THE

FOREIGN EXCHANGE COMMITTEE

ANNUAL REPORT

1990

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CHAIRMAN'S REPORT

The work of the Foreign Exchange Committee in 1990 was unparalleled in its depth, breadth and scope The Committee's view was more international and the products reviewed more diverse The levels of concern ranged from the practicalities of operational standards to the lofty abstract of legal theory or the delicacy of ethical mores This expansion of vision was caused by the growing demands on international money markets and was enabled by the growth in membership, resources and energy of the Committee itself

The 1990 Annual Report of the Foreign Exchange Committee includes both summaries of topics discussed during meetings and the documents produced by the Committee, some of which may have been previously published In the accounts of discussions, readers will be able to sense the wide-ranging viewpoints of the Committee's membership on topics such as market liquidity or netting These were information-exchanging sessions designed to keep the Committee and the Federal Reserve in touch with conditions in the marketplace and did not necessarily lead to solid conclusions or action

In other areas, the Committee found, through an open exchange of views, that there was significant consensus on certain issues to warrant preparing recommendations or other documents to be distributed to market participants widely Some of these, such as the Guidelines for the Management of Foreign Exchange Trading Activities, have been designed for use by banks in the United States and have been distributed prior to this publication Others, such as the International Currency Options master agreement, are actions still in process However, the Committee believes it is valuable for the intention of these actions to be set in context and the progress at the time of publication to be so signaled

The revision of the Committee's Document of Organization promises a significant strengthening of the resources brought to bear on the pursuit of issues of interest to the Committee and to the market place more generally The establishment of subcommittees focused on trading practices, market structure, and risk management will provide the continuous attention and in-depth understanding that our everchanging marketplace demands The sub committee on communications will work on enhancing the flow of information, opinion and news between the Committee and other market participants

It is the hope of the Committee that these informal discussions and more formal documents will be of value to all market participants

Christine W Patton

ISSUES PERTAINING TO MARKET PRACTICE AND CONTROL OF RISK

GUIDELINES FOR THE MANAGEMENT OF FOREIGN EXCHANGE TRADING ACTIVITIES

In 1990, the Foreign Exchange Committee undertook a revision of its "Guidelines for the Management of Foreign Exchange Trading Activities" First issued in 1980 and subsequently revised in 1986, these Guidelines provide a comprehensive description of currently-accepted market practices and management responsibilities for trading institutions and brokerage firms operating in the U S "interbank" foreign exchange market

Because issues of ethics and market practice are complex and often difficult to address, the Committee believes that it can perform a useful service to the foreign exchange community by codifying and advocating good management practices that are derived from the members' extensive market experience These Guidelines, while helpful, are no substitute for individual internal policy statements within each institution Management has the responsibility to consider carefully the full range of issues identified and to provide clear internal guidance to their traders and employees on what are and what are not acceptable practices within their institution

The Guidelines were updated during 1990 to incorporate the Committee's work on various topics and to point out additional areas for management attention that may have become important since the last revision Recent developments in foreign exchange markets outside of the United States, and in other financial markets within the United States, also prompted the Committee to reconsider and strengthen some of its previous statements of good market practice in order to help the U S foreign exchange community maintain standards of behavior that withstand public scrutiny

The new Guidelines reflect, for example, the fact that managers at many of the institutions represented on the Committee had already tightened their internal policies on questions relating to conflicts of interest The new Guidelines now specify that it is the responsibility of senior management to control and monitor any trading undertaken by employees for their own account, if such trading is to be permitted at all The new version also clarifies management responsibility for spelling out its institution's policies on the forms of entertainment and gifts that employees may accept

The Guidelines also incorporate the Committee's many recommendations related to trading practices They address, for example, traders' responsibilities for quoted prices and concerns about the use of off-market rates They reflect the Committee's strong opposition to the use of "brokers' points" - an informal, and frequently unrecorded, method of resolving problems arising from missed prices, errors, or misunderstandings through the adjustment of prices on subsequent transactions The new version of the Guidelines reflects the Committee's recommendation that any compensation arising from the resolution of disputes should be on-the-record and in the form of cash payments or the adjustment of brokerage bills (1989 *Annual Report* page 23)

Preparation of the revised Guidelines was undertaken by the Management Guidelines subcommittee The Guidelines reflect the views of the entire Foreign Exchange Committee membership, representing the senior managements of domestic and foreign commercial banks, brokerage firms and investment banks The Guidelines are primarily directed to the managers of foreign exchange trading operations but are intended to be of use to individual traders and brokers as well

TRANSACTIONS IN THE BROKERED FOREIGN EXCHANGE MARKET

During 1990, the Foreign Exchange Committee closely monitored the brokered segment of the U S foreign exchange market to assess the extent to which market participants had moved away from the practice of "brokers' points" and the effects of that movement on the foreign exchange market

The Committee has cautioned against the possible abuses associated with the practice of points and made several recommendations aimed at eliminating its use Points arise primarily as a means of dealing with problems associated with missed prices, miscommunications, and dealer and broker errors The use of points allows trades to be completed, but defers the financial effect of the problem until a repayment is effected through points arising from subsequent trades A detailed discussion of brokers' points and the potential problems associated with their use appears in the "Report of the Points Task Force to the Foreign Exchange Committee" reprinted in the 1988 *Annual Report* (pages 24-33)

On August 1, 1990, the three Federal bank regulatory agencies issued statements prohibiting the use of points by U S banks and requiring the adoption of alternative procedures for resolving disputed contracts A copy of this policy statement is reproduced in this report on page 26

Use of Brokers Points in the United States

During 1990, all evidence suggested a decisive movement away from the use of points in the brokered U S foreign exchange market The Committee also noted a general and significant improvement in relations between brokers and dealers Traders less often forced brokers to make good on trades in which the counterparty had withdrawn its interest before the transaction could be completed and, largely as a consequence, fewer transactions involved points

Late in the year, the Committee asked a number of foreign exchange brokers in the United States to describe their recent experience to substantiate the impression that there had been a significant reduction in the use of points The information provided by these firms, which account for the vast majority of spot foreign exchange business brokered in the United States, was consistent with the earlier reports the Committee had received The brokers indicated that differences are now generally resolved either by use of difference checks or adjustments to brokerage bills The extent to which either difference checks or adjustments to bills are used appears to vary considerably from firm to firm, but, on average, difference checks are apparently used to settle differences about two-thirds of the time and bill adjustment one-third The brokers also indicated that the use of points in the United States and involving U S residents is a very small fraction of what it had been prior to the Report of the Points Task Force two years ago

The Use of Brokers' Points Abroad

Steps are also being taken abroad to guard against the potential abuses associated with brokers' points The Bank of Canada and the Reserve Bank of Australia have written to interbank participants in their respective foreign exchange markets to stress the need for management controls in view of the potential for abuse The Tokyo Foreign Exchange Practices Committee drafted a code of conduct for the settlement of differences to maintain high standards The Bank of England established a dual broker system which is aimed at creating a points-free market for those banks that do not wish to be subjected to the points practice

The Foreign Exchange Committee applauds efforts to help control the potential for abuse in the use of brokers' points It welcomes the initiative of the U S bank supervisory agencies to eliminate the practice from the U S market so as to enhance the integrity of the foreign exchange market and the individual institutions which participate in the market

CONFIRMATION PRACTICES

Confirmation practices in the U S foreign exchange market, particularly for interbank spot trades, remained an area of Committee concern during 1990 The Committee believes that the practice of confirming trades by personnel other than traders is the best protection against misdirected trades, payments problems, and other potentially costly mistakes as well as a deterrent to unauthorized dealing As the Committee's earlier inquiries had shown (1989 *Annual Report*, page 9), frequent failures to confirm and verify trades at some institutions create an environment in which misdirected trades can go undiscovered for extended periods, greatly increasing the potential costs of such errors

Committee Recommendation

Early in the year, the Committee considered a recommendation of the U S Council on International Banking (CIB) dated September 27, 1989 recommending that banks discontinue the use of mail confirmations for spot trades with bank counterparties

In making its recommendation to discontinue the use of mailed confirmations, the CIB cited taped telephone conversations as an alternative and more efficient method In reviewing the proposal, Committee members acknowledged that mailed confirmations have in many cases lost their utility It was noted that some banks no longer mail confirmations, and many more banks no longer use the mailed confirmations they receive to verify transactions

This is largely because mailed confirmations do not arrive in time to identify problems before the value date Nevertheless, the Committee felt strongly that *written* confirmations were still necessary and that tapes did not provide a sufficiently secure and continuous alternative record

Accordingly, in an April 16 1990 letter to foreign exchange market participants responding to the CIB proposal (page 27), the Committee emphasized that it is as necessary as ever to have timely, written confirmations for all spot deals with banks and other dealers It recommended that confirmations continue to be exchanged by immediate means of communication - such as telex, SWIFT, fax, and electronic/dealing confirmation systems - instead of by mail

Confirmations at the FRBNY

In one discussion of confirmation practices during the year, a Federal Reserve representative reported that the Federal Reserve Bank of New York's back office has implemented the practice of confirming foreign exchange transactions within an hour of the trade This new procedure has been positive for morale and has greatly reduced the number of times bank personnel had to wait into the evening for a confirmation The back offices of many counterparties have responded favorably to the approach

FOREIGN CURRENCY OPTIONS VOLATILITY PROJECT

During 1990, the Federal Reserve Bank of New York carried out the plan formulated the previous year by the Committee to establish an independent source of monthly implied volatility rates for a core group of foreign currency options These rates are intended primarily for use as a reference tool for management, auditors, and examiners

Publication of Volatility Data

Data were collected from a panel of options market makers on February 28 and released on March 1 Since then, data have been collected on the last business day of each month and released the following business day The survey ranges of the implied volatility rates which were published in the course of 1990 are included for reference purposes in this report starting on page 28, and the text of a letter sent to U S institutions involved in the foreign exchange market publicizing the new release is reproduced on page 27

The implied-volatility rates are now made available through the *Electronic Bulletin Board*, a service of the Office of Business Analysis and Economic Affairs, U S Department of Commerce In the course of 1990, three wire services began to pick up the information from the Bulletin Board and to carry it on permanent pages for their subscribers These services and their page references are

Service	page
Telerate	107
Reuters	FRNW
Quotron	OPT/CUR/FRB/RAT

Late in the year, comments on the service were solicited from market participants to gauge its value to the financial community Requests for comment were inserted on pages of the Electronic Bulletin Board and Telerate Most of those who responded thought it useful and asked that it be continued

Changes for 1991

Some of those who commented on the service made suggestions for expansion of the data series Among these was a suggestion to add longer maturities for the sterling/mark and mark/yen cross rates The Committee believing that such an addition would be relatively easy to implement and would represent a useful response to a significant growth in trading in these instruments over the past year decided to request data for these additional options contracts, and to begin publishing them when procedures for collecting a sufficient number of quotes for these maturities were in place

Otherwise the Committee decided to continue the service without substantial change for another year The Committee also approved the enlistment of a new institution to serve on the panel of market makers in order to spread the reporting burden and take account of the institutions evolving roles in the market

INTERNATIONAL CURRENCY OPTIONS DOCUMENTATION

In 1990, there was renewed interest in seeking to establish standardized terms and conditions for over-the-counter foreign exchange options A document that had served to provide standard terms and conditions for use in the London market, the "International Currency Options Market Terms" (ICOM Terms), was being reviewed by a group sponsored by the British Bankers' Association Because it was uncertain whether the London group's draft would fully meet the needs of financial institutions in the United States, lawyers from various institutions active in the foreign currency options market considered the merits of proceeding with a project of their own

Revived Interest in the U.S. and the U.K.

Under these circumstances, interest revived in a 1987 Foreign Exchange Committee unpublished working paper, "U S Interbank Market Standard Terms and Conditions for Foreign Currency Options" (USICOM Terms) A meeting was arranged for August 3 to bring the lawyers working on this project together with the Committee to discuss whether to complete the paper or take another approach The lawyers attending this meeting included Ruth Ainslie (Bankers Trust), Simeon Amon (Chase), Michael Bannon (Chase), Mark Baum (Merrill Lynch), John Emert (Citibank), Laurie Ferber (Goldman Sachs), Douglas Harris (Morgan), Philip Levy (Manufacturers), Jeffrey Lillien (First Chicago), Jim Roselle (First Chicago), and Ernest Patrikis (Federal Reserve Bank of New York)

Decision to Draft Model Master Agreement

The consensus of the group was that the foreign exchange options market would be best served by producing a relatively simple model master agreement which defined key terms and addressed formation, exercise, settlement, and default While the agreement would be drafted for the wholesale market, it was hoped that the agreement would also be suitable for use by customers

Meanwhile, representatives from the group of U S lawyers agreed to work together with the ongoing project in the United Kingdom to draft documentation that could be used in trading options in both countries In addition, it was decided to prepare a master agreement incorporating both business and legal terms and provisions that could be used as a model for institutions trading options in either center It was envisioned that a user's guide be included with the master agreement to provide a non-technical explanation of the master agreement's features

At various stages of the drafting process, the group of U S lawyers conferred with the Foreign Exchange Committee to ensure that the master agreement would reflect the insights of market practitioners

The Question of Automatic Exercise

One of the issues discussed was whether the agreement should contain a provision for the automatic exercise of "in-the-money" options at times when the buyer neglected to provide the writer with instructions to exercise prior to the option's expiration The Committee felt that automatic exercise should be included Automatic exercise is intended to avoid windfall profits for the writer due to operational error or inadvertence by the buyer At the same time, the Committee took into account the difficulty of identifying when the automatic exercise provision should be triggered, given that exchange rates can fluctuate widely enough that ambiguity may arise on this point It therefore agreed that the value of the in-the-money options at expiration be above a specified threshold level before the option is treated as exercised This provision for automatic exercise also covers operational and transactional costs for the writer Committee members noted that instances of unintended expiration are rare for the professional options market They felt, therefore that protection should be provided specifically in the agreement only for cases where the profit resulting from exercise was significant

Other issues on which the Committee provided guidance included (1) the desirability of an adequate assurances provision that the counterparty will be able to perform his obligation, (2) the seller's alternatives in the event of nonpayment of premium, (3) the right of immediate unilateral liquidation when performance becomes illegal or is hindered, such as by force majeure, and (4) the right of a buyer of a European style option to give irrevocable notice of exercise before the exercise date The Committee noted that buyers of European-style options would seldom exercise this latter right because it results in a loss of intrinsic value of the option The Committee advised against the inclusion of language that would permit partial exercise of options in view of the inherent operational difficulties but noted that partial exercise could still occur when mutually agreed

As of early 1991, the documents were undergoing final review and were expected to be made available for distribution later in the year

ISSUES PERTAINING TO MARKET STRUCTURE

NETTING OF FOREIGN EXCHANGE CONTRACTS

In recent years, the concept and practical implementation of netting of foreign exchange contracts have undergone continuing development. On May 3, the Committee held a special meeting to review the status of various netting products and initiatives and to discuss some of the issues which they raise.

Representatives of four netting initiatives were invited to describe their systems. Ian Danic of SWIFT discussed ACCORD, a confirmation-matching and netting-information service being developed by SSP, a SWIFT subsidiary, to support other bilateral netting arrangements. Peter Bartko discussed FXNET, a limited partnership that has developed a system for banks to net foreign exchange contracts bilaterally.

Two efforts to develop multilateral netting systems, one spearheaded by a group of U.S. and Canadian banks and another by a European-based group of banks, were also represented. Bruce Berzin of Morgan Guaranty, John Finigan of Bankers Trust, and Carol Turner of Chase discussed the North American effort, which has retained the Options Clearing Corporation (OCC) as a consultant for the research phase of the project. (After the Committee's meeting on May 3, this group of banks merged their efforts with a group of Canadian banks and their combined project has become known as the North American Clearinghouse Organization (NACHO).) The European group, represented by Graham Duncan of Barclays Bank, is known as the Exchange Clearinghouse Organization (ECHO), representing a project originally developed by the ABECOR and EBIC bank associations.

ACCORD will provide a confirmation matching service for foreign exchange trades as well as an "advisory" netting service which will inform users of their bilateral net positions with specified counterparties. However ACCORD will not provide the legal documentation to ensure that there is an actual and legally binding netting of positions; this will be left entirely to the users.

FXNET provides banks with the basic "tools" needed to carry-out bilateral netting of their spot and forward foreign exchange contracts through the legal process of novation. FXNET provides a hardware and software system that will manage the netting process and the basic legal documentation for banks to enter bilateral contracts with counterparties to effect a legally binding netting of their foreign exchange contracts. Banks subscribing to FXNET's service are responsible for establishing communications with those counterparties with whom they wish to net, for integrating the FXNET netting process into their existing back-office systems, and for entering into the necessary legal agreements.

Both NACHO and ECHO are in the process of developing clearinghouses, to be established in North America and Europe, respectively, for the multilateral netting and settlement of interbank foreign exchange contracts. At the time of the Committee's May 3 meeting, the NACHO representatives were discussing the use of a legal theory of novation and substitution of the clearinghouse as central counterparty for contracts initially entered into by clearinghouse members. ECHO was proposing the use of a legal theory based on an "open offer" by the clearinghouse to enter into contracts with all members. Both groups of banks were still studying various ways of managing credit risk which may include clearinghouse capital, the use of loss allocation arrangements among the participants, and the posting of collateral.

In the discussion which followed the presentations, market participants on the Committee expressed the view that netting can have positive effects on the foreign exchange business. By reducing pressure on the payments system, it can reduce a source of strain and contribute to the industry's healthy growth. It can reduce the size of trading banks' outstanding foreign exchange contracts which will reduce credit risk. Finally, by reducing payments costs, it can improve the cost effectiveness of a bank's foreign exchange business.

However, given the potential advantages, some Committee members thought it surprising that progress towards netting had not been faster. One Committee member suggested that the rationale for netting and its potential savings may not have been sufficiently evident to market participants to motivate them to do the ground work and make the necessary investments. The Committee's continuing interest in this area should provide helpful input to market participants.

SUMMARY OF MAY 3 PRESENTATION ON NETTING ARRANGEMENTS

FEATURES	ACCORD	FXNET	NACHO	ECHO
Product	Confirmation matching & "advisory netting"	Bilateral netting arrangement	Multilateral contract netting systems	Multilateral contract netting systems
Netting technique	n/a	Novation	Novation & substitution of central counterparty	Open offer with central counterparty
Credit exposure	n/a	Bilateral counterparty credit assessment	To be specified; likely to include loss-sharing arrangements, collateral, or some combination of the two.	To be specified, likely to include loss-sharing arrangements, collateral, or some combination of the two
User requirements	S.W.I.F.T. access	1. Legal agreement with each counterparty; 2. FXNET software and communication link with counterparty; 3. Accounting/back-office system to interface with FXNET software	Clearinghouse membership, other requirements not yet specified	Clearinghouse membership, other requirements not yet specified
Provider	SSP (S.W.I F.T. subsidiary)	FXNET, a limited partnership stemming from the group of banks that underwrote original feasibility study	Group of Canadian and U S banks	Group of European banks
Status	In production	In operation in U S. and U K	Under study	Under study

LIQUIDITY IN THE FOREIGN EXCHANGE MARKET

Several times during the year, Committee members expressed the view that liquidity in the foreign exchange market had recently declined, both in general and in the United States in particular This observation gave rise to a wide ranging and lengthy discussion of the topic during the summer of 1990

A market is thought to be liquid if a sizeable transaction can be executed at the given price then available, without moving the price decisively Market participants are inclined to refer to a market as being liquid when there are enough buyers or sellers for them to complete their own business quickly Market commentators, however, often associate liquidity with other attributes of market performance such as volume of turnover, size of standard deals, or number of participants One of the interesting aspects of this discussion was that disappointment about liquidity occurred at a time when there was at least anecdotal evidence suggesting that turnover was stable or rising and that deal size remained large

Some Committee members suggested that perceptions of poor liquidity may largely reflect changing market structure While acknowledging that liquidity has decreased in parts of the market, such as dollar/sterling spot trading in the New York afternoon, it has clearly increased in others, such as options and major cross-currency trades Thus, perceived changes in liquidity may, in fact, reflect differentials in the rates of growth in customer demand in certain segments of the market or changes in the traditional core of the market

Another structural factor which could contribute to a change in liquidity may be the reduced capacity or willingness of market makers to take short-term positions Some Committee members believed that liquidity has been hurt as interbank participants shift their focus to "risk taking" from "market making" This shift may be a response to deteriorating profitability or risk reward characteristics of market making High levels of compensation, new technology requirements, capital requirements on credit risk exposures and other factors have contributed to rising costs while new accounting procedures have made it easier to allocate these costs to individual foreign exchange businesses A narrowing of bid-offer spreads has put downward pressure on market-making revenues Also, the speed with which market makers in practice may be stripped of profitable positions or stuck with losing positions has meant that the risk in market making is far larger than can be measured by the spread between bid and offered prices At the same time price information which had traditionally been available only to those actively quoting two-way prices has become more generally available

These circumstances, it was felt by some, make it increasingly difficult for institutions to develop the "critical mass" of trading volume necessary to keep market making profitable A number of international trading institutions have for this or for other reasons, closed or consolidated the number of their trading operations Although in some cases a consolidated trading operation may supply more liquidity to the market than the smaller operations which it replaced or absorbed – because it may be given larger position limits and be able to stand behind a price longer or for greater amounts the closing of secondary trading operations can negatively affect liquidity by reducing market diversity If there are now fewer banks willing to deal in "large" amounts relative to the number and/or size of transactions placed in the market by their customers and as the relative sophistication of customers increases there may be a perceptible deterioration in the market making function of the exchange markets

Committee members also cited a number of features of the market during 1990 that may have contributed at times to a diminution in liquidity The relative lack of a predictable trend in exchange rates rates was mentioned as one factor which may have discouraged market participants from trading as much as usual for part of the year Similarly relatively low levels of rate volatility may at times have shrunk turnover and limited market participation by undermining the profitability of wholesale market participants

Committee members said that the proportion of U S trading carried out in the New York morning has steadily increased It is not clear whether volumes in the New York afternoon have actually declined or merely that the contrast in volume between morning and afternoon trading continues to grow Some institutions expressed their desire to make markets later in the day But because so many others have stopped making markets by early afternoon these institutions find there are too few counterparties to permit them to lay off a position which they might accumulate in the course of trading As a result, they feel it prudent to curtail their later operations, thereby reinforcing the trend to reduced liquidity late in the day Even so business that needs to be done can be executed during the afternoon in New York at good prices

FORMAL MEETINGS OF THE COMMITTEE

The Committee held five formal meetings during 1990. Its August 3 meeting was devoted to a discussion of draft terms and conditions for foreign currency options contracts, and several representatives of institutions actively trading options were invited to participate as guests. In addition to the formal meetings, a special meeting was held on May 3 to discuss various approaches being used or developed to net foreign exchange contracts. Representatives of several netting initiatives were invited to participate in that meeting.

Meetings in 1990	Schedule for 1991
February 2	February 1
June 1	April 5
August 3	June 7
October 5	August 2
December 7	October 4
	December 6

REASSESSMENT AND REORGANIZATION OF THE STRUCTURE OF THE FOREIGN EXCHANGE COMMITTEE

At its December 1990 meeting, the Foreign Exchange Committee agreed to establish four standing subcommittees —Trading Practices, Market Structure, Risk Management, and Communications—and to create the position of Executive Assistant to the Committee The Committee approved the associated amendments to the Committee's Document of Organization in January 1991

Debate on Committee Structure

Current and former Committee members had from time to time questioned whether the Foreign Exchange Committee might enhance its ability to respond to the needs of the foreign exchange community Some felt that the Committee's structure and approach were such that the community at large could not fully benefit from the substantial body of experience and expertise represented on the Committee Others suggested that the market would benefit from the establishment of an institution to resolve disputes or promote high standards for market practice Such thoughts led to a Committee "debate" in the fall of 1989, addressing the following propositions

a The institutions participating in the United States foreign exchange market need an organization to protect, preserve, and enhance the integrity of their market and operating practices and to advocate policies favored by the industry

b Were it decided that the market needs such an organization, the organization should be free standing, with stature, membership recognition and responsibilities not unlike those of Public Securities Association or the International Swap Dealers Association

The debate and ensuing discussion led to the selection of Committee members to form a subcommittee to examine alternative structures and to make recommendations to the full Committee

Alternatives Reviewed

This organization subcommittee decided that it could make one of three possible recommendations (1) no change, (2) modify the existing committee structure, or (3) abandon the Committee and create either a trade association or a self-regulatory organization

Among these alternatives, members rejected the concept of a self-regulatory organization because the subcommittee did not discern a need for formal regulation of the foreign exchange market, believing that most market participants' activities are already monitored by various regulatory agencies

The trade association alternative, on the other hand, had some attraction because such an organization could pursue industry interests more actively Unlike the Foreign Exchange Committee, a trade association might engage in lobbying activities, appear before regulatory agencies, or promote products A well-supported trade association also could increase the number of participating financial institutions and personnel

On balance, however, the subcommittee rejected the trade association alternative It felt that the issues at stake did not warrant either the effort to organize a trade association or to associate with an existing one, especially at a time when financial institutions are under pressure to cut costs The subcommittee members noted the Committee's past substantive work on risk management, on market practices, and on issues of particular relevance to foreign exchange managers such as netting and capital requirements With financial institutions readily supplying extensive professional support in completing these tasks, it was not at all clear that the presence of a trade association would have enhanced the Committee's efforts

The most decisive factor in the decision to reject a trade association was, however, the desire to avoid loosening ties to the Federal Reserve, which association with a trade group would have required Subcommittee members believed that the status of the Committee is immeasurably enhanced by association with the Federal Reserve and indirectly with other central banks For their part, Federal Reserve officials readily acknowledge that Committee sponsorship affords them the benefit of direct contact with market practitioners and early involvement in issues and concerns of these practitioners

Recommended Change

Therefore, the subcommittee concluded that an institution structured along the lines of the Foreign Exchange Committee was still in the best interests of all However, it

recommended some changes it believed would greatly enhance the Committee's effectiveness The underlying strategy of the subcommittee's recommendations was to change the way the Committee organizes its work, by both establishing more standing committees and creating a full-time staff position Up to now, when the Committee chose to address an issue it would often establish an *ad hoc* subcommittee to study the topic and make a recommendation to the full Committee as to how it might proceed These subcommittees consisted of members and alternates who volunteered, based on their interest in a particular project While the subcommittees were frequently effective in addressing their assignment, this procedure was cumbersome and provided no mechanism for continuity after the initial task had been completed

The subcommittee recommended the creation of four new standing subcommittees to improve the Foreign Exchange Committee's ability to identify important issues, to prepare timely responses, and otherwise be more responsive to issues coming to its attention In accepting this recommendation, the Committee undertook to have each member and alternate serve on at least one subcommittee In this way, members will focus more directly on particular sectors of the foreign exchange market, actively inquiring into developments and conditions, and serving as a sounding board for the market as a whole The new subcommittee mandates are as follows

The *Trading Practices Subcommittee* will focus on day-to-day trading practices among market participants and otherwise reinforcing the Committee's revised Management Guidelines

The *Market Structure Subcommittee* will focus on developments which are likely to have an impact the functioning of the market over the long term such as, for example, implementation of netting systems

The *Risk Management Subcommittee* is to foster improvements in the quality of risk management in the foreign exchange and related international financial markets

The *Communications Subcommittee* will endeavor to find ways to share the important ideas and work of the Committee more effectively with market participants

The organization subcommittee's second recommendation, to create the position of Executive Assistant, was developed in close consultation with Federal Reserve officials The position is to be filled by appointment by the Federal Reserve Bank of New York (FRBNY) from among members of its staff for a term of about one year The Executive Assistant will assume administrative responsibilities currently handled by various Federal Reserve staff members and the Committee chairman and help maintain a steady pace of progress in the work of the various subcommittees

RELATIONS WITH OTHER ORGANIZATIONS

During 1990 the Committee agreed with the suggestion of the London Foreign Exchange Committee that the two groups should establish and maintain closer contact with one another. The members of both Committees felt that there are likely to be many areas of mutual interest and concern on which cooperation would be most useful. The Committees agreed to exchange information on their structures, mandates and memberships, and expressed the intention to raise issues of mutual concern in London and New York on an ad hoc basis in the future.

AD HOC SUBCOMMITTEES ACTIVE DURING 1990

COMMITTEE STRUCTURE SUBCOMMITTEE

John Arnold (Chairman)
Arthur Meehan
William Rappolt
David Harvey
Robert McCully
Lloyd Blankfein

Willene Johnson, FRBNY

MANAGEMENT GUIDELINES SUBCOMMITTEE

John Christopherson (Chairman)
James Borden
Tom Barman

Margaret Greene, FRBNY
Peter Fisher, FRBNY

BROKERS' POINTS SUBCOMMITTEE

Heinz Riehl (Chairman)
James Leitner
William Rappolt
Edward Baltes
Haruo Kimura

David Roberts, FRBNY
Thad Russell, FRBNY

VERIFICATION OF MAIL CONFIRMATIONS SUBCOMMITTEE

David Puth (Chairman)
Woody Teel
John Christopherson
Richard MaGee
Anthony Bustamente

IMPLIED VOLATILITIES BENCHMARK SUBCOMMITTEE

James Borden (Chairman)
David Harvey

David Roberts, FRBNY
Thaddeus Russell, FRBNY

LAWYERS SUBCOMMITTEE ON STANDARDIZED TERMS AND CONDITIONS FOR OVER-THE-COUNTER TRADING OF FOREIGN CURRENCY OPTIONS

Douglas Harris, Morgan Guaranty (Chairman)
Ruth Ainslie, Bankers Trust
Simeon Amon, Chase Manhattan
Michael Bannon, Chase Manhattan
Mark Baum, Merrill Lynch
John Emert, Citibank
Laurie Ferber, Goldman Sachs
Philip Levy, Manufacturers Hanover Trust
Jeffrey Lillien, First National Bank of Chicago
Jim Roselle, First National Bank of Chicago

Ernest Patrikis, FRBNY
Rakesh Bhala, FRBNY

NETTING SUBCOMMITTEE

Woody Teel (Chairman)
John Arnold
David Puth
Robert Jarrett

RISK LIMIT SUBCOMMITTEE

David Harvey (Chairman)
Heinz Riehl
James Leitner
Lloyd Blankfein

PERMANENT SUBCOMMITTEE FOR MEMBERSHIP

Margaret Greene, FRBNY (Chairman)
James Borden
William Rappolt
John Nalesnik

SUBCOMMITTEE ASSIGNMENTS FOR 1991

TRADING PRACTICES SUBCOMMITTEE

John Christopherson (Chairman)
David Puth (Chairman)

Shuichi Fujimori
Nick D Wharton
Joe Petri
James Borden
Robert McCully
Edward Baltes

MARKET STRUCTURE SUBCOMMITTEE

Woody Teel (Chairman)

John Nalesnik
Robert W Goetter
William Dueker, Jr
Yoichi Sakaguchi
Andrew Popper

RISK MANAGEMENT SUBCOMMITTEE

Heinz Riehl (Chairman)
Robert Jarrett (Chairman)

Stephen Bub
John Finigan
Woody Teel
Craig Bentley

COMMUNICATIONS SUBCOMMITTEE

Christine Patton (Chairman)
Lloyd Blankfein (Chairman)

Joseph Spendley
Anthony Bustamante
Kenneth Markin
Chris Foley

MEMBERSHIP SUBCOMMITTEE

Margaret Greene, FRBNY, (Chairman)

John Nalesnik
Richard MaGee
James Borden
William Rappolt

SELECTED DOCUMENTS

DOCUMENT OF ORGANIZATION

GUIDELINES FOR THE MANAGEMENT OF
FOREIGN EXCHANGE TRADING ACTIVITIES

POLICY STATEMENT ON THE USE OF "POINTS"
IN SETTLING FOREIGN EXCHANGE CONTRACTS

LETTER ON CONFIRMATIONS

LETTER ON THE NEW STATISTICAL RELEASE

IMPLIED VOLATILITY RATE FOR FOREIGN EXCHANGE OPTIONS

DOCUMENT OF ORGANIZATION

CONCLUSION OF FEASIBILITY STUDY TO ESTABLISH FOREIGN EXCHANGE COMMITTEE (June 1978 as amended in October and December 1987, December 1989, and January 1991)

It was generally agreed that any new forum for discussing matters of mutual concern in the foreign exchange market (and where appropriate off-shore deposit markets) should be organized as an independent body under the sponsorship of the Federal Reserve Bank of New York Such a Committee should

1 be representative of institutions participating in the market rather than individuals,

2 be composed of individuals with a broad knowledge of the foreign exchange markets and in a position to speak for their respective institutions,

3 have sufficient stature in the market to engender respect for its views, even though the Committee would have no enforcement authority,

4 be constituted in such a manner as to insure at all times fair presentation and consideration of all points of view and interests in the market, and

5 notwithstanding the need for representation of all interests, be small enough to deal effectively with issues that come before this group

The objectives of the Committee would be

To provide a forum for discussing technical issues in the foreign exchange and related international financial markets

To serve as a channel of communication between these markets and the Federal Reserve and, where appropriate, to other official institutions within the United States and abroad

To enhance knowledge and understanding of the foreign exchange and related international financial markets, in practice and theory

To foster improvements in the quality of risk management in these markets

To develop recommendations and prepare issue papers on specific market-related topics for circulation to market participants and their management

It is understood that the Committee would seek to work closely with the FOREX and other formally established organizations representing the other relevant financial markets

The Committee

In response to the results of the study, the Federal Reserve Bank of New York agreed to sponsor the establishment of a Foreign Exchange Committee It was agreed that

1 The Committee should consist of no more than 16 members and at least an equal number of alternates In addition, the president of FOREX would be invited to participate

2 Institutions participating in the Committee should be chosen in consideration of their participation in the exchange market here as well as of the size and general importance of the institution Selection of participants should remain flexible to reflect changes as they occur in the foreign exchange market

3 Responsibility for choosing member institutions and alternates rests with the Federal Reserve Bank of New York The Federal Reserve may solicit the advice of current Committee members

4 Initially, the terms of half of the members will be for two years and half for three Thereafter, to provide for maximum participation in the Committee by institutions eligible for membership, the term of membership would be two years It is envisaged that at the expiration of each member's term an alternate would succeed to full membership

The composition of the Committee should be as follows

5-6 East Coast Banks

2-3 Other U S Banks

2-4 Foreign Banks

1 Investment Bank

1-2 Brokers (preferably to represent both foreign exchange and Euro-deposit markets)

the President of FOREX USA, Inc *(ex officio)*

the Federal Reserve Bank of New York *(ex officio)*

Committee Procedures

The Committee will meet with a specified agenda of items at least every alternate month The format of the discussion, however, will be informal

In the event that a member is unable to attend a meeting, an alternate for that member may attend

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 and their alternates, but also widely to institutions that participate in the foreign exchange market in the United States

The Committee will have five standing subcommittees Membership, Trading Practices, Market Structure, Risk Management, and Communications A representative of the Federal Reserve Bank of New York will serve as chairman of the Membership Subcommittee The Membership Subcommittee will aid in the selection and orientation of new members and assign members to the other standing sub commitees Each subcommittee other than the Membership Subcommittee will meet at least quarterly and report periodically to the full Committee

The Committee or any of its standing subcommittees may designate *ad hoc* working groups to focus on specific issues

Depending on the agenda of items to be discussed, the Committee or its standing subcommittees may choose to invite other institutions to participate in discussions and deliberations

Summaries of discussions of topics on the formal agenda of Committee meetings will be made available to market participants by the Federal Reserve Bank of New York on behalf of the Committee The Committee will also publish an annual report which will be distributed widely to institutions that participate in the foreign exchange market in the United States

Meetings of the Committee will be held either at the Federal Reserve Bank of New York or at other member institutions

In addition to the meetings provided for above, a meeting of the Committee may be requested at any time by two or more members

Responsibilities of Committee Members

The Foreign Exchange Committee is composed of institutions who participate actively in the foreign exchange markets as well as other financial markets world-wide As a senior officer of such an institution, the Committee member has acquired expertise that is invaluable to attaining the Committee's objectives The member's continuous communication with the markets worldwide generates knowledge which is necessary to the Committee's deliberations of market issues, or problems Effective individual participation is critical if the collective effort is to be successful

The responsibilities of membership apply equally to all associated with the Committee whether they are serving currently as a formal member or an alternate member

The specific responsibilities of each member are

- To function as a communicator to the Committee and to the marketplace on matters of mutual interest, bringing issues and information to the Committee, contributing to discussion and research and sounding out colleagues on issues of concern to the Committee
- To represent to the Committee the concerns of his own institution In addition to reflect the concerns of a market professional as well as the constituency from which his institution is drawn or the professional organization on which he serves
- To participate in Committee work and to volunteer the resources of his institution to support the Committee's projects and general needs
- To coordinate between the formal member and the alternate attendance at meetings and to communicate to the absent member on a timely basis the discussions and other items of import that occurred at each meeting This responsibility is reciprocal within each designated set of formal and alternate members

GUIDELINES FOR THE MANAGEMENT OF FOREIGN EXCHANGE TRADING ACTIVITIES

Since the Foreign Exchange Committee's "Guidelines for the Management of Foreign Exchange Trading Activities" were last amended in 1986, the Committee has reexamined several longstanding issues and addressed others which have become important as a result of the changing character of the "interbank" foreign exchange market or the changing technology used to support trading

This is the Committee's second revision of a paper first published in 1980 The Committee's discussions of market practice during that year centered on management issues relating to the control and supervision of foreign exchange trading activities that were not adequately addressed in existing codes of good trading practices or guidelines for foreign exchange operations Since then, the Committee has addressed numerous questions regarding market practice and reviewed changing techniques for evaluating and managing risk exposures As a consequence, the current version of the Committee's guidelines is both more comprehensive and up-to-date

These guidelines present the views of representatives of a number of commercial banks, investment banks, and brokerage firms participating in the U S foreign exchange market The guidelines are primarily directed to the managers of institutions actively trading foreign exchange (including both commercial banks and, where appropriate, investment banks) and also to the managers of foreign exchange brokerage firms However, others may also find it a useful document Individual traders and brokers may benefit from a discussion of these issues In addition, much of the material is sufficiently general to apply to trading operations other than foreign exchange

Confidentiality

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

Managers are responsible for ensuring that their employees have been trained to identify and to treat accordingly information that is confidential and to deal appropriately with situations that require anonymity A trader may have access to a considerable amount of confidential information In addition to the trades he prices, he may know of confidential material prepared within his own organization or obtained from those with whom his institution does business Such information might pertain directly to the foreign exchange market or to other financial markets While not explicitly stated to be confidential, it may not be publicly available

Managers should expect that their employees will not pass on confidential information outside of their institution except with the permission of the party or parties directly involved Nor should a trader or broker distribute confidential information within his institution except on a need-to-know basis Managers should not tolerate traders or brokers utilizing confidential material for personal benefit nor in any manner that might compromise their institution Of course it should be recognized that disclosure of certain information may occasionally be required by law or regulation But in the event that confidentiality is otherwise broken, it is the role of management to act promptly to correct the conditions that permitted such an event to occur

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

Managers should also act to protect sensitive information when visitors are present in trading rooms or brokerage operations There is always the possibility that visitors will be exposed to information not intended for them names of participants, amounts of trades, and currencies traded could accidently be disclosed Whether or not disclosed information is ever put to use, and however unintentional disclosure may be, the simple fact that confidentiality

between counterparties has been violated is grounds for concern Visits should be prearranged and visitors should be accompanied by an employee of the host institution A visitor from another trading institution should not be permitted to trade for his own institution from the premises o the host

Trading for Personal Account

In general, managers should expect that traders will give their full attention to their employing institution's business activities and not be distracted by their own personal financial affairs Managers should also expect that traders will fulfill their institutional responsibilities objectively, unbiased by their own financial position

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

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

Entertainment/Gifts

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

In turn, foreign exchange market personnel should conduct themselves in such a way as to avoid potentially embarrassing situations and to reduce the chances of incurring a presumption of indebtedness They should fully understand their institution's guidelines on what constitutes an appropriate gift or entertainment as well as the bounds of law and reasonable propriety They should also be expected to notify management regarding unusual favors offered traders by virtue of their professional position

Personnel Issues for Management

The work environment for trading personnel has some very important characteristics Trading room positions are by their nature positions of great trust The pace of work for traders is intense They operate under strong internal pressures to make profits in a market that is open 24 hours a day Yet the process of developing a trader has become compressed Today, traders are either hired from other institutions or they are developed internally from individuals thought to have either on-the-job experience or academic training in areas that would prepare them quickly for market-making and/or position-taking activities

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

Policies and procedures of the organization The mobility of trading personnel within the financial industry has a material effect on a trader's perception of his relationship to his employer It is possible for an employee to begin trading an instrument for an institution without having an intimate knowledge of the traditions and practices of that

market or of the traditions and corporate culture of his current employer. This situation can give rise to misunderstandings about management expectations for traders

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

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

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

Trading Practices

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

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

In the interbank market, dealers are expected to be committed to the bids and offers they propose through brokers for generally accepted market amounts unless otherwise specified and until the bid or offer is (1) dealt on, (2) canceled, (3) superseded by a better bid or offer, or (4) the broker closes another transaction in that currency with another counterparty at a price other than that originally proposed In the latter two cases, the broker should consider that the original bid or offer is no longer valid unless reinstated by the dealer

Need to avoid questionable practices When markets are unsettled and prices are volatile, opportunities may arise for traders to engage in practices which may realize an immediate gain, or avoid a loss, but which may be questionable in terms of a trader's reputation -- as well as that of the trader's institution -- over the long run The kinds of questionable practices are many Some, like perpetrating rumors, may reflect adversely on the professionalism of the trader Others, like reneging on deals, may give rise to liability

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

Off-market rates Counterparties from time to time may ask a dealer to use an "off-market" exchange rate But such requests should raise questions of credit policy and, perhaps, of propriety

Traders are most frequently asked to employ off-market rates in connection with swap transactions when there can be discussion about whether the "current" or "historical" rate should be applied (To be sure, the essence of a swap transaction is neither the spot nor the forward rate, per se but the relationship between the two) While the nature of certain commercial transactions may justify the use of historical rates with some customers, use of historical rates with other trading institutions should not be permitted

The application of non market rates can have the effect of moving income from one institution to another (perhaps over an income reporting date) or of altering the timing of reported taxable income Such operations, in effect, can result in an extension of unsecured credit to a counterparty Therefore, all requests for the use of historical rather than market rates should be referred to management for policy and credit judgments as well as for guidance on appropriate accounting procedures

Stop-loss/profit orders Trading institutions may receive requests from customers, branches, and correspondents to buy or sell a fixed amount of currency if the exchange rate for that currency reaches a specified level These orders, which include stop-loss and limit orders from trading counterparties, may be intended for execution during the day, overnight, or until executed or canceled

Stop-loss or specified level orders are a frequent source of tension between counterparties These orders create a

potential for loss or liability which can be substantial if they are mishandled or there is a misunderstanding about the terms and conditions for their execution and confirmation

Management should ensure that there is a clear understanding between their institution and their counterparties of the basis on which these orders will be undertaken In accepting such an order, an institution assumes an obligation to make every reasonable effort to execute the order quickly at the established price However, a specified rate order does not necessarily provide a fixed-price guarantee to the counterparty

Trader-Trader Relationship

For several years, trading institutions have been dealing directly with each other, at least at certain agreed-upon times during the dealing day The nature of the direct dealing relationship will vary according to the interests of the two parties Management should be sure that the terms of each relationship are clearly understood and accepted by both institutions and that these terms are respected in practice

A possible element of a direct dealing relationship between two institutions is reciprocity That is, each institutions in a direct dealing pair may agree to reciprocate upon request in providing timely, competitive rate quotations for marketable amounts when it has received such a service from the other Differences in the relative size of the institutions, together with their expertise or specialization in certain markets, will influence what is perceived by the two parties as an equitable reciprocity If there are limitations on reciprocity, or times of the day when the two do not wish to be bound by the obligation of reciprocity, these should be explicitly agreed upon in advance by the management of both institutions

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

Trader-Broker Relationship

Senior management of both trading institutions and brokerage firms should assume an active role in overseeing the trader-broker relationship They should establish the terms under which brokerage service is to be rendered agree that any aspect of the relationship can be reviewed by either party at any time, and be available to intercede in any disputes that may arise (See the discussion below on the resolution of disputes)

The management of both trading institutions and brokerage firms should assure themselves that their staffs are both aware of and comply with internal policies governing the trader-broker relationship They should make clear to their staffs the importance of acting professionally and with discretion in all circumstances Senior management of trading institutions are ultimately responsible for the choice of brokers to be used They should also monitor the patterns of broker usage and be alert to possible undue concentrations of business Brokerage management should impress on their employees the need for them to respect the interests of all of the institutions which their firm serves

Name substitution Brokers are intermediaries who communicate bids and offers to potential principals and otherwise arrange transactions In the traditional foreign exchange market, the names of the institutions placing bids or offers are not revealed until a transaction's size and exchange rate are agreed upon, and then only to the counterparties Should one of the counterparties turn out to be unacceptable to the other, they might agree to the substitution of a new counterparty between them

This practice of "name substitution"– or of interposing a new counterparty (a "clearing bank") between the two original parties—developed because, at the stage of a transaction when names are introduced, each counterparty is already committed to the trade and aware of its details, information that is considered confidential Many institutions believe that, once they have shown their hand in this way, they should complete a trade with the same specifications

Name substitution in spot transactions is an acceptable practice provided that (1) both counterparties receive the name of an acceptable counterparty within a reasonable amount of time (2) the clearing bank is in full knowledge of the trade, and (3) the clearing bank is operating in accordance with its normal procedures and limits Under these circumstances, the clearing bank's risk is no different than it would be on any other trades involving the respective trading institutions

Given the risks involved and the disruptions that can occur when transactions cannot be completed expeditiously, foreign exchange managers should clearly define with their brokers the approach their institution will generally follow in handling specific name problems Managers should provide their brokers with the names of institutions with which they are willing to deal or, alternatively, the names of the institutions they will virtually always reject Brokers should use this information to try to avoid name problems

If a broker proposes a transaction on behalf of an institution not usually regarded as an acceptable counterparty, it is appropriate for that broker to make a potential counterparty aware that the transaction may need to be referred to management for credit approval—that the transaction may be "referable"—before the trade can be agreed to

Name substitution rarely, if ever, occurs in the brokered forward market Participants in this market recognize and understand that brokers' forward bids and offers, even though firm, cannot result in an agreed trade at matching prices unless it comes within the internal credit limits of each counterparty

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

Whenever a trade is aborted, managers and traders must recognize that it may be impossible for the broker to find another counterparty at the original price Managers should ensure that their traders understand the principle that brokers are not required to substantiate prices until canceled or changed They should also make clear to their traders that it is inappropriate for them to force a broker to accept a transaction in which a counterparty has withdrawn its interest before the trade could be consummated - a practice known as "stuffing"

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

The management of both trading institutions and brokerage firms should take steps to reduce the likelihood of disputes They should, for example, assume a key role in training new employees in the use of proper terminology They should require their traders and brokers to use clear, common terminology, to be aware of standard market practice, and to follow the procedures of their institution Trading institution management should also consider implementing more frequent intraday reconciliations with other counterparties, including those arranged through brokers, once-a-day checks may be inadequate

Even if these procedures are followed disputes will arise and management should establish clear policies for their resolution Informal accommodations, which sometimes develop in the brokered market, can be inconsistent with sound business practice

The practice of "points" Such was the case, for example, with the practice of "points" This practice may have started as a mechanism to permit a disputed brokered transaction to be completed while deferring settlement of the difference (measured in points) until those points were settled in another trade But as the practice developed, it came to involve the arranging of proportionately advantageous or disadvantageous future trades, the unrecorded extension of credit between counterparties, and all of the problems associated with unrecorded transactions

The obligations arising from the points procedure did not have a clear legal basis and may have compromised the neutrality of the broker The procedure was potentially costly to all market participants because institutions did not know when they were the unwitting victim of a scheme to pass on an advantageous trade to someone else The use of points on an *unrecorded* basis was particularly dangerous because it may have been outside management review may have undermined the financial integrity of an institution's records and may have generated other troublesome dimensions (See Federal Reserve Bank of New York "Policy Statement on the Use of 'Points' in Settling Foreign Exchange Contracts," August 1, 1990)

Resolution of disputes When disputes arise or differences occur, there are acceptable procedures for compensation

- Differences should be routinely referred to senior management for resolution, thereby transforming the dispute from an individual trader-broker issue to an inter institutional issue

- All compensation should take the form either of *payment in cash or adjustment to brokerage bills* The settlement of differences should be even handed allowing for compensation to go both ways

- All such transactions should be fully documented by each firm

For more detailed suggestions on the resolution of differences and disputed trades, see 1989 *Foreign Exchange Committee Annual Report, pp 16 17*

Trader-Customer Relationship

Strains are inherent in the relationship between trading institutions and their customers In consequence, the management of customer relationships requires a high degree of integrity and mutual respect as well as effective communication of each party's interests and objectives

Customers may expect that the growing size of their transactions should be reflected in a narrowing of spreads to levels approaching those which interbank dealers quote among themselves What customers may not realize is that they do not behave in other ways like interbank dealers, most notably in extending reciprocity that is, they do not make markets nor do they provide rate quotations with narrow spreads to assist trading institutions in managing exposures This conflict in expectations can be frustrating for dealers who must cope with internal profit pressures

Disputes that may arise between a trader and a customer concerning the terms of a transaction, such as the price dealt on a stop-loss order, should be referred to the appropriate level of management for resolution

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

Operational Aspects of Trading

Risk management Institutions should be duly aware of the various types of risk to which they are exposed when engaging in foreign exchange transactions including exchange rate (or market) risk, counterparty credit risk, "clean risk" at liquidation (or settlement risk), liquidity risk, and country (or sovereign) risk Sound management controls to monitor and evaluate the risk exposures associated with foreign exchange and related trading operations can assist in keeping these exposures within management's specifications Management information tools need to be reinforced with effective mechanisms for monitoring compliance

There is a great diversity of approaches that institutions may adopt to monitor and reduce risk exposures Some institutions still rely principally on the establishment of lines of credit for each customer or trading partner, such as limits for total contracts outstanding or sublimits for clean risk at liquidation, as well as limits for individual instruments Some institutions may also require collateral or compensating balances

Recently, a number of the larger trading institutions have changed their approach for internally evaluating and controlling risk exposures In an effort to apply a single approach across different instruments and different risks, they have adopted volatility-based guidelines for evaluating risk The Foreign Exchange Committee has published descriptions of these new techniques for monitoring risk exposures (See 1983 *Annual Report*, p 15, 1984, p 15, 1988, p 19, and 1989, p 26)

Netting Interest in foreign exchange netting has increased as institutions have sought to reduce counterparty credit risk exposure, interbank payments, and the amount of capital allocated to foreign exchange activity While netting arrangements may have operational similarities they can differ significantly in their legal and risk-reduction characteristics Some forms of netting reduce the number and size of settlement payments while leaving credit risk at gross levels The masking of risk, however, is not consistent with sound banking practice Other forms of netting, such as netting by novation can reduce credit risk as well as payment flows by legally substituting net obligations in place of gross obligations

The Foreign Exchange Committee has had a long-standing interest in foreign exchange netting Further information about the types of netting arrangements are found in the Committee's *Annual Report* for 1988, p 9, and for 1989, p 8 and also the *Report of the Committee on Interbank Netting Schemes* of the G-10 central banks published by the Bank for International Settlements in November 1990

New product development The growing complexity of new financial instruments and services requires that detailed research and documentation, together with internal cross functional reviews and personnel training, be completed before a product is marketed Formal programs to control the introduction of a new product help verify that the new activity is likely to be sufficiently profitable that associated risks will be manageable, and that all legal, regulatory accounting, and operating requirements are met While

many requirements must be fulfilled before the introduction of a product, the existence of formal, new product programs can actually speed and facilitate the product development cycle (For further discussion, see 1988 *Annual Report*, p 11)

Taping of telephone conversations Many trading institutions tape record all telephone lines used for trading and confirmation Taping conversations in foreign exchange trading rooms and confirmation areas helps resolve disputes quickly and fairly Whether or not traders need access to untaped lines in order to carry out unrecorded conversations on sensitive topics is a matter of individual preference

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

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

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

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

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

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

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

Importance of support staff Management's attention to a foreign exchange trading operation is usually directed

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

Accordingly, management must be aware of their responsibility to establish a support staff consistent with the scope of their trading desk's activity in the market Conversely, management should ensure that trading is commensurate with available back office support

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

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

Twenty-four hour trading With foreign exchange trading now taking place on a continuous 24-hour basis, management should be certain that there are adequate control procedures in place for trading that is conducted outside of normal business hours—either at the office or at traders' homes Management should clearly identify those types of transactions that may be entered into after the normal close of business and should ensure that there are adequate support and accounting controls for such transactions Management should also designate and inform their counterparties of those individuals, if any, who are authorized to deal outside the office In any case, all confirmations for trades arranged off-premises should be sent promptly to the appropriate staff at the office site

Increasingly, institutions in the United States are receiving, during the U S workday, requests to trade from overseas traders who are operating outside of their own normal business hours Management should consider how they want their traders to respond It is possible that, for selected counterparties, arrangements can be discussed in advance and a *modus operandi* can be established that will accommodate the counterparty's needs and still identify and protect all parties to the transaction

FEDERAL RESERVE BANK OF NEW YORK

POLICY STATEMENT ON THE USE OF "POINTS" IN SETTLING FOREIGN EXCHANGE CONTRACTS

August 1, 1990

To All Depository Institutions, and Others Concerned, in the Second Federal Reserve District

The Board of Governors of the Federal Reserve System, in conjunction with other Federal bank regulatory agencies, has issued the following statement prohibiting the use of "points" by banks in their foreign exchange operations and requiring the adoption of alternative procedures regarding disputed contracts

> A practice unique to the brokered foreign exchange market is the use of "points' as a way to settle disputed contracts "Points" are used in the brokered foreign exchange market as a means of dealing with problems arising from missed prices, from miscommunications, and/or from broker and dealer errors The use of "points" permits a disputed brokered transaction to be completed but defers settlement of the difference arising from it (measured in "points") until these "points" are settled by – depending on the circumstances – arranging proportionately advantageous or disadvantageous future trades or by explicit payment Since "points" are an informal accommodation between individual traders and brokers they are not normally included in the financial records of the institution on whose behalf the foreign exchange contract was completed and are often accomplished without formal management acknowledgment
>
> Ineffective policies, procedures and controls over disputed contracts by a financial institution can result in inaccurate records, misleading reports filed with regulatory and tax authorities, misapplication of funds, and potential violations of the institution's internal policies and Federal criminal laws regarding gifts to bank personnel The U S bank regulatory agencies have found that the use of "points" is a practice that can lead to significant abuse and is considered an unsafe and unsound banking practice Accordingly, each U S commercial bank, Edge or Agreement corporation, and branch, agency and commercial lending company associated with a foreign bank and subject to U S Federal bank regulatory agencies' supervisory jurisdiction that deals in foreign exchange must develop, adopt, and implement detailed policies and procedures regarding disputed contracts The written policy should detail the financial institution's approach to resolving disputed trades and should prohibit the use of points Adequate procedures should be developed that identify and control risk, and at a minimum should detail proper accounting management, and financial controls over disputed contracts The policy statement should be approved by senior management and reviewed by the board of directors in the case of a bank, or the parent institution in the case of an office of a foreign bank or Edge corporation

Questions regarding this matter may be directed to our International Banking Department (Tel No 212 720 7934)

Frederick C Schadrack,
Executive Vice President

COMMITTEE LETTER ON THE NEED FOR WRITTEN CONFIRMATIONS FOR SPOT TRANSACTIONS

April 16, 1990

Dear ________________

At its meeting on March 2, the Foreign Exchange Committee considered the recommendation proposed by the U.S. Council on International banking that banks discontinue the sending and verification of mail confirmations on spot foreign exchange deals.

The Committee concludes that it is as necessary as ever to have timely, written confirmations for all spot deals with banks and other dealers. It recommends that these confirmations be exchanged through immediate means of communication on the transaction date of the trade. Examples of timely confirmation are telex, SWIFT, fax, and electronic dealing/confirmation systems. These forms of confirmation are more appropriate than mailed confirmations which often do not arrive in time to bring to light before settlement a possible problem or misunderstanding.

Very truly yours,

Christine Patton
Chairman

F.R.B.N.Y. LETTER ON THE NEW STATISTICAL RELEASE

March 19, 1990

Dear ________________

On March 1st, this Bank issued the first of a new release which your chief financial officer, general auditor, and the management of your foreign exchange area may find helpful for assessing valuations of options contracts. The release provides survey ranges of implied volatility rates, bid and asked, for at-the-money options as of 3:30 p.m. on the last business day of each month. Copies of the first release and a background paper are enclosed for your information. You may wish to forward them to the appropriate individuals in your institution.

We undertook to provide this service at the request of the Foreign Exchange Committee, a group sponsored by this Bank which is made up of institutions representative of the U.S. foreign exchange market. The Committee felt that the auditing and management of options market participants would be strengthened by having supplemental and independently prepared information about implied volatility rates.

The release is available from our Public Information Department and the Department of Commerce's Electronic Bulletin Board ("VRATES FRB"). Several wire services also have indicated to us that they will begin carrying the data soon, including Knight-Ridder, Quotron, Reuters and Telerate.

I hope that your institution finds this new service useful. Of course, any comments and suggestions regarding the release will be most welcome.

Sincerely yours,

Margaret L. Greene
Senior Vice President

Implied Volatility Rates
Foreign Exchange Options

Currency Against US$	One Month		Three Month		Six Month		Twelve Month		Two Year		Three Year	
	Bid	Offer	Bid	Offer	Bid	Offer	Bid	Offer	Bid	Offer	Bid	Offer
February												
DEM	10.9	11.5	11.1	11.6	11.3	11.9	11.6	12.0	11.6	12.3	11.5	12.5
JPY	8.4	9.0	8.5	8.9	8.5	8.9	8.6	9.0	8.7	9.3	8.7	9.5
SWF	10.9	11.5	11.1	11.7	11.3	11.9	11.4	12.0	11.5	12.4	11.5	12.6
STG	9.9	10.6	10.2	10.9	10.7	11.2	11.2	11.6				
CAD	4.7	5.3	4.7	5.3	4.7	5.3	4.7	5.4				
AUD	11.2	12.0	11.3	12.0	11.3	11.9	11.3	11.9				
STG/DEM	6.5	7.2	6.5	7.3	6.6	7.3	6.6	7.3				
DEM/JPY	9.3	10.0	9.3	9.9	9.3	10.0	9.3	9.9				
March												
DEM	10.3	10.9	10.8	11.3	11.3	11.7	11.5	11.8	11.5	12.4	11.5	12.4
JPY	11.1	11.9	10.2	10.9	9.4	10.1	9.3	9.8	8.7	9.9	8.9	10.0
SWF	10.1	10.7	10.6	11.2	11.3	11.7	11.5	11.9	11.4	12.2	11.4	12.3
STG	10.5	11.1	10.7	11.3	11.3	11.8	11.5	11.9				
CAD	3.9	4.5	4.2	4.9	4.4	5.0	4.5	5.2				
AUD	9.6	10.5	10.1	10.9	10.3	11.1	10.5	11.2				
STG/DEM	7.7	8.5	7.7	8.5	7.4	8.1	7.2	7.8				
DEM/JPY	11.5	12.5	10.5	11.3	9.8	10.8	9.6	10.2				
April												
DEM	9.0	9.5	10.0	10.4	10.5	11.1	11.1	11.6	11.0	11.8	11.1	12.0
JPY	8.8	9.4	8.8	9.4	9.2	9.7	9.3	9.8	9.1	9.8	9.2	10.0
SWF	9.1	9.8	10.0	10.6	10.6	11.1	11.0	11.5	10.8	11.8	10.9	12.1
STG	9.1	9.8	10.0	10.6	10.6	11.3	11.2	11.7				
CAD	4.1	4.8	4.2	5.0	4.2	5.0	4.6	5.1				
AUD	9.7	10.6	10.0	10.7	10.3	11.0	10.4	11.0				
STG/DEM	7.5	8.3	7.4	8.3	7.4	8.1	7.2	7.8				
DEM/JPY	10.7	11.6	10.6	11.4	10.3	11.0	10.0	10.7				
May												
DEM	9.7	10.3	10.2	10.6	10.5	10.9	10.9	11.2	10.9	11.5	10.9	11.8
JPY	9.4	9.8	9.0	9.4	9.0	9.4	9.0	9.3	9.0	9.5	9.0	9.7
SWF	10.0	10.6	10.3	10.8	10.6	11.0	10.8	11.3	10.8	11.6	10.9	11.8
STG	9.0	9.6	9.8	10.3	10.3	10.8	10.6	11.0				
CAD	5.7	6.4	5.6	6.2	5.2	5.8	5.2	5.7				
AUD	8.3	9.0	8.9	9.6	9.7	10.3	10.0	10.6				
STG/DEM	7.4	8.0	6.9	7.6	6.5	7.0	6.0	6.5				
DEM/JPY	11.3	12.2	10.0	10.9	9.6	10.2	9.2	9.8				

Implied Volatility Rates
Foreign Exchange Options

Currency Against US$	One Month Bid	One Month Offer	Three Month Bid	Three Month Offer	Six Month Bid	Six Month Offer	Twelve Month Bid	Twelve Month Offer	Two Year Bid	Two Year Offer	Three Year Bid	Three Year Offer
June												
DEM	8.4	8.9	9.1	9.6	9.9	10.4	10.5	10.9	10.7	11.2	10.8	11.5
JPY	8.2	8.8	8.3	8.8	8.5	8.9	8.8	9.2	8.9	9.4	9.1	9.8
SWF	9.2	9.8	9.4	10.0	10.2	10.6	10.7	11.1	10.8	11.3	11.0	11.6
STG	8.5	9.0	8.8	9.8	9.8	10.3	10.3	10.8				
CAD	4.2	5.0	4.6	5.2	4.8	5.4	4.9	5.4				
AUD	8.0	8.7	8.9	9.5	9.3	9.9	9.6	10.3				
STG/DEM	7.2	7.7	7.0	7.5	6.6	7.1	6.0	6.5				
DEM/JPY	9.5	10.1	9.3	9.9	9.0	9.6	8.7	9.3				
July												
DEM	10.0	10.4	10.1	10.5	10.2	10.6	10.5	10.9	10.6	11.2	10.6	11.4
JPY	9.8	10.3	9.4	10.0	9.2	9.7	9.1	9.5	9.1	9.6	9.1	9.8
SWF	11.0	11.6	10.9	11.5	10.8	11.3	10.7	11.2	10.7	11.5	10.9	11.9
STG	10.5	11.2	10.6	11.2	10.6	11.0	10.6	10.9				
CAD	4.4	4.8	4.5	5.0	4.7	5.2	4.8	5.2				
AUD	9.3	9.9	9.4	10.0	9.7	10.1	9.7	10.2				
STG/DEM	6.8	7.4	6.6	7.2	6.2	7.0	5.8	6.3				
DEM/JPY	9.1	9.8	8.9	9.5	8.4	9.2	8.3	9.0				
August												
DEM	11.2	11.7	11.2	11.6	11.2	11.6	11.1	11.5	11.2	11.6	11.2	11.8
JPY	9.7	10.2	9.6	10.1	9.4	9.8	9.3	9.7	9.3	9.8	9.3	9.9
SWF	13.0	13.6	12.5	13.0	12.0	12.5	11.7	12.2	11.8	12.3	11.9	12.5
STG	12.5	13.0	11.9	12.4	11.6	12.1	11.4	11.8				
CAD	6.0	6.6	5.5	6.3	5.2	5.9	5.2	5.7				
AUD	10.2	10.7	9.9	10.4	9.8	10.4	9.8	10.3				
STG/DEM	7.8	8.5	7.2	7.7	6.3	7.2	5.6	6.2				
DEM/JPY	11.4	12.0	10.3	11.1	9.5	10.0	9.0	9.5				
September												
DEM	11.6	12.2	11.7	12.3	11.4	11.9	11.3	11.7	11.3	11.9	11.3	12.0
JPY	11.3	12.0	10.5	11.1	10.0	10.5	9.7	10.2	9.5	10.2	9.2	10.3
SWF	13.9	14.7	12.9	13.8	12.3	12.9	11.9	12.5	11.8	12.4	11.6	12.4
STG	13.3	14.3	12.7	13.3	12.0	12.4	11.6	12.0				
CAD	6.1	6.8	5.9	6.5	5.6	6.2	5.5	6.2				
AUD	11.0	11.6	10.3	11.0	10.0	10.7	9.9	10.6				
STG/DEM	8.7	9.5	7.9	8.7	6.8	7.4	5.5	6.2				
DEM/JPY	12.9	13.9	11.6	12.4	10.6	11.2	10.1	10.7				

Implied Volatility Rates
Foreign Exchange Options

Currency Against US$	One Month Bid	One Month Offer	Three Month Bid	Three Month Offer	Six Month Bid	Six Month Offer	Twelve Month Bid	Twelve Month Offer	Two Year Bid	Two Year Offer	Three Year Bid	Three Year Offer
October												
DEM	11.7	12.1	11.7	12.0	11.6	11.9	11.5	11.9	11.4	11.9	11.3	12.0
JPY	13.5	14.1	12.0	12.4	11.0	11.5	10.5	10.8	10.3	10.8	10.2	10.8
SWF	13.3	13.8	12.8	13.5	12.2	12.8	11.9	12.4	11.8	12.4	14.8	12.5
STG	11.8	12.3	11.7	12.2	11.7	12.1	11.5	12.1				
CAD	5.8	6.4	5.8	6.3	5.7	6.3	5.7	6.2				
AUD	12.3	13.0	11.2	11.7	10.2	10.8	10.0	10.5				
STG/DEM	5.3	6.0	5.0	5.6	4.5	5.2	4.2	4.9				
DEM/JPY	13.1	13.8	11.9	12.5	10.8	11.5	10.3	10.8				
November												
DEM	11.5	12.3	11.6	12.2	11.5	12.0	11.5	11.9	11.3	11.9	11.3	12.0
JPY	14.5	15.0	12.9	13.3	11.6	12.1	11.0	11.4	10.9	11.5	10.8	11.5
SWF	12.7	13.3	12.5	13.2	12.3	13.0	12.1	12.7	12.0	12.8	11.8	12.9
STG	12.0	12.7	11.8	12.2	11.6	12.2	11.6	12.0				
CAD	5.0	5.8	5.3	6.0	5.6	6.2	5.8	6.2				
AUD	10.4	11.0	10.4	11.0	10.3	10.8	10.0	10.8				
STG/DEM	5.7	6.4	5.2	6.0	4.8	5.5	4.5	5.1				
DEM/JPY	3.0	13.8	12.3	13.2	11.5	12.2	10.8	11.4				
December												
DEM	12.8	13.5	12.4	13.1	11.9	12.5	11.7	12.3	11.6	12.2	11.4	11.7
JPY	12.2	12.9	12.0	12.7	11.0	11.9	10.7	12.1	10.6	11.3	10.5	11.4
SWF	13.4	14.3	12.9	13.7	12.3	12.9	12.0	12.7	11.8	12.7	11.4	12.7
STG	12.7	13.5	12.3	13.0	11.9	12.5	11.6	12.2				
CAD	4.2	5.0	5.0	6.0	5.4	6.0	5.4	6.0				
AUD	9.8	10.5	10.2	10.8	10.2	10.7	10.0	10.6				
STG/DEM	5.0	5.8	5.0	5.7	4.7	5.3	4.4	5.1				
DEM/JPY	12.4	13.2	12.0	12.9	11.3	12.0	10.7	11.6				

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FOREIGN EXCHANGE COMMITTEE
(JANUARY 1991)
MEMBERS AND ALTERNATES

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