deliberations on 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 Committee members.

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 present* the concerns of his or her own institution to the Committee; in addition, to reflect the concerns of a market professional as well as the constituency from which his or her institution is drawn or the professional organization on which he or she serves; and
- *to participate* in Committee work and to volunteer the resources of his or her institution to support the Committee's projects and general needs.

# Foreign Exchange Committee Member List, 2000

## **Daniel Almeida**

Managing Director  
Deutsche Bank  
31 West 52nd Street  
New York, NY 10019  
Term: 1998-2001

## **Peter Bartko**

Chairman  
EBS Partnership  
55-56 Lincoln's Inn Fields  
London WC2 A3LJ  
England  
Term: 1997-2000

## **Lloyd Blankfein**

Managing Director  
Goldman Sachs  
85 Broad Street  
New York, NY 10004  
Term: 1999-2002

## **Anthony Bustamante<sup>1</sup>**

Executive Vice President  
HSBC Securities  
140 Broadway  
New York, NY 10005  
Term: 1999-2002

## **John Carter<sup>2</sup>**

Managing Director  
Lehman Brothers  
3 World Financial Center  
New York, NY 10285  
Term: 2000-2003

## **Peter Gallant<sup>3</sup>**

Treasurer  
Citicorp  
Citicorp Center  
153 East 53rd Street  
New York, NY 10043  
Term: 2000-2003

## **James Kemp<sup>4</sup>**

Managing Director  
Citigroup  
390 Greenwich Street  
New York, NY 10013  
Term: 2000-2003

## **John Key**

Managing Director  
Merrill Lynch  
25 Ropemaker Street  
London EC2 Y9LY  
England  
Term: 2000-2003

## **Paul Kimball**

Managing Director  
Morgan Stanley  
1585 Broadway  
New York, NY 10036  
Term: 1999-2002

## **Adam Kreysar**

Managing Director  
UBS-Warburg  
100 Liverpool Street  
London EC2 M2RH  
England  
Term: 2000-2003

## **Howard Kurz**

Managing Director  
RBS-NatWest  
101 Park Avenue  
New York, NY 10078  
Term: 1999-2002

## **Robert Loewy<sup>5</sup>**

Head of Foreign Exchange  
HSBC Bank PLC  
Thames Exchange  
10 Queen Street Place  
London EC4R 1BQ  
England  
Term: 2000-2003

<sup>1</sup>Resigned May 2000.

<sup>2</sup>Resigned March 2000.

<sup>3</sup>Resigned June 2000.

<sup>4</sup>Joined the Committee in October, replacing Peter Gallant.

<sup>5</sup>Joined the Committee in September, replacing Anthony Bustamante.

**Richard Mahoney**

Executive Vice President  
Bank of New York  
32 Old Slip  
New York, NY 10286  
Term: 1997-2000

**Robert McKnew**

Managing Director  
Bank of America  
1455 Market Street  
CA5-701-05-17  
San Francisco, CA 94103  
Term: 1999-2002

**Peter Mesrobian**

Senior Vice President  
Bank One  
1 Bank One Plaza  
Mail Suite 0452  
Chicago, IL 60670  
Term: 1998-2001

**David Puth**

Managing Director  
Chase Manhattan Bank<sup>6</sup>  
270 Park Avenue  
New York, NY 10017  
Term: 1997-2000

**Richard Rua**

Senior Vice President  
Mellon Bank  
1 Mellon Bank Center  
Pittsburgh, PA 15258  
Term: 1997-2000

**Robert Rubin<sup>7</sup>**

Executive Vice President  
AIG Trading Group  
1 Greenwich Plaza  
Greenwich, CT 06830  
Term: 2000-2003

**Klaus Said<sup>8</sup>**

Managing Director  
J.P. Morgan<sup>9</sup>  
60 Wall Street  
New York, NY 10005-2888  
Term: 1999-2002

**Mark Snyder**

Senior Vice President  
State Street Bank  
225 Franklin Street  
Boston, MA 02110  
Term: 1999-2002

**Susan Storey**

Managing Director  
CIBC Wood Gundy  
161 Bay Street  
BCE Place  
Toronto, Ontario M5J 2S8  
Canada  
Term: 1999-2002

**Tomomasa Sumida**

Deputy General Manager and Treasurer  
Bank of Tokyo-Mitsubishi  
1251 Avenue of the Americas  
New York, NY 10020-1104  
Term: 1997-2000

**Jamie K. Thorsen**

Managing Director  
Bank of Montreal  
115 South LaSalle Street  
Chicago, IL 60603  
Term: 1999-2002

**Philip Vasan<sup>10</sup>**

Managing Director  
Credit Suisse First Boston  
11 Madison Avenue  
New York, NY 10010  
Term: 1999-2002

**Robert White**

Treasurer  
Standard Chartered Bank  
7 World Trade Center  
New York, NY 10048  
Term: 1998-2001

**Michael Williams**

Senior Managing Director  
Cantor Fitzgerald  
1 World Trade Center  
New York, NY 10048  
Term: 1999-2002

**OBSERVER-THE FINANCIAL  
MARKETS ASSOCIATION—USA**

**Karen Fairchild**

President  
The Financial Markets Association—  
USA

**FEDERAL RESERVE BANK OF  
NEW YORK (EX OFFICIO)**

**Peter R. Fisher**

Executive Vice President  
Markets Group  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

**Dino Kos**

Senior Vice President  
Markets Group  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

**Eileen Spinner**

Executive Assistant  
Foreign Exchange Committee  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

**COUNSEL**

**Michael Nelson**

Legal Department  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

**Robert Toomey**

Legal Department  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

<sup>6</sup>Became J.P. Morgan Chase in January 2001.

<sup>7</sup>Resigned December 2000.

<sup>8</sup>Resigned December 2000.

<sup>9</sup>Became J.P. Morgan Chase in January 2001.

<sup>10</sup>Resigned December 2000.

# Foreign Exchange Committee Member List, 2001

## **Daniel Almeida**

Managing Director  
Deutsche Bank  
31 West 52nd Street  
New York, NY 10019  
212-469-8370  
dan.almeida@db.com  
Term: 1998-2001

## **Peter Bartko**

Chairman  
EBS Partnership  
55-56 Lincoln's Inn Fields  
London WC2 A3LJ  
England  
44-207-573-4210  
pbartko@ebps.com  
Term: 2001-2004

## **Lloyd Blankfein**

Managing Director  
Goldman Sachs  
85 Broad Street  
New York, NY 10004  
212-902-0593  
lloyd.blankfein@gs.com  
Term: 1999-2002

## **Mark DeGennaro**

Managing Director  
Lehman Brothers  
3 World Financial Center  
New York, NY 10285  
212-526-9082  
md@lehman.com  
Term: 2001-2004

## **James Kemp**

Managing Director  
Citigroup  
390 Greenwich Street  
New York, NY 10013  
212-723-6700  
james.kemp@citi-fx.com  
Term: 2000-2003

## **John Key<sup>1</sup>**

Managing Director  
Merrill Lynch  
25 Ropemaker Street  
London EC2 Y9LY  
England  
Term: 2000-2003

## **Adam Kreysar**

Managing Director  
UBS-Warburg  
100 Liverpool Street  
London EC2 M2RH  
England  
44-207-567-2261  
adam.kreysar@ubsw.com  
Term: 2000-2003

## **Howard Kurz<sup>2</sup>**

Managing Director  
RBS-NatWest Global Financial Markets  
101 Park Avenue  
New York, NY 10078  
Term: 1999-2002

## **Robert Loewy**

Head of Foreign Exchange  
HSBC Bank PLC  
Thames Exchange  
10 Queen Street Place  
London EC4R 1BE  
England  
44-207-336-3745  
rob.d.loewy@hsbcgroup.com  
Term: 2000-2003

## **Richard Mahoney**

Executive Vice President  
The Bank of New York  
32 Old Slip  
New York, NY 10286  
212-804-2018  
rmahoney@lnotes5.bankofny.com  
Term: 2001-2003

## **Robert McKnew<sup>3</sup>**

Managing Director  
Bank of America  
1455 Market Street  
CA5-701-05-17  
San Francisco, CA 94103  
Term: 1999-2002

<sup>1</sup>Resigned March 2001.

<sup>2</sup>Resigned January 2001.

<sup>3</sup>Retired February 2001.



**Peter Mesrobian**

Senior Vice President  
Bank One  
1 First National Plaza  
Mail Suite 0452  
Chicago, IL 60670  
312-732-6125  
peter\_mesrobian@bankone.com  
Term: 1998-2001

**John Nelson**

Senior Vice President  
ABN-AMRO  
181 West Madison Street, Suite 3104  
Chicago, IL 60602-4514  
312-904-6898  
john.nelson@abnamro.com  
Term: 2001-2004

**Philip Newcomb**

Managing Director  
Morgan Stanley  
1585 Broadway  
New York, NY 10036  
212-761-2840  
philip.newcomb@msdw.com  
Term: 2001-2004

**David Puth**

Managing Director  
J.P. Morgan Chase  
270 Park Avenue  
New York, NY 10017  
212-834-5060  
david.puth@chase.com  
Term: 2001-2004

**Richard Rua**

Senior Vice President  
Mellon Bank  
1 Mellon Bank Center  
Pittsburgh, PA 15258  
412-234-1474  
rua.ra@mellon.com  
Term: 2001-2004

**Klaus Said**

Managing Director  
Credit Suisse First Boston  
11 Madison Avenue  
New York, NY 10010  
212-325-6623  
klaus.said@csfb.com  
Term: 2001-2002

**Mark Snyder**

Senior Vice President  
State Street Bank  
225 Franklin Street  
Boston, MA 02110  
617-664-3481  
mjsnyder@statestreet.com  
Term: 1999-2002

**Susan Storey**

Managing Director  
CIBC World Markets  
161 Bay Street  
BCE Place  
Toronto, Ontario M5J 2S8  
Canada  
416-594-7167  
sue.storey@cibc.ca  
Term: 1999-2002

**Jamie K. Thorsen**

Executive Managing Director  
Bank of Montreal  
115 South LaSalle Street  
Chicago, IL 60603  
312-845-4107  
jamie.thorsen@bmo.com  
Term: 1999-2002

**Nobuyuki Uchida**

General Manager and Treasurer  
Bank of Tokyo-Mitsubishi  
1251 Avenue of the Americas  
New York, NY 10020-1104  
212-782-4995  
nuchida@btmna.com  
Term: 2001-2004

**Robert White**

Regional Treasurer  
Standard Chartered Bank  
7 World Trade Center  
New York, NY 10048  
212-667-0351  
bob.white@us.standardchartered.com  
Term: 1998-2001

**Michael Williams**

Senior Managing Director  
Cantor Fitzgerald  
1 World Trade Center  
New York, NY 10048  
212-938-7330  
mwilliams@cantor.com  
Term: 1999-2002

**OBSERVER-THE FINANCIAL  
MARKETS ASSOCIATION-USA****Peter Wadkins**

Senior Vice President  
Tradition-New York  
75 Park Place  
New York, NY 10007  
212-791-4510  
peter.wadkins@tradition-ny.com

**FEDERAL RESERVE BANK OF  
NEW YORK (EX OFFICIO)****Peter R. Fisher<sup>4</sup>**

Executive Vice President  
Markets Group  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045

**Dino Kos**

Senior Vice President  
Markets Group  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045  
212-720-6548  
dino.kos@ny.frb.org

**Angela Meyer**

Executive Assistant  
Foreign Exchange Committee  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045  
212-720-2184  
angela.meyer@ny.frb.org

**COUNSEL****Michael Nelson**

Legal Department  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045  
212-720-8194  
michael.nelson@ny.frb.org

**Robert Toomey**

Legal Department  
Federal Reserve Bank of New York  
33 Liberty Street  
New York, NY 10045  
212-720-5017  
robert.toomey@ny.frb.org

<sup>4</sup>Nominated for the position of Under Secretary for Domestic Finance of the Department of the Treasury in March 2001.

# Index to 1996-2000 Annual Reports

## **AMICUS BRIEFS**

1997, page 2  
1996, page 3

## **ANNEX A**

2000, pages 10, 14, 105

## **BARRIER OPTIONS**

2000, pages 6, 10, 18, 59  
1999, pages 7, 17, 73  
1998, pages 8, 19

## **BASEL COMMITTEE ON BANKING SUPERVISION**

1999, pages 7, 13, 89

## **BRAZILIAN REAL**

2000, page 103  
1999, page 95

## **BRITISH BANKERS' ASSOCIATION**

2000, pages 13, 32  
1999, pages 11, 13, 42  
1998, pages 12, 15  
1997, pages 5, 9  
1996, page 3

## **CANADIAN FOREIGN EXCHANGE COMMITTEE**

2000, page 14  
1999, pages 13, 42, 43  
1998, page 16  
1997, page 5

## **CLS**

2000, pages 7, 10, 17  
1999, pages 6, 16, 17  
1998, pages 5, 8, 18  
1997, page 4

## **COLLATERAL ANNEX**

2000, pages 10, 31  
1999, page 12

## **CONTRACTS FOR DIFFERENCES (CFDS)**

2000, page 8  
1999, pages 6, 16  
1998, pages 5, 8, 18, 47  
1997, pages 4, 13

## **CROSS-PRODUCT AGREEMENT**

2000, pages 10, 47  
1999, page 12  
1998, page 11  
1997, page 5

## **DOCUMENT OF ORGANIZATION**

2000, page 111  
1999, page 99  
1998, page 59  
1997, page 69  
1996, page 101

## **E-COMMERCE**

2000, pages 5, 17  
1999, pages 9, 12, 18

## **ELECTRONIC BROKERING**

1998, page 23  
1997, pages 13, 35  
1996, page 3

## **EMERGING MARKETS TRADERS ASSOCIATION (EMTA)**

2000, pages 10, 14, 103, 105  
1999, pages 7, 11, 42, 59, 95  
1998, pages 7, 11, 13, 15  
1997, pages 3, 5, 7  
1996, page 3

## **EUROPEAN ECONOMIC AND MONETARY UNION (EMU)**

2000, page 11  
1999, page 5  
1998, pages 3, 11, 12, 17, 33, 65, 73  
1997, pages 5, 9, 14  
1996, page 3

## **FINANCIAL MARKETS ASSOCIATION-USA**

2000, page 13

## **FORCE MAJEURE PROVISIONS**

1999, pages 7, 11, 13, 16, 59  
1998, pages 8, 12  
1997, page 58

## **FOREIGN EXCHANGE TRANSACTION PROCESSING**

1999, pages 8, 49

## **FX AND CURRENCY OPTION DEFINITIONS**

2000, pages 10, 103  
1999, page 66, 95  
1998, pages 11, 13  
1997, pages 5, 53

## **GUIDELINES FOR FOREIGN EXCHANGE SETTLEMENT NETTING**

1996, page 63

## **GUIDELINES FOR FOREIGN EXCHANGE TRADING ACTIVITIES**

2000, pages 5, 6, 17, 69  
1999, page 18  
1996, page 17

## **GUIDELINES FOR TRANSACTIONS INVOLVING INTERMEDIARIES**

1998, page 12

**IMPLIED VOLATILITY RATES FOR FX OPTIONS**

2000, pages 7, 107

**INDONESIAN RUPIAH**

1998, pages 6, 12, 79

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

2000, page 32  
1999, pages 12, 59, 70, 95  
1998, page 12  
1997, page 5  
1996, page 1

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

2000, page 32  
1999, pages 12, 59, 70, 95  
1998, page 12  
1997, page 5  
1996, page 3

**INTERNATIONAL FOREIGN EXCHANGE MASTER AGREEMENT (IFEMA)**

2000, pages 10, 32  
1999, pages 12, 44, 59, 70, 95  
1998, page 12  
1997, page 5

**INTERNATIONAL SWAPS AND DERIVATIVES ASSOCIATION (ISDA)**

2000, pages 13, 103, 105  
1999, pages 7, 11, 42, 59, 95  
1998, pages 6, 11, 44, 81  
1997, pages 5, 7  
1996, page 3

**LEGAL OPINIONS**

2000, page 11  
1999, page 12  
1998, page 11  
1997, page 3

**MALAYSIAN RINGGIT**

1998, pages 6, 79

**MANAGING OPERATIONAL RISK IN COLLATERALIZED FOREIGN EXCHANGE**

1997, page 21

**MANAGEMENT OF OPERATIONAL RISKS IN FOREIGN EXCHANGE**

1996, page 33

**NONDELIVERABLE FORWARDS (NDFS)**

2000, pages 10, 17  
1999, page 17  
1998, pages 7, 13  
1997, pages 5, 7, 55  
1996, page 3

**REGULATORY ISSUES**

2000, pages 9, 93, 95, 97  
1999, pages 8, 12, 15, 29, 35, 77  
1998, pages 4, 11, 12, 17, 67  
1997, pages 2, 5, 6  
1996, page 3

**RUSSIAN RUBLE**

1998, pages 6, 81

**SECURITIES INDUSTRY ASSOCIATION (SIA)**

2000, pages 14, 18

**SEMINARS**

1998, pages 3, 17  
1997, page 3  
1996, page 4

**SINGAPORE FOREIGN EXCHANGE MARKET COMMITTEE**

2000, pages 8, 13  
1999, pages 9, 13, 43  
1998, pages 3, 7, 8, 15, 75  
1997, pages 1, 17

**STANDING SETTLEMENT INSTRUCTIONS**

1998, pages 4, 73

**STOP-LOSS LIMIT ORDERS**

1997, page 67

**SURVEY ASSESSING THE IMPACT OF ELECTRONIC BROKERING ON THE FOREIGN EXCHANGE MARKET**

1997, page 35

**SWIFT**

2000, pages 6, 99

**"T+i"**

2000, pages 14, 18  
1999, page 17

**TOKYO FOREIGN EXCHANGE MARKET PRACTICES COMMITTEE**

2000, pages 14, 32  
1999, pages 13, 42  
1997, page 5

**TRADING UNDER ONE LEGAL-ENTITY NAME**

2000, pages 8, 27

**U.K. JOINT STANDING COMMITTEE**

2000, page 14  
1999, page 13, 14, 42  
1998, page 16

**U.S. FOREIGN EXCHANGE MARKET SURVEY**

1998, pages 4, 53

**Y2K**

1999, pages 5, 12, 13, 41, 87  
1998, pages 7, 8, 16, 18, 19, 75