

THE  
FOREIGN EXCHANGE COMMITTEE

ANNUAL REPORT

1992

---

# CONTENTS

	<b>Page</b>
<b>Chairman's Report</b>	<b>3</b>
<b>Advisory Role of the Foreign Exchange Committee</b>	<b>5</b>
• Local Relations with Other Organizations	5
<b>Legal Initiatives of the Foreign Exchange Committee</b>	<b>6-7</b>
• Model Agreement for Foreign Exchange Options	6
• Model Agreement for Spot and Forward Foreign Exchange	7
• <i>Amicus Curiae</i> ("Friend of the Court" Brief in <u>Tauber v. Salomon Forex</u> Case	7
<b>Trading Practices Subcommittee</b>	<b>8-9</b>
• Brokers' Switches	8
• Determining Best Practices for Verbal Trades and Confirmations	8
• Panel of Head Traders	9
<b>Market Structure Subcommittee Report</b>	<b>10-11</b>
• Study of Pooled Funds	10
• Response to G-10 Issues Paper on Netting	10
<b>Risk Management Subcommittee Report</b>	<b>11-12</b>
• Credit Risk Management	11
• Audit and Control Group	12
<b>Communications Subcommittee Report</b>	<b>13</b>
• Seminar on ICOM Agreement	13
• Seminar on Price Risk Management	13
<b>Membership Subcommittee Report</b>	<b>14-17</b>
• Change in Membership Structure	14
• Change in Membership Classes	14
• Meetings of the Foreign Exchange Committee	15
• Subcommittee Assignments for 1992 and 1993	16-17
<b>Selected Documents</b>	<b>19-65</b>
(a) Paper on Price Risk Management	21
(b) Committee <i>Amicus</i> Brief in <u>Tauber v. Salomon Forex</u> Case	31
(c) Summary of Results of 1992 U.S. Foreign Exchange Market Survey (reprinted FRBNY document)	40
(d) Guidelines for the Management of Foreign Exchange Trading Activities	55
(e) Document of Organization	64
<b>Index</b>	<b>66-69</b>
<b>Foreign Exchange Committee Members in 1992 and 1993</b>	<b>70-71</b>

---

## CHAIRMAN'S REPORT

The events of 1992 revealed not only the magnitude of pressures that may be unleashed in foreign exchange markets, but they also revealed the broad range of institutions that are now participating in these markets and the extent to which foreign exchange trading activities are being integrated with other operations within the more traditional market participants.

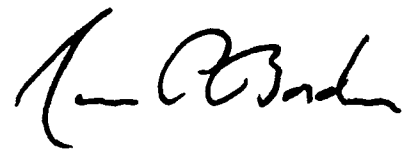
One of the ways these trends have affected the work of the Foreign Exchange Committee is that the Committee has become increasingly involved in projects that help provide a more legalistic underpinning for the foreign exchange business in the United States. To be sure, not all foreign exchange market participants welcome this trend. The foreign exchange market was built on the premise that foreign exchange dealers feel a strong sense of responsibility for and identity with the market. The slogan "My word is my bond" is taken seriously, and few institutions want to inject the tedious work of litigation into a marketplace that depends on split-second decision-making. But as time has passed, foreign exchange has had to compete with other areas within the same institution for capital and other scarce resources. The market has also come to include institutions with widely diverse experience and interests. Under these circumstances, the leading trading institutions are seeking to strengthen documentation and to specify their rights as well as responsibilities in various foreign exchange activities.

In this connection the Committee completed a long-standing project undertaken in cooperation with the British Bankers' Association to develop an International Currency Options Market Master Agreement. It also began working on a master agreement for spot and forward foreign exchange including provisions for netting which, when completed in 1993, will be available to guide banks as they prepare for newly-interpreted provisions of FASB 105. In addition, the Committee initiated a number of projects to codify market practice and rules and filed

an *amicus* brief in a court case that, in the Committee's opinion, dealt with important issues of principle.

The broadening participation in the foreign exchange market, together with the increasing specialization within foreign exchange functions of dealing institutions, also motivated the Foreign Exchange Committee to adopt a more visible and active approach to disseminating its work. It initiated a series of seminars for market participants to present and explain some of the Committee's major papers. During 1992, two seminars were held—the first to present the newly-released U.K. and U.S. International Currency Options Market Master Agreement and the second to present a paper prepared by the Risk Management Subcommittee on price risk. The Committee also reached beyond its membership to seek advice or discuss matters of interest to the Committee.

Many of the Committee's accomplishments during 1992 reflect the guidance of John Arnold, who served as its Chairman for a year and a half until he retired in the middle of 1992. He helped shape and implement a vision of a more active Committee that could be supported by a structure of standing subcommittees and an Executive Assistant. In the six months that I was Chairman, fulfilling his unexpired term, I was impressed by the energy and enthusiasm that has developed within the Committee membership. I am confident that it is now well poised to meet the growing challenges of the evolving market community.



James P. Borden

## ADVISORY ROLE OF THE FOREIGN EXCHANGE COMMITTEE

The Foreign Exchange Committee advises the Federal Reserve on issues related to the foreign exchange market. At most Foreign Exchange Committee meetings, members from dealing institutions comment on exchange market trends, and members from foreign exchange brokers comment on any changes in the volume and composition of foreign exchange transactions. Such discussions are particularly useful during periods of heightened market turmoil. For example, before and after the crisis within the Exchange Rate Mechanism of the European Monetary System during the autumn of 1992, members discussed the growing pressures in the market and alerted the Federal Reserve to potential stress points in financial markets at that time.

The Foreign Exchange Committee also provides guidance to the Federal Reserve on projects involving the foreign exchange market. In March 1992, for example, Committee members contributed ideas on confirmation practices for a Federal Reserve proposal to review New York State's Statute of Frauds provisions. Members also provided useful insights on both the implementation and the results of the Federal Reserve's 1992 Turnover Survey. Members explained many fundamental market trends underlying the data, including the rising importance of money managers as foreign exchange customers, the reduced commitment to market making in spot foreign exchange in the United States, and the effect of technological improvements in the market.

### RELATIONS WITH OTHER ORGANIZATIONS

**BBA:** The Foreign Exchange Committee completed a joint project with the British Bankers' Association (BBA) in early 1992 to publish an International Currency Options Market (ICOM) Master Agreement. Discussions began in late 1992 on possible cooperative efforts for a draft model master agreement for spot and forward foreign exchange.

**Payments and Settlement Committee:** The Chairman of the Foreign Exchange Committee was invited to the January 1992 meeting of the Payments and Settlement Committee, an organization of private-sector institutions formed by the Federal Reserve to suggest improvements in payment and settlement practices, to explore areas of possible mutual interest concerning the potential role of an "honest broker" during a settlement crisis in the foreign exchange market.

**ACI Committee for Professionalism:** Representatives of the Foreign Exchange Committee met in November 1992 with the Committee for Professionalism of the Association Cambiste Internationale (ACI) to exchange views on their respective projects. Of particular interest to Foreign Exchange Committee members was the Committee for Professionalism's experience in drafting and updating the ACI Code of Conduct and its role as a disputes resolution body.

## LEGAL INITIATIVES OF THE FOREIGN EXCHANGE COMMITTEE

Members of the Foreign Exchange Committee have long recognized that federal and state laws governing foreign exchange trading, as well as the contracts established between market participants, fundamentally affect the structure of the U S foreign exchange market. In order to promote the understanding of these important matters among market participants and to encourage the adoption of sound market practices, the Committee, over the past several years, has sponsored projects to draft model agreements or evaluate the statutory underpinnings of the foreign exchange market in the United States.

- In early 1985 the Committee published a draft interbank netting agreement designed by a study group of lawyers representing institutions on the Committee.
- In 1986 an *ad hoc* Options Task Force established by the Committee reviewed U S law regarding over-the-counter (OTC) transactions in foreign currency options.
- During 1987 a Committee-sponsored Lawyers Group, comprised of legal representatives from various institutions active in the foreign exchange market in the United States, drafted an unpublished working paper, "U S Interbank Market Standard Terms and Conditions for Foreign Currency Options" (USICOM Terms).
- In 1990 the Lawyers Group began work on a master agreement for foreign exchange options to define key terms and address formation, exercise, settlement and default. This work was carried out in conjunction with a British Bankers' Association working group in the hope of creating a single model agreement—termed the International Currency Options Market (ICOM) Master Agreement—applicable in the United States, the United Kingdom, and perhaps other jurisdictions as well.
- During 1991 the ICOM Agreement was reviewed by outside counsel in the United States and United Kingdom. Outside counsel was arranged to provide an independent opinion of the Agreement's enforceability under U S and U K law. In 1991 the Lawyers

Group also completed an initial draft of a model master agreement for spot and forward foreign exchange that would address issues such as netting, close-out, and the relative importance of taped trade conversations and confirmations in disputed trades.

During 1992 the ICOM Master Agreement was published in the United States and United Kingdom, and attorneys continued to refine the model agreement for spot and forward foreign exchange. The Committee also filed an *amicus* brief in Tauber v. Salomon Forex, a suit addressing fundamental issues about the status of foreign exchange derivatives. The Committee's brief argued that existing laws do not prohibit over-the-counter trading of foreign exchange.

### Model Agreement for Foreign Exchange Options

In early 1992, favorable opinions of United States and English counsel were received regarding the enforceability of the ICOM Agreement. Following receipt of these opinions, the Foreign Exchange Committee endorsed the Agreement in April and distributed it to market participants. To increase public awareness and understanding of the Agreement, the Committee held seminars at the Federal Reserve Bank of New York on May 20 and May 27. (These seminars are described in more detail on page 13.) Anecdotal reports suggest that the ICOM Agreement has found widespread use between foreign exchange options dealers in the United States. U S dealers may also be using the Agreement with customers.

The ICOM Agreement was also endorsed by the Executive Committee of the British Bankers' Association in mid-1992. As of September 30, 1992, the ICOM Agreement represents the customary market terms for trading in currency options in the London market, superseding the London Interbank Currency Options Master (LICOM) terms, which were published by the British Bankers' Association in August 1985.

The ICOM Agreement and the Guide to the Agreement are printed on pages 36-55 of the Foreign Exchange Committee's 1991 Annual Report. Bound copies of the Agreement and Guide, as well as legal opinions from U S, U K and Japanese counsel, can be obtained by contacting the Committee's Executive Assistant.

## Model Agreement for Spot and Forward Foreign Exchange

Having completed an initial draft of the model agreement for spot and forward foreign exchange in 1991, the Lawyers Group began discussions with outside counsel in 1992 on the Agreement's enforceability under U.S. law. Meanwhile the Lawyers Group worked to refine certain of the Agreement's provisions, including

- The relation between the Agreement's netting provision and the Federal Bankruptcy Code and certain Federal banking laws, and
- Resolution of trades where an occurrence of *force majeure* or other event that makes it illegal or impossible for one of the parties to perform

Deliberations on these topics took many forms, including periodic meetings of the Lawyers Group. Issues affecting market practice, such as the *force majeure* question raised above, were taken to the Foreign Exchange Committee for discussion.

The Lawyers Group also began to draft a Guide to the Agreement. This Guide, which would be similar in function to the Guide to the ICOM Agreement, seeks to explain the history and scope of the Agreement and to describe the important features of each provision in the Agreement. Market participants have reported that the Guide to the ICOM Agreement has greatly facilitated their use and understanding of the ICOM Agreement. This is consistent with the philosophy underlying both projects—that is, to create an agreement that meets the needs of dealers and can be comprehended by them.

Work on the model agreement for spot and forward foreign exchange, termed the "International Foreign Exchange Netting and Close-Out Master Agreement," should be completed in the summer of 1993.

## Amicus Curiae ("Friend of the Court") Brief in *Tauber v. Salomon Forex* Case

In July 1992, the Committee decided that it should voice its views on the issues raised in the case of *Tauber v. Salomon Forex*, then in the process of appeal. The defendant incurred losses on his over-the-counter (OTC) foreign exchange forward and option contracts with Salomon Forex, in this action to enforce the defendant's obligation, the defendant asserted that these transactions were prohibited under the Commodities Exchange Act (CEA) and not subject to the Treasury Amendment to the CEA.

In its Memorandum Opinion of June 1, 1992, the U.S. District Court for the Eastern District of Virginia rejected many of the defendant's arguments and ordered the defendant to pay the approximately \$25 million owed to the plaintiff on the disputed forward and option contracts. The defendant filed an appeal of this decision, making it likely that many of these same issues would be raised again.

Foreign Exchange Committee members, believing the final decision in this case could have a major impact on the foreign exchange market, decided to file an *amicus curiae* ("friend of the court") brief. After describing delivery and netting conventions in the market and outlining the growth and significance of foreign exchange trading, the brief makes two main arguments:

- The plain language of the Treasury Amendment excludes from the CEA all off-exchange foreign currency transactions, without regard to their nature or the character of their participants, and
- The term "board of trade" within the CEA refers to an organized exchange, and should not be construed to mean any broker or dealer.

The text of this brief is reprinted on pages 31-39 of this report.

## TRADING PRACTICES SUBCOMMITTEE

The Trading Practices Subcommittee analyzes day-to-day trading behavior among market practitioners, making recommendations to help reduce risk, improve the functioning, and enhance the reputation of the foreign exchange market. During 1991 the Trading Practices Subcommittee focused on the complex issue of name substitution in the brokers' market, also known as "brokers' switches." The Subcommittee also laid the groundwork for future recommendations on best practices for verbal trades and confirmations. On both of these issues, the Subcommittee consulted with a special panel of head traders.

### Brokers' Switches

A brokers' switch is arranged as follows. After two counterparties matched through a broker find that they are incompatible on credit grounds, the broker finds a third institution acceptable to both original counterparties—a "clearing bank"—that becomes the counterparty to both sides of the transaction. Because it executes offsetting trades, the clearing bank does not assume price risk, but it does bear the credit risk of both counterparties.

The Foreign Exchange Committee first analyzed the switches issue in 1982 (see the Committee's 1982 Annual Report, pages 8–10), at which time the Committee issued several recommendations on the practice, including the following:

- Brokers should not be forced into a role as principal to a foreign exchange transaction,
- If one participant in the brokers' market falls short of most counterparties' credit standards, brokers should notify potential counterparties that prices posted by that participant are "referable." Institutions whose names are not sufficiently acceptable might consider whether it is appropriate or even in their long-run interest to continue to use brokers to the same degree,
- An institution should give prior approval for each instance in which it can be used as a "clearing bank" for a broken transaction. Clearing banks should also establish the period of time within which

the broker is required to identify the names of both counterparties, and,

- If an institution insists that the broker find a substitute for credit reasons, the substitute should be found in no more than a few minutes, and preferably within the same phone call. If an acceptable name cannot be found within a reasonable time period, the institution should cancel its price.

The Trading Practices Subcommittee decided to re-examine the issue in 1992. The decision to do so was based on reports that switches had become increasingly difficult to arrange over the past few years as institutions became less willing to act as clearing banks. A short questionnaire distributed to dealing members of the Committee in April confirmed that a significant number of dealing institutions, including several of the higher-volume dealers, were reluctant to act as clearing banks, citing the additional credit risk, the possibility for unethical behavior, and the issues raised in the Committee's 1982 Annual Report. Brokers stated that the difficulty in arranging switches could eventually diminish liquidity in the brokers' market.

Subcommittee discussions on switches raised other concerns about the practice. Despite the Committee's 1982 recommendations, many switches continue to be arranged long after the initial discovery of counterparty incompatibility, leaving a gap of up to several hours in which the status of the trade is uncertain. For example, Subcommittee members were unsure of the legal status of a transaction if one of the original counterparties went bankrupt before a switch could be finalized. Also, the practice of switched transactions, especially those arranged long after the original rejection of counterparties, make it difficult for management to detect patterns of off-market trading and other abuses.

In early 1993, the Subcommittee reviewed an interim report outlining the possible legal status of trades awaiting counterparty substitution. The information in this report, combined with the Subcommittee's deliberations on name substitutions, will form a useful basis for the Subcommittee as it continues to study switches during 1993.

## Best Practices for Verbal Trades and Confirmations

In 1991 the Foreign Exchange Committee decided that it would be helpful to formulate market guidelines to reduce the frequency of trade disputes and minimize losses caused by disputed trades. In late 1992 the Trading Practices Subcommittee began to discuss the proper framework for analyzing the complex issues involved in setting market practice guidelines. The Subcommittee co-chairmen determined that during 1993 the project would encompass the following components:

- (1) Deciding the hierarchy of evidence in a trade dispute: recording of verbal trade, recording of telephone confirmation, acknowledged SWIFT/electronic confirmation, telex confirmation, and mail confirmation
- (2) Determining guidelines for taping verbal trades and keeping recordings of verbal trades in storage
- (3) Defining proper confirmation procedures
- (4) Determining damages in trade disputes, based upon a broad review of each counterparty's performance in the trade, including
  - Failure to confirm properly,
  - Failure to inform counterparty of discrepancies, and
  - Failure to close out trades promptly

## Advisory Panel of Head Traders

Early in the year, Subcommittee members decided that convening a panel of head traders could provide them with useful insights on market practice issues confronting foreign exchange traders and their managements. Accordingly, five head traders attended a March dinner meeting of the Subcommittee to review the Subcommittee's proposed 1992 agenda. The head traders made three important contributions at this meeting:

- (1) While there were differences of opinion on whether the verbal trade or the confirmation should have precedence in trade disputes, they agreed that guidelines on trade disputes were sorely needed
- (2) They agreed that brokers' switches enhance liquidity but are commonly misunderstood and have the potential for abuse
- (3) They noted that, despite improved relations between dealers and brokers at the senior management level, individual traders still "stuff" brokers with some regularity. Additional Committee study of this problem could be useful.

The Subcommittee intends to reconvene the panel periodically to review the Subcommittee's recommendations and suggest additional topics for Subcommittee analysis.



## MARKET STRUCTURE SUBCOMMITTEE

The Market Structure Subcommittee considers developments that are likely to impact the functioning of the foreign exchange market over the long term. During 1992 the Subcommittee focused on the rising importance of money management firms—also known as “pooled funds”—as customers in the foreign exchange market. The Subcommittee also arranged a meeting with Federal Reserve representatives to comment on an “issues paper” on netting released by G-10 bank supervisory authorities in April 1992.

### Analysis of Trading by Pooled Funds

In early discussions of the topic, Subcommittee members commented that, as recently as five years ago, their dominant customer group in foreign exchange were corporations hedging foreign currency exposures. Within a short space of time, however, the trading volume of pooled funds—including domestic and offshore pension funds, mutual funds, hedge funds, currency overlay managers, and managers trading on behalf of groups of high net worth individuals—had overtaken the volume of other customer groups.

Subcommittee members added that, while some pooled funds trade foreign exchange primarily to hedge currency exposures, many use foreign exchange as an additional asset category and trade foreign exchange to assume, rather than reduce, currency risk. Subcommittee members remarked that the increasing importance of pooled funds, combined with their appetite for risk, could raise credit risk issues and affect the market-making and position-taking roles of foreign exchange dealers.

In June the Subcommittee distributed a short questionnaire to all dealers on the Committee. The aggregated results of this questionnaire, to which almost all of the Committee's dealers responded, showed that average daily volume traded with pooled funds more than tripled between 1989 and 1992—from \$1.6 billion per day in April 1989 to \$5 billion in April 1992. Compared with the same dealers' “customer”<sup>1</sup> trading volume from

the 1992 Turnover Survey, April 1992 pooled funds volume represented 17 percent of the dealers' spot trading with customers and 53 percent of their forward trading with customers.

The survey also found that only 42 percent of the volume traded with pooled funds was settled “gross,” with the full value of the foreign exchange being exchanged at maturity. The remaining 58 percent was settled “net” the current value of one side of the transaction was offset against the other side, the difference being paid in cash (usually dollars).

Interest generated by the results of the first survey led to the distribution of a supplemental survey on pooled funds in October, concentrating on the same group of dealers' credit relationships with pooled funds. This supplemental survey revealed that 43 percent of the dealers' overall trading with pooled funds was conducted with funds that were leveraged. Slightly over one-third of all pooled fund trading (34 percent) was margined, with initial margin typically between 5 and 10 percent of contract value. No dealer had experienced a credit loss with a pooled fund.

Some dealers reported that they are often not immediately notified at the time of the trade which specific fund within a family of funds is the counterparty. On some occasions dealers may not be notified of the specific counterparty until the morning following the trade. Subcommittee members expressed concern about the potential for abuse offered by such a delay.

### Response to G-10 Issues Paper on Netting

In April 1992, a group of technical experts from G-10 bank supervisory authorities released an “issues paper” outlining the group's thinking on the possible recognition of netting for capital-adequacy purposes. The technical experts released this paper in order to generate comments from interested market participants on its various proposals.

The Market Structure Subcommittee gave an overview of this paper to the full Committee in June. In July, the Subcommittee sponsored a meeting between interested parties from several institutions represented on the Committee and members of the technical experts group.

---

<sup>1</sup> “Customer” trading is defined for this purpose as including all transactions with entities that did not participate in the 1992 Turnover Survey.

from the Federal Reserve. This meeting gave market participants the opportunity to comment on the paper directly to some of the U.S. members of the technical experts group.

The July meeting covered both bilateral and multilateral netting, including issues such as cross-product netting, the calculation of potential future exposures on netted contracts, "walkaway" clauses<sup>2</sup> (limited one-way payments), and the extent to which capital standards should account for the possibility of multiple failures in a multilateral netting environment. Market participants agreed that capital rules for netting should measure exposures accurately yet be simple to understand and

<sup>2</sup> A walkaway clause in a netting agreement relieves one party to the agreement of its obligation to pay the netted amount it owes to a counterparty in default.

implement—often a difficult combination. Most market participants also agreed that walkaway clauses can be disruptive to the smooth functioning of financial markets.

Market participants commented that the multilateral netting proposals considered by the technical experts could provide a strong disincentive toward the creation of multilateral clearinghouses, other than those that demand full collateralization. Another issue discussed was whether individual bank supervisors should be allowed to give institutions additional capital relief for netting in jurisdictions with more comprehensive enforceability of netting agreements.

In the end, both market participants and banks supervisors stated that the meeting had fostered a fruitful exchange of views.

## RISK MANAGEMENT SUBCOMMITTEE

Through its published papers and seminars, the Risk Management Subcommittee seeks to foster understanding of risk management issues and facilitate improvements in the quality of risk management in foreign exchange and related international financial markets. The Subcommittee's major project in 1992 was the preparation of a paper outlining a "loan-equivalent-risk" approach for measuring and managing pre-settlement credit risk (printed on pages 21-30). The Risk Management Subcommittee also presented its 1991 paper on price risk to a group of over 250 market participants at a November 1992 seminar. (See page 13 for a fuller description of this seminar.) Finally, the Subcommittee sponsored a dinner with internal audit and control officers to discuss possible methods to improve detection of fraudulent trading.

### Credit Risk Management

The risk of counterparty failure has long been an issue of concern in the foreign exchange market. As early as 1983, the Foreign Exchange Committee published papers describing methods to measure and control pre-settlement credit risk—the possibility of credit losses before contracts are settled. In its 1989 Annual Report, the Committee defined a volatility-based approach for measuring pre-settlement credit risk. During 1992 the Risk Management Subcommittee, using the 1989 paper

as a foundation, examined the applications of "loan-equivalent-risk" measurements for credit risk.

- What are the advantages and disadvantages of using loan-equivalent risk as opposed to more traditional measurements of credit risk?
- What alternative implementation techniques have been employed by institutions using loan-equivalent-risk systems?
- Are loan-equivalent-risk calculations useful for purposes other than estimating pre-settlement credit exposures from individual counterparties?
- What are the most effective methods to control pre-settlement credit exposures as measured by loan equivalent risk?

The report highlights the many options institutions have employed to implement loan-equivalent-risk systems. Risk managers select from among these alternatives based upon each institution's unique size, management structure and risk profile. No single formula can be applied to all dealing institutions.

As described in the paper, the loan-equivalent-risk approach explicitly recognizes that pre-settlement credit exposures, unlike conventional loan exposures, can change over time with fluctuating market prices without the addition or subtraction of new contracts. In this

sense, the loan-equivalent-risk method is similar to the dollars-at-risk-approach for price risk described in the Committee's 1991 Annual Report. The loan-equivalent-risk procedure, however, is generally more complex than the dollars-at-risk approach.

- The time horizon for price risk is the liquidation period of the position, usually a few days. Potential credit exposures must be measured over the remaining life of the contract—often a few years.
- Correlation adjustments for price risk can be considered across an entire portfolio. Correlation adjustments for pre-settlement credit risk must be calculated for each counterparty.
- The dollars-at-risk procedure alone provides a meaningful estimate of an institution's price risk. The loan-equivalent-risk approach provides a meaningful estimate of an institution's possible dollar exposure, the institution must separately factor in the probability of counterparty default.

The paper also notes that risk measurement systems such as loan-equivalent risk cannot guarantee against large credit losses. While using loan-equivalent risk may help risk managers estimate current pre-settlement exposures and the probability of future pre-settlement losses, this technique cannot limit the size of any particular loss. Members of the Risk Management Subcommittee emphasize that a loan-equivalent-risk system is only one component of a comprehensive risk management strategy.

## **Audit and Control Group**

In its *Management Guidelines* and other publications, the Foreign Exchange Committee has often stressed the importance of audit and control functions for the health of the foreign exchange market. Many Committee members have urged the creation of a group of auditors, controllers and compliance officers to advise the Committee on its recommendations and alert Committee members to potential issues or concerns in the audit field.

In the fall of 1992, members of the Risk Management Subcommittee volunteered audit and control officers from their own institutions to serve on this new group and asked other Committee members to nominate relevant individuals from their institutions. In December the Risk Management Subcommittee sponsored a dinner as the first meeting of the Audit and Control Group. The meeting yielded a variety of recommended approaches to restrict or uncover fraudulent trading, including special reports for off-hour trading, quick confirmations, monitoring of customer trading patterns, proper training of staffs involved with traded instruments, and periodic rotation of sales personnel.

The Audit and Control Group continues to meet periodically under the supervision of the Risk Management Subcommittee to examine such issues in greater depth and prepare recommendations for consideration by the Foreign Exchange Committee.

## COMMUNICATIONS SUBCOMMITTEE

The Communications Subcommittee is responsible for disseminating the Committee's ideas and publications to market participants. During 1992 the Subcommittee initiated a series of seminars for market participants, using two recently-completed Committee projects as seminar topics. In May 1992, the Subcommittee organized two seminars on the International Currency Options Market (ICOM) Master Agreement, and in November 1992, the Subcommittee arranged a seminar to publicize the Committee's 1991 paper on price risk. These seminars have raised the Committee's profile in the market and broadened input into the Committee's deliberations. The Communications Subcommittee anticipates that additional seminars will be scheduled during 1993 and in future years whenever the Committee completes a project meriting industrywide attention.

During 1992 the Subcommittee also oversaw the publication and distribution of the Committee's 1991 Annual Report as well as the ICOM Agreement. Approximately 1500 copies of each document were distributed during the past year.

### **Seminars on ICOM Agreement**

The May 20 and May 27 seminars publicized the ICOM Agreement, which had been released one month earlier. Representatives of the Lawyers Group that prepared the Agreement, together with Committee members and market participants, discussed the evolution and provisions of the new model agreement for foreign exchange options from both a legal and a trading perspective. Representatives of the Federal Reserve Bank of New York described the importance of master agreements for bank supervisors.

Comments from the floor focused on the relationship between the ICOM agreement and the ISDA master agreement, methods to amend the agreement for corporate customers, and the progress of the model agreement for spot and forward foreign exchange.

The combined attendance for the two seminars was over 300, drawn from a variety of institutions: money center banks, regional banks, law firms, investment banks, bank supervisors, foreign exchange brokers, corporate customers, and the press. Attendees from financial institutions included foreign exchange traders, credit officers, back-office personnel and legal staff.

### **Seminar on Price Risk Management**

The November 4 presentation on price risk was intended to broaden knowledge about alternative price risk management techniques, thereby fostering improvements in the quality of risk management in financial markets. The seminar was presented by members of the Risk Management Subcommittee responsible for preparing the Committee's paper, "Price Risk: The 'Dollars-at-Risk' Approach to Measurement and Management," printed on pages 16-22 of the Committee's 1991 Annual Report.

The presentation initially focused on a description of the dollars-at-risk method to price risk, which estimates price risk using the potential price volatility of the position held. The dollars-at-risk approach was compared with more traditional systems of price risk measurement, which evaluate risks based upon the notional amounts of contracts outstanding. The greater part of the seminar, however, highlighted the many alternative methods of implementing a dollars-at-risk system, including the statistical choices faced by risk managers.

The discussion following the presentation centered on the significance of several statistical choices, the role of price correlations in determining overall price risk, and the challenges in administering a dollars-at-risk system.

Approximately 270 market participants, mainly trading room management, risk managers and control officers, attended the seminar. About 120 different institutions were represented, including approximately 75 non-U.S. banks, 25 U.S. financial institutions, and 15 bank supervisors from the United States and abroad. Many attendees commented that the seminar had significantly augmented their understanding of risk management systems.

## MEMBERSHIP SUBCOMMITTEE

The Membership Subcommittee advises the Federal Reserve Bank of New York about possible candidates for membership on the Foreign Exchange Committee and helps the Committee on other organization issues. During 1992, the Subcommittee recommended and the Committee approved several changes to the Committee's structure.

### Change in Membership Structure

First, the Subcommittee reconsidered the structure of Committee membership, in which an alternate was expected to attend formal Committee meetings only if the member paired with the alternate could not attend. Alternates were expected to be briefed on Committee developments by their membership partner, were sent all advises and documents of the Committee at each stage of their preparation, and were invited to participate in any informal discussions of issues the Committee might have from time to time. The purpose of this structure, which had been in place since the inception of the Committee, was to enhance the Committee's decision-making abilities by both keeping the group to a manageable size and by benefiting from a broader representation in informal discussions of issues under the Committee's consideration. This structure was also intended to reduce the burden of Committee membership for alternates and thereby make participation in the Committee more feasible for those located outside New York City.

In recent years, as the pace of the Committee's work accelerated and a new structure of subcommittees was established, many alternates questioned the longstanding structure of membership. While recognizing that it did relieve some of the burden of membership, they noted that they were attending Subcommittee meetings, many of which were scheduled in a way to make attendance at the Committee's formal meetings now possible. Also, the arrangement made it difficult to maintain a sense of continuity with the Committee's work.

For these reasons, the Membership Subcommittee decided, on an experimental basis for 1992, to invite but not require alternates to attend all formal meetings. The experience with 1992 suggested that alternates' attendance and participation warranted a more permanent change in the Committee's procedures. Also, the impact of having as large a group at these discussions as sometimes

occurred has become less of a concern than before, since much of the substantive work of the Committee is now being conducted within the individual subcommittees.

As a result, the Membership Subcommittee recommended and the Committee approved that the member/alternate structure be replaced by a system under which all participants on the Committee would be considered members, effective in 1993. The term of membership would be changed to four years for all members, but those whose attendance was unsatisfactory would be expected to resign so as to open up the opportunity for membership to another institution before that member's four-year term had expired. Otherwise, terms would be staggered with approximately one quarter of the number of terms expiring each year. Although the number of members for the first year would be approximately the same as the number of members plus alternates before, some gradual decline in the number of members over time would be acceptable.

### Change in Membership Classes

Second, the Membership Subcommittee found that the changing profile of banks participating in the foreign exchange market in the United States suggested a new adjustment in the categories of membership on the Foreign Exchange Committee. The changing composition of the U.S. commercial banks, often produced by bank mergers, and the growing concentration of foreign exchange trading institutions geographically, as documented by the 1992 Foreign Exchange Turnover Survey, influenced the decision to reclassify the categories of membership for U.S. banks. In particular, the Subcommittee recommended and the Committee approved that the two groups "East Coast Banks" and "Other U.S. Banks" be changed to "New York City Banks" and "Other U.S. Banks." The definitions of the other categories were not changed. But the reorganization did entail adjustment to the number of institutions represented from each category as follows: 6-9 New York City Banks, 5-8 Other U.S. Banks, 7-12 Foreign Banks, 2-4 Investment Banks, and 2-3 Brokers. There was no change in the *ex officio* members from FOREX USA and the Federal Reserve Bank of New York.

All of these changes were incorporated into the revised Document of Organization, printed on pages 64-65 of this report.

## MEETINGS OF THE COMMITTEE

The Committee held five formal meetings during 1992. In addition there were several informal meetings of Committee members and alternates as well as special dinners—one on September 30 to honor the Committee's recently-retired Chairman, John Arnold, and another on November 4 with representatives from the Committee for Professionalism from the Association Cambiste Internationale (ACI)

### Meetings in 1992

February 6

April 2

June 4

September 10

November 5

### Schedule for 1993

January 13

February 4

March 4

April 1

May 6

June 3

July 1

September 9

October 7

November 4

December 2

## **SUBCOMMITTEE ASSIGNMENTS FOR 1992**

### **TRADING PRACTICES SUBCOMMITTEE**

Lloyd Blankfein (Chairman)  
James Borden (Chairman)

Edward Baltes  
Anthony Bustamante  
John Nixon  
Akira Okuhata  
David Puth  
Nick Wharton

### **MARKET STRUCTURE SUBCOMMITTEE**

William Dueker (Chairman)  
Woody Teel (Chairman)

Martin Dooney  
Robert Goetter  
Timothy Hultquist  
Robert McCully  
Andrew Popper  
Yoichi Sakaguchi

### **RISK MANAGEMENT SUBCOMMITTEE**

John Finigan (Chairman)  
Robert Jarrett (Chairman)

Craig Bentley  
Stephen Bub  
Heinz Riehl  
Woody Teel

### **COMMUNICATIONS SUBCOMMITTEE**

William Rappolt (Chairman)  
Joseph Spendley (Chairman)

John Gaines  
Robert White

### **MEMBERSHIP SUBCOMMITTEE**

Margaret Greene, FRBNY (Chairman)  
Edward Baltes  
James Borden  
William Rappolt

## **SUBCOMMITTEE ASSIGNMENTS FOR 1993**

### **TRADING PRACTICES SUBCOMMITTEE**

Lloyd Blankfein (Chairman)  
Tom Kalaris (Chairman)

James Borden  
Anthony Bustamante  
John Nixon  
Akira Okuhata  
Joseph Petri  
David Puth

### **MARKET STRUCTURE SUBCOMMITTEE**

William Dueker (Chairman)  
Andrew Popper (Chairman)

Cyrus Ardalan  
Bruce Cobb  
Timothy Hultquist  
Robert McCully  
Yoneo Sakai

### **RISK MANAGEMENT SUBCOMMITTEE**

John Finigan (Chairman)  
David Harvey (Chairman)

Craig Bentley  
Martin Dooney  
Ian MacKay  
Heinz Riehl  
Andrew Siciliano

### **COMMUNICATIONS SUBCOMMITTEE**

William Rappolt (Chairman)  
Joseph Spendley (Chairman)

John Gaines  
Nick Wharton  
Robert White

### **MEMBERSHIP SUBCOMMITTEE**

Margaret Greene, FRBNY (Chairman)

James Borden  
John Galbraith  
John Nixon  
William Rappolt



# SELECTED DOCUMENTS

Paper on Credit Risk Management

Committee Amicus Brief in Tauber v. Salomon Forex Case

Summary of Results of 1992 U.S. Foreign Exchange Market Survey

Guidelines for the Management of Foreign Exchange Trading Activities

Document of Organization

# RISK MANAGEMENT SUBCOMMITTEE

## MEASURING PRE-SETTLEMENT CREDIT EXPOSURES WITH "LOAN-EQUIVALENT RISK"

### Introduction

Recent years have witnessed a heightened awareness of counterparty credit risk in financial markets. The growth in trading volumes and volatilities, a proliferation in the number and types of institutions active in financial markets, concerns over the creditworthiness of many traditional market participants, and the default of several large counterparties have prompted dealers to reassess the methods of tracking credit exposures.

Credit risk refers to the potential loss associated with the failure of a counterparty to perform under a contract. For traded financial instruments, credit risk can generally be divided into two categories: pre-settlement risk and settlement risk. Pre-settlement risk refers to the possibility that a counterparty will default on an outstanding contract and that the current market rates on which the replacement contract is based are less profitable or more costly for the non-defaulting counterparty.<sup>3</sup> Settlement risk refers to the possibility that a counterparty will default during a settlement cycle, exposing the dealer to a loss if it has already paid the counterparty but has not yet received value in return. Settlement risk is very difficult to measure and control, involving issues such as payment finality, timing gaps between different settlement cycles, and control over correspondent banking relationships.

This paper focuses on pre-settlement credit risk and addresses the "loan-equivalent risk" approach to measuring pre-settlement risk. The paper is not intended to be a guide to the appropriate amount of regulatory capital banks should hold for given levels of pre-settlement credit risk; rather, its purpose is to address the fundamental issues associated with the day-to-day management of pre-settlement risk. After defining the loan-equivalent-risk method, the paper discusses several issues pertaining to its implementation as well as several useful applications.

---

<sup>3</sup> This paper will henceforth use the term "dealer" to denote the non-defaulting party and the term "counterparty" to describe the party in default or at risk of default.

### The "Loan-Equivalent Risk" Approach to Pre-Settlement Credit Risk

In recent years, some of the most active trading institutions have adopted a new approach to credit risk management, which better identifies the credit risk embedded in traded financial instruments and attempts to give that risk a dimension comparable to that applied to loans. This so-called "loan-equivalent risk" measure was first described in a paper published in the Foreign Exchange Committee's 1989 Annual Report.<sup>4</sup> As detailed in this paper, pre-settlement credit risk on financial contracts has two elements: the current marked-to-market value and a future risk component based on expected price volatility.

To calculate loan-equivalent risk with a counterparty, a dealer would first mark to market all contracts with that counterparty. Most likely, some contracts will have a positive marked-to-market value for the dealer while others will have a negative marked-to-market value. The potential future exposure for each contract—the possibility that the contract's value will become more positive over its remaining life—is then calculated (see pages 24-25), using a methodology similar to the dollars-at-risk approach to price risk.<sup>5</sup> This future risk component depends upon the future price volatility of the underlying instrument and the sensitivity of the contract to changes in the underlying instrument. Price movement correlations between different contracts can also be taken into account and, where relevant, may reduce the estimated future price volatility of some contracts. The volatility component is then added to the marked-to-market value of each contract to determine the credit exposure of each contract. All contracts with positive credit exposures are

---

<sup>4</sup> Heinz Riehl and Thomas Heffernan, "Pre-Settlement Credit Risk on Distant-Date Financial Contracts," 1989 Annual Report of the Foreign Exchange Committee, pages 26-29.

<sup>5</sup> Price risk refers to the potential losses associated with an adverse change in the price of a single financial instrument or portfolio of financial instruments. See "Price Risk: The 'Dollars-at-Risk' Approach to Measurement and Management," Foreign Exchange Committee, 1991 Annual Report, pages 16-22. For a more full discussion of the future risk component of loan-equivalent risk, see "Pre-Settlement Credit Risk on Distant-Date Financial Contracts," by Heinz Riehl and Thomas Heffernan, Foreign Exchange Committee, 1989 Annual Report.

summed to reach the total pre-settlement credit risk with that counterparty<sup>6</sup>

*Relationship with Price Risk* The loan-equivalent-risk approach to credit risk shares many features of the dollars-at-risk approach to price risk outlined in the Committee's 1991 Annual Report. Indeed, the loan-equivalent-risk approach explicitly recognizes that potential price volatility, as defined in the dollars-at-risk approach, is one of the two determinants of pre-settlement credit risk.

Despite the similarities between the loan-equivalent risk approach to measuring pre-settlement credit risk and the dollars-at-risk approach to measuring price risk, there are three key differences:

- Credit risk is measured by counterparty, whereas price risk is measured across all counterparties
- Credit risk contains a present component (marked-to-market value) and a future component (potential future exposure). Price risk contains only a future component (estimated volatility)
- The loan-equivalent risk procedure measures the possibility that prices will move in the dealer's favor, exposing the dealer to losses if its counterparty defaults. The procedure only provides a meaningful estimate of the institution's exposure and does not eliminate the need to consider the probability of counterparty default when estimating potential loss. In contrast, the dollars-at-risk procedure measures the possibility that prices will move against the dealer and alone provides a measure of the institution's actual potential loss.

*Comparison with Traditional Method* Traditionally, settlement and pre-settlement risk were measured through gross nominal exposures: the sum of the notional value of all contracts outstanding with each counterparty. To control credit risk, institutions applied limits in proportion to their gross nominal exposures with each of their counterparties. Gross nominal exposures are of some value in measuring pre-settlement credit risk, as they provide a general indication of the magnitude of its

---

<sup>6</sup> This model of calculating pre-settlement credit risk assumes that a defaulting counterparty or its receiver would attempt to maximize the counterparty's net worth by "cherry-picking" contracts - performing on those contracts with a negative marked-to-market value (from the dealer's perspective) while repudiating contracts with a positive marked-to-market value for the dealer. A netting agreement could require the defaulter to perform on the combined value of all contracts under the netting agreement, entailing lower losses for the dealer (see pages 26-29).

potential future risk component. However, gross exposures provide no information about the current, marked-to-market value of a contract. Consequently, as concern regarding pre-settlement risk has grown with trading volumes and the number of market participants, many risk managers have sought newer methods that would more accurately measure the exposures associated with traded financial instruments.

The loan-equivalent-risk approach has several advantages over the gross-nominal-exposure method in estimating pre-settlement credit risk:

- The gross-nominal-exposure method provides a rough approximation of settlement risk but fails to provide a meaningful measurement of pre-settlement risk. Loan-equivalent risk estimates pre-settlement risk directly.
- Loan-equivalent risk recognizes the link between credit risk and price volatility and therefore makes risk managers more aware of the difficulty of controlling pre-settlement exposures precisely.
- Exposures measured with loan-equivalent risk are analogous to real loan exposures. Loan-equivalent exposures with any counterparty can therefore be added to real loan exposures with that counterparty to calculate the overall credit risk resulting from loans and loan equivalents.
- Dealers can use loan-equivalent-risk estimations to calculate the cost of capital for individual transactions (see page 27) and evaluate credit risk across an entire portfolio (see page 26).
- Loan-equivalent risk can be used with instruments (such as options) with unusual price sensitivity characteristics.
- Loan-equivalent risk calculations satisfy regulator requests for information on marked-to-market credit exposures.

The disadvantages of the loan-equivalent-risk approach are its complexity and cost:

- More information is needed to estimate loan-equivalent risk than gross nominal exposures. This added complexity raises the possibility that traders, risk managers, or senior management may not fully comprehend the system. However, while the gross-nominal-exposures method was easy to understand, it oversimplified the true nature of credit exposures. Loan-equivalent risk captures the real complexity of pre-settlement credit exposures.

## An Example of a Loan-Equivalent Risk Calculation

Suppose a dealer has an already outstanding forward contract with a remaining life of 1 year obliging the dealer to buy £10 million at £/\$ 1.80. Further suppose that the current rate for forward 1-year is £/\$ 2.00.

By the gross-nominal-position method, the dealer's credit risk is £10 million, or \$20 million.

As explained in the text above, the loan-equivalent-risk method has three steps:

1) Mark-to-market the value of the forward £/\$ contract:

$$2.00 - 1.80 = 0.20; \quad £10 \text{ million} \times 0.20 = \$2 \text{ million}$$

2) Calculate the potential future risk for the contract: The potential future risk associated with the contract depends on the remaining-maturity-related volatility of the "cash" market underlying each contract and the price sensitivity of the underlying instrument. Assume that the dealer uses 2 standard deviations as its degree of confidence and that the potential volatility associated with 2 standard deviations is 15 percent. The potential future risk is calculated as follows:

$$\$20 \text{ million } (£10 \text{ million at } £/\$ 2.0) \times 15 \text{ percent} = \$3 \text{ million}$$

3) Add the marked-to-market value of the contract to the calculated potential future risk:

Mark-to-market value:	\$2 million
Potential future risk:	\$3 million
	\$5 million

The loan-equivalent risk associated with this forward contract is, therefore, \$5 million.

- Building systems to mark positions to market frequently and determine future volatility can entail significant costs. As discussed in the following section on implementation, this cost is related to the quantity of information required for each counterparty and the frequency of marking to market (e.g., real-time or end-of-day). It should be noted, however, that advances in technology have dramatically lowered the cost of marking positions with each counterparty to market.

### Implementing a Loan-Equivalent Risk System

Risk managers are faced with a number of alternatives when implementing a loan-equivalent-risk system. Individual risk managers will make distinct choices from among these alternatives based upon each institution's size, management structure and desired risk profile. No single formula can be applied to all dealing institutions. The following paragraphs describe a number of issues raised by the implementation of the loan-equivalent-risk method and the approaches taken by several trading institutions represented on the Committee.

*Calculating Potential Credit Exposure* The statistical issues associated with the calculation of potential credit exposure are the same as those associated with the dollars-at-risk approach to calculating price risk: estimating future volatility and applying it to the proper time horizon, selecting a degree of confidence, and adjusting for correlations.<sup>7</sup> However, the application of these statistical details within the two procedures differs. Two major differences are

- The time horizon for price risk is the period necessary to offset the position, often one day or less. Potential credit exposures for a foreign exchange contract must be estimated over the life of the contract because the event of default could occur at any time during the remaining life of the contract.
- Because price movements in "long" contracts can offset price movements in "short" contracts with otherwise similar terms, such price correlations can be used to reduce the estimated future price risk associated with different contracts. In calculating pre-settlement credit risk, however, price correlation between different contracts should be considered only for contracts with individual counterparties with whom the dealer has a netting agreement with close-out provisions.

<sup>7</sup> For a more detailed explanation of these issues, see the statistical appendix to the Committee's "dollars-at-risk" paper on pages 20-22 of the Committee's 1991 Annual Report.

If the values of the outstanding contracts an institution has with a particular counterparty are correlated, this price correlation must be taken into account if the institution's total loan-equivalent risk is not to be overstated. The example on the following page involves two forward contracts and illustrates how loan-equivalent risk should be adjusted to account for price correlation between contracts.

*Frequency of Loan-Equivalent Risk Calculations* Loan-equivalent exposures can change dramatically over time (see the Appendix on page 30). All institutions on the Committee using a loan-equivalent risk system recognize that up-to-date information on credit exposures is an integral component of their credit risk management. The major difference among these institutions is that some have fully-automated systems to calculate loan-equivalent risk, while others have only partially-automated systems. If systems are fully automated, loan-equivalent risk with each counterparty should be calculated at least once per trading day. If systems are not fully automated, loan-equivalent risk should still be calculated periodically. In this case, calculations should be performed more frequently after a large movement in market prices or with counterparties meriting special concern.

*Credit Risk Triggers and Limits* An early step in implementing the loan-equivalent-risk approach is determining credit risk triggers and limits for each counterparty. The concept of limits for each counterparty is quite traditional and is used by market participants regardless of the nature of their risk management systems. Triggers, a new concept in risk management, are exposure levels below the limit used to warn management that loan-equivalent risk levels are approaching the limit. The use of triggers reflects the fact that "passive excesses" in marked-to-market credit exposures can arise through fluctuating market prices without any new trading activity. Upon reaching the trigger, risk managers may choose to alert senior management and impose special restrictions, such as special approval by the credit department for each new contract initiated with that particular counterparty. Although current credit exposures can drift past the trigger with changes in market prices, these special restrictions are intended to reduce the likelihood that exposures will exceed the absolute limit.

*Centralized Management of Credit Risk* The institutions represented on the Committee measure, monitor and control their credit exposures centrally, regardless of the exposure measurement system used. The dispersal of credit authority, these institutions assert, could allow the least conservative local office to determine the credit policies of the entire institution. In considering the implementation of loan-equivalent risk systems, the institutions on the Committee have two specific recommendations.

## Loan-Equivalent Risk Over Two Contracts

Suppose a dealer had the following two contracts outstanding with a counterparty

(A) a forward contract to buy £10 million at £/\$ 1.80

(B) a forward contract to buy \$10 million at \$/DM 2.50

Further suppose that the current rate for 1-year forward £/\$ is 2.00 and that the current rate for 1-year forward \$/DM is also 2.00.

The gross-nominal-position method would estimate credit risk by summing the underlying nominal amounts in each product

(A) \$20 million (£10 million x \$ 2.00) + (B) \$10 million = \$30 million

To calculate the loan-equivalent risk, the dealer must first calculate the current replacement cost of each contract by marking each position to market:

(A) marked-to-market value of forward £/\$ contract: \$2.0 million

(B) marked-to-market value of forward \$/DM contract: (\$2.5) million

The dealer must then calculate the potential future risk associated with each contract. Assume that the dealer uses 2 standard deviations as its degree of confidence and that the volatility associated with 2 standard deviations is 15 percent for the £/\$ contract and 30 percent for the \$/DM contract. The potential future exposure of the contracts would therefore be:

(A) \$20 million (£10 million at £/\$ 2.0) x 15 percent = \$3 million

(B) \$10 million x 30 percent = \$3 million

As pointed out in the text above, the calculation must now be adjusted for any price correlation between the two contracts. Otherwise, the institution's loan-equivalent risk may be overstated. The table below illustrates the marked-to-market value of the two contracts if the value of foreign currencies moved by 2 standard deviations.

Value of \$ Decreases By 2 SD	Value of \$ Increases By 2 SD
(A) \$2.0 million + 3.0 million = \$5.0 million	\$2.0 million - 3.0 million = (\$1.0) million
(B) (\$2.5) million + 3.0 million = (\$5.5) million	(\$2.5) million + 3.0 million = \$0.5 million

If the £/\$ and \$/DM contracts were perfectly correlated — that is, the £ and DM move together against the \$ — the dealer would consider two possibilities. First, if the \$ decreased in value by 2 standard deviations (£/\$ moves from 2.00 to 2.30, and \$/DM moves from 2.00 to 1.40), the dealer's new marked-to-market values would be 5.0 million for the £/\$ contract and (\$5.5) million for the \$/DM contract. Loan-equivalent risk under this first scenario would be \$5.0 million. If, however, the \$ rose in value by 2 standard deviations (£/\$ moves from 2.00 to 1.70, and \$/DM moves from 2.00 to 2.50), the £/\$ contract would be valued at (\$1.0) million and the \$/DM contract would be worth \$0.5 million. Loan-equivalent risk under this second scenario would be \$0.5 million. Committee members believe, however, that under perfect correlation the more conservative risk estimate should be used as the loan-equivalent-risk measure. Therefore, the dealer's loan-equivalent risk in this example should be estimated at \$5.0 million.

If the £/\$ and \$/DM contracts were not correlated — the £ and DM move independently against the \$ — the dealer could face the possibility of a \$5 million exposure on the £/\$ contract (if the £ increased in value by 2 standard deviations) and a \$0.5 million exposure on the \$/DM contract (if the DM simultaneously fell in value by 2 standard deviations). Once again, to be prudent, the dealer would use this "worst-case" to estimate its loan-equivalent risk as \$5 million + \$0.5 million = \$5.5 million.

The box on page 29 illustrates the influence of netting agreements on loan-equivalent risk estimations

- Dealers should attempt to set a single global pre-settlement limit for each counterparty rather than setting loan-equivalent risk sublimits at each local branch or subsidiary. Naturally, such dealers must have systems in place to monitor limits carefully. Managers should check the use of these limits by branch or subsidiary to ensure that local offices are not using the absence of local limits to expand their own credit exposures significantly, reducing the lines available to other offices.
- Where possible, risk managers should also attempt to put all trading products under a single loan-equivalent risk limit, with periodic monitoring to guard against excessive exposures on any single product. Cross-product limits raise additional issues, such as differences in liquidity across various products. If limits do not extend across all traded products, many dealers allow limits to be "borrowed" across products with management approval.

*Ownership of Pre-Settlement Credit Risk* The "ownership" or responsibility for pre-settlement credit losses must be explicitly identified when implementing a loan-equivalent risk system. Dealers may take different approaches:

- Some dealers designate this responsibility completely to the credit department. If a pre-settlement credit loss does occur, those responsible within the credit department often face reduced bonuses or other penalties.
- Other dealers assign ownership of credit risk completely to the trading room. The credit department continues to have full responsibility for determining credit lines, but the trading room absorbs any pre-settlement credit losses. Losses within the trading room can be assigned to individual traders or to the head of the trading room. These institutions believe that the department that profits most in periods of minimal credit losses should also assume losses when they do occur. Such a system may also give traders a strong incentive to alert management when they first hear of impending credit problems.
- Still other dealers believe that trading losses should be shared between the credit department and the trading room. While the division of credit risk responsibility may complicate implementation of credit risk standards, both the credit department and the trading room are given incentives to react quickly to perceived credit problems.

## Uses of Loan-Equivalent Risk

*Estimating the Cost of Capital on Individual Transactions* While the loan-equivalent risk methodology is used primarily to determine risks across an entire portfolio of traded instruments, the approach can also be used to calculate the cost of capital on individual transactions. In this manner, risk managers, after choosing the parameters of the loan-equivalent risk approach, can determine whether the profitability of various trading activities sufficiently offsets the credit risks involved.

The box on the following page gives a simplified example of such a calculation. Of course, each dealer performing such calculations will make its own distinctive assumptions in calculating the cost of capital.

*Evaluating Pre-Settlement Credit Risk Across an Entire Portfolio* With a loan-equivalent risk system in place, management can evaluate pre-settlement credit risk across an entire portfolio as well as by counterparty. Management can estimate loan equivalent risk for one or many trading products, evaluating geographical or industry concentrations. This portfolio approach to pre-settlement credit risk in trading products can then approximate the portfolio approach to credit risks in conventional loans.

Using this technique, management can also begin to set reserves against anticipated pre-settlement credit losses in the trading portfolio. This reserve can be funded by a portion of the trading room's profitability over time.

## Methods to Reduce Pre-Settlement Credit Risk

While the previous discussion has centered on the uses and implementation of the loan-equivalent risk method of estimating credit exposures, dealers may apply several approaches to reduce loan-equivalent risk exposures in their trading businesses. The most common methods are netting agreements with interbank counterparties and margin agreements with customers.

*Netting* Institutions on the Committee have found that bilateral netting agreements, supported by appropriate legal documentation, can reduce marked-to-market exposures by as much as 50 to 75 percent with their most active counterparties. In some cases, depending on the nature and degree of the correlation between contracts, netting may also reduce potential future risk. To initiate bilateral netting, a dealer can establish a master agreement with the counterparty whereby all transactions covered by the agreement would, in case of the bankruptcy of the counterparty, be cleared out to a single pay or receive amount. In this manner, transactions with nega-

## Using Loan-Equivalent Risk to Estimate the Cost of Capital

The current market spread on \$10 million one-year DM forward contracts is 0.50 basis points. The current spot rate is 2.00 and the one-year interest-rate differential between Deutschemarks and dollars is zero. If a bank dealer quotes this market spread, will this spread sufficiently cover the dealer's credit risk?\*

**Loan-Equivalent Risk:** The dealer must first calculate the loan-equivalent risk of the contract. At origination, the marked-to-market value of the contract is zero. If the annual volatility of the \$/DM exchange rate is 30 percent, then the potential future exposure of this one-year contract is \$3.0 million ( $\$10 \text{ million} \times 0.30$ ). Therefore, the loan-equivalent risk is  $0 + \$3.0 \text{ million} = \$3.0 \text{ million}$ .

**Necessary Capital:** Next, the bank dealer must decide how much capital to hold against this risk. First, the loan-equivalent risk must be adjusted by counterparty. For the purposes of this example, it will be assumed that the counterparty risk weighting applied to this calculation is 100 percent. Therefore:

$$\$3.0 \text{ million} \times 100 \text{ percent} = \$3.0 \text{ million.}$$

If the dealer decides to hold 8 percent capital\*\* against the risk-weighted exposure, the necessary capital would be  $\$3.0 \text{ million} \times 0.08 = \$240,000$ .

**Minimum Return on Capital:** If the dealer must hold \$240,000 in capital on this one-year contract and has a minimum return-on-capital of 10 percent annually\*\*, this contract must return \$24,000.

Expressed in basis points of the market price, this figure represents  $\$24,000 / \$10,000,000 \times 2.00 = 0.480$  basis points. The 0.50 basis point market spread should therefore be sufficient to cover the dealer's credit risk.

\* Overall, firms' spreads need to be of sufficient magnitude to cover all risks and operating expenses and, therefore, each institution must formulate its own assumptions concerning the total cost of capital.

\*\* These assumptions are for illustrative purposes only.



tive marked-to-market exposures for the dealer can be offset against transactions with positive marked-to-market exposures, reducing the overall level of credit exposure. The box on the following page, which builds upon the example on page 25, illustrates how bilateral netting can significantly reduce loan-equivalent-risk exposures.

Pre-settlement credit exposures could be reduced even further through multilateral netting. However, while bilateral netting is fairly commonplace, projects for multilateral netting of foreign exchange contracts are still in the development stage.

*Margin.* Some dealers have set up margin accounts or collateral requirements for certain customers to reduce the magnitude of any pre-settlement loan equivalent risk. Under such an arrangement, the level of margin deposited with the dealer would be positively correlated with the dealer's loan-equivalent risk with that customer. With some customers, dealers may require that the entire level of loan-equivalent risk be on account as margin. With other customers, the dealer might begin to collect margin only after loan-equivalent risk had exceeded a certain level. In either case, the dealer should calculate the loan-equivalent risk at least daily and adjust the margin account accordingly.

Other methods to reduce pre-settlement credit risk are less common. For example, individual contracts—and the credit risks associated with them—could be transferred

directly from the original counterparty to a third party. Such "assignments," however, currently take place very rarely and often face considerable legal obstacles, as well as the consent of the original counterparty.

### Conclusion

The loan-equivalent risk approach, which estimates the replacement cost of financial products in case of counterparty default, provides a meaningful basis to measure and control pre-settlement credit risk. Pre-settlement credit risks in various products—including trading products and conventional loans—can be compared and aggregated. Risk managers can choose from among several alternatives when implementing a loan-equivalent risk system. This risk management system must be geared to fit each institution's particular geographical considerations, risk profile and technological capabilities.

By providing an estimate of the actual dollar-value risk associated with foreign exchange transactions, the loan-equivalent risk method is also useful in determining the amount of capital required for individual contracts, as well as the cost of that capital.

Finally, with a loan-equivalent risk system already in place, management may also employ methods to reduce pre-settlement credit risk. At present, the most promising methods are netting and margining.

## Using Netting to Reduce Loan-Equivalent Risk Exposures

Having established a netting agreement with a counterparty, a dealer can offset positive marked-to-market exposures on transactions with that counterparty with the negative marked-to-market exposures on other transactions with that same counterparty. In the example used on page 25, the dealer faced the following possible exposures with a counterparty:

<u>Value of \$ Decreases By 2 SD</u>	<u>Value of \$ Increases By 2 SD</u>
A	C
£/\$ Contract: \$5.0 million	(\$1.0) million
B	D
\$/DM Contract: (\$5.5) million	\$0.5 million

Positive correlation: LER of (\$0.5) million (A+B or C+D)

Negative correlation: LER of \$5.5 million (A+D) or a loss of \$6.5 million (B+C)

For the purpose of illustrating the potential benefit of netting, this example presents two extreme scenarios regarding the correlation between the two contracts. In a "perfect correlation" scenario (the £ and DM move together against the dollar), the (\$5.5) million loan-equivalent exposure on the \$/DM contract resulting from a 2 standard deviation decrease in the value of the dollar could be used to reduce the corresponding \$5.0 million exposure on the £/\$ contract to a net of (\$0.5) million. Similarly, the (\$1.0) million loan-equivalent exposure on the £/\$ contract resulting from a 2 standard deviation increase in the dollar could be used to reduce the corresponding \$0.5 million exposure on the \$/DM contract to a net of (\$0.5) million. By contrast, in a "negative correlation" scenario (the £ and DM move in opposite directions against the dollar), a 2 standard deviation move in the dollar would produce either a \$5.5 million credit exposure (\$5.0 million + \$0.5 million) or a \$6.5 million market loss (-\$5.5 + -\$1.0). Neither outcome would be affected by a netting agreement. Thus, the potential benefit of netting depends entirely on the nature and degree of the correlation between netted transactions.

Bilateral netting agreements are most effective in reducing exposures when they are established with active trading counterparties. A larger number of transactions outstanding with any counterparty enhances the probability that transactions with negative marked-to-market values are available to offset positive credit exposures on other transactions.

## Appendix: How Loan-Equivalent Risk Changes with Time

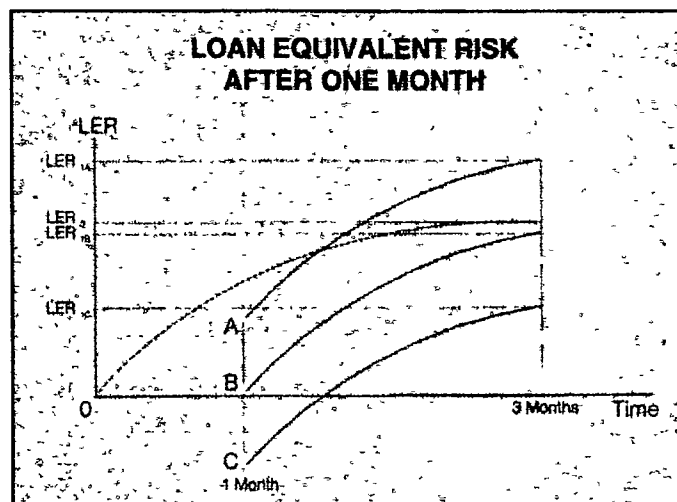
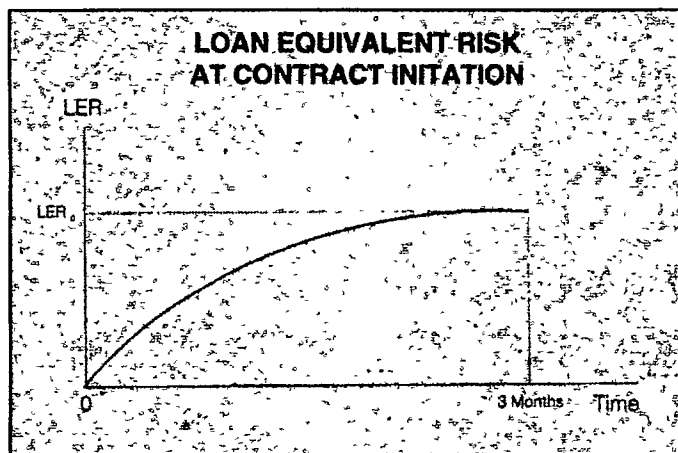
The loan-equivalent risk of any contract changes dynamically over time. The marked-to-market value of the contract may fluctuate, and the potential credit exposure may shift as the maturity of the contract shortens. These two effects are captured in the graphs below.

The first graph depicts loan-equivalent risk at the initiation of a three-month contract (Time 0). The marked-to-market value of the contract is zero, but the contract has a potential credit exposure over three months equal to  $LER_0$ . Hence, the loan-equivalent risk of this contract at initiation is  $0 + LER_0 = LER_0$ .

This contract's loan-equivalent risk will not remain static at  $LER_0$  over the life of the contract, however. The graph below illustrates three possible levels of loan-equivalent risk after one month. In Scenario A, the marked-to-market value of the contract has risen, in Scenario B the marked-to-market value of the contract is still zero, and in Scenario C, the marked-to-market value

of the contract has fallen. Potential credit exposures for the remaining two months of the contract must be added to the marked-to-market value to determine the loan-equivalent risk in each scenario.

If the contract has a positive marked-to-market value after one month (Scenario A), the loan equivalent risk at one month ( $LER_{1A}$ ) could be well above the original loan-equivalent risk ( $LER_0$ ). If there is no change in the marked-to-market value of the contract after one month and the estimated future price volatility has not changed (Scenario B), the loan-equivalent risk at one month ( $LER_{1B}$ ) will probably be lower than the original loan equivalent risk ( $LER_0$ ). Even if the marked-to-market value of the contract is negative at one month (Scenario C), the level of potential credit exposure over the remaining life of the contract could lead to a positive loan-equivalent risk ( $LER_{1C}$ ).



# COMMITTEE *AMICUS* BRIEF IN TAUBER v. SALOMON FOREX CASE

United States Court Of Appeals  
FOR THE FOURTH CIRCUIT

No. 92-1406

---

LASZLO N. TAUBER, M.D.,

*Appellant,*

v.

SALOMON FOREX INC., *et al.*,

*Appellees.*

---

ON APPEAL FROM THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF VIRGINIA

---

## BRIEF OF THE FOREIGN EXCHANGE COMMITTEE AS *AMICUS CURIAE* IN SUPPORT OF APPELLEES

### Interest of Amicus Curiae

The Foreign Exchange Committee (the "Committee") includes representatives of major domestic and foreign commercial and investment banks and foreign currency brokers engaged in foreign currency trading in the United States.<sup>8</sup> The Committee was formed in 1978 under the sponsorship of the Federal Reserve Bank of New York and acts as a channel of information among the foreign currency markets and the Federal Reserve and other official institutions in the United States and abroad. The Committee regularly advises the Federal Reserve Bank of New York on issues such as trading practices, risk management, and the structure, volatility and liquidity of the foreign currency markets. The Committee also serves as a forum for the discussion of good practices and technical issues in the foreign currency markets and international money markets.

The institutions represented on the Committee have been trading foreign currencies off-exchange in the United States and around the world for years with the understanding that such activity was not prohibited by the United States Commodity Exchange Act (the "CEA")<sup>9</sup>

---

<sup>8</sup> See Appendix A for a list of the members of the Committee. A copy of the Committee's Document of Organization is attached as Appendix B.

<sup>9</sup> 7 U.S.C. §§ 1-26

A sudden and radical reversal of the regulatory regime for such trades would drive the OTC foreign currency markets out of the United States and would cripple the United States foreign currency markets and markets world-wide.

### Over-the-Counter Markets in Foreign Currency Forwards and Options

The over-the-counter ("OTC") — or off-exchange — foreign currency forwards and options markets are highly evolved, sophisticated and very active.<sup>10</sup> Trading is conducted twenty-four hours a day, with the trading day starting in the Far East and ending in the United States, and with exchange-rate quotations available worldwide.

---

<sup>10</sup> These foreign currency (also referred to as "foreign exchange") markets are separate and distinct from the "contract markets" on commodity exchanges designated by the Commodity Futures Trading Commission (the "CFTC") for exchange trading of foreign currency futures and options. Contract markets use standardized contracts in a limited number of currencies, for all of which the amount of currency per contract, the date of expiration, the means of delivery and other terms are standard and, with the exception of price, not subject to negotiation between the parties. By using the term "forward" we do not intend to conclude that the transactions at issue are forwards rather than futures. Because the term "forward" is used in the OTC market and in data sources concerning this market, it is used here rather than the term "futures," which was adopted by the District Court. See Mem. Op. at 4, n. 4.

on computer screens and personal telephone pagers. These markets are extremely sensitive to political and financial developments around the world.

Among the most significant participants in the markets are commercial and investment banks, foreign currency brokerage companies, corporations, money managers, such as pension and mutual fund managers, cash managers, insurance companies, governments, and central banks.

The OTC foreign currency markets serve a number of fundamental needs of governments and businesses worldwide. The Federal Reserve Bank of New York (on behalf of the United States and foreign central banks), foreign central banks and foreign governments regularly intervene in the OTC markets to implement policies relating to their currencies. In addition, the OTC markets provide businesses with access to international markets for goods and services by providing the foreign currency necessary for transactions worldwide.

These liquid markets also assist international businesses faced with the vagaries of global interest rate and currency rate volatility by providing a means of hedging against the risk of an adverse exchange-rate movement. OTC foreign currency forward or option contracts are commonly used to hedge inventories or accounts receivable or payable denominated in a particular currency.<sup>11</sup> Such contracts allow participants to shift the risk of an adverse exchange-rate movement to a counterparty willing to accept that risk and the concurrent potential rewards.<sup>12</sup>

The OTC markets are uniquely capable of meeting these varied needs because virtually every term of OTC foreign currency forward or option agreements — unlike their standardized exchange-traded counterparts — can be negotiated by the parties. That an OTC option can be individually tailored is a primary reason for the high level of activity in the OTC currency markets.

---

<sup>11</sup> For example, a United States engineering firm may bid on an industrial contract in Italian Lira today and "lock in" the price in U.S. Dollars by purchasing an option to sell (or "put") Lira at the time payment on the contract is expected, thereby protecting itself if the Lira loses value in Dollars.

<sup>12</sup> The myriad functions served by the OTC currency markets are complementary. For example, parties employ OTC foreign currency forwards or options to hedge against the effects of governmental intervention, such as efforts to influence the exchange rate of their currency against another currency. Forwards or options can also be used for speculation on the effects of government intervention, which increases the liquidity of the market, thus making it easier for other participants to hedge their risks. See Committee on Futures Regulation of the Association of the Bar of the City of New York "The Evolving Regulatory Framework for Foreign Currency Trading" at 21 (1986) (hereafter "NYC Bar Paper").

## I. Trading and Offset in the OTC Foreign Currency Markets

Spot, forward and option OTC contracts on currencies are bilateral agreements between principals that impose binding delivery obligations. All of the principal terms of such contracts, including quantity, exchange rate, credit issues and maturity or expiration, are individually negotiated between the parties, based on each party's objectives and its assessment of its counterparty's credit.

A spot contract involves a commitment by one party to deliver a specified quantity of one currency against the other party's delivery of a specified quantity of a second currency, generally within two business days of the date of contract. A forward contract is virtually identical to a spot contract, except that the date fixed for delivery of the underlying currencies is more than two days (and is generally between one week and two years) from the date of the contract.<sup>13</sup> An option on a currency provides one party with the right, but not the obligation, to purchase (in the case of a "call" option) or sell (in the case of a "put" option) a specified quantity of a given currency, at a fixed exchange rate, at any time up to a stated expiration date or, in some cases, on such expiration date. In contrast to a spot or forward contract, which imposes binding obligations on both parties, an option involves the payment of an up-front premium by the buyer and imposes a binding delivery or performance obligation on the seller of the option.

The obligations imposed under spot, forward or option contracts may not be liquidated or closed out prior to the stated delivery or expiration date, except in the case of a default by a counterparty or by mutual agreement of the parties. The parties to a spot, forward or option contract may agree to enter into a second offsetting transaction with the same maturity, thereby fixing each party's profit or loss on the first transaction. In that event, however,

---

<sup>13</sup> As stated in the NYC Bar Paper at 6.

A foreign currency forward is a bilateral, executory contract between buyer and seller in which the seller agrees to deliver to the buyer, at a future date, a specified amount of foreign currency at a specified price. Because they allow the parties to the contract to secure a price today for currency to be bought or sold in the future, foreign currency forwards, like options and futures contracts, can be used to hedge various foreign exchange exposures. The need to hedge currency exposures arises because of the volatility of exchange rates. Such exposures include "transaction exposures," which occur when an entity expects to receive payment or make payment in a foreign currency in connection with any transaction, and "translation exposures," which occur because of certain accounting rules when an entity must translate its foreign-currency denominated assets and liabilities into domestic currency on its financial statements (Footnote omitted).

each position must be maintained to maturity, the delivery obligations of the parties are not extinguished, and delivery must occur in accordance with the terms of the contract

As a matter of practice, the parties to two or more spot, forward or option contracts may routinely agree to satisfy their respective delivery obligations on a "net" basis<sup>14</sup> Such netting schemes reduce the risk that one party will not be able to settle its payment obligations<sup>15</sup> Bilateral netting of foreign currency contracts has been recognized by the bank supervisors of the G-10 countries as an appropriate way for banks to manage risks and qualify for lower capital requirements<sup>16</sup> Netting of delivery obligations also reduces transaction costs and protects each of the parties against the risk of counterparty bankruptcy by assuring that a bankruptcy trustee will not be able to "cherry pick" by requiring performance under profitable contracts while abandoning unprofitable contracts

Congress has expressly endorsed the development in the OTC markets of risk-reduction techniques such as netting arrangements The Federal Deposit Insurance Corporation Act and the Bankruptcy Code were amended to strengthen the enforceability of netting and close-out provisions in financial contracts<sup>17</sup> Within the last year, Congress further buttressed the enforceability of both bilateral and multilateral netting arrangements in the Federal Deposit Insurance Corporation Improvement Act of 1991<sup>18</sup>

Acting upon the limited view of the scope of the Treasury Amendment espoused by Dr Tauber and by *amici curiae*, the Chicago Board of Trade and the Chicago Mercantile Exchange (the "Exchanges"), would

---

14 Netting may be effected under an agreement entered into prior to the execution of any transaction or by a separate agreement of the parties entered into subsequent to the date of the offsetting contracts but prior to their maturity date In addition, the parties may agree either to "payment netting," in which payments under a number of open contracts are netted, or to "netting by novation," in which all contracts entered into for delivery of the same currencies on the same delivery date are cancelled and replaced by a single contract providing for payment of a net amount of each currency involved The agreement between the parties may also provide for the liquidation of all open contracts and the netting of all amounts due upon the occurrence of an event of default

15 Bank for International Settlements, Basle, Switzerland, "Report of the Committee on Interbank Netting Schemes of the Central Banks of the Group of Ten Countries" at 2-4 (Nov 1990)

16 See 12 C F R Part 208, Appendix A (1992)

17 12 U S C §1821(e)(8)(A)(iii) and 11 U S C §§362, 546 and 548, respectively

18 12 U S C §§4401-4407 See Patrikis and Walraven, "The Netting Provisions of the Federal Deposit Insurance Corporation Improvement Act of 1991," XII *Futures International Law Letter* (May 1992) Mr Patrikis is the General Counsel of the Federal Reserve Bank of New York

effectively cripple the U S trading markets in foreign currency If, as they assert, only transactions in which "conveyance" occurs (Appellant's Brief at 12-13) or "where title or ownership is transferred or is expected to be transferred" (Exchange Brief at 10) are outside the CEA, a broad range of foreign currency trades, including a broad range of netted trades, could be illegal Such an untenable result would disrupt the United States and world-wide foreign currency markets, sap liquidity from the markets, drive trading offshore, undermine the world-wide recognition of the benefits of netting, risk management and credit management and go against the clear intent of Congress in passing legislation that supports netting

Although the Exchanges argue that affirming the District Court's opinion would vitiate Congress' findings as to the importance of futures and options trading, Congress, unlike the Exchanges (see, e g, Exchange Brief at 1-2), drew a distinction between foreign currencies on the one hand, and nearly all other commodities on the other, when deciding on the appropriate regulatory treatment The existence and growth of the OTC foreign currency markets have been of national benefit, and in 1974 and since then, Congress has recognized the markets' importance, as well as their ability to function properly without being subject to the CEA and the standardization requirements associated with exchange trading

## II. The Development and Significance of the Markets

Before 1974, OTC transactions in foreign currency forwards were commonplace<sup>19</sup> The Federal Reserve Bank of New York, for example, used OTC forward transactions before 1974 as a means of intervening in currency markets on behalf of the United States Department of the Treasury, the Federal Reserve and foreign central banks<sup>20</sup> After 1974, an OTC market in currency options contracts developed among banks in London By 1981, banks in the United States began trading in options contracts, and since that time, the domestic OTC currency options markets have grown dramatically<sup>21</sup>

The global significance of these markets and the full scope of activity in this country is evident from a study

---

19 H Grubel, *Foreign Exchange, Speculation, and the International Flow of Capital* (1966)

20 Coombs, "Treasury and Federal Reserve Foreign Exchange Operations," Federal Reserve Bank of New York, 44 *Monthly Review* 131, 133-38 (1962)

21 Exchange-trading of foreign currency options did not begin until 1982 See J Walker, *How the Options Markets Work*, at 164 (1991)

conducted by the Bank for International Settlements ("BIS") in Basle, Switzerland (the "central bankers' bank") According to the BIS, in 1989 the gross average daily turnover in foreign currency forwards in twenty-one countries was \$28 billion<sup>22</sup> The same study showed that the average daily turnover of currency options was \$22 billion, of which half was in the United States Japan, the United Kingdom and France also accounted for significant portions of this turnover The BIS noted that "[t]he great bulk of currency options written or purchased by banks are over-the-counter instruments, with exchange-traded options amounting to a small portion of the total" *Id* at 5 Exchange-traded futures operations were of limited importance [e]ven in the United States, where the most active futures markets are located, transactions in currency futures accounted for only about 5% of forward operations *Id* The BIS concluded that the growth in the importance of foreign currency derivative products (such as OTC forwards and options), as well as the growth in the range of currencies traded, demonstrates "the increased sophistication of both bank and non-bank participants in foreign exchange markets and the greater integration of financial markets" *Id* at 9

Some indication of the size of the OTC currency forwards and options markets in the United States alone<sup>23</sup> is given by data submitted by major market participants to the Federal Reserve Bank of New York<sup>24</sup> Average daily turnover in the OTC foreign currency forwards and options markets as reflected in the Federal Reserve Bank of New York's triennial studies from 1977 to 1989 is set forth in the table below In 1989, the reported average daily turnover in the United States in the OTC foreign currency forwards and options markets was \$6.17 billion and \$5.10 billion, respectively<sup>25</sup>

<sup>22</sup> Bank for International Settlements, Basle, Switzerland, "Survey of Foreign Exchange Market Activity" at 12 (Feb. 1990)

<sup>23</sup> This data do not reflect trades booked by U.S. market participants in other trading centers such as London, Singapore and Tokyo The United States may not be the major booking center for many of these U.S. institutions

<sup>24</sup> Since 1977, the Federal Reserve Bank of New York has conducted triennial surveys of turnover in the foreign currency markets The surveys are voluntary and do not include all participants, therefore it is likely that they significantly understate the volume of trading Data from the most recent survey, conducted in 1992, will be published this fall The data set forth in the table in the text were taken from the Federal Reserve Bank of New York Foreign Exchange Turnover Surveys (July 12, 1977, June 23, 1980, Sept. 7, 1983, Aug. 20, 1986, and Sept. 13, 1989) OTC foreign currency options were not included in the surveys until 1986

<sup>25</sup> Federal Reserve Bank of New York, *Foreign Exchange Turnover Survey*, Sept. 13, 1989 The data represent only the average dollar amount traded each day, and thus reflect the flow of transactions, rather than the total dollar amount of transactions outstanding Anecdotal evidence suggests that several trillion dollars of foreign currency forwards and options transactions are outstanding

### Average Daily Turnover Reported to the Federal Reserve Bank Of New York

YEAR	OTC FOREIGN CURRENCY FORWARD CONTRACTS IN THE U.S. (in billions of \$)	OTC FOREIGN CURRENCY OPTION CONTRACTS IN THE U.S. (in billions of \$)
1977	0.25	—
1980	1.08	—
1983	1.01	—
1986	2.87	0.29
1989	6.17	5.10

Moreover, the global OTC markets for foreign currency forwards and options have evolved — and continue to evolve — in a constructive, responsible fashion The Committee, for example, devotes substantial effort to the identification and recommendation of better practices See, e.g., The Foreign Exchange Committee, *1991 Annual Report*, at 5-6 (discussing, *inter alia*, historical rate rollovers, the use of points in the brokered foreign currency markets and dispute resolution), The Foreign Exchange Committee, *1990 Annual Report*, at 4-6 (discussing, *inter alia*, the use of confirmation practices) Affirming the decision of the District Court will allow this evolution to continue

Dr. Tauber and the Exchanges ignore the domestic and global importance of the OTC foreign currency forward and options markets and the fact that much of the trading in these markets crosses national borders (and thereby facilitates trade among countries) Prohibiting an important segment of the world-wide OTC foreign currency markets from operating in this country and discouraging U.S. persons from participating in the OTC foreign currency markets would result in extraordinary costs and would damage the United States' ability to compete as a world financial center If the legitimate needs of commerce cannot be served by the OTC markets in the United States, those needs will no doubt be met by other financial centers to the significant detriment of the United States

### Argument

Under any interpretation of the Treasury Amendment and existing precedent, the decision of the District Court must be affirmed The plain language of the Treasury Amendment and the structure of the CEA mandate the

conclusion that all of the forward and option contracts between Salomon Forex and Dr. Tauber are enforceable and not subject to the CEA. Even if the language and structure of the statute are ignored, the option contracts in question are excluded from the CEA because they were exercised, and Dr. Tauber is a sophisticated institutional investor whose trading is excluded under the CFTC's interpretation of the Treasury Amendment. Moreover, Salomon Forex is not a "board of trade" for purposes of the CEA and cannot be construed as such.

I.

**The Plain Language of the Treasury Amendment Mandates a Broad Transactional Exclusion From the CEA.**

The plain language of the Treasury Amendment excludes from the CEA all off-exchange foreign currency transactions, without regard to their nature or the character of their participants. Mem. Op. at 12. The Treasury Amendment plainly states

[n]othing in this [Act] shall be deemed to govern or in any way be applicable to transactions in foreign currency unless such transactions involve the sale thereof for future delivery conducted on a board of trade. 7 U.S.C. §2

Unless a foreign currency transaction is both for future delivery and occurs on a board of trade, it is excluded from the CEA and consequently from the jurisdiction of the CFTC.

A court must find the plain meaning of a statute conclusive except in those rare cases in which substantial unambiguous evidence supports a contrary interpretation. See *Griffin v. Oceanic Contractors, Inc.*, 458 U.S. 564, 571 (1982); *Matala v. Consolidation Coal Co.*, 647 F.2d 427, 429-30 (4th Cir. 1981). See also *Ford Motor Credit Co. v. Cenance*, 452 U.S. 155, 158 n.3 (1981). The District Court correctly determined that "the Treasury Amendment's plain language is not qualified in any respect." Mem. Op. at 13. Nowhere does the statute limit the exclusion according to the nature of the transaction or participants, or whether or not the participants make or take delivery of the currency. Moreover, there is no clear and substantial evidence that Congress intended any such limitation. This Court must therefore find that each of the foreign currency transactions between Salomon Forex and Dr. Tauber were excluded from the CEA. See *In re Forfeiture Hearing as to Caplin & Drysdale*, 837 F.2d 637, 641 (4th Cir. 1988).

**A. The Language of the Treasury Amendment Excludes All Transactions in Foreign Currency.**

A contract providing the right to receive foreign currency (or the obligation to deliver currency) is a "transaction in foreign currency." Whether the transaction is a spot, forward, or option contract, if it provides the right to obtain foreign currency, it is a transaction in foreign currency. The District Court, refusing to find ambiguity where none exists, accepted this plain meaning of the Treasury Amendment and concluded that further inquiry was not required. Mem. Op. at 13.

Dr. Tauber and the Exchanges erroneously assert that foreign currency transactions that do not necessarily result in "in" delivery of currency are not transactions in foreign currency, but merely involve foreign currency and are therefore subject to the CEA. As support for this distinction, Dr. Tauber and the Exchanges rely on two cases<sup>26</sup> which held that the Treasury Amendment has limitations when applied to the marketing of currency options to the general public and not to sophisticated institutional investors such as Tauber. See *CFTC v. American Board of Trade, Inc.*, 473 F. Supp. 1177 (S.D.N.Y. 1979), *aff'd*, 803 F.2d 1242 (2d Cir. 1986), *CFTC v. Sterling Capital Co.*, [1980 - 1982 Decisions] Comm. Fut. L. Rep. (CCH) ¶ 21,169 (N.D. Ga. 1981), *modified on other grounds*, [1980 - 1982 Decisions] Comm. Fut. L. Rep. (CCH) ¶ 21,170 (N.D. Ga. 1981).<sup>27</sup>

No reliance whatsoever can be placed on this meaningless distinction. "In" and "involve" are defined, respectively, as "indicat[ing] inclusion" and "include." See Webster's Ninth New Collegiate Dictionary 607, 637 (1986). Had Congress used the word "involve" rather

<sup>26</sup> Dr. Tauber also relies on dicta in *Chicago Board of Trade v. SEC*, 677 F.2d 1137, 1155, n.34 (7th Cir. 1982), *vacated as moot*, 459 U.S. 1026 (1982), even though the Court specifically noted it was drawing "no conclusion" as to whether the Treasury Amendment affected CFTC jurisdiction over options on foreign currency.

<sup>27</sup> Both of those cases involved enforcement actions by the CFTC, not an attempt by an active, sophisticated and wealthy trader in foreign currency to use the statute as a defense to the enforcement of his contractual obligations. The *American Board of Trade* and *Sterling* courts strayed from the plain language of the Treasury Amendment in an attempt to protect a public they perceived as unsophisticated and vulnerable to boiler room operators. There is no evidence, however, that foreign currency products currently are being marketed to the general public, by boiler room operators or otherwise. If there is a need to address on the federal level the protection of the general public in the context of the foreign currency market, that is a matter best addressed by Congress, which would have the benefit of the advice of the Treasury Department, the Federal Reserve System and all supervisory and regulatory agencies with an interest in the market. See *United States v. Ron Pair Enterprises, Inc.*, 489 U.S. 235, 241 (1989) ("the sole function of the courts is to enforce [the statute] according to its terms") (quoting *Caminetti v. United States*, 242 U.S. 470, 485 (1917)).



than "in," the meaning of the Treasury Amendment would not change one iota, and Dr. Tauber would argue that his transactions did not "involve" foreign currency, for the very reasons he now argues that they are not transactions in foreign currency. See Appellant's Brief at 14-20, Exchange Brief at 9-11.

Moreover, as the District Court found, the CEA's legislative history "reveals no clear and unambiguous expression of legislative intent sufficient to warrant rejecting the plain, unambiguous, ordinary meaning of the statutory language." Mem. Op. at 15. The court's finding that the Treasury Amendment is a broad exclusion is consistent with the opinion of the Treasury Department, which considers the Treasury Amendment a "transactional exemption" upon which there is no limitation.<sup>28</sup>

In 1974 the Treasury Department urged (and Congress provided) that foreign currency trading be excluded from the jurisdiction of the CFTC. The Treasury Department sought to ensure that the amended CEA (which included foreign currency within its expanded definition of "commodity") would not interfere with or otherwise impact any transaction in the foreign currency markets except when trading occurred on a regulated futures exchange.<sup>29</sup> In its letter to Congress, which prompted the Amendment, the Treasury wrote

The Department feels strongly that foreign currency futures trading, other than on organized exchanges, should not be regulated by [the CFTC].<sup>30</sup>

Moreover, the Treasury Amendment was intended to exclude from the CFTC's jurisdiction a wide variety of transactions in the instruments described in the Amendment.

[T]he Department is concerned that the language of the bills is broad enough to subject to regulation [by the CFTC] a *wide variety of transactions involving financial instruments, such as* puts and calls, warrants, rights, resale of installment loan contracts, repurchase options in Government securities,

<sup>28</sup> Letter from Charles O. Sethness, Assistant Secretary, Department of Domestic Finance, Department of the Treasury, to Susan M. Phillips, Chairman, CFTC (May 5, 1986) (responding to the CFTC's request for comments on its proposed interpretation of the Treasury Amendment).

<sup>29</sup> If a foreign currency trade in the United States or involving one or more U.S. parties is not excluded from the CEA under the Treasury Amendment, does not trade on an exchange or is not subject to some other exemption or exclusion from the CEA, it is unlawful. 7 U.S.C. §§ 6(a), 6c.

<sup>30</sup> S. Rep. No. 1131, 93rd Cong., 2d Sess. (1974), *reprinted in*, 1974 U.S. Code Cong. & Admin. News 5843, at 5887.

Federal National Mortgage Association mortgage purchase commitments, futures trading in mortgages contemplated by Federal Home Loan Mortgage Corporation, etc. [W]e do not believe it is contemplated that the bills should regulate transactions in *financial instruments of that nature*.<sup>31</sup>

The Treasury Department suggested an amendment stating that [n]othing in this Act shall be deemed to govern *transactions in foreign currency*. *Id.*

Congress adopted the Treasury Department's proposed language. As the Senate Report explained

[T]he [Senate] Committee included [the Treasury Amendment] to clarify that the provisions of the bill are not applicable to trading in foreign currencies

unless such trading is conducted on a formally organized futures exchange. A great deal of the trading in foreign currency in the United States is carried out through an informal network of banks and tellers [sic]. The [Senate] Committee believes that this market is more properly supervised by the bank regulatory agencies and that, therefore, regulation under this legislation is *unnecessary*.<sup>32</sup>

The Treasury Department and Congress clearly envisioned that "transactions in" would be accorded its ordinary meaning and that the Amendment would govern a wide range of foreign currency transactions.

#### **B. The Structure of the CEA as a Whole Mandates a Broad Exclusion of Foreign Currency Trading.**

Dr. Tauber urges this Court to read the Treasury Amendment in a way that deprives it of any meaning. He contends that the Treasury Amendment was meant to exclude only spot contracts and forward contracts for which delivery occurs. Appellant's Brief at 12-14, 27-29. Likewise, the Exchanges assert (without support) that the CEA excludes only those "transactions where title or ownership is transferred or is expected to be transferred" (*i.e.*, only spot and some forward transactions). Exchange Brief at 10. This argument makes nonsense of the statute.

Provisions of the CEA not in dispute here exclude from the jurisdiction of the CFTC spot and forward contracts in all commodities, including foreign currency. Forwards are excluded from the CEA by the "cash forward contract exclusion,"<sup>33</sup> and spot transactions are excluded

<sup>31</sup> *Id.* at 5889 (emphasis added).

<sup>32</sup> *Id.* at 5863 (emphasis added).

<sup>33</sup> "The term 'future delivery' shall not include any sale of any cash commodity for deferred shipment or delivery." 7 U.S.C. 2.

because they do not involve future delivery of a commodity. Therefore, unless the Treasury Amendment is to be deemed wholly superfluous, it must be interpreted to exclude from the CEA transactions other than spot and forward trades over which the CFTC has no jurisdiction. See generally *Matala*, 647 F.2d at 429.

A basic canon of statutory construction requires that Congress be "presumed to have used no superfluous words," and that a statute be given effect as a whole. *Platt v. Union Pacific R.R. Co.*, 99 U.S. 48, 58 (1878). See *Matala*, 647 F.2d at 429 (citing *United States v. Snider*, 502 F.2d 645, 652 (4th Cir. 1974)). To preserve the meaning of the Treasury Amendment, it must be read as a broad exclusion for all types of foreign currency transactions.

Congress knew that "transactions in foreign currency" would include transactions calling for future delivery of foreign currency, as well as transactions used for hedging that would not necessarily result in actual delivery. The Treasury Department wrote:

The Department feels strongly that foreign currency futures trading, other than on organized exchanges, should not be regulated by [the CFTC]. This dealer market, which consists primarily of the large banks, has proved highly efficient in serving the needs of international business in hedging the risks that stem from foreign exchange rate movements.<sup>34</sup>

Moreover, if "transactions in foreign currency" referred only to the actual exchange of the underlying currencies in spot or forward transactions, then the clause "unless such transactions involve the sale thereof for future delivery on a board of trade" would be superfluous. Spot contracts do not involve future delivery, and forward contracts are not traded on boards of trade, so the "transactions for future delivery on a board of trade" cannot reasonably be expected to apply to either spot or forward contracts. See *Chicago Board of Trade v. SEC*, 677 F.2d 1137, 1179 (7th Cir. 1982) (Cudahy, J., dissenting), vacated as moot, 459 U.S. 1026 (1982).

Contrary to case law, Dr. Tauber would have this Court render meaningless the proviso for "transactions for future delivery on a board of trade." See, e.g., Appellant's Brief at 12-14, 25-27. In *Abrams v. Oppenheimer Gov't Sec., Inc.*, 589 F. Supp. 4, 7 (N.D. Ill. 1983), *aff'd*, 737

<sup>34</sup> S. Rep. No. 1131, 93rd Cong., 2d Sess. (1974), reprinted in, 1974 U.S. Code Cong. & Admin. News 5843, at 5887-88 (emphasis added).

F.2d 582, 589-593 (7th Cir. 1984), the District Court and the Seventh Circuit found that the fundamental question with respect to the scope of the Treasury Amendment was the "unless" clause and whether or not the contracts were traded on an exchange. The red herrings of "actual delivery" and the meaning of in were not the determinative issues in interpreting the scope of the Treasury Amendment. See *Abrams*, 589 F. Supp. at 7, *Abrams*, 737 F.2d at 590 (GNMA forward contract excluded because it was a transaction in government securities not traded on an exchange).<sup>35</sup>

### C. Option Transactions in Foreign Currency Are Excluded by the Treasury Amendment.

The plain meaning of the Treasury Amendment applies equally to foreign currency options. Options give the right to purchase or sell foreign currency, and are thus "transactions in foreign currency" because "foreign currency is the actual subject matter" of the contract. Mem. Op. at 18. The lack of an obligation to exercise the option and thus cause delivery of the currency does not change the subject matter of the option or make it a transaction in something other than foreign currency.

Dr. Tauber argues, however, that in settling his options by offsetting contracts there was no delivery of foreign currency and thus, in his view, the option was not a transaction in foreign currency. This argument fundamentally misstates the facts and the law. As the District Court noted (Mem. Op. 17-18), the options contracts, like forward contracts, required delivery of currency, which obligation often was satisfied by offset because it was a more convenient method of settlement. The parties could have settled by delivery of the currency without offset or netting, and would have been required to do so absent an agreement to offset. That they chose not to do so was of no legal significance. See *Board of Trade v. Christie Grain & Stock Co.*, 198 U.S. 236, 248 (1905) (set-off has the legal effect of a delivery), *CFTC Statutory Interpretation Concerning Forward Transactions*, 55 Fed. Reg. 39,188, 39,189 (1990) (if the contract by its terms requires delivery, subsequent agreement to settle by off-

<sup>35</sup> A 1978 Senate Report concerning futures in Government securities emphasized that whether or not a transaction was conducted on an exchange was the critical issue with respect to the Treasury Amendment.

When the 1974 amendment was being considered by Congress, the Treasury recommended that the role of the CFTC with respect to Government securities be limited to futures contracts sold on organized exchanges. Congress adopted this recommendation.

S. Rep. No. 850, 95th Cong., 2d Sess. (1978), reprinted in, 1978 U.S. Code Cong. & Admin. News 2087, 2135 (emphasis added). See *Board of Trade*, 677 F.2d at 1178 (Cudahy, J., dissenting).

set does not alter the nature of the original contract)<sup>36</sup> Moreover, in endorsing netting and set-off provisions in other contexts, Congress has recognized that delivery is not a necessary element of these transactions See, *supra*, p 7-8

For the same reasons, an option transaction is a transaction in foreign currency whether or not the option is exercised The holder of the option may not exercise the option (for economic or other reasons), but until he lets the option expire he has the legal right to demand delivery<sup>37</sup> To hold otherwise creates the impractical result that (absent an applicable exemption)<sup>38</sup> the legality of an option must await its exercise If delivery determines whether a transaction is excluded or exempt from the CEA, then in many cases one could not determine whether the forward or option was sold legally until after the exercise date of the option or the delivery of the commodity (which might occur six months or a year or more after the purchase or sale of the forward or option)<sup>39</sup> This is a commercially unacceptable result Such a result would also create substantial and unacceptable systemic risk for the foreign currency markets and market participants As a practical matter, the purchasers of options and forwards cannot predict at the time of purchase whether or not exercise or delivery of the commodity will actually take place Indeed, one of the fundamental reasons for forwards and options is to provide

---

36 The Tax Court also has recognized that the use of setoff to settle a foreign currency contract does not alter the underlying nature of the transactions The Tax Court stated

[t]he most common method of settling a forward sale contract has traditionally been to enter into a purchase contract and to offset the contractual obligations to sell and purchase Offset of the contractual obligations by the seller has been held to be delivery under the sale contract satisfying the sale or exchange requirement on the date the contract is settled (Citations omitted)

*Hoover Co v Commissioner*, 72T C 206, 249-50 (1979)

37 The holder of an option anticipates and intends the exercise of the option (and delivery of the currency) if it is "in the money," in other words, if the option has intrinsic value Whether there will be such value will depend on movements in the price of the currency from the purchase date of the option, which are unpredictable at the time of purchase Moreover, only options that are "in the money" and thus worth exercising will provide an occasion for non-performance and consequent action for breach, and in all such cases there is a right to demand delivery absent offset by mutual consent

38 See, *e.g.*, the CFTC's trade option exemption which provides [The ban on off-exchange options as set forth in 17 C F R §32 2(b)] shall not apply to a commodity option offered by a person which has a reasonable basis to believe that the option is offered to a producer, processor, or commercial user of, or a merchant handling, the commodity which is the subject of the commodity option transaction, or the products or by-products thereof, and that such producer, processor, commercial user or merchant is offered or enters into the commodity option transaction solely for purposes related to its business as such 17 C F R §32 4(a)

assurance against unknown risks or unpredictable needs for foreign currency

The District Court correctly recognized, however, that it was not necessary to distinguish between exercised and unexercised options in order to decide this case Because the options were exercised in this case, the options were "transactions in" foreign currency even under the *American Board of Trade* theory, and hence are excluded from the CEA See *American Board of Trade*, 803 F 2d at 1248 (a foreign currency option is a "transaction in" foreign currency when exercised)

#### **D. Application of a "Sophisticated Institutional Investor" Standard Requires Affirmance.**

Notwithstanding the plain language and structure of the statute (and the opinion of the Treasury Department), the CFTC in 1985 issued a Statutory Interpretation suggesting that the Treasury Amendment encompasses only transactions among and between banks and other sophisticated, informed institutional investors, and was inapplicable to transactions with the general public<sup>40</sup> The CFTC received numerous comments noting that its interpretation was a clear deviation from the language of the statute<sup>41</sup> The Treasury Department, for example, wrote that the CFTC's interpretation was "not consistent with the plain language of the statute"<sup>42</sup>

In this case, whether or not such a requirement exists is immaterial as both participants in the transactions at issue are sophisticated institutional investors The District Court found that since 1981 Dr Tauber has engaged in billions of dollars of foreign currency trading, his wholly-owned trading company owned a seat on the nation's largest foreign currency options exchange, he monitored the markets from terminals in his home and elsewhere, he maintained foreign bank accounts, and he had a net worth estimated at \$500 million Mem Op at 3-4 In short, Dr Tauber is a sophisticated institutional investor

---

39 For this reason, as well as adherence to the plain meaning of the statute, this Court should reject the reasoning of those courts that have differentiated between exercised and unexercised options in applying the Treasury Amendment See *American Board of Trade*, 803 F 2d at 1248, *Sterling, supra*, at 24,784 See also, *supra*, p 15-17

40 CFTC Statutory Interpretation, Trading in Foreign Currencies for Future Delivery, 50 Fed Reg 42,983 (1985)

41 See, *e.g.*, letter from John J Conheeny, Chairman, Merrill Lynch Futures Inc and John W Ward, Chairman, Merrill Lynch International Bank, to Office of the Secretariat, CFTC at 2 (Dec 23, 1985), letter from the General Counsel, Board of Governors of the Federal Reserve System to the General Counsel, CFTC (Mar 5, 1986), and letter from John F Lee, Executive Vice President, New York Clearing House, to Office of the Secretariat, CFTC (Jan 16, 1986)

42 Letter from Charles O Sethness, Assistant Secretary, Department of Domestic Finance, Department of the Treasury, to Susan M Phillips, Chairman, CFTC (May 5, 1986)

**II.**  
**Salomon Forex is Not a "Board of Trade."**

A finding that Salomon Forex is a "board of trade" within the meaning of the CEA would render the Treasury Amendment meaningless because it would sweep under the CEA and render unlawful virtually all OTC foreign currency transactions by simply characterizing them as conducted on an "undesignated board of trade" <sup>43</sup>

The Court, however, must presume that Congress intended the Treasury Amendment to have meaning and that it "used words according to their ordinary meaning unless a different use is clearly indicated" *Matala*, 647 F.2d at 429. The ordinary meaning of "board of trade" is "a commodities exchange." See Webster's Ninth New Collegiate Dictionary 164 (1986). Unless this Court is willing to find that each OTC foreign currency dealer and broker is a board of trade, and that the Treasury Amendment is a meaningless appendage, this Court must conclude that Salomon Forex is not a board of trade.

Legislative history supports this view. Throughout the CEA's legislative history, "board of trade" is consistently referred to as an "organized exchange," and Congress clearly intended that the CFTC's authority was to be restricted accordingly. <sup>44</sup> In its letter to Congress which prompted the Treasury Amendment, the Treasury Department wrote

[T]he provisions of the bills do not clearly indicate that the [CFTC's] authority would be limited to the regulation of futures trading *on organized exchanges*, and would not extend to futures trading in foreign currencies off orga-

<sup>43</sup> "Board of trade" is defined in the CEA as any exchange or association, whether incorporated or unincorporated, of persons who shall be engaged in the business of buying or selling any commodity or receiving the same for sale on consignment. 7 U.S.C. §2

<sup>44</sup> Like the cases dealing more generally with foreign currency transactions, the "board of trade" cases turn on the participation of the general public. See *CFTC v. Co. Petro Marketing Group, Inc.*, 680 F.2d 573 (9th Cir. 1982) (gasoline broker operated as an undesignated board of trade where it deceptively marketed futures contracts to the general public through newspaper advertisements, private seminars, commissioned telephone solicitors, and various other commissioned sales agents), *In re Stovall*, [1977-1980 Decisions] Comm. Fut. L. Rep. (CCH) ¶20,941 (CFTC Dec. 6, 1979) (a bucket shop marketing to the general public operated as a board of trade), *CFTC v. National Coal Exchange, Inc.* [1980-1982 Decisions] Comm. Fut. L. Rep. (CCH) ¶21,424, at 26,049-50 (W.D. Tenn. 1982) (a broker of coal was a "board of trade" where its sales program was a "carefully contrived, but yet concerted, effort at fraudulent inducement of inexperienced members of the general public" and had all the characteristics of a "typical boiler room operation"). See also CFTC Interpretative Letter No. 77-12, [1977-1980 Decisions] Comm. Fut. L. Rep. (CCH) ¶20,467, at 21,912 (Aug. 17, 1977) (in concluding that the sale of GNMA forwards did not appear subject to CFTC regulation, the CFTC found the lack of public participation in the transactions most compelling).

nized exchanges. The Department feels strongly that foreign currency futures trading, *other than on organized exchanges*, should not be regulated by the [CFTC]. <sup>45</sup>

Similarly, the Senate Committee on Agriculture and Forestry described the Treasury Amendment as excluding currency transactions from CFTC jurisdiction unless traded "on a formally organized futures exchange," as distinguished from the "informal network of banks and tellers [sic]" through which most currency trading is accomplished. *Id.* at 5863.

Salomon Forex, a single legal entity that trades with others in the foreign currency markets, is not a "board of trade" for purposes of the Treasury Amendment. By insisting that board of trade should be construed to mean *any* broker or dealer, Dr. Tauber and the Exchanges again attempt to gut the Treasury Amendment and deprive it of any meaning. On their interpretation, every transaction for future delivery executed through a broker or by a dealer would fall within the board of trade proviso, and the Treasury Amendment would have no meaning at all.

**Conclusion**

The OTC foreign currency markets are a critical element in the continued development and viability of global markets. Given the tremendous size and import of these markets and the disruption that would be caused if they were subject to the CEA, the Committee urges that this Court affirm the decision of the United States District Court for the Eastern District of Virginia.

Respectfully submitted,

David B. Tulchin  
SULLIVAN & CROMWELL  
125 Broad Street,  
New York, New York 10004  
212-558-4000

*Counsel for The Foreign  
Exchange Committee,  
Amicus Curiae*

David M. Huggin  
Richard H. Klapper  
Kenneth M. Raisler

*Of Counsel*

August 3, 1992

<sup>45</sup> S. Rep. No. 1131, 93rd Cong., 2d Sess. (1974), reprinted in, 1974 U.S. Code Cong. & Admin. News 5843, at 5887 (1974) (emphasis added). See *id.* at 5887-89.

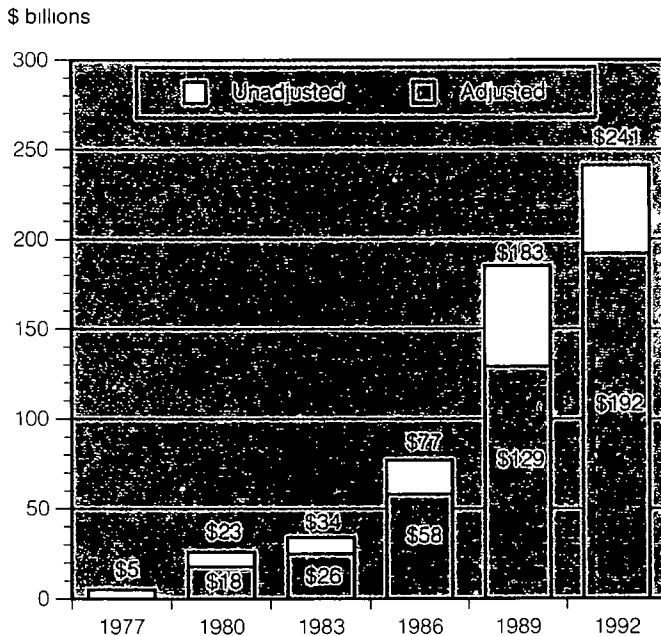
**FEDERAL RESERVE BANK OF NEW YORK**  
**Summary of Results of the U.S. Foreign Exchange Market**  
**Turnover Survey Conducted in April 1992**  
**By the Federal Reserve Bank of New York**

In April 1992, the Federal Reserve Bank of New York conducted an extensive survey of the volume and structure of the foreign exchange market in the United States. The survey's principal findings, and comparisons with the results from the previous survey conducted in April 1989, are described in this report. Exact comparisons with the 1989 survey are not always possible because of some changes made in coverage and methodology from the 1989 survey.

**Overview**

- After correcting for double counting, "adjusted" average daily volume has been estimated at \$192 billion, an increase of 49 percent from \$129 billion in 1989.
- Total gross "unadjusted" average daily turnover in the United States has been estimated at \$241 billion in April 1992, up 31 percent from \$183 billion in 1989.

**Daily Turnover in the U.S. Foreign Exchange Market**



- In 1992, 187 reporting entities participated in the survey, up from 141 in 1989. For those 130 entities participating in both surveys, daily unadjusted turnover in 1992 was \$219 billion, up 20 percent from \$182 billion in 1989.
- Brokers, separately surveyed, reported total turnover of \$66 billion per day, up 16 percent from the \$57 billion reported in the 1989 survey.
- The share of brokered transactions in total turnover reported by financial institutions<sup>46</sup> declined to 31 percent in 1992 from 37 percent in 1989.
- Spot contracts remain the most widely used type of transaction, although the share of spot transactions in total adjusted turnover dropped to 49 percent in 1992 from 63 percent in 1989. Foreign exchange swap contracts comprise the second most actively traded type of transaction, accounting for 30 percent of total adjusted turnover.
- The volume of option contracts traded over the counter has grown considerably among financial institutions and brokers, although the share in absolute terms remains small.
- Activity involving currency options and exchange-traded derivatives was more concentrated than activity in spot, forward and swap transactions.

**Methodological Notes**

The 1992 survey questionnaire has been tabulated differently than in 1989 to reflect some of the changes that have occurred in the foreign exchange market. The following changes and issues need to be kept in mind while interpreting the survey results:

<sup>46</sup> Information on brokered transactions was derived from two separate surveys. Financial institutions reported the volume of their transactions through both U.S. and foreign brokers. U.S. brokers reported transactions involving two foreign counterparties in addition to those that involved at least one U.S. financial institution. Therefore, the brokered turnover reported by financial institutions and the turnover reported by U.S. brokers are not directly comparable.

- (i) Unlike in 1989, banks and non-bank financial institutions were surveyed together in 1992
- (ii) The method of adjustment for double counting between U S survey participants was not the same as that used in 1989 <sup>47</sup>
- (iii) The 1992 survey used currency pairs rather than the broad currency categories used in the 1989 survey <sup>48</sup>
- (iv) The survey responses may have been affected by two events during mid-April 1992. First, a flood in Chicago led to a closure or reduction of trading on subsequent days at several of the city's exchanges. Second, the Easter holidays fell in April during 1992 (but did not during 1989), although U S exchanges were open while some foreign exchanges were closed during these holidays. The majority of survey participants, in response to one of the questions, characterized trading volume in April 1992 as below normal.

### Surveyed Institutions and Their Turnover

The **financial institutions** surveyed included large money center banks and regional domestic commercial banks, Edge corporations and U S branches and agencies of foreign banks, as well as non-bank financial institutions active as principals in the foreign exchange market. Only those financial institutions that file certain mandatory reports on foreign exchange positions and list their trading operations in one or more publicly distributed dealer directories were invited to participate in the survey. A list of survey participants is provided in Appendix 1 <sup>49</sup>

**U.S. foreign exchange brokers** were surveyed separately. Brokers do not trade for their own account, but instead act as intermediaries between market participants wanting to buy or sell currencies. As in the

<sup>47</sup> In 1992, prospective participants were contacted prior to the survey month to confirm their willingness to participate. In order to correct more accurately for the double reporting of transactions, survey participants were then asked to differentiate between transactions with respondents and non-respondents. The use of this new method constrained efforts to make comparisons between 1989 and 1992.

<sup>48</sup> This difference in categories complicated comparisons of adjusted turnover with the 1989 survey, comparisons of unadjusted turnover have been made wherever necessary.

<sup>49</sup> Most participants with more than one trading center in the United States opted to aggregate their activity and file a single, consolidated report. As a result, a total of 168 responses were received from the original 175 commercial banking entities which agreed to participate, twelve responses were received from non-bank financial institutions.

last two surveys, all brokers in the United States who deal in foreign exchange were included. Because brokers do not deal with one another, there was no double counting within the survey of brokers.

### Financial Institutions

- For financial institutions, turnover among U S reporting dealers and dealers abroad was an adjusted \$122 billion per day, 64 percent of the total U S turnover in 1992. Of this, \$74 billion was with dealers abroad<sup>50</sup> and the remaining \$48 billion was with U S respondents.
- Transactions with other counterparties accounted for an adjusted \$59 billion, 31 percent of total turnover. Of this, non-reporting financial institutions<sup>51</sup> accounted for \$34 billion, non-reporting others<sup>52</sup> accounted for \$25 billion.
- Exchange traded derivatives accounted for the remaining adjusted \$11 billion, 6 percent of total turnover.
- With regard to timing, 66 percent of the transactions were reported to have taken place between 8 a m and noon, 29 percent between noon and 4 p m, and the remaining 5 percent between 4 p m and 8 a m the following day.
- Approximately 32 percent of total volume was arranged through an electronic dealing system <sup>53</sup>.
- The share of brokered transactions in total turnover reported by financial institutions has declined relative to 1989. Estimated turnover through both U S and foreign brokers in 1992 was \$75 billion per day, or 31 percent of total unadjusted turnover, compared with \$69 billion, or 37 percent in 1989 <sup>54</sup>.

<sup>50</sup> In this survey, dealers abroad are defined to include all banking entities abroad and those non-bank financial institutions in the United Kingdom which are defined as wholesale market makers under Section 43 of the Financial Services Act.

<sup>51</sup> In this survey, non-reporting financial institutions are defined as (i) U S financial institutions not included in the list of dealers participating in the survey and (ii) nonbank financial institutions located abroad, excluding the U K wholesale market makers.

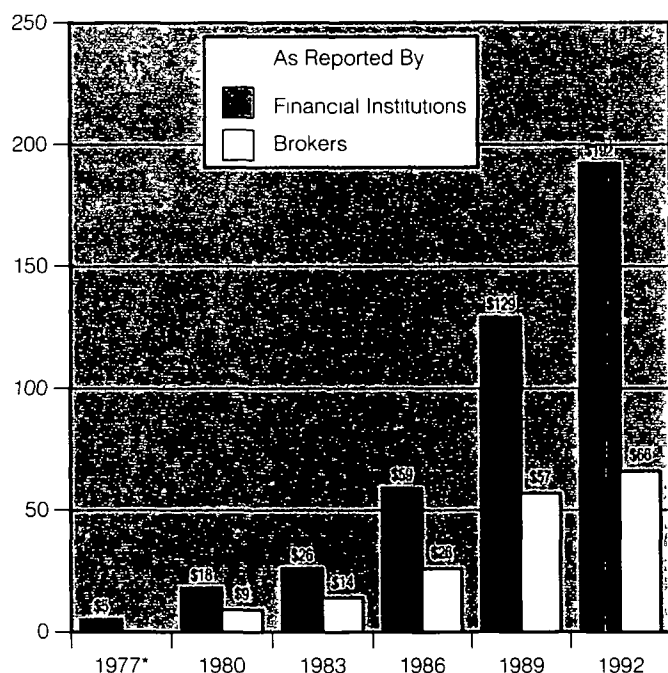
<sup>52</sup> In this survey, non-reporting others included all non-financial entities not otherwise classified.

<sup>53</sup> For the purpose of this survey, electronic dealing systems were defined to include Reuters Dealing 2000-1 and 2000-2, Quotron's F/X Trader, Telerate's TTS, or any other comparable system.

<sup>54</sup> The brokers' data collected from the financial institutions was aggregated as a proportion of overall gross turnover by instrument and was not defined by type of counterparty.

## Daily Turnover in the U.S. Foreign Exchange Market

(adjusted, \$ billions)



\* Not adjusted for double counting

### U.S. Brokers

- The separate survey of U.S. brokers indicated an estimate of total turnover of \$66 billion per day, up 16 percent from \$57 billion reported in 1989<sup>55</sup>
- Turnover reported by U.S. brokers where at least one side of the transaction was a U.S. financial institution amounted to \$63 billion, 96 percent of the total, compared with \$49 billion, or 86 percent in 1989. Activity involving two counterparties abroad, worth \$3 billion, accounted for the remaining volume. (For more details, see Appendix 2.)

### Turnover by Type of Transaction

Transactions classified by the type of transaction, for the purpose of this report, are placed in four main categories: spot, outright forwards, swaps and options.

**Spot** market transactions are generally defined as trades with a value or delivery date of two business days hence or less. **Outright forward** transactions are single transactions in which currencies are purchased or sold for value for more than two business days.

**Foreign exchange swaps** are defined as transactions

<sup>55</sup> The number of brokers responding to the 1992 survey increased to 16 from 13 in 1989.

in which an institution simultaneously buys (sells) a currency for one value date and sells (buys) an equivalent amount for a later date. **Currency option** contracts are agreements to buy or sell the right—but not the obligation—to receive a specified amount of foreign currency at a predetermined price on or before a specific date. As a result, options traded over-the-counter (OTC) or on an exchange are somewhat different from spot, outright forward and swap contracts because they are not always exercised and do not necessarily require the delivery of foreign exchange. Turnover data on exchange traded options and futures were also collected.

### Spot

- In the 1992 survey of financial institutions, daily adjusted spot turnover increased 17 percent from 1989 and amounted to \$95 billion, 49 percent of turnover, down from 63 percent (\$81 billion) in 1989.
- Brokers reported that the share of spot transactions in their total turnover dropped from 54 percent in 1989 to 49 percent in 1992.

### Outright Forwards and Swaps

- Adjusted daily forward transactions amounted to \$14 billion in 1992, 7 percent of total turnover among financial institutions. Forward contracts reported by brokers remained a small part of their transactions, under one percent as in 1989.
- Swaps accounted for an adjusted \$59 billion, 30 percent of total 1992 turnover. A comparison with 1989 is only possible for unadjusted turnover, for which the share of swap transactions rose from 25 percent in 1989 to 31 percent in 1992.
- The bulk of combined swap and outright forward transactions in 1992 was short term, with 63 percent of the total having a maturity of under seven days, 36 percent having a maturity of seven days to one year, and 1 percent having a maturity of over one year.

### Options (Over-the-Counter)

- Adjusted OTC options turnover among financial institutions was \$15 billion in 1992, 8 percent of total turnover. The unadjusted share of options grew from 4 percent in 1989 to 7 percent in 1992.
- The share of options in turnover reported by brokers rose to 12 percent in 1992, up from 3 percent in 1989.

## Exchange Traded Derivatives

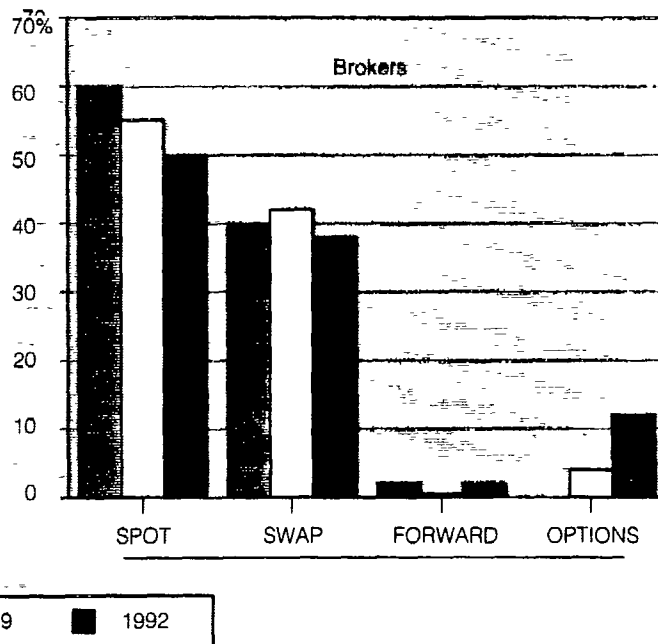
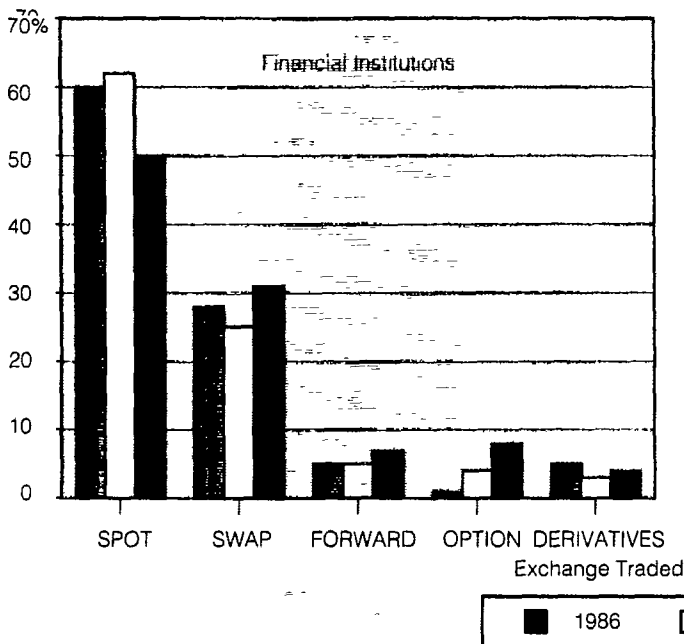
- Turnover in exchange-traded currency options amounted to \$5 billion in 1992, and accounted for an unchanged 2 percent of total turnover<sup>56</sup>
- Turnover in exchange traded futures amounted to \$6 billion in 1992 and accounted for 3 percent of total turnover, largely unchanged from 2 percent in 1989

## Currency Composition

The classification of transactions by currencies is quite detailed in the 1992 survey. In the 1992 survey, transactions were reported by specific currency pairs, while in previous surveys transactions were only reported for a currency against all other currencies (Appendix 3 provides detailed information on turnover by currency pairs)

### Percentage Share of U.S. Foreign Exchange Daily Turnover

by Type of Transaction as Reported by



TRANSACTION TYPE	1992				1989			
	BANKS	Market Share	NONBANKS	Market Share	BANKS	Market Share	NONBANKS	Market Share
SPOT	101,102	51%	21,050	52%	32,405	48%	97,245	54%
FORWARDS	11,424	6%	4,903	10%	526	1%	6,338	4%
SWAPS	66,166	33%	8,318	20%	24,815	38%	41,036	27%
OPTIONS (OTC)	13,266	7%	3,691	9%	8,109	12%	5,373	4%
DERIVATIVES (Exchange traded)	6,940	3%	3,810	9%	n/a	n/a	2,170	1%
TOTAL TURNOVER	199,807		41,072		65,857		152,165	

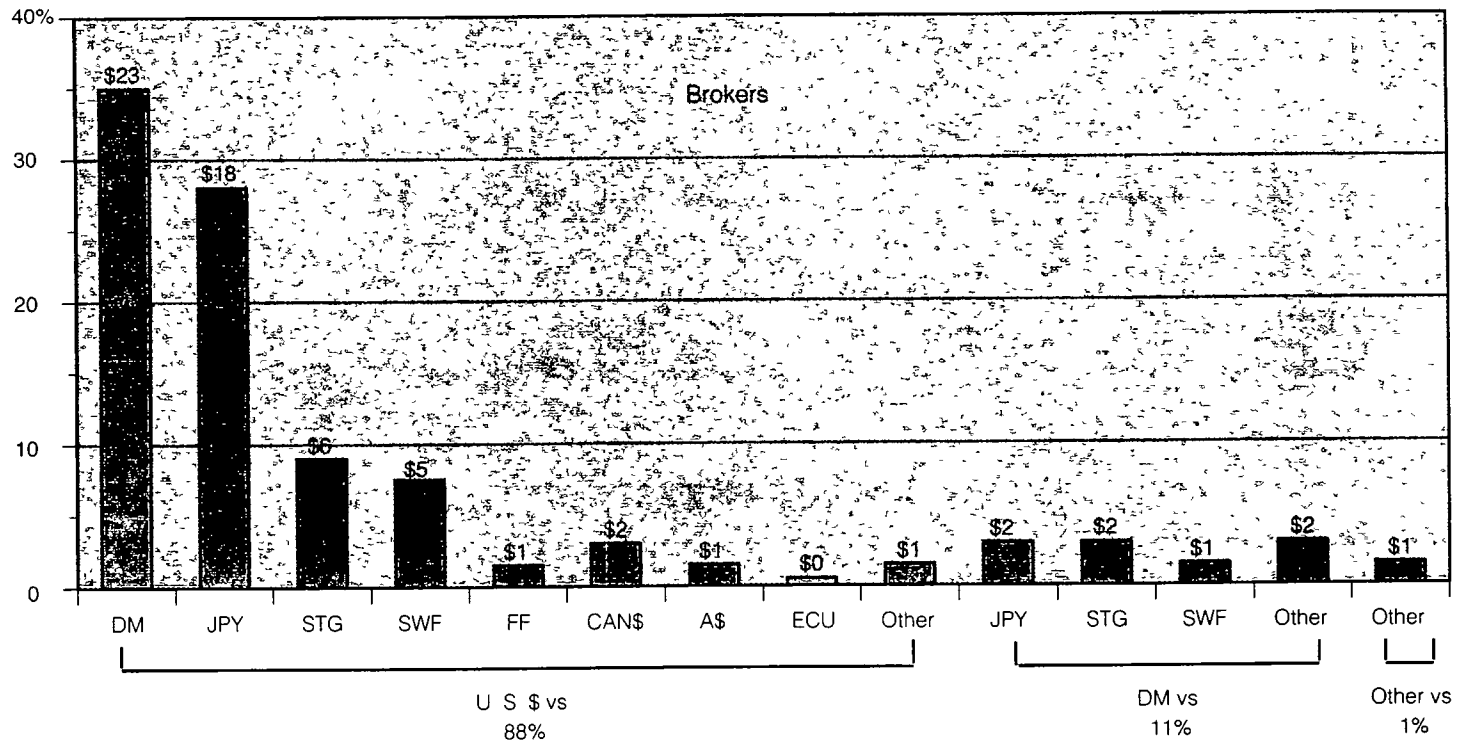
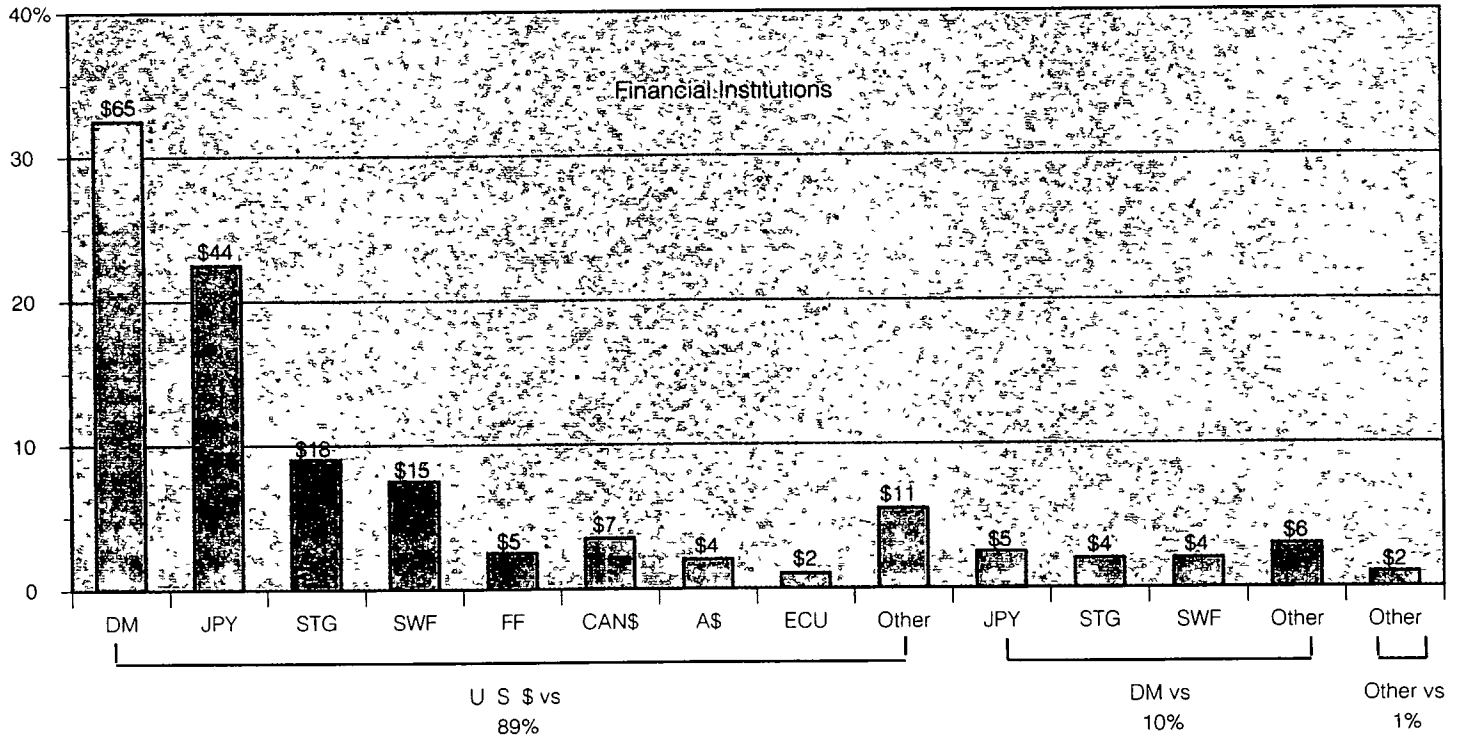
<sup>56</sup> Exchange traded option and future contracts turnover was not reported by counterparty sub-categories and cannot be adjusted for double counting



## Percentage Share of Foreign Exchange Daily Turnover

by Currency Pair as Reported by

(bar labels in \$ billions)



- The US dollar remained the most actively traded currency, being involved in 89 percent of all transactions, down from 96 percent in 1989. The next four most widely traded currencies were the German mark, Japanese yen, British pound and Swiss franc, comprising 39 percent, 25 percent, 11 percent and 9 percent of all transactions respectively.
- The share of non-dollar transactions in total transactions rose from 3.6 percent in 1989 to 11 percent in 1992.
- Among currency pairs, dollar-mark and dollar-yen were the most widely traded, accounting for 34 percent and 23 percent of all transactions respectively. The next most widely traded currency pairs, in descending order, were dollar-sterling and dollar-Swiss franc. Among non-dollar currency pairs, mark-yen was the most widely traded, accounting for 3 percent of all transactions.
- As reported by brokers, the two most widely traded currency pairs were dollar-mark and dollar-yen, comprising 36 percent and 27 percent respectively.
- In comparison to the 1989 survey, the share of mark transactions in total gross turnover rose from 32 percent to 44 percent, while that of other

non-dollar currencies showed little change (Appendix 4 provides comparisons by broad currency categories between the 1992 and earlier surveys.)

#### **Average Deal Size**

- The average deal size for transactions reported by financial institutions rose from \$5 million in 1989 to \$6 million in 1992, while that reported by brokers rose from \$6 million to \$7 million. (Further details are reported in Appendix 5.)

#### **Market Concentration**

- Overall concentration did not change significantly. The top ten institutions accounted for 41 percent of the total turnover of financial institutions in 1992, as compared to 42 percent in 1989.
- For spot, swap, and forward transactions, the top ten institutions accounted for 40 percent of the market in 1992.<sup>57</sup>
- Both options and exchange-traded derivatives, turnover was concentrated, with the top 10 financial entities accounting for about three-quarters of total turnover.

Further information from the 1992 turnover survey is provided in Appendix 6.

---

<sup>57</sup> Information on market concentration by type of transaction was not available in 1989.

## PARTICIPANTS IN THE APRIL 1992 SURVEY OF TURNOVER IN THE UNITED STATES EXCHANGE MARKET

### COMMERCIAL BANKS

- \* ABN AMRO BANK N V - N Y BRANCH
- \* ALLIED IRISH BANKS LIMITED - N Y BRANCH
- \* AMERICAN EXPRESS BANK
- ARAB BANKING CORPORATION
- \* AUSTRALIA AND NEW ZEALAND BANKING GROUP - N Y BRANCH
- \* BANCA COMMERCIALE ITALIANA - N Y BRANCH
- BANCA NAZIONALE DEL LAVORO - N Y BRANCH
- BANCA POPOLARE DI MILANO - N Y BRANCH
- BANCO BILBAO VIZCAYA - N Y BRANCH
- BANCO DE SANTANDER S A - N Y BRANCH
- BANCO DI ROMA - CHICAGO BRANCH
- \* BANCO DI ROMA - N Y BRANCH
- BANCO DI SICILIA - L A AGENCY
- \* BANCO DI SICILIA - N Y BRANCH
- \* BANCO DO BRASIL S A - N Y BRANCH
- BANCO ESPANOL DE CREDITO S A - N Y BRANCH
- BANCO PORTUGUES DO ATLANTICO - N Y BRANCH
- BANCO TOTTA & ACORES - N Y AGENCY
- \* BANK JULIUS BAER & COMPANY LIMITED - N Y BRANCH
- BANK LEUMI TRUST COMPANY OF NEW YORK
- \* BANK OF AMERICA N T & S A
- BANK OF CALIFORNIA, N A
- BANK OF HAWAII
- BANK OF IRELAND - N Y BRANCH
- \* BANK OF MONTREAL - N Y BRANCH
- BANK OF NEW YORK
- BANK OF NEW ZEALAND - N Y BRANCH
- \* BANK OF NOVA SCOTIA - N Y AGENCY
- \* BANK OF TOKYO LIMITED - N Y AGENCY
- \* BANKERS TRUST COMPANY
- BANQUE BRUXELLES LAMBERT - N Y BRANCH
- \* BANQUE FRANCAISE DU COMMERCE EXTERIEUR - N Y BRANCH
- \* BANQUE INDOSUEZ - N Y BRANCH
- \* BANQUE NATIONALE DE PARIS - N Y BRANCH
- \* BANQUE PARIBAS - N Y BRANCH
- \* BARCLAYS BANK PLC - N Y BRANCH
- \* BAYERISCHE HYPOTHEKEN-UND WECHSEL-BANK - N Y BRANCH
- \* BAYERISCHE LANDESBANK GIROZENTRALE - N Y BRANCH
- \* BAYERISCHE VEREINSBANK A G N A
- \* BERLINER HANDELS-UND FRANKFURTER BANK - N Y BRANCH
- \* BOATMEN'S NATIONAL BANK OF SAINT LOUIS
- \* BOSTON SAFE DEPOSIT & TRUST COMPANY
- \* BROWN BROTHERS HARRIMAN & COMPANY
- \* CAISSE NATIONALE DE CREDIT AGRICOLE - N Y BRANCH
- \* CANADIAN IMPERIAL BANK OF COMMERCE - N Y AGENCY
- \* CHASE MANHATTAN BANK, N A
- \* CHEMICAL BANK
- \* CHRISTIANA BANK - N Y BRANCH
- \* CIC-UNION EUROPEENE, INTERNATIONAL ET CIE - N Y BRANCH
- \* CITIBANK, N A
- \* COMERICA BANK - DETROIT
- \* COMMERZBANK AG - CHICAGO BRANCH
- \* COMMERZBANK AG - N Y BRANCH
- \* COMMONWEALTH BANK OF AUSTRALIA - N Y BRANCH
- \* CONNECTICUT NATIONAL BANK
- \* CONTINENTAL BANK, N A
- \* CREDIT COMMERCIAL DE FRANCE - N Y BRANCH
- \* CREDIT LYONNAIS - NY BRANCH
- \* CREDIT SUISSE - NY BRANCH
- \* CREDITANSTALT-BANKVEREIN - N Y BRANCH
- \* CREDITO ITALIANO - N Y BRANCH
- \* DAI-ICHI KANGYO BANK LIMITED - N Y BRANCH
- \* DEN DANSKE BANK - N Y BRANCH
- \* DEN NORSKE BANK - N Y BRANCH
- \* DEUTSCHE BANK AG - N Y BRANCH
- \* DEUTSCHE GENOSSENSCHAFTSBANK - N Y BRANCH
- \* DRESDNER BANK AG - N Y BRANCH
- \* FIRST INTERSTATE BANK OF CALIFORNIA
- \* FIRST NATIONAL BANK OF CHICAGO
- \* FIRST NATIONAL BANK OF BOSTON
- \* FIRST NATIONAL BANK OF MARYLAND
- \* FIRST UNION NATIONAL BANK OF NORTH CAROLINA
- FLEET BANK, N A
- \* FLEET BANK OF MASSACHUSETTS, N A
- \* FUJI BANK AND TRUST COMPANY
- \* FUJI BANK LIMITED - N Y BRANCH
- \* FUJI BANK LIMITED - CHICAGO AGENCY
- \* FUJI BANK LIMITED - L A AGENCY
- \* GENERALE BANK - N Y BRANCH
- \* GIROZENTRALE VIENNA - N Y BRANCH
- GULF INTERNATIONAL BANK BSC - N Y BRANCH
- \* HARRIS TRUST AND SAVINGS BANK
- \* HESSISCHE LANDESBANK-GIROZENTRALE - N Y BRANCH
- \* HOKURIKU BANK LIMITED - N Y BRANCH
- \* HONGKONG & SHANGHAI BANKING CORPORATION - N Y BRANCH
- IBJ SCHRODER BANK AND TRUST
- \* INDUSTRIAL BANK OF JAPAN LIMITED - CHICAGO BRANCH
- \* INDUSTRIAL BANK OF JAPAN LIMITED - L A BRANCH
- INDUSTRIAL BANK OF JAPAN LIMITED - N Y BRANCH
- INTERNATIONALE NEDERLANDEN BANK, N V - N Y BRANCH
- ISRAEL DISCOUNT BANK OF NEW YORK
- ISTITUTO BANCARIO SAN PAOLO DI TORINO - N Y BRANCH
- KANSALLIS-OSAKE-PANKKI - N Y BRANCH
- KREDIETBANK, N V - N Y BRANCH
- \* LLOYDS BANK PLC - N Y BRANCH
- \* LONG TERM CREDIT BANK OF JAPAN LIMITED - N Y BRANCH
- \* MANUFACTURERS AND TRADERS TRUST COMPANY
- MANUFACTURERS BANK N A DETROIT
- MANUFACTURERS HANOVER TRUST COMPANY
- MARYLAND NATIONAL BANK
- \* MELLON BANK, N A
- \* MERRILL LYNCH INTERNATIONAL BANK
- \* MIDLAND BANK PLC - N Y BRANCH
- \* MITSUBISHI BANK LIMITED - CHICAGO BRANCH
- \* MITSUBISHI BANK LIMITED - L A BRANCH
- \* MITSUBISHI BANK LIMITED - N Y BRANCH
- MITSUBISHI TRUST & BANKING CORPORATION - CHICAGO BRANCH
- MITSUBISHI TRUST & BANKING CORPORATION - L A AGENCY
- \* MITSUBISHI TRUST & BANKING CORPORATION - N Y BRANCH
- \* MITSUI TAIYO KOBE BANK LIMITED - N Y BRANCH
- \* MITSUI TRUST & BANKING COMPANY LIMITED - N Y BRANCH
- MONTE DEI PASCHI DI SIENA - N Y BRANCH

\*INDICATES THAT THE INSTITUTION WAS INCLUDED IN THE 1989 SURVEY

- \* MORGAN GUARANTY TRUST COMPANY OF NEW YORK
- NATIONAL AUSTRALIA BANK LIMITED - N Y BRANCH
- \* NATIONAL CITY BANK
- NATIONAL COMMERCIAL BANK
- \* NATIONAL WESTMINSTER BANK PLC - N Y BRANCH
- \* NATIONAL WESTMINSTER BANK USA
- NATIONSBANK OF GEORGIA, N A
- \* NATIONSBANK OF NORTH CAROLINA, N A
- \* NATIONSBANK OF TEXAS, N A
- \* NBD BANK, N A
- \* NIPPON CREDIT BANK LIMITED - N Y BRANCH
- NORDBANKEN - N Y BRANCH
- \* NORDDEUTSCHE LANDESBANK - N Y BRANCH
- \* NORINCHUKIN BANK - N Y BRANCH
- \* NORTHERN TRUST COMPANY
- NORWEST BANK MINNESOTA, N A
- PITTSBURGH NATIONAL BANK
- \* REPUBLIC NATIONAL BANK OF NEW YORK
- RIGGS NATIONAL BANK OF WASHINGTON D C
- \* ROYAL BANK OF CANADA - N Y BRANCH
- \* ROYAL BANK OF SCOTLAND PLC - N Y BRANCH
- \* SEATTLE-FIRST NATIONAL BANK
- SECURITY PACIFIC BANK WASHINGTON, N A
- SECURITY PACIFIC NATIONAL BANK
- \* SHAWMUT BANK N A
- \* SKANDINAVISKA ENSKILDA BANKEN CORPORATION
- \* SOCIETE GENERALE - N Y BRANCH
- \* STANDARD CHARTERED BANK PLC - N Y BRANCH
- \* STATE STREET BANK & TRUST COMPANY
- SUMITOMO BANK LIMITED - CHICAGO BRANCH
- SUMITOMO BANK LIMITED - L A BRANCH
- \* SUMITOMO BANK LIMITED - N Y BRANCH
- SUMITOMO TRUST & BANKING COMPANY LIMITED - L A BRANCH
- \* SUMITOMO TRUST & BANKING COMPANY LIMITED - N Y BRANCH
- SVENSKA HANDELSBANKEN - N Y BRANCH
- \* SWISS BANK CORPORATION - CHICAGO BRANCH
- \* SWISS BANK CORPORATION - N Y BRANCH
- SWISS BANK CORPORATION - S F BRANCH
- SWISS VOLKSBANK - N Y BRANCH
- \* TEXAS COMMERCE BANK, N A
- \* THE DAIWA BANK LIMITED - CHICAGO BRANCH
- \* THE DAIWA BANK LIMITED - L A AGENCY
- \* THE DAIWA BANK LIMITED - N Y BRANCH
- THE SANWA BANK LIMITED - CHICAGO BRANCH
- THE SANWA BANK LIMITED - L A BRANCH
- \* THE SANWA BANK LIMITED - N Y BRANCH
- THE TOKAI BANK LIMITED - CHICAGO BRANCH
- \* THE TOKAI BANK LIMITED - L A AGENCY
- \* THE TOKAI BANK LIMITED - N Y BRANCH
- \* THE TOYO TRUST & BANKING COMPANY LIMITED - N Y BRANCH

- \* TORONTO-DOMINION BANK - N Y BRANCH
- UBAF ARAB AMERICAN BANK
- UNIBANK A/S - N Y BRANCH
- \* UNION BANK
- \* UNION BANK OF FINLAND LIMITED - N Y BRANCH
- \* UNION BANK OF SWITZERLAND - N Y BRANCH
- WACHOVIA BANK OF GEORGIA, N A
- \* WACHOVIA BANK OF NORTH CAROLINA, N A
- \* WELLS FARGO BANK, N A
- \* WESTDEUTSCHE LANDESBANK GIROZENTRALE - N Y BRANCH
- \* WESTPAC BANKING CORPORATION - N Y BRANCH
- Z-LANDERBANK BANKAUSTRIA AG - N Y BRANCH

### NON-BANK FINANCIAL INSTITUTIONS

- AIG TRADING CORPORATION
- \* BEAR STEARNS FOREX INC
- \* COMMODITIES CORPORATION (USA), N V
- \* DEAN WITTER REYNOLDS, INC
- \* FIRST OPTIONS OF CHICAGO, INC
- \* GOLDMAN, SACHS & COMPANY -or- J AARON & COMPANY
- \* MORGAN STANLEY & COMPANY, INC -or- MORGAN STANLEY CAPITAL GROUP
- \* PAINE WEBBER INTERNATIONAL FUTURES, LTD
- PRUDENTIAL-BACHE FOREX (USA) INC
- SALOMON FOREX INC
- \* SHEARSON LEHMAN BROTHERS, INC -or- SHEARSON LEHMAN COMMERCIAL CORPORATION
- \* THE FIRST BOSTON CORPORATION -or- FIRST BOSTON SECURITIES CORPORATION

### U.S. CURRENCY BROKERS

- \* D CAPITAL MARKETS, INC
- \* BIERBAUM-MARTIN, INC
- CHAPDELAIN FOREIGN EXCHANGE
- \* DEBEAUSSE & COMPANY
- \* FULTON PREBON MONEY BROKERS
- \* GFI Goup INC
- HARLOW BUTLER CURRENCY OPTIONS, LTD
- \* HARLOW, MEYER & SAVAGE
- INTERCONTINENTAL EXCHANGE PARTNERS
- \* LASSER MARSHALL INC
- \* NOONAN, ASTLEY & PEARCE
- \* RADA FOREIGN EXCHANGE CORPORATION
- TRANSFOREX
- \* TRADITION FINANCIAL SERVICES
- \* TULLET & TOKYO FOREX, NY
- \* WALLICH & MATTHES

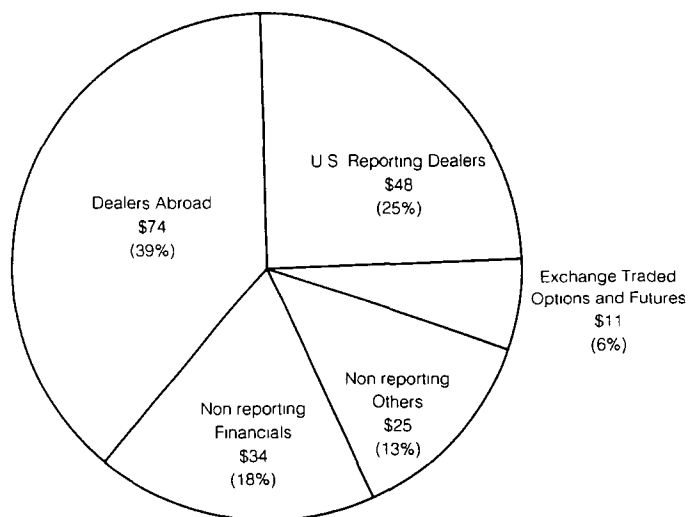
\*INDICATES THAT THE INSTITUTION WAS INCLUDED IN THE 1989 SURVEY

## Distribution of Foreign Exchange Daily Turnover by Counterparty

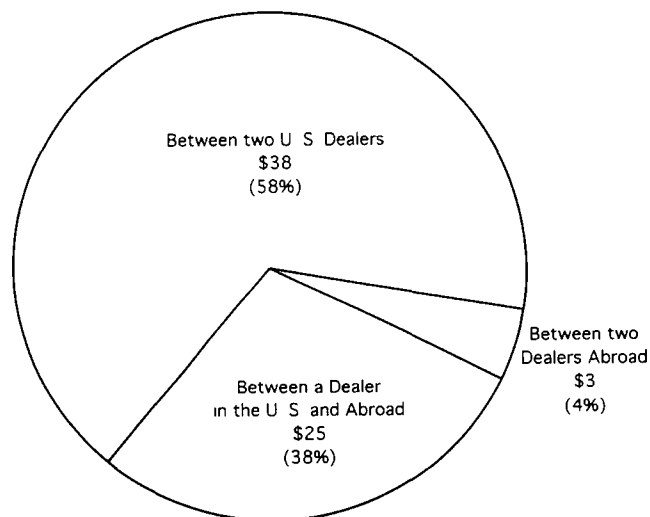
(\$ Billions)

As Reported by

Financial Institutions



Brokers



1992

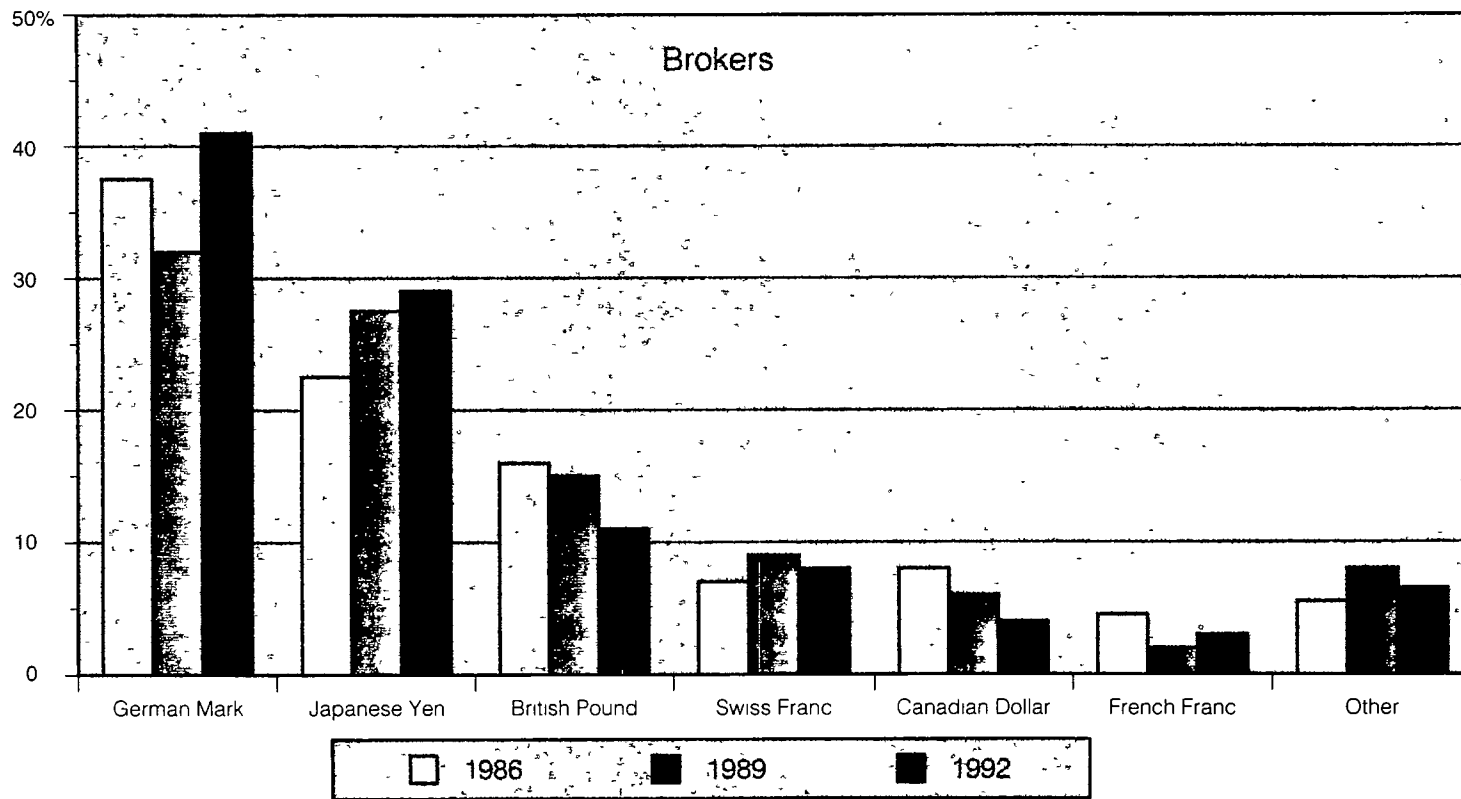
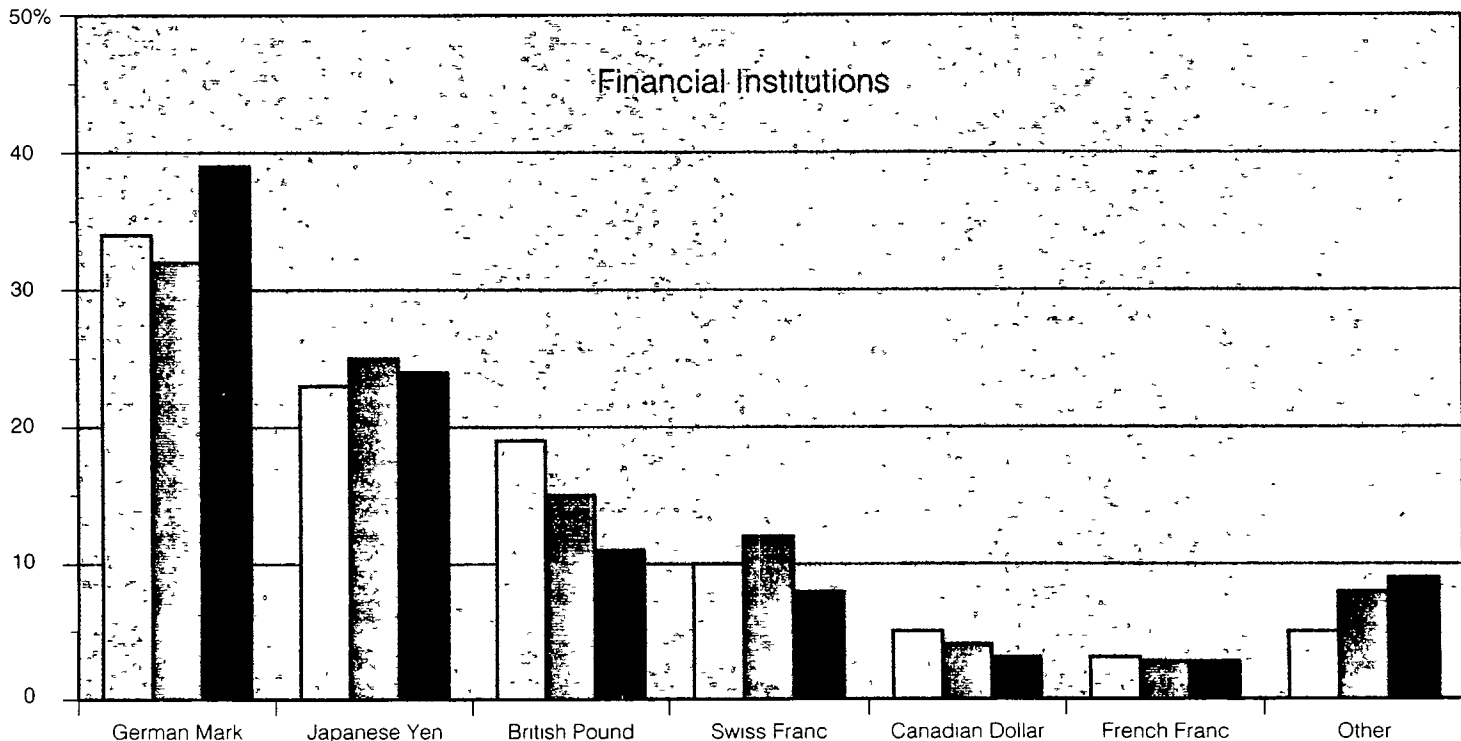
Note Percentages do not add to 100 due to rounding

## Percentage Distribution of Turnover by Currency Pairs

	German Mark	Japanese Yen	British Pound	Swiss Franc	French Franc	Canadian Dollar	Australia Dollar	ECU	Other
U S Dollar	34.26% 1,813 08	23.44% 1,240 56	9.19% 486 35	7.84% 414 72	2.71% 143 22	3.25% 172 11	1.93% 102 24	0.83% 43 75	5.28% 279 53
German Mark		2.91% 154 00	2.23% 118 11	2.09% 110 80	0.58% 30 85	n/a	0.00% 0 11	0.13% 6 92	2.28% 120 71
Japanese Yen			0.12% 6.43	0.06% 3.11	0.00% 0 05	0.06% 3 12	0.06% 3 16	n/a	0.02% 1 24
British Pound				0.09% 4 61	0.09% 4.58	n/a	0.03% 1.81	0.01% 0.38	0.09% 4 56
Swiss Franc					0.01% 0 66	n/a	n/a	0.02% 1 16	0.02% 1 10
French Franc						n/a	n/a	0.00% 0 11	0.00% 0 18
Canadian Dollar							n/a	n/a	n/a
Australian Dollar								n/a	n/a
ECU									0.00% 0 10
Other									0.97% 19 34

# Percentage Share of U.S. Foreign Exchange Daily Turnover

By Currency as Reported by

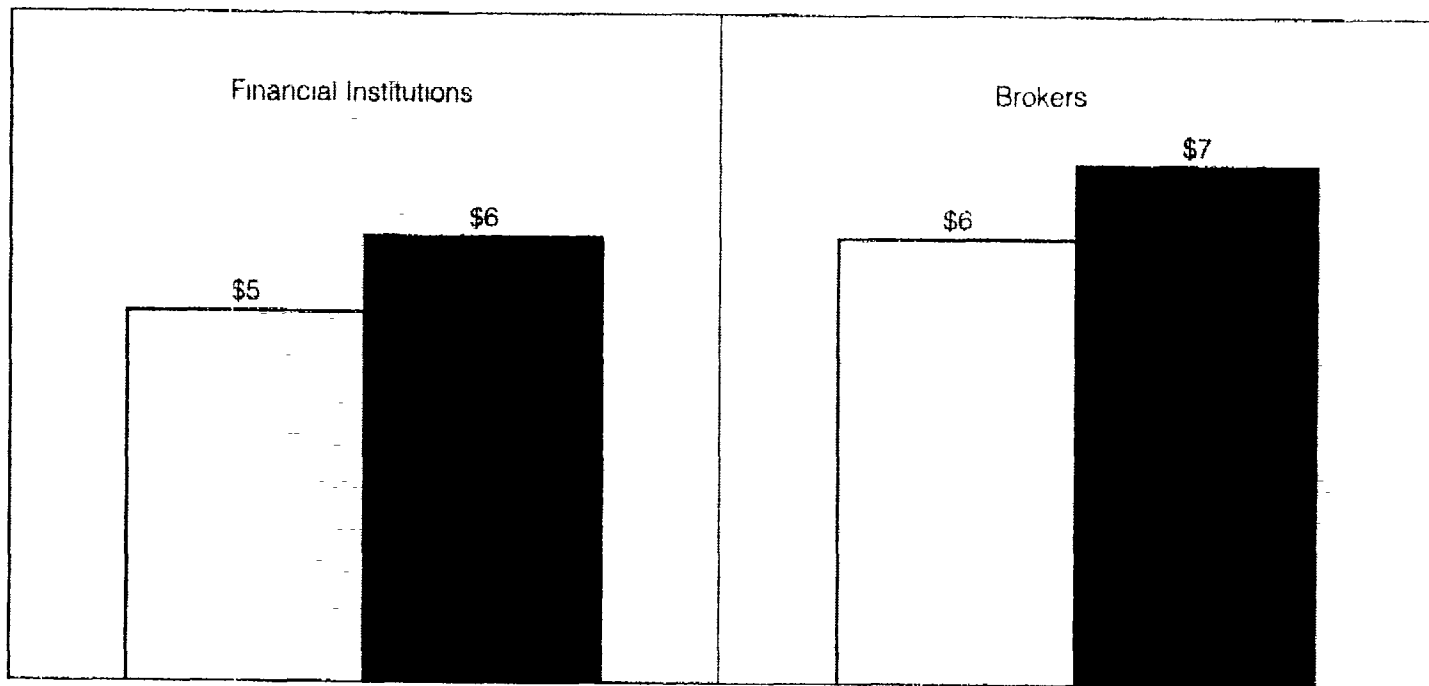


Note: The levels of turnover from which the shares were calculated were derived by dividing the volume of transactions in a currency pair equally between the two currencies

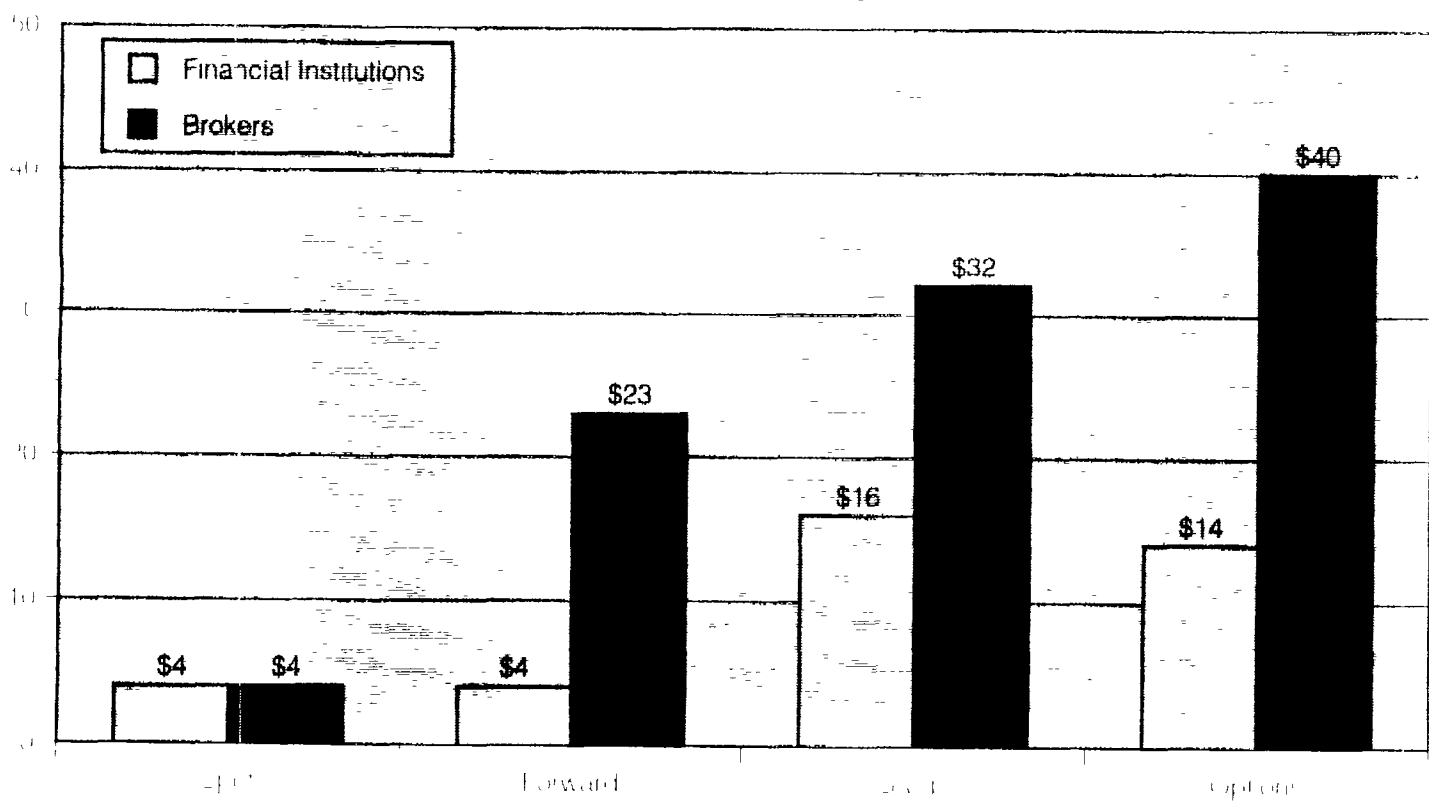
# Average Deal Size

(\$ MILLION)

As Reported by



## By Transaction Type





## Summary of Adjusted Totals by Type of Transaction

As Reported by

### Financial Institutions

\$ millions	USD VS.									DM VS.				OTHER OTHER	PCT SHARE
	DM	JPY	GBP	CHF	FRF	CAD	AUD	XEU	OTHER	JPY	GBP	CHF	OTHER		
<b>Total Turnover</b>	64,742	43,926	17,886	15,106	5,365	6,932	3,806	1,705	11,100	5,335	4,234	4,061	5,820	2,282	
Spot	35,051	17,071	8,506	7,213	1,384	2,983	1,414	512	4,057	3,887	2,979	3,366	5,116	1,167	49.25
Forwards	4,108	2,796	1,632	1,255	397	537	376	113	1,064	329	222	232	284	285	7.09
Swaps	16,092	16,018	6,122	5,206	3,305	2,638	1,751	1,050	5,906	93	57	63	227	84	30.48
Options (OTC)	5,378	3,866	621	570	166	377	223	26	68	994	976	400	194	747	7.60
Derivatives	4,113	4,176	1,005	862	114	397	43	4	4	32	0	0	0	0	5.59
<b>TOTALS</b>															
Interbank	41,260	27,302	11,104	9,488	3,530	3,824	2,577	1,129	6,137	4,222	3,095	3,050	4,386	1,553	122,656
Customer	19,369	12,448	5,777	4,756	1,721	2,712	1,187	573	4,959	1,081	1,139	1,010	1,434	730	58,895

### U.S. Brokers

\$ millions	USD VS.									DM VS.				OTHER OTHER	PCT SHARE
	DM	JPY	GBP	CHF	FRF	CAD	AUD	XEU	OTHER	JPY	GBP	CHF	OTHER		
<b>Total Turnover</b>	23,393	17,895	5,831	4,575	1,324	2,089	1,006	438	1,429	1,712	2,280	1,251	1,766	867	
Spot	13,038	5,119	2,856	2,443	151	698	471	10	488	1,394	2,123	1,155	1,703	756	49.20
Forwards	244	115	131	18	6	8	2	1	3	0	0	0	0	0	0.80
Swaps	8,104	7,843	2,729	1,981	1,086	1,211	509	421	929	3	0	0	0	0	37.68
Options (OTC)	2,007	4,818	115	134	80	172	25	7	9	315	157	95	63	111	12.31
<b>TOTALS</b>															
<b>Brokered Between</b>															
Two U.S. Dealers	13,863	11,288	2,993	2,597	782	1,075	546	117	636	973	1,141	659	923	318	37,911
U.S. & Foreign Dealers	8,586	6,417	2,661	1,817	493	965	440	316	744	673	1,082	502	625	58	25,380
Two Foreign Dealers	944	190	176	161	48	50	20	5	49	67	57	90	219	491	2,565

## Aggregate Report on Total Foreign Exchange Daily Turnover

As Reported by Financial Institutions

TRANSACTION CATEGORY	USD VS.										DM VS.		OTHER	TOTAL	
	DM	JPY	GBP	CHF	FRF	CAD	AUD	KRW	OTHER	JPY	GBP	CHF	OTHER		
<b>I. SPOT</b>															
A With Other Reporting Dealers															
1. In United States	11,407	5,417	2,498	2,085	229	444	362	29	459	464	808	876	1,276	155	27,508
2. Abroad	14,098	6,283	3,267	2,808	514	1,405	645	99	1,030	1,755	1,449	1,690	2,638	665	38,343
B With Non-Reporting Counterparties															
1. Financial Institutions	5,789	2,574	1,326	1,084	290	717	199	38	702	475	571	615	1,000	248	15,636
2. All Others	3,748	2,797	1,416	1,235	350	418	208	347	1,866	194	151	185	204	99	10,216
<b>II. FORWARD</b>															
A With Other Reporting Dealers															
1. In United States	681	450	233	167	37	40	56	11	120	59	43	42	47	14	1,999
2. Abroad	916	706	400	392	96	103	82	29	254	170	110	69	120	137	3,587
B With Non-Reporting Counterparties															
1. Financial Institutions	1,232	783	481	432	127	245	120	38	262	53	38	98	75	85	4,077
2. All Others	1,279	857	519	265	137	149	109	35	428	48	31	23	43	49	3,963
<b>III SWAPS</b>															
A With Other Reporting Dealers															
1. In United States	4,446	5,704	1,390	1,338	650	338	788	242	1,025	26	23	15	54	5	15,840
2. Abroad	6,297	5,896	2,914	2,311	1,865	1,297	928	704	3,210	31	20	25	117	46	25,407
B With Non-Reporting Counterparties															
1. Financial Institutions	3,491	3,044	1,129	1,057	456	712	227	63	1,201	15	5	13	35	18	11,463
2. All Others	1,917	1,375	689	505	333	292	207	41	471	21	8	11	20	18	5,906
<b>IV OPTIONS (Over-The-Counter)</b>															
A With Other Reporting Dealers															
1. In United States	1,137	892	101	160	29	69	35	1	2	116	260	43	11	75	2,931
2. Abroad	2,339	1,958	302	232	110	128	87	13	38	601	380	291	125	457	7,051
B With Non-Reporting Counterparties															
1. Financial Institutions	1,186	796	128	124	44	87	73	10	21	243	299	50	31	117	3,178
2. All Others	717	222	90	64	14	93	34	2	8	35	37	16	27	98	1,445
<b>V. EXCHANGE TRADED DERIVATIVES *</b>															
A. Currency Futures Contracts															
	2,193	2,304	664	642	11	140	19	0	4	10	0	0	0	0	5,968
B. Currency Options Contracts															
	1,920	1,671	342	270	102	256	24	4	0	22	0	0	0	0	4,172
<b>TOTAL</b>	<b>64,742</b>	<b>43,926</b>	<b>17,886</b>	<b>15,106</b>	<b>5,365</b>	<b>6,932</b>	<b>3,806</b>	<b>1,700</b>	<b>11,100</b>	<b>6,335</b>	<b>4,254</b>	<b>4,161</b>	<b>5,820</b>	<b>2,282</b>	<b>140,710</b>

# Aggregate Report on Total Foreign Exchange Daily Turnover

As Reported by Brokers

(Adjusted, \$ millions)

Appendix 6 (cont)

TRANSACTION CATEGORY	USD VS.										DM VS.				OTHER	TOTAL
	DM	JPY	GBP	CHF	FRF	CAD	AUD	XEU	OTHER	JPY	GBP	CHF	OTHER	OTHER		
<b>I. SPOT</b>																
A Between two dealers located in the U.S.	8,829	3,790	1,797	1,506	100	440	293	4	226	872	1,083	645	917	291	20,792	
B Between a dealer in the U.S and abroad	3,883	1,278	954	831	52	257	161	6	222	504	1,021	455	599	5	10,227	
C Between two dealers located abroad	326	50	106	106	0	0	16	0	41	18	20	55	188	460	1,385	
<b>II FORWARDS</b>																
A Between two dealers located in the U.S	123	71	67	11	1	1	2	1	1	0	0	0	0	0	278	
B. Between a dealer in the U S and abroad	98	43	64	6	4	7	0	0	2	0	0	0	0	0	224	
C. Between two dealers located abroad	23	1	0	1	1	0	0	0	0	0	0	0	0	0	26	
<b>III SWAPS</b>																
A. Between two dealers located in the U S	4,103	5,046	1,092	1,006	661	597	245	113	407	0	0	0	0	0	13,269	
B Between a dealer in the U.S and abroad	3,773	2,724	1,603	939	411	610	263	306	517	3	0	0	0	0	11,148	
C Between two dealers located abroad	229	73	34	36	14	4	1	2	5	0	0	0	0	0	398	
<b>IV. OPTIONS (Over-The-Counter)</b>																
A. Between two dealers located in the U.S.	807	2,380	38	74	21	36	6	0	4	101	57	14	6	28	3,572	
B Between a dealer in the U.S. and abroad	833	2,372	40	42	27	91	16	4	3	166	62	47	26	53	3,781	
C Between two dealers located abroad	367	66	36	18	33	45	3	3	2	49	38	35	31	31	756	
<b>V. EXCHANGE TRADED DERIVATIVES *</b>																
A Currency Futures Contracts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
B. Currency Options Contracts	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
<b>TOTALS</b>	<b>23,393</b>	<b>17,895</b>	<b>5,831</b>	<b>4,575</b>	<b>1,324</b>	<b>2,089</b>	<b>1,006</b>	<b>438</b>	<b>1,429</b>	<b>1,712</b>	<b>2,280</b>	<b>1,251</b>	<b>1,766</b>	<b>867</b>	<b>65,857</b>	

\* Not Adjusted for double counting

# GUIDELINES FOR THE MANAGEMENT OF FOREIGN EXCHANGE TRADING ACTIVITIES

*As Amended in March 1992*

This is the Committee's third 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 accidentally 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 of 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 renegeing 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.** Dealers may occasionally face requests from customers to use an "off-market" exchange rate. Such requests should be accommodated only after resolving issues concerning credit policy and propriety.

"Historical-rate rollovers" are an important example of off-market rate transactions. (See Foreign Exchange Committee letter entitled "Historical-Rate Rollovers: A Dangerous Practice," December 26, 1991.) Historical-rate rollovers involve the extension of a forward foreign exchange contract by a dealer on behalf of his customer at off-market rates. The application of 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, result in an extension of unsecured credit to a counterparty.

The use of historical-rate rollovers involves two major risks: (i) either counterparty could unknowingly aid illegal or inappropriate activities, and (ii) either counterparty could misunderstand the special nature of the transaction and the associated credit exposures. Given these risks, the rolling over of contracts at historical rates is a dangerous practice that should be avoided absent

compelling justification and procedural safeguards. While the nature of certain commercial transactions may justify the use of historical rates with some customers, use of historical rates with other trading institutions should not be permitted. Even when used with customers, historical-rate rollovers are appropriate only if (i) customers have a legitimate commercial justification for extending the contract, and (ii) senior management of both the customer and the dealer are aware of the transaction and the risks involved.

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

- (a) A letter from senior customer management (treasurer or above) should be kept on file explaining (i) that the customer will occasionally request to rollover contracts at historical rates, (ii) the reasons why such requests will be made, and (iii) that such requests are consistent with the customer firm's internal policies; this letter should be kept current,
- (b) The dealer should solicit an explanation from the customer for each request for an off-market rate deal at the time the request is made,
- (c) Senior management and/or appropriate credit officers at the dealer institution should be informed of and approve each transaction and any effective extension of credit,
- (d) A letter should be sent to senior customer management immediately after each off-market transaction is executed explaining the particulars of the trade and explicitly stating the implied loan or borrowing amount, and
- (e) Normally, forward contracts should not be extended for more than three months, nor extended more than once, however, any extension of a rollover should itself meet the requirements of (b), (c) and (d) above.

**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 institution 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 "refeable"—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 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 exposure. 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 longstanding 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 its 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.

## DOCUMENT OF ORGANIZATION

### CONCLUSION OF FEASIBILITY STUDY TO ESTABLISH FOREIGN EXCHANGE COMMITTEE (June 1978 reflecting amendments through 1992)

The Foreign Exchange Committee is organized as an independent body under the sponsorship of the Federal Reserve Bank of New York. The Committee should

- 1 be representative of institutions participating in the market rather than individuals,
- 2 be composed of individuals with a broad knowledge of the foreign exchange markets and in a position to speak for their respective institutions,
- 3 have sufficient stature in the market to engender respect for its views, even though the Committee would have no enforcement authority,
- 4 be constituted in such a manner as to insure at all times fair presentation and consideration of all points of view and interests in the market, and
- 5 notwithstanding the need for representation of all interests, be small enough to deal effectively with issues that come before this group

The objectives of the Committee are

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

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

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

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

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

To seek to work closely with the FOREX and other organizations representing the other relevant financial markets

#### The Committee

The Committee consists of 25 to 32 members. In addition, the president of FOREX is invited to participate as an *ex officio* member.

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.

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

The term of membership is four years. An institution may be invited to a full term or to fill the unexpired term of another institution.

The composition of the Committee should be as follows:

6-9 New York City Banks

5-8 Other U.S. Banks

7-12 Foreign Banks

2-4 Investment Banks

2-3 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 meets with a specified agenda of items at least every alternate month. The format of the discussion, however, is informal.

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 has 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 aids in the selection and orientation of new members and assigns members to the other standing Subcommittees. Each Subcommittee other than the Membership Subcommittee meets at least quarterly and reports 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 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 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 participate actively in any standing Subcommittee or *ad hoc* working group to which he is assigned.

## INDEX TO 1988 - 1992 ANNUAL REPORTS<sup>58</sup>

SUBJECT	ANNUAL REPORT	PAGE
Advisory Role of the Foreign Exchange Committee	1992	5
—	1991	4
—	1988	4-5
Audit and Control Group	1992	12
British Dual Brokering System	1990	5
—	1989	6, 23
Brokers' Switches	1992	8
Chairman's Report	1992	3
—	1991	3
—	1990	3
—	1989	3
—	1988	3
Collateral-Based Trading	1988	12
Confirmation of Foreign Exchange Transactions	1992	8-9
—	1990	5-6, 29
—	1989	9, 51
• Automated Brokers	1989	9
• Committee Response to CIB Recommendation	1990	5-6, 29
Communications Subcommittee	1992	13
—	1991	10
Credit Risk	1992	21-30
—	1989	7, 26-29
• Measuring Pre-Settlement Credit Exposures with "Loan Equivalent Risk"	1992	21-30
• Pre-Settlement Credit Risk on Distant Date Financial Contracts, by Heinz Riehl and Thomas Heffernan	1989	26-29
Disputes Resolution Body	1991	5-6
Document of Organization	1992	64
Electronic Order-Matching Systems	1991	8-9
European Financial Integration	1989	10-11
Foreign Currency Options		
• Implied Volatility Rates	1990	6, 29-32
—	1989	6-7, 24-25
• Risk	1988	21
• Valuation	1988	12
Guidelines for the Management of Foreign Exchange Trading Activities	1992	55
• Trader's Relations with Customers	1992	60
• Brokers' Points	1992	60
• Confidentiality	1992	55
• Entertainment/Gifts	1992	56
• Off-Market Rates	1992	57
• Operational Aspects	1992	61
• Personal Account Trading	1992	56

---

<sup>58</sup> Page reference for the 1988-1991 Annual Reports are not provided when the same materials have been reprinted in the current report, as in the case of "Guidelines for the Management of Foreign Exchange Trading Activities." The 1988 Annual Report has a cumulative index to reports for the years 1979 through 1987.

## INDEX TO 1988 - 1992 ANNUAL REPORTS

SUBJECT	ANNUAL REPORT	PAGE
• Traders' Responsibility	1992	57
Head Trader Panel	1992	9
Historical-Rate Rollovers	1991	5
• Committee Letter on Historical-Rate Rollovers	1991	23-24
Japanese Yen, Cross-Trading	1989	11
Legal Initiatives of the Foreign Exchange Committee	1992	6-7
<i>Amicus Curiae</i> Brief in <u>Tauber v. Salomon Forex</u> Case	1992	31-39
• International Currency Options Market (ICOM) Master Agreement	1992	3, 5, 6, 13
—	1991	7, 36-55
—	1990	7
• International Foreign Exchange Netting and Close-Out Master Agreement	1992	6-7
	1991	7-8
Liquidity	1991	4
—	1990	10
Market Practices (Committee Deliberations on)	1990	4-7
—	1989	4-9
—	1988	6-12
Market Structure Subcommittee	1992	10
—	1991	7-9
Membership		
• Activities	1989	13-14
—	1988	13
• Structure	1990	12-13
—	1989	14, 53-54
• Subcommittees	1992	16-17
—	1991	12, 13
—	1990	14, 15
—	1989	13
—	1988	13
Membership Subcommittee	1992	14
—	1991	10-13
Netting of Foreign Exchange Transactions	1990	8-9
—	1989	8
—	1988	9-11
• Bilateral and Multilateral Netting	1988	10
• Committee Letter on Proposed Risk Based Capital Guidelines	1988	16-18
• Interest in Netting Arrangements	1988	9
• Multilateral Netting	1989	8
• Payments and Contract Netting	1988	10
• Response to G-10 Issues Paper on Netting	1992	10
Netting Initiatives		
• ECHO (EBIC-ABECOR)	1990	8-9
—	1989	8
—	1988	10
• FXNET	1990	8-9
—	1989	8
—	1988	10



## INDEX TO 1988 - 1992 ANNUAL REPORTS

SUBJECT	ANNUAL REPORT	PAGE
• NACHO (Options Clearing Corporation)	1990	8-9
—	1989	8
—	1988	10
• SWIFT (ACCORD)	1990	8-9
—	1989	8
New Product Development	1988	11
Options Valuation	1988	12
Points, Brokers'	1991	5, 25
—	1990	4-5, 24, 28
—	1989	1-6, 15-23
—	1988	6-8, 22-36, 42
• Committee Letter on the Use of Points with Respect to Foreign Exchange Transactions	1991	25
—	1988	23
• London Dual System	1990	5
—	1989	6, 23
• Points Task Force	1989	4
—	1988	7, 24-33
• Policy Statement on Points, Federal Reserve	1990	28
• Remarks on the Practice of Points in the Brokered Exchange Market, by Margaret L. Greene	1989	18-22
• Remarks on the Use of Points in Brokered Foreign Exchange Dealing, by Margaret L. Greene and Ernest T. Patrikis	1988	22
Pooled Funds	1992	10
Price Risk Measurement	1991	6, 10, 16-22
—	1988	11, 19-21
• Price Risk The "Dollars-at-Risk" Approach To Measurement and Management	1991	16-22
Procedural Matters of the FX Committee	1990	11-15
—	1989	13-14
—	1988	13
• Reassessment of the Committee Structure	1992	14, 64
—	1991	10
—	1990	12-13
• Reassessment of the Membership Structure	1992	14
—	1991	10
—	1989	14
• Meeting Dates	1992	15
—	1991	11
—	1990	11
—	1989	13
—	1988	14
Relations with Other Organizations	1992	5
—	1990	13
Risk-Based Capital	1988	4
• Committee Letter on Proposed Guidelines	1988	16-18

## INDEX TO 1988 - 1992 ANNUAL REPORTS

<b>SUBJECT</b>	<b>ANNUAL REPORT</b>	<b>PAGE</b>
Risk Management Subcommittee	1992	11
—	1991	6
Seminars		
• International Currency Options Market (ICOM) Master Agreement	1992	13
—	1991	10
• Price Risk Measurement	1992	13
—	1991	10
Trading Practices Subcommittee	1992	8
—	1991	5-6
U S Foreign Exchange Market Survey		
• Summary of April 1992 FRBNY survey	1992	40
• Summary of April 1989 FRBNY survey	1989	10, 30-44

# FOREIGN EXCHANGE COMMITTEE

(JANUARY 1992)

## MEMBERS AND ALTERNATES

### MEMBERS

### ALTERNATES

### MEMBERS

### ALTERNATES

### MEMBERS

#### I EAST COAST BANKS

John Arnold  
Vice President  
Morgan Guaranty Trust Co  
60 Wall Street  
New York, NY 10260  
(212) 648-2100

David Puth  
Managing Director  
Chemical Bank  
277 Park Avenue, 9th Floor  
New York, NY 10172  
(212) 310-4680

James P. Borden  
Senior Vice President  
The Chase Manhattan Bank  
One Chase Manhattan Plaza  
New York, NY 10081  
(212) 552-7543

John Finigan  
Managing Director  
Bankers Trust  
1 Bankers Trust Plaza  
New York, NY 10006  
(212) 250-1710

Nick D. Wharton  
Executive Vice President  
NationsBank  
901 Main Street, 22nd Floor  
Dallas, TX 75202  
(214) 508-2073

#### II OTHER U S BANKS

Robert W. Goetter  
Senior Vice President  
Harris Trust & Savings Bank  
111 W. Monroe Street  
10th Floor  
Chicago, IL 60690  
(312) 461-3386

Woody Teel (Lewis W.)  
Senior Vice President  
Bank of America  
555 California Street  
San Francisco, CA 94104  
(415) 622-1677

#### III. FOREIGN BANKS

Joseph J. Spendley  
Deputy General Manager  
& Treasurer  
Girozentrale Vienna  
65 E. 55th Street, 29th Floor  
New York, NY 10022  
(212) 909-0724

William A. Dueker, Jr.  
Executive Vice President  
Republic National Bank of NY  
452 5th Avenue, 10th Floor  
New York, NY 10018  
(212) 525-8152

Craig E. Bentley  
Managing Director  
Bank of Boston  
100 Federal Street  
Boston, MA 02110  
(617) 434-1168

John Gaines  
Vice President  
The Bank of New York  
48 Wall Street, 13th Floor  
New York, NY 10286  
(212) 804-2035

Heinz Riehl  
Senior Vice President  
Citibank, N.A.  
399 Park Avenue  
New York, NY 10043  
(212) 559-0864

William Rappolt  
Executive Vice President  
Manufacturers & Traders Bank  
654 Madison Avenue  
New York, NY 10021  
(716) 842-5553  
(212) 303-0492

David Harvey  
Corporate S. Vice President  
First National Bank of Chicago  
First National Plaza,  
Suite 0452  
Chicago, IL 60670  
(312) 732-5369

Robert A. White  
Vice President & Manager  
First Interstate Bank  
707 Wilshire Boulevard  
Los Angeles, CA 90017  
(213) 612-9140

Andrew Popper  
Treasurer & Deputy General  
Manager  
Credit Commercial de France NY  
450 Park Avenue, 7th Floor  
New York, NY 10022

Anthony Bustamante  
Executive Vice President  
The Hongkong and Shanghai  
Banking Corporation  
140 Broadway, 17th Floor  
New York, NY 10015  
(212) 658-5731

Yoichi Sakaguchi  
Treasurer and Joint  
General Manager  
Sanwa Bank Limited  
Park Avenue Plaza, 25th Floor  
55 East 52 Street  
New York, NY 10055  
(212) 754-1707

Robert Jarrett  
Senior Vice President  
Bank of Nova Scotia  
40 King Street West, 5th Floor  
Toronto, Ontario  
Canada M5H 1H1  
(416) 866-7009

#### IV INVESTMENT BANKS

Joe Petri  
Managing Director  
Merrill Lynch Capital Markets  
World Financial Center  
North Tower, 8th Floor  
New York, NY 10281  
(212) 449-5851

Lloyd C. Blankfein  
Partner  
Goldman, Sachs & Company  
85 Broad Street, 5th Floor  
New York, NY 10004  
(212) 902-0593

#### V BROKERS

Robert McCully  
President  
Harlow Meyer Savage, Inc.  
1 World Trade Center  
31st Floor, Suite 3111  
New York, NY 10048  
(212) 938-4805

M. Martin Dooney  
Managing Director  
Barclays Bank PLC  
222 Broadway, 8th Floor  
New York, NY 10038  
(212) 412-3832

Akira Okuhata  
Deputy General Manager  
The Bank of Tokyo, Ltd.  
100 Broadway  
New York, NY 10005  
(212) 766-8918

Stephen Bub  
Vice President  
BHF Bank  
55 East 59th Street  
New York, NY 10022  
(212) 756-5513

Timothy A. Hultquist  
Managing Director  
Morgan Stanley International  
25 Cabot Square, Canary Wharf  
London E14 4QA  
England  
011-44-71-425 8001

Edward C. Baltés  
President  
Lasser, Marshall, Inc.  
75 Park Place  
New York, NY 10007  
(212) 385-7152

John Nixon  
Managing Director  
Tullett & Tokyo Forex  
80 Pine Street, 30th Floor  
New York, NY 10005  
(212) 208-2014

#### VI. Forex USA, Inc. (Observer)

John Galbraith  
Treasurer and Vice President  
Banco Espanol de Credito  
Suite 514  
630 5th Avenue  
New York, NY 10111  
(212) 974-7435

#### VII. FEDERAL RESERVE BANK OF NEW YORK (ex officio)

William J. McDonough  
Executive Vice President  
33 Liberty Street  
New York, NY 10045  
(212) 720-6180

Margaret L. Greene  
Senior Vice President  
33 Liberty Street  
New York, NY 10045  
(212) 720-5688

#### EXECUTIVE ASSISTANT

Martin Mair  
Market Specialist  
Federal Reserve Bank  
of New York  
33 Liberty Street  
New York, NY 10045  
(212) 720-6651

# FOREIGN EXCHANGE COMMITTEE

(JANUARY 1993)

## MEMBERS LISTING

### I. NEW YORK BANKS

James P. Borden  
Senior Vice President  
The Chase Manhattan Bank  
One Chase Manhattan Plaza  
New York, NY 10081  
(212) 552-7543

William A. Dueker, Jr.  
Executive Vice President  
Republic National Bank of NY  
452 5th Avenue, 10th Floor  
New York, NY 10018  
(212) 525-8152  
(212) 525-6900

John Finigan  
Managing Director  
Bankers Trust  
1 Bankers Trust Plaza  
New York, NY 10006  
(212) 250-1710

John Gaines  
Vice President  
Interbank Foreign Exchange  
The Bank of New York  
48 Wall Street, 13th Floor  
New York, NY 10286  
(212) 804-2035

Tom Kalaris  
Managing Director  
Morgan Guaranty Trust Co  
60 Wall Street  
New York, NY 10260  
(212) 648-0925

David Puth  
Managing Director,  
Foreign Exchange  
Chemical Bank  
277 Park Avenue, 9th Floor  
New York, NY 10172  
(212) 310-4680

Heinz Riehl  
Senior Vice President  
Citibank, N.A.  
399 Park Avenue  
5th Floor, Zone 5  
New York, NY 10043  
(212) 559-0864

### II. OTHER U.S. BANKS

Craig E. Bentley  
Managing Director  
Treasury, Marketing & Trading  
Bank of Boston  
P.O. Box 2016  
Mail Stop 01-10-05  
Boston, MA 02106-2016  
(617) 434-1168

Bruce Cobb  
Vice President,  
Foreign Exchange  
PNC Banks  
5th & Wood Streets  
26th Floor  
Pittsburgh, PA 15222  
(412) 762-4951

David Harvey  
Corporate Sr. Vice President  
Head of Trading Products  
1st National of Chicago  
1 First National Plaza,  
Suite 0452  
Chicago, IL 60670  
(312) 732-5369

William Rappolt  
Executive Vice President  
Manufacturers & Traders Bank  
654 Madison Avenue  
New York, NY 10021  
(716) 842-5553  
(212) 303-0492

Woody Teel (Lewis W.)  
Executive Vice President  
World Banking Group  
Bank of America  
555 California Street  
San Francisco, CA 94104  
(415) 622-1677

Nick D. Wharton  
Executive Vice President  
NationsBank  
901 Main Street, 2nd Floor  
Dallas, TX 75202  
(214) 508-2073

### III. FOREIGN BANKS

Cyrus Ardalan  
President,  
Paribas Capital Markets  
Paribas Corporation  
787 7th Avenue  
New York, NY 10019  
(212) 841-3403

Anthony Bustamante  
Executive Vice President  
Midland Bank  
140 Broadway, 17th Floor  
New York, NY 10015  
(212) 658-5731

M. Martin Dooney  
Managing Director  
Global Money Markets  
Barclays Bank PLC  
Murray House  
1 Royal Mint Court  
London EC3N 4HH  
ENGLAND  
44-71-696-2268

Ian MacKay  
Senior Vice President  
Treasury Sales & Trading -  
Royal Bank of Canada  
Royal Bank Plaza  
200 Bay Street  
16th Floor, South Tower  
Toronto, Ontario M5J2J5  
CANADA  
(416) 974-8342

Akira Okuhata  
Deputy General Manager  
The Bank of Tokyo, Ltd  
100 Broadway  
New York, NY 10005  
(212) 766-8918

Andrew Popper  
Treasurer &  
Deputy General Manager  
Credit Commercial de France  
450 Park Avenue, 7th Floor  
New York, NY 10022  
(212) 848-0523

### III. FOREIGN BANKS (continued)

Yoneo Sakai  
Treasurer & Joint  
General Manager  
International Treasury Division  
The Fuji Bank, Ltd  
Two World Trade Center  
New York, NY 10048  
(212) 898-2007

Mr. Andrew Siciliano  
Managing Director  
Foreign Exchange &  
Precious Metals  
Swiss Bank Corporation  
222 Broadway, 5th Floor  
New York, NY 10008  
(212) 574-4769

Joseph Spendley  
Deputy General Manager  
& Treasurer  
GiroCredit Bank  
65 E. 55th Street  
29th Floor  
New York, NY 10022  
(212) 909-0724

Robert A. White  
Sr. Vice President & Manager  
Standard & Chartered  
707 Wilshire Blvd  
Los Angeles, CA 90017  
(213) 612-9140

### IV. INVESTMENT BANKS

Lloyd C. Blankfein  
Partner  
Goldman, Sachs & Co  
85 Broad Street, 5th floor  
New York, NY 10004  
(212) 902-0593

Timothy A. Hultquist  
Managing Director  
Morgan Stanley & Co., Inc.  
Foreign Exchange Dept.,  
4th Floor  
1221 Avenue of the Americas  
New York, NY 10020  
(212) 296-5120

Joe Petri  
Managing Director  
Merrill Lynch Capital Markets  
Merrill Lynch  
World Financial Center  
North Tower, 8th Floor  
New York, NY 10281-1308  
(212) 449-5851  
(212) 449-0403

### V. FOREIGN EXCHANGE BROKERS

Robert McCully  
President  
Harlow Meyer Savage, Inc.  
2 World Trade Center  
Suite 5550  
New York, NY 10048  
(212) 306-0718

John Nixon  
Managing Director  
Tullett & Tokyo Forex  
80 Pine Street, 30th Floor  
New York, NY 10005  
(212) 208-2014

### VI. OBSERVER-PRESIDENT OF FOREX USA, INC.

John Galbraith  
Treasurer & Vice President  
Banco Espanol de Credito  
630 5th Avenue, Suite 514  
New York, NY 10111  
(212) 974-7435

### VII. FEDERAL RESERVE BANK OF NEW YORK (ex officio)

William J. McDonough  
Executive Vice President  
33 Liberty Street  
New York, NY 10045  
(212) 720-6180

Margaret L. Greene  
Senior Vice President  
33 Liberty Street  
New York, NY 10045  
(212) 720-5688

### EXECUTIVE ASSISTANT

John Dearnie  
Senior Market Analyst  
Federal Reserve Bank  
of New York  
33 Liberty Street  
New York, NY 10045  
(212) 720-6651