THE FOREIGN EXCHANGE COMMITTEE

annual
report

1998

TABLE OF CONTENTS

THE FOREIGN EXCHANGE COMMITTEE 1998 ANNUAL REPORT

THE COMMITTEE'S ACTIONS AND INITIATIVES

CHAIRMAN'S REPORT

The Foreign Exchange Committee commemorated its twentieth anniversary in 1998—a year distinguished by several significant events affecting the foreign exchange market. In one area of the world, preparations were under way for the introduction of the euro. In other areas, a number of currencies experienced wide fluctuations and, in some cases, were subject to trading disruptions. Throughout the year, the Committee endeavored to support the foreign exchange market by publishing papers and letters, sponsoring a special seminar, and issuing press releases in response to critical market events. All of the Committee's actions were focused on the objective of providing the entire community with information that would facilitate its operation and contribute to its overall development.

Conscious of the need to improve global communication and enhance the effectiveness of its actions, the Committee also successfully reached out to other industry groups, coordinating actions on a number of important issues. A relationship with the Singapore Foreign Exchange Market Committee was nurtured at a joint session on November 5, 1998.

The Committee also collaborated with other industry groups on efforts to limit settlement risk and monitored actions by regulatory authorities that had the potential to affect the over-the-counter foreign exchange market. The following sections treat in greater detail the developments that had an impact on the Committee over this past year.

Preparing for the European Economic and Monetary Union

Early last year, as the market prepared for euro trading, the Committee turned its attentions to the market's lingering uncertainties on a number of key operational issues related to euro trading. These included deal conversion, trading practices, euro payments, the prospect for legacy currencies, and holiday conventions. To support the market, the Committee

- distributed a letter to the community, endorsing the holiday conventions recommended by the European Monetary Institute;

- published a guide, *EMU: Guide to Operational Issues in the Foreign Exchange Market* (see page 33), which included information on the multiple changes anticipated in the operational infrastructure with the start of euro trading; and
- held a half-day seminar at the Federal Reserve Bank of New York that examined operational procedures under EMU and considered the customer, market, and legal concerns raised by the adoption of a single currency.

Later in the year, the Committee, aware that many institutions had not yet forwarded to their counterparties the revisions in standing settlement instructions required by the advent of euro trading, distributed a letter urging that these revisions be communicated immediately (see page 73). In addition, the Committee, working with the Financial Markets Lawyers Group, offered the community an EMU Protocol that facilitated the amendment of the Committee's existing foreign exchange documentation in connection with the introduction of the euro.

Responding to the Commodity Futures Trading Commission's Concept Release

On May 7, the Commodity Futures Trading Commission (CFTC) published a "Concept Release" on over-the-counter derivatives that suggested that major new regulatory initiatives were being contemplated. There was specific concern over the CFTC's references to automated clearing and settlement systems that are either used or under development in the foreign exchange market. These facilities have not been considered part of an organized futures exchange and thus within the jurisdiction of the CFTC.

Through the summer months, the Committee joined with other industry groups to express its displeasure with the Concept Release. The Committee submitted written testimony to Congress about the possible adverse impact on the foreign exchange market of any such regulatory initiatives. The Committee also prepared a letter to the CFTC commenting on the Concept Release and detailing the Committee's concerns (see page 67).

Many observers believe that the recurring threat of new regulatory restraints on the over-the-counter market has already affected the market's growth and development. In recent years, market analysts have noted that financial institutions have increasingly shifted their foreign exchange business from the United States. According to a Bank for International Settlements study, the *Central Bank Survey of Foreign Exchange and Derivative Market Activity in April 1998*, the United States' foreign exchange market share has stagnated over recent years, while the United Kingdom's market share has steadily increased.

Reducing Settlement Risk

The Committee continued to review the progress of two initiatives aimed at reducing settlement risk: CLS Services, a service designed to provide "continuous linked settlements" for its customers, and a new market instrument, the contract for differences (CFD). At the Committee's February meeting, representatives from CLS Bank updated the Committee on their efforts to set up a single multicurrency settlement service that would consolidate the foreign exchange settlement activities of the large banks. Formed in 1997 with the sponsorship of major commercial banks involved in foreign exchange trading, CLS plans to start up operations in 2000.

An ad hoc group of the Committee focused on the benefits, costs, and operating practicalities of the CFD. In August, the Committee summarized the findings of the group in a short issues paper, *CFDs: The Benefits of Foreign Exchange Transactions That Settle Differences Only* (see page 47). The advantages of CFDs have become more apparent over the year, particularly given increased market sensitivities to credit risk. At year-end, trading in CFDs had yet to begin, but reference rates for their use are expected to be available on market screens in the near future.

The importance of the Committee's efforts to curtail settlement risk were underscored in *Reducing Foreign Exchange Settlement Risk: A Progress Report*, a paper by the Group of Ten's Committee on Payment and Settlement Systems (CPSS) that was published by the BIS. The report compared current market conditions with those in 1996, when the initial analysis of settlement risk was circulated. The CPSS report acknowledged that the heightened awareness of the community had been instrumental in helping to decrease settlement risk. Nevertheless, noting that this type of risk still remained high, it called for further risk reduction efforts by the market.

Reacting to Trading Disruptions

The Committee also monitored disruptions in the trading of the Indonesian rupiah, the Malaysian ringgit, and the Russian ruble. When the Indonesian rupiah payment system was interrupted on May 14, market repercussions were severe, given widespread uncertainties about payments and questions about the appropriate settlement procedures. Even after the resolution of the immediate crisis—when the Central Bank in Indonesia resumed full operations—uncertainty lingered about how institutions handled the crisis, including concerns about the proper way to deal with overdrafts and the definition of a business day.

On September 1, when the Bank Negara, the Malaysian central bank, imposed certain currency controls, the Committee responded with a press release that recommended, as a best practice, closeout of ringgit positions (see page 79). The Committee also identified procedures that would be most effective in dealing with other potential emergencies. Shortly afterward, conditions in Russia contributed to a disruption in the ruble market. Working with the Financial Markets Lawyers Group, the Committee coordinated actions with the Emerging Markets Trading Association and International Swaps and Derivatives Association and issued a press release revising the existing price source references for the ruble (see page 81).

The key currencies also exhibited volatility as the year drew to a close. Sharp gyrations in the value of the U.S. dollar relative to the yen and mark in early October gave rise to global concerns about the effects of deleveraging when huge positions by hedge funds are unwound. These substantial market shifts and concerns about reduced liquidity were the focus of considerable discussion at the October and November Committee meetings.

Collaboration with Other Groups

The Committee strengthened its bond with the Singapore Foreign Exchange Market Committee during 1998. The currency disruptions in Indonesia and Malaysia focused international attention on that region, and the global community, including the Committee, was able to obtain important information through the Singapore Foreign Exchange Market Committee.

In a joint meeting in New York on November 5, the Committee and the Singapore Foreign Exchange Market Committee exchanged views on European events and Latin American conditions. The Singaporeans also discussed a paper that shed light on the disruption of currency trading in Asia. The paper identified problems that contributed to the disruption, including the difficulty of reconciling the various management approaches of the affected institutions. The paper also highlighted the committees' shared concern about the need to reexamine standard definitions in foreign exchange documentation and certain trading conventions. The discussion of the paper ended with the recognition that industry groups, including the Committee and the Singapore Foreign Exchange Market Committee, had played an important role in managing and resolving such disruptions.

The two committees also discussed their common Y2K concerns. They endorsed a recommendation that market participants consider measures to reduce transaction volume in the first week of the year 2000. The letter outlining these measures was signed by both committee heads and was circulated to the Foreign Exchange Committee's mailing list (see page 75).

Plans and Projects for 1999

Documentation issues are emerging as an important concern in 1999. The following initiatives are under discussion:

- *Nondeliverable Forwards*
  The Committee, together with the Financial Market Lawyers Group and the Emerging Markets Traders Association, is discussing new terms to be used in the confirmation of nondeliverable forward transactions. Market participants have noted problems in matching confirmations for these transactions.

- *Barrier Options*
  The Committee is reviewing market practices relating to barrier options with an eye toward suggesting changes in current Committee documentation.

- Force Majeure
  Through the Financial Markets Lawyers Group, the Committee is evaluating force majeure provisions of the standard documentation with a view toward recommending changes that will facilitate effective responses to future market disruptions.

In addition, the Committee will request updates on the progress of CLS Bank as it prepares for its start-up. Developments concerning possible trading of CFDs will be observed. As the run-up to Y2K continues, the Committee hopes to contribute best practice suggestions, study contingency strategies that could be useful for the community, and coordinate actions with other industry groups.

Finally, the Committee plans to continue its dialogue with the Singapore Foreign Exchange Market Committee by holding another joint meeting on November 4, 1999, in Singapore. It also hopes to increase its interaction with other foreign exchange committees in the United Kingdom, Canada, Japan, and Hong Kong—for example, by coordinating best practice recommendations on subjects of mutual concern such as trading disruptions and Y2K preparation.

The Committee's Twentieth-Anniversary Celebration

As the year drew to a close, the Committee celebrated its twenty-year history by honoring its members, both current and past, with a commemorative dinner on December 3. The hosts were William McDonough, president of the Federal Reserve Bank of New York, and Paul Volcker, who served as president of the Bank when the Foreign Exchange Committee was first established.

Over the past twenty years, about 170 individuals have served as members of the Committee. Former members were tracked down in countries such as Ireland, England, Cyprus, and Japan and from various parts of the United States. Eighty members, representing all twenty years of the Committee's history, attended the event. The celebration was a well-deserved tribute to the men and women who helped to shape the Committee and to carry out its work on behalf of the foreign exchange market.

In both President McDonough's and former President Volcker's presentations to the attendees, the Foreign Exchange Committee was commended as an important force in the growth and development of the market, as the events of the past year readily attested. In taking on new challenges this year, the Committee has taken a step forward in its own development while also improving the mechanisms necessary for the Committee to play an important role in the foreign exchange community in the future.

John J. Finigan, Jr.

LEGAL INITIATIVES OF THE FOREIGN EXCHANGE COMMITTEE

The Financial Markets Lawyers Group (FMLG) coordinates legal projects with, and provides guidance on legal matters to, the Committee. The group, which meets monthly, includes legal representatives from commercial and investment banks active in the foreign exchange market. An important focus is to promote a greater understanding of the legal environment surrounding foreign exchange trading. In addition, the FMLG and the Committee work to enhance the integrity of the foreign exchange market through the recommendation of sound business practices.

In 1998, the FMLG worked on a number of projects, many of them begun in prior years. These projects, discussed below, included the Foreign Exchange and Currency Option Definition project, the work on opinions, and the monitoring of Commodity Futures Trading Commission (CFTC) actions concerning the regulation of over-the-counter foreign exchange markets. Other projects, including the EMU Protocol, were introduced this year.

In 1999, the FMLG plans to continue to monitor CFTC developments and to pursue its review of documentation concerning force majeure events and nondeliverable forward transactions (NDFs). It also intends to work on collateral documentation for foreign exchange transactions, cross-product netting agreements, and revisions to Annex A of the *Foreign Exchange and Currency Options Definitions*. The newest version of the definitions will appear on the Foreign Exchange Committee's web site (www.ny.frb.org/fxc).

- **The 1998 Foreign Exchange and Currency Option Definitions**
  The FMLG, the International Swaps and Derivatives Association (ISDA), and the Emerging Markets Traders Association published the *Foreign Exchange and Currency Options Definitions* in early 1998. These latest definitions, an update of a 1992 version published by ISDA, provide the industry with documentation for both deliverable and nondeliverable cash-settled foreign exchange and currency options transactions in both emerging market and major currencies. Members of the FMLG participated in the working group that developed the 1998 definitions document. The 1998 definitions were reviewed and explained to the foreign exchange community at a morning seminar on March 20 at the Federal Reserve Bank of New York.

- **Obtaining Legal Opinions**
  During 1998, the FMLG continued its work of gathering legal opinions from a number of jurisdictions establishing the enforceability of settlement and closeout netting provisions

of the Committee's Master Agreements under local insolvency laws. These Master Agreements include the International Foreign Exchange Master Agreement, the Foreign Exchange and Options Master Agreement, and the International Foreign Currency Options Master Agreement. A number of new opinions were finalized during 1998, and the FMLG continued its efforts to obtain final opinions in other relevant jurisdictions. A list of final opinions, as well as the status of opinions in a number of additional jurisdictions, is available at www.ny.frb.org/fmlg.

- EMU Protocol

  The FMLG, in collaboration with the British Bankers Association, prepared an EMU Protocol for use with the Master Agreements published by the Committee. The EMU Protocol enabled parties to amend their existing Master Agreements on a number of euro-related issues. The EMU Protocol was modeled loosely after an EMU Protocol published by ISDA.

  The EMU Protocol covered the following euro-related issues: confirmation of continuity of contracts, provisions of replacement price sources, clarification of payment netting and novation netting, new definitions related to the euro, and provisions for average rate options and barrier options. After the EMU Protocol was issued, parties that wished to amend their Master Agreements consistent with some or all of the provisions in the document simply needed to complete and deliver an adherence letter to the chair of the FMLG. The FMLG chair then published a list of adhering parties along with copies of the adherence letters on the FMLG web site. This process eliminated the need for parties to contact all their counterparties. By the close of the adherence period, the FMLG had received 221 adherence letters.

- Over-the-Counter Regulatory Issues

  Throughout the year, the FMLG continued to monitor issues concerning the CFTC that could affect the over-the-counter foreign exchange market and counseled the Committee on responses when necessary. Much of the FMLG's activity in this area in 1998 involved the community's reaction and response to the CFTC's "Over-the-Counter Derivatives Concept Release" issued on May 7. One particular issue of concern to the foreign exchange market was the CFTC's potential assertion of jurisdiction over automated dealing systems and multilateral netting facilities.

  On July 30, representatives from the Committee, along with counsel from the FMLG, provided testimony before a congressional committee. The FMLG also provided support to the Committee in connection with the Committee's written response to the release (see page 67). These efforts, along with the efforts of other industry groups, culminated in a temporary legal moratorium on the CFTC's ability to issue regulations concerning the over-the-counter markets.

- Guidelines for Transactions Involving Intermediaries

  The FMLG's *Guidelines for Transactions Involving Intermediaries (Guidelines)*, published in October, provides best practice recommendations for financial market transactions executed between dealers and their counterparties when an intermediary (such as an investment advisor) acts for the counterparty. The *Guidelines* were drafted by a working group of the FMLG that included representatives from the intermediary community.

  The purpose of the *Guidelines* is to ensure that transactions are completed in accordance with the terms and expectations of all parties. The FMLG sponsored a presentation on the *Guidelines* on November 13, 1998, that included discussions of international efforts to deal with issues addressed in the document.

- A Review of Force Majeure Provisions

  Following the disruption of settlement activity in Indonesia in May 1998, the FMLG decided to review force majeure and related provisions in the Committee's Master Agreements. This decision was prompted by uncertainty in the market concerning the proper course of action at the time of Indonesia's market problems.

The project's intent is to identify the inconsistencies in the documentation and to recommend language that would enable parties of those foreign exchange transactions that require delivery to deal more effectively with market disruptions.

- Nondeliverable Forwards

With the Emerging Markets Traders Association, the FMLG is considering the best ways to improve trading in NDFs. These efforts should resolve the problems in matching confirmations for NDFs present under the *1998 Foreign Exchange and Currency Options Definitions*. Recent discussions have focused on mechanisms for reaching agreement on the terms of NDFs, the calculation agent, and the resolution of pricing and other disputes.

COMMITTEE RELATIONSHIPS WITH OTHER INDUSTRY BODIES

Over its twenty-year history, the Committee has benefited from collaboration with other industry groups. Recent joint efforts include work with the British Bankers Association on documentation (including the Financial Market Lawyers Group's work on the EMU Protocol), work with other industry associations on regulatory issues, collaboration with the International Swaps and Derivatives Association (ISDA) and the Emerging Markets Traders Association (EMTA) on revising foreign exchange and currency options definitions, and joint meetings with the Singapore Foreign Exchange Market Committee (the Singapore Committee).

The Committee understands that collaboration with other groups fosters an efficient distribution of tasks, increases resource pools, and reduces duplication of efforts. In an increasingly global community, cooperative efforts among industry groups ensure that progress in improving the performance of financial markets will be made. Such efforts promote the efficient dissemination of financial market information and enhance worldwide communication among market participants.

The benefits of strong coalitions were made very apparent this past year in the interaction of the Committee with the Singapore Committee. The two groups share many objectives: improving market efficiencies, reducing settlement risk, distributing information related to market practices and issues, and providing guidance to the foreign exchange market.

The proximity of Singapore to Indonesia and Malaysia enabled the Singapore Committee to provide key information on Asian financial developments to the rest of the global community, including the Foreign Exchange Committee. It sponsored meetings that were broadened to include individuals other than those that routinely serve on the Singapore Committee, and it drew on the insights of this larger group to formulate suggestions for the market. The Singapore Committee recommended a closeout of ringgit positions and suggested a close-out price.

The two Committees also found a common interest in the Y2K issues. The Singapore Committee endorsed a letter prepared by the Committee suggesting that participants in the market might benefit from reduced trading activity during the first trading week of the year 2000. In setting the date of the next joint meeting for November 4, 1999, in Singapore, the committees underscored the importance that they attach to their continued communication.

Links to other industry groups have also been strengthened. Representatives from the Canadian Foreign Exchange Committee and the United Kingdom's FX Joint Standing Committee participated in the Committee's February 1999 meeting. In addition, the Committee is coordinating its Y2K endeavors with a number of industry groups.

ADVISORY ROLE OF THE FOREIGN EXCHANGE COMMITTEE

According to its Document of Organization, a principal function of the Foreign Exchange Committee is to advise the Federal Reserve Bank of New York on issues related to the foreign exchange market. Accordingly, each meeting of the Committee usually starts with a lengthy discussion of market conditions. The discussion offers members the opportunity to give their assessment of recent market developments and trading conditions. Such conversations are particularly important during periods of market turmoil or transition.

Throughout 1998, much of the discussion on market developments concerned conditions in the Asian markets, focusing specifically on events in Japan, China, Korea, Indonesia, and Malaysia. In the second half of the year, attention broadened to include Europe's impending introduction of the euro and related topics. At several of the meetings held later in the year, members expressed concern about the dollar and its liquidity. The last meeting of the year—a joint session held by the Committee and the Singapore Foreign Exchange Market Committee in November—allowed participants to share opinions on developments in Asia, Europe, and the Americas.

In addition to commenting on market developments, members also highlight industry developments and issues that they believe may warrant more attention and possibly action by the Committee. Policy papers, best practice recommendations, or seminars may result from members' efforts. Over 1998, the industry topics brought to the attention of the Committee included:

- European Economic and Monetary Union
  The Committee's members recognized a need in the community for more information and guidance on issues related to the euro. Supported by its members' efforts, a public symposium was held on June 12. The Committee also published a report that focused on operational issues surrounding the euro.

- Commodity Futures Trading Commission (CFTC)
  The Committee was briefed by the Financial Markets Lawyers Group at various meetings throughout the year on issues related to CFTC action that could affect the over-the-counter foreign exchange market. The Committee sent letters to Congress and the CFTC and gave written congressional testimony concerning the importance of the Treasury Amendment to the foreign exchange market.

- **Measures to Reduce Settlement Risk**
  In prior years, the Committee closely monitored and encouraged industry efforts to reduce settlement risk. At the February 1998 meeting, CLS representatives briefed members on their progress in setting up a system designed to minimize settlement risk. A number of members worked on contract for differences issues, which were later reviewed at Committee meetings.

- **The Committee's Role in Event Disruption**
  At several meetings, the Committee reviewed possible industry actions following market disruptions. Notably, in September, the Committee recommended the closeout of the Malaysian ringgit.

- **Y2K**
  At a number of meetings, the Committee discussed the benefits of taking measures to reduce transaction volume and payments during the first week of the year 2000. A letter recommending such measures was subsequently sent to the foreign exchange community.

REPORT OF WORKS-IN-PROGRESS

The Foreign Exchange Committee's current projects span a wide array of topics and concerns. All, however, reflect efforts to enhance market participants' knowledge and to facilitate the operation of the foreign exchange market. The Committee's most recent initiatives include:

- Barrier Options
  In early January, the Committee responded to member concerns about divergent practices for confirming barrier options by initiating a review of market procedures. The Committee prepared a short survey and distributed it to its member institutions and other entities that have an important presence in the barrier options market. Once the final survey results are received and analyzed, the Committee may propose revisions to its best practice guidelines and may also endorse revised legal documentation related to the use of these specialized instruments.

- Preparing for Y2K
  Over the past year, the Committee has been responsive to opportunities and initiatives that would support the foreign exchange community as it prepares for the uncertainties of Y2K. For example, the Committee recently welcomed a member's suggestion that the market might benefit from measures that would moderate transaction volume and payments during the first week of the year 2000.

  The Committee recognizes that the unprecedented nature and scope of Y2K make planning particularly difficult. Given the risks involved, Y2K preparedness is being addressed at many levels in most organizations, ranging from individual contributions to efforts by large-scale collaborative groups. The Committee anticipates that it could serve the foreign exchange market by

  a) continuing to offer best practice recommendations as necessary;

  b) drawing upon the experiences of the European Union to formulate contingency plans; and

  c) coordinating efforts among working groups of the Committee, such as the Operations Managers and Risk Managers groups, by working with the Financial Markets Lawyers Group and collaborating with other related industry groups.

THE COMMITTEE'S MEETINGS AND ASSIGNMENTS

MEMBERSHIP SUBCOMMITTEE REPORT

A primary responsibility of the Membership Subcommittee is to recommend to the Federal Reserve Bank of New York candidates for Committee membership. In September, the Subcommittee—which is made up of five members of the Committee—initiates its review of members for the upcoming year. It is important that the institutional composition of the group provide a fair representation of all interests in the market at all times. With this in mind, recommendations for new membership, received throughout the year, are reviewed. The Subcommittee strives to invite to the Committee individuals that have a broad knowledge of the market, sufficient stature in the community, a position allowing them to speak for their institution, and a keen interest in actively participating in the Committee's work.

In 1997, the Committee added a representative from an electronic broker. New members in 1998 included representatives from two foreign-based banks, a regional bank, and a voice broker. For 1999, new members include representatives from a foreign-based bank, an investment bank, a regional bank with a large custody business, and a voice broker.

The Subcommittee also chooses members for liaison and issue coordinator assignments. Two liaisons are picked for the Operations Managers Working Group, and another two for the Risk Managers Working Group. The function of the liaison is to provide supplemental leadership to the working group and to facilitate fluid communication between the Committee and the working group. The role of the issue coordinators is to make the Committee aware of important market concerns in areas such as trading practices.

The Subcommittee also has the option to make changes to the Committee's organizational structure to ensure that the Committee functions at its highest level. In 1998, the Subcommittee made minimal changes to the Committee's structure. One change involved the role of communications issue coordinator; the Subcommittee agreed that this function had been performed effectively by the entire membership and did not require a specific assignment.

MEETINGS OF THE COMMITTEE

The Committee held eight meetings during 1998. Six of the sessions were late afternoon meetings and dinners. Members of the Committee hosted most of these gatherings. The remaining two meetings, in March and in October, were luncheon meetings. Both of those were held at the Federal Reserve Bank of New York. A similar schedule is planned for 1999.

1998 Meetings	1999 Meeting Schedule
January 8	January 7
February 5	February 4
March 5	March 4
May 7	May 6
June 11	June 3
September 10	September 9
October 8	October 7
November 5	November 4

1998 FOREIGN EXCHANGE COMMITTEE ASSIGNMENTS

Committee Chairman	*John Finigan*
Liaisons:	
Operations Managers Working Group	*Stephen Bellotti*[1]
	Lewis W. Teel
Risk Managers Working Group	*Paul Kimball*
	Andrew Siciliano[2]
Coordinators:	
Trading Practices Issues	*Lloyd Blankfein*
	Jamie Thorsen
Communications Issues	*David Puth*
Membership Subcommittee	*Dino Kos (Chairman)*
	Don Lloyd
	David Puth
	William Rappolt
	Lewis W. Teel[3]

The Committee restructured in 1997. The use of standing subcommittees was discontinued. Instead, when specific issues warrant, ad hoc subcommittees will be formed. Cognizant of the important contributions of the working groups, and in an effort to promote greater communication between the working groups and the Committee, the working group liaison assignments were created. In addition, the Committee felt that there was a need to designate members as coordinators to monitor specific issues related to trading practices and communication. For additional details on the Committee's structure, please refer to the Document of Organization.

[1]*Resigned May 1998.*

[2]*Resigned September 1998.*

[3]*Resigned December 1998.*

1999 FOREIGN EXCHANGE COMMITTEE ASSIGNMENTS

Committee Chairman	*Paul Kimball*
Liaisons:	
Operations Managers Working Group	*Adrian Fletcher*
	Robert White
Risk Managers Working Group	*John Finigan*
	Peter Gallant
Coordinators:	
Trading Practices Issues	*David Puth*
	Jamie Thorsen
Membership Subcommittee	*Dino Kos (Chairman)*
	John Finigan
	Don Lloyd
	David Puth
	William Rappolt[1]

[1]Resigned February 1999.

THE COMMITTEE'S PUBLICATIONS

REPORTS AND PAPERS

EMU: Guide to Operational Issues in the Foreign Exchange Market

CFDs: The Benefits of Foreign Exchange Transactions That Settle Differences Only

The April 1998 Foreign Exchange and Interest Rate Derivatives Markets Survey

Document of Organization

TRANSMITTAL LETTER

REGARDING THE IMPACT OF THE EURO ON THE OPERATIONS OF THE FOREIGN EXCHANGE MARKET

New York, NY 10045

Telephone: *212 720-6651*

Facsimile: *212 720-1655*

E-Mail: *fx.committee@ny.frb.org*

http://www.ny.frb.org/fxc/fxc.html

June 5, 1998

Dear Foreign Exchange Professional:

As part of our continuing effort to monitor developments affecting market operations, enclosed you will find a copy of the Foreign Exchange Committee's *EMU: Guide to Operational Issues in the Foreign Exchange Market*.

The paper focuses on the impact the introduction of the euro in January 1999 will have on the operations of the foreign exchange and foreign exchange option markets. Included within the text of the paper are discussions about deal conversions, euro payments, and holiday calendars.

Please do not hesitate to contact either me or other members of the Committee with any questions or comments regarding the Committee's work. Copies of this paper and the Committee's other publications may also be viewed online or downloaded for later viewing from the Federal Reserve Bank of New York's web site address, noted above.

Sincerely yours,

John J. Finigan, Jr.
Chairman

TABLE OF CONTENTS

EMU: GUIDE TO OPERATIONAL ISSUES IN THE FOREIGN EXCHANGE MARKET

European Economic and Monetary Union (EMU) will bring a myriad of institutional and structural changes to the current multinational European financial structure. The most notable innovations include the creation of one central bank and the introduction of one common currency—the euro. On January 1, 1999, the euro will become the legal currency of the eleven European nations that have met the economic criteria required to qualify for EMU participation.

This paper examines the multiple changes in operational infrastructure relating to foreign exchange and foreign exchange option trading that will be necessary to implement this new administration. Included within the following pages are

- highlights of the important operational developments and issues facing these markets;
- reviews of what is widely expected to occur by market participants;
- acknowledgments that uncertainties, problems, and disagreements remain in some areas and that these difficulties may not be resolved before the euro begins trading;
- some alternative procedures for market participants to follow in the event of problems and difficulties; and
- where possible, suggestions on best practices for selected operational issues.

The specific topics covered in the paper are summarized below.

Trading: Uncertainties surrounding the recommended quoting conventions, the role of legacy currencies, and trading in the euro prior to January 1, 1999, are discussed.

Deal conversion: Comments are included on if, when, and how conversions should take place.

Euro payments: Discussion topics include the varying services that correspondents are expected to provide, the disruption that could occur if a large number of participants change settlement instructions in a short period of time, and the complexities of cash-managing euro and legacy currency nostro accounts.

Holiday calendars: Conventions are suggested for managing holiday calendars.

Foreign exchange options: The unique features of options are reviewed and suggestions on how these trades should be handled differently from cash or forward foreign exchange transactions are offered.

Other issues: Comments about rounding rules and pricing sources conclude the paper.

OVERVIEW AND GENERAL INFORMATION

1. On January 1, 1999, the euro will come into existence. The existing currencies of the "in" countries[1] (national currency units [NCUs], or legacy currencies) will cease to be independent currencies and will become nonfractional denominations of the euro. The irrevocable fixing of exchange rates between the euro and each NCU will take place on December 31, 1998.

2. The period from January 1, 1999, to December 31, 2001, will be a transition period during which a no prohibition/no compulsion rule will apply. This means that during the transition period, no party can be forced to use the euro, but neither can it be prohibited from using the euro.

3. The ISO/SWIFT currency code for the euro will be EUR. The euro will be settled to two decimal places.

4. The European Currency Unit (ECU) will convert to EUR on a 1:1 basis on January 1, 1999.

TRADING IN THE EURO

5. It is widely expected that the wholesale foreign exchange market will quote only EUR and stop trading NCU on January 4, 1999 (the first business day of 1999). However, most market makers will still quote in legacy currencies to accommodate clients. Therefore, each institution will need the ability to convert euro prices into legacy to support legacy currency pricing.

6. The EU Central Banks and the European Monetary Institute (EMI)—the forerunner of the European Central Bank (ECB)—have recommended that the euro become the base currency, quoted as one euro = x other currency. To date, market participants remain uncertain whether the market will accept these recommendations. The recommended quotations imply significant changes in current practices for both sterling and the U.S. dollar, and confusion is possible. With no central body setting standards for the foreign exchange market, it is unclear whether this issue will be resolved before trading formally commences on January 4, 1999. Therefore, from an operational perspective, market participants may need to be prepared to meet both quoting conventions.

7. It is anticipated that most market makers will be managing their risk in euro, converting all NCU positions to euro for a consolidated risk view.

8. There has been discussion in the market about participants initiating trading in euro prior to January 1, 1999. If an institution decides to start trading in euro, it should recognize the legal risk it is taking if EMU does not start as planned on January 1, 1999. Many participants who indicated that they could trade in euro prior to January 1, 1999, also have noted that they would book these trades as ECU transactions to avoid legal risk.

ISSUES INVOLVING DEAL CONVERSION

9. No prohibition/no compulsion, as applied to the foreign exchange market, means that NCU foreign exchange contracts on the books on January 1, 1999, do not automatically convert to euro. (An exception is ECU contracts that automatically convert.) Unconverted contracts will remain denominated in the legacy currency, a denomination of the euro. Thus, during the transition period, both euro and legacy transactions will coexist.

10. Because ECU ceases to exist as a currency and is automatically converted to EUR on a 1:1 basis on January 1, 1999, these deals must be converted to euro before settlement. This is mandated by treaty and does not need to be agreed bilaterally. It is a best practice that these deals be reconfirmed. Reconfirmation is particularly important because most institutions will be using a different correspondent and account number for their euro accounts than for their ECU accounts.[2]

[1]Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

[2]A small number of market participants will convert their existing ECU nostro accounts to EUR so that their settlement instructions will remain the same. For this situation, reconfirmation may not be necessary.

11. Conversion of NCU foreign exchange transactions to euro during the transition period will occur only if both parties agree bilaterally on the conversion. All conversions of transactions to euro should be irrevocable.[3]

12. Bilateral agreements to convert NCU transactions to euro should be in writing.

13. To avoid confusion, parties agreeing to convert underlying foreign exchange transactions should also concur on:

    a) the type of transactions to be converted (e.g., foreign exchange spot, forwards, foreign exchange options, etc.);[4]

    b) the value date of the transactions to be converted (e.g., all deals with a value date of March 31, 1999, and after);

    c) the NCUs to be converted (market participants are recommending that all "in" currencies be converted at once);

    d) the date the conversion is to take place;

    e) the method of conversion—by amending existing deals or by cancelling existing deals and rebooking them in EUR. For FXNet counterparties, the cancellation can be done either by booking an equal and offsetting deal for each deal on the book or by booking a single NCU/EUR deal to close out each day's NCU position against the euro.[5] This point is important because the method affects how parties will reconfirm deals that have been converted. When different methods are used by parties, then both parties must be prepared for the different confirmations that result; and

    f) instructions on how to handle deals between two "in" currencies (see below).

14. If agreement on any of these points cannot be reached, then the conversion should not take place. The exception is point e, where the parties can agree to use a different methodology for the conversion and to resolve the confirmation differences.

15. Other than ECU,[6] conversion does not have to be completed over the first weekend of 1999. Careful evaluation of risks should be made if the conversion of all contracts is planned over the first weekend. If parties allow existing positions to mature and execute new deals in the euro, the total number of transactions that need to be converted will be reduced.

16. It is a best practice to reconfirm all conversions to ensure that both parties recognize the converted rates, amounts, and potential changes in settlement instructions.[7]

17. To provide prudential controls over trade conversion, many market makers will only perform conversions over weekends, and then only with a limited number of counterparties.

[3]Parties to a transaction could in theory agree bilaterally to convert on a revocable basis, but such an agreement is strongly discouraged.

[4]Parties are warned to be cautious given the possibility that a blanket conversion might be made of all deals of a particular type that meet specific criteria. The parties may wish to exclude specific deals (e.g., those that are part of a structured transaction that is not being converted).

[5]This approach is required for FXNet because FXNet does not support cancellations or amendments to matched deals.

[6]Legally, the ECU changes to EUR, so the conversion of the underlying transactions does not necessarily need to take place over the first weekend. Parties should be aware that their counterparts may be performing this conversion, however, and should be prepared to handle confirmations.

[7]Although most institutions will use standard confirmation formats, parties can bilaterally agree to use a statement that documents all transactions that have changed.

18. If a deal involves two "in" currencies, then the parties implementing the bilateral agreement to convert underlying transactions should decide whether to

    a) leave the "in"/"in" transactions in NCU,

    b) convert all "in"/"in" transactions to EUR/EUR,[8] or

    c) close out all "in"/"in" transactions, either immediately or at a later date.

COMMENTS ON EURO PAYMENTS

19. To achieve an integrated euro zone, the central banks have developed a system called TARGET to link national real-time gross settlement systems (RTGS). TARGET will allow correspondent banks in each EU member country to transfer euros to correspondent banks in other member countries seamlessly. In addition to the TARGET system, the Euro Banking Association (EBA) is developing a private sector net settlement system for the settlement of euros. The TARGET and EBA systems, along with the opening of existing RTGS systems for cross-border access by correspondents, will enable correspondents to offer euro-clearing services across the European Union.

20. This infrastructure will also allow correspondents to move NCUs to euro accounts and euro to NCU accounts, both within national borders and across borders. Funds moving across borders will be converted to EUR, and then converted to NCUs by a domestic correspondent bank. For example, a correspondent in Germany will be able to deliver euro to a correspondent in France from either a DEM or EUR account that can be credited to either an FRF or a euro account.[9] Participants should recognize that the validations currently in their system to prevent cross-border payments will need to be relaxed to support the euro-settlement environment. In addition, banks should be aware that not all counterparties will have removed the system validations that prevent payments to a destination bank in a country different from that of the paying agent.

21. At this time, services provided by euro correspondents vary. A best practice would be for institutions and their correspondents to agree on services that can be expected when converting NCU amounts to euro, or vice versa. It is important for institutions to understand and document the exact services that their correspondents provide. For example, will correspondents be ready to provide conversion between NCUs and EUR? How will correspondents handle local holidays that are not TARGET holidays? How much will they charge for their services?

22. Payments of euro will most likely be made from euro nostro accounts. While payments of euro from NCU accounts will be possible, such payments will likely be the exception rather than the rule. Most market participants may opt to move to funding in euro as quickly as possible.

23. Many market participants are expected to keep existing NCU nostro accounts for receiving and paying in NCUs, funding such accounts through a central euro account. Many market participants feel this approach will lessen the operational risks associated with the introduction of the euro and minimize the number of changes over the first weekend in 1999. The extent of change occurring at the beginning of 1999 means that operational risks in settling foreign exchange may increase greatly, particularly if a large number of participants decide to change their standard settlement instructions (SSIs). If a high volume of SSI changes take effect on the

[8]Some market participants will wish to convert to EUR/EUR to allow for payment netting of such deals. Others will not be able to handle EUR/EUR deals in their systems because validation rules prohibit such deals.

[9]Banks settling an NCU transaction in EUR should include the original currency amount using SWIFT ERI (Euro Related Information) in field seventy-two of outgoing payment instructions (MT100/202).

same value date, settlement problems could be significant. Any problems would then need to be investigated, leading to possible liquidity constraints for market participants and/or correspondent banks.

24. It is suggested that market participants wait for a significant portion of NCU trades on their books to mature—typically three to six months after January 1, 1999—before changing settlement instructions from NCU nostro accounts to a euro nostro account.

25. Current market practice is to give at least five or six weeks of notice before a change in nostro accounts occurs. Given the expected number of changes at the end of 1998, earlier notification may be prudent. It is suggested that notification of all changes to settlement instructions be sent no later than September 30, 1998, or as early as possible.[10]

26. Because of the number of potential problems counterparties may have in making and receiving payments during January 1999, it is recommended that additional investigators be available to deal with increases in erroneous settlements as well as unmatched and mismatched confirmations.

27. The rounding rules specified in the Council Regulations (EC) no. 1103/97 can lead to small differences in the end results when payments involve conversion from euro to NCUs, or vice versa. Parties to transactions need to recognize this potential for error, and to decide how their institution will handle small rounding errors. A best practice would be to determine a threshold; rounding amounts under the threshold would be written off. With this method rounding errors will, for the most part, net out for most institutions.

28. Market participants need to determine how to cash manage and fund their euro and NCU nostro accounts. It is assumed that some institutions will cash manage and fund only in euro, while others will fund NCU accounts separately. Each method has its benefits and risks. Ultimately, each institution will need to determine an approach that best suits its needs.

29. For the purposes of payment netting, it is recommended that amounts in underlying transactions that are in different denominations of the euro should not be netted, even if both parties use euro nostros. This recommendation is made because most market participants will not have the systems capability to perform netting across the different denominations of the euro. If market participants wish to net the denominations of the euro, the recommended approach would be to convert NCU transactions to euro and to then net in euro.

30. If an institution chooses to maintain both a euro and an NCU account with the same correspondent in the same location, it is suggested that the operating procedures be reviewed to minimize postings to a wrong account. Institutions should seek to institute a pooling agreement for debit and credit interest with their correspondent. These actions will help reduce operational settlement problems and will insure that, when problems arise, costs are kept to a minimum.

31. Participants with multiple euro accounts (as a result of opening a euro account with correspondents where they have an NCU account) should specify a single euro account in which to receive euro-denominated payments. Most market participants' systems are capable only of holding a single nostro per currency per counterparty to make payments.

---

[10] A best practice recommendation is to communicate changes in settlement instructions through an electronic messaging service such as SWIFT and that participants be ready to handle these incoming SSI changes in an automated straight-through manner to minimize possible operational errors during the rekeying of instructions.

BEST PRACTICES FOR DETERMINING HOLIDAY CALENDARS

32. Different holiday calendars exist in each of the EMU member states. These differences could create confusion for foreign exchange settlement dates after January 1, 1999. A harmonized definition of the value dates for NCU and euro transactions would allow market participants to set market price quotes for transactions after January 1, 1999, and for settlement dates on transactions conducted in NCUs before January 1, 1999, that may be converted to euro.

33. There are approximately fifty days where a national holiday takes place in at least one EMU member state. The European Monetary Institute has recommended that the TARGET system form the basis of euro business days. The TARGET system will be open when the RTGS of at least two member states are open. As a result, Christmas Day and New Year's Day will likely be the only holidays for TARGET.[11]

34. The following are recommendations for best practices in determining holiday calendars after January 1, 1999:

    a) ***For all new euro trades***, market participants have indicated that they will follow the TARGET business calendar.

    b) ***For all NCU trades executed after January 1, 1999, and NCU trades that convert to euro after January 1, 1999:***

        i) For interest rate and currency swaps (as opposed to foreign exchange swaps), holiday conventions should be agreed to bilaterally and should be documented in the confirmation. Trades that convert from NCUs will follow whatever calendar conventions were applicable when the deal was executed.

        ii) For foreign exchange products (such as options, spot, forwards, swaps, and outrights), dates may be agreed on by using the currency calendar of the financial center. Transactions executed after January 1, 1999, should not be done for settlement on holidays in a particular financial center if that date poses a problem for either party to the transaction. The real problem in the foreign exchange markets will be unofficial holidays—holidays declared on short notice such as state funerals, weddings, or some other national event. The intent with respect to these events would have to be agreed to bilaterally.

    c) ***NCU trades executed before January 1, 1999, but that will settle in NCUs after January 1, 1999***, should follow the existing holiday calendars for the relevant currencies.

UNIQUE FEATURES OF FOREIGN EXCHANGE OPTIONS

35. Foreign exchange options have unique features that need to be handled differently than spot and forward foreign exchange transactions. Additional information can be found in ISDA's *Economic and Monetary Union: Operations Issues for Derivatives Businesses*, a guide that covers basic operational issues pertaining to all types of over-the-counter derivatives, including foreign exchange options. Copies of this report can be obtained from the International Swap and Derivatives Association's (ISDA) web site (www.isda.org).

36. For foreign exchange option transactions involving two "in" currencies, the volatility between the currencies will drop to zero. Many systems cannot handle volatilities that are not positive, and they may need to be adjusted to permit zero volatility. Parties to "in"/"in" foreign exchange options may wish to close out these transactions, because they will no longer serve any economic purpose.

[11] If Christmas Day or New Year's Day falls on a weekend, a holiday will not fall on either the preceding or the following weekday, as is currently the practice in certain countries.

37. Barrier options present specific problems if barriers are hit or crossed. In particular, rounding rules take on added importance. A best practice is for all rate conversions of barriers options to use the following approach:

> The converted barrier should be calculated by applying the official conversion rate, and the barrier should be expressed with enough decimal places (more than the number of decimals in the interbank market) to avoid any possible dispute in reconversion. For the USD/EUR, the relevant number would be seven significant figures (for example, 1.234567). As a practical matter, six significant figures could be used in all but disputed cases.

38. Changes in quoting conventions will cause up barriers to reverse positions. For example, an up barrier for DEM/USD will need to be converted to a down barrier in USD/EUR.

39. A suggested best practice is that parties to barrier options agree in advance on a conversion/rounding approach for use in converting barriers.[12] In addition, as soon as is practical after January 1, 1999, parties to barrier options should confirm the converted barrier levels. To reduce the operational burden this additional step may cause, the parties may wish to reconfirm only those barrier levels that are close to the current market levels on January 1, 1999. Parties could then confirm the remaining barrier levels at a later date.

40. For average rate options that use NCU market quotations, the euro market quotes should be converted to the NCU on each calculation date, and then averaged. Special care needs to be taken to ensure that the euro quotation convention matches the original quoting convention. For example, if an average rate option was originally equal to the average of the DEM/USD rate, the euro rates should be inverted from USD/EUR to EUR/USD before converting to DEM and averaging.

41. In all other respects, Foreign Exchange options should be treated the same way as spot and forward foreign exchange, as outlined earlier in this document.

OTHER ISSUES SUCH AS ROUNDING, PRICE SOURCES, AND CONTINUITY OF CONTRACTS

42. The rounding rules are well defined in Articles 4 and 5 of the 235 Regulation. However, for foreign exchange contracts, it is not clear whether rounding rules apply to the rate or the NCU amount when converting to euro. In one approach, the rate on the foreign exchange deal is converted to euro and then multiplied by the non-NCU currency amount to arrive at a new euro amount. Alternatively, the NCU amount could be converted to euro directly. The best practice is to convert NCU amounts to euro directly wherever possible.

43. Some foreign exchange contracts[13] refer explicitly to foreign exchange price sources. Because many of these sources will no longer be available, participants in the foreign exchange market need to determine what price sources they will use. Several industry groups are currently investigating this issue.

44. Internal credit and market risk limits may need to be redenominated in euro if limits are currently calculated in an “in” currency.

45. For an interim period, proxy data series are expected to be needed for all credit and market risk algorithms using historical volatilities and correlations until sufficient data have been generated to calculate true euro volatilities and correlations. Many market participants are expected to use DEM or a basket of NCUs as a proxy for euro. Other possibilities are the use of ECU and a derived/synthetic euro. Each institution must decide for itself what is best.

46. Continuity of contract provisions generally provides that all contracts entered into in an

---

[12] *Such an agreement can be reached during the initial deal confirmation or in a side agreement between parties.*

[13] *For example, certain types of foreign exchange options and nondeliverable forwards.*

NCU will be valid after January 1, 1999. To date, legislation or regulations that ensure the continuity of contracts exist in all European Union jurisdictions (including those that are not "in" countries) as well as in New York and Illinois. If an institution has contracts governed within a jurisdiction that has not adopted laws or regulations to assure continuity of contracts, legal counsel should be sought. It will be necessary to determine if general business law will provide for continuity of contracts, or if a side agreement between parties is required to ensure continuity of contracts.

47. ISDA has created a protocol to provide for continuity of contracts, price source fallbacks, payment netting, and basic definitions for the euro and euro business days as well as other "housekeeping" matters. This protocol serves to amend existing ISDA master agreements on a bilateral basis between parties who have subscribed to the annex. Copies of this protocol can be obtained from ISDA's web site (www.isda.org).

48. The treaties that create the euro do not provide any provisions for a possible breakup of EMU. If after the start of EMU a member state decides to withdraw, the state will need to issue a new currency. It is not clear whether the new currency would have the same name as the withdrawing NCU. It is also unclear whether obligations that are denominated in the NCU of a withdrawing member state would automatically convert to obligations of the new currency of the withdrawing member state.

49. If an institution runs a collateralized foreign exchange book, a best practice would be to review collateral arrangements including collateral requirements and haircuts used for "in" currency-denominated assets.

50. ISDA and the Bank of England have both produced very informative documents on the introduction of the euro. For more information, see ISDA's web site at www.isda.org and the Bank of England's web site at www.bankofengland.co.uk.

GLOSSARY OF TERMS

Continuity of contract: contracts entered into for transactions denominated in an NCU or that have a payment calculated by reference to an NCU remain legally enforceable after EMU.

Conversion: redenomination of transactions denominated in an NCU.

EBA: Euro Banking Association.

EMI: European Monetary Institute.

First weekend/Le weekend: the first weekend of 1999, from January 1 to January 3.

"In" Countries: countries expected to join EMU on January 1, 1999. These countries are Austria, Belgium, Finland, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Portugal, and Spain.

ISDA: International Swaps and Derivatives Association, Inc.

NCD (legacy currency): national currency denomination [of the euro]. The existing national currencies of the "in" countries.

NCU (legacy currency): national currency unit. See "NCD."

TARGET: trans-European automated real-time gross settlement express transfer system. TARGET will be the link between the national real time gross settlement systems.

ACKNOWLEDGMENTS

This document summarizes information from various interbank foreign exchange forums, but primarily the Foreign Exchange Committee's Operations Managers Group and a group of foreign exchange market makers based in London. Special thanks to Arthur Magnus, J.P. Morgan & Co. Inc. for drafting the document and to Charlie LeBrun, First National Bank of Chicago NDB; Frank Smith, Citibank, N.A.; David Hewitt, NatWest Global Financial Markets; Stephen Green and Richard Thomas, Goldman, Sachs & Co.; Lisa Tonachio, Bear Stearns; Jerry Bayer, Morgan Stanley; Edward Sawbridge and Paul Puskuldjian, Lehman Brothers; Malcolm Jones, HSBC Midland; Janice Currie, The Bank of Nova Scotia; Eric Rabin, Société Générale; Xeno Andriopoulos, Deutsche Morgan Grenfell; William Mason, British Bankers' Association; and David Lewis and Catherine Young, J.P. Morgan & Co. Inc. for comments. The Committee also thanks Pauline Chen and Eileen Spinner, Federal Reserve Bank of New York, for serving as the primary editors.

TRANSMITTAL LETTER

REGARDING THE BENEFITS OF TRADING CFDS

New York, NY 10045
Telephone: *212 720-6651*
Facsimile: *212 720-1655*
E-Mail: *fx.committee@ny.frb.org*
http://www.ny.frb.org/fxc/fxc.html

August 7, 1998

Dear Foreign Exchange Professional:

For the past year, the Foreign Exchange Committee has been studying the benefits and costs of a broad-based nondeliverable foreign exchange transaction that would encompass major currencies and spot trades. This transaction is called a contract for differences, or CFD.

The Committee believes that trading of a CFD could successfully begin at this time, particularly because this instrument addresses the key marketplace concerns of settlement risk, credit risk, and liquidity. The enclosed paper reviews the benefits of a CFD, discusses how these transactions work, and outlines some of the uncertainties that still remain regarding the start-up of a CFD market.

If you have any questions or comments on this paper, or any of the other publications of the Committee, please feel free to contact either me or other Committee members. Please note that copies of this paper and other Committee materials may be downloaded from the Federal Reserve Bank of New York's web site (see above letterhead for address).

Sincerely yours,

John J. Finigan, Jr.
Chairman

CFDs: THE BENEFITS OF FOREIGN EXCHANGE TRANSACTIONS THAT SETTLE DIFFERENCES ONLY

Throughout its twenty-year history, the Foreign Exchange Committee has served the foreign exchange community by providing channels of communication, offering ideas through issue papers and best practice recommendations, and encouraging measures and methods to improve the quality of risk management.

It is in pursuit of these goals that the Committee began a study about a year ago on the benefits and costs of a broad-based nondeliverable foreign exchange transaction that would involve key currencies and spot-value transactions. Admittedly, a general endorsement of this type of instrument was slow to develop.

However, over recent months, it has become increasingly clear to the Committee that nondeliverable foreign exchange transactions can be successfully introduced into the general trading environment. We base this conclusion, in part, on the successful start-up of the more narrowly applied nondeliverable forward transaction (NDF) a few months ago.

This issue paper examines the increasing rationale for supporting foreign exchange transactions where only differences, rather than principal amounts, are settled. This instrument is labeled a CFD, a contract for differences.

- The first section notes that the huge volume and growth of foreign exchange trading is necessitating the development and implementation of new means and methods to reduce settlement risk.
- The second section discusses the concept of nondeliverable foreign exchange transactions as vehicles for successfully eliminating settlement risk and improving efficiencies in the foreign exchange trading environment.
- The third section offers details on how a CFD works.
- The final section outlines issues that the Foreign Exchange Committee identifies as important in the implementation of CFD trading.

I. THE IMPACT OF FOREIGN EXCHANGE VOLUME ON SETTLEMENT RISK

An updated estimate of average daily turnover in the global foreign exchange markets will be available from the Bank for International Settlements (BIS) this fall. At that time, the BIS will release its triannual survey of foreign exchange markets based on April 1998 activity. The BIS survey measures total activity in spot, outright forward, and foreign exchange swap trades.

In early 1995, average daily turnover was estimated to be $1.2 billion, double the $600 million estimated in the survey that was conducted in 1992. Recent anecdotal evidence and limited industry surveys suggest that the volume has continued to climb over the past three years.

The implications of this huge amount of trading, combined with the complex nature of foreign exchange activity in general, make settlement risk an important concern. Settlement risk occurs in every foreign exchange transaction, simply because of the mechanisms inherent in a routine trade. In any of these transactions, currency may need to be paid out by one party before the other currency is received.

II. HOW A CFD REDUCES SETTLEMENT RISK

At one time, foreign exchange market activity was closely tied to the volume of international trade. This relationship underscored the importance of physically exchanging the two currencies.

Today, some banks estimate that only a small portion of their foreign exchange transactions are related to actual foreign trade volume. Investment or position taking and hedging and/or speculative activity, where settlement of principal is not necessary, has become the primary business in the foreign exchange markets. Still, most foreign exchange transactions continue to involve the exchange of principal amounts.

When foreign exchange trading does not require an exchange of the underlying principal, then the trade could occur, and with more facility, without an exchange of such funds. Similar to the advent of the forward rate agreement (FRA), which replaced the deposit market as a means to manage interest rate risk, the CFD can also be used as a means to scale back foreign exchange settlement risk.

Other benefits of the CFD include lower transactions costs, a reduced role for credit limits, and enhanced liquidity. These benefits arise because only one currency—rather than two—needs to change hands. The exchanged amount is the difference between the original rate and an index rate. Furthermore, the amount transferred is a fraction of what would be delivered in a traditionally traded spot transaction. With no principal to exchange and no principal at risk, credit limits are less important and liquidity is enhanced.

III. HOW A CFD WORKS

A CFD transaction initially resembles a conventional cash deal. A trade is initiated, as in any traditional spot or forward deal, after counterparties set a price. However, the similarities end at the time of indexing. The time of indexing occurs (in most cases) the day before the value date. Both parties compare their original dealing rate, or price, with an index rate (in most cases, a market composite) to obtain a difference.

Only one payment in one currency—the difference between the original rate and the index rate applied to the nominal amount of the CFD deal (or the profit, if there is any)—will be remitted. The point of indexing is a pivotal one for the CFD. When the profit-loss ratio is determined, the exchange risk of the CFD (or the exposure of the obligation to future shifts in the value of its component currencies) effectively ends.

In many respects, a CFD can be viewed as a similar instrument to an NDF in that it is also priced to an index and settled without principal. However, while the NDF involves emerging market currencies, small volume trades, and longer dated maturities, the CFD is a vehicle for primary currencies as well as spot-value transactions.

IV. IMPORTANT ISSUES CONCERNING THE CFD

A few uncertainties persist about the implementation of the CFD, including the following:

- *The reliability of the published price index.*

  The British Bankers Association and Reuters have begun to publish index rates for the CFD. One index is from a panel of eight banks; another is from a group of five brokers. The mechanics of this rate setting has been agreed to by a group of banks in New York and London.

  However, the index is still experimental and reactions of market participants need to be evaluated. Also in question is the appropriate time of day that the index rates will be published and whether they will be available all days except for Christmas and New Year's Day.

- *The need for a liquid tom/next market.*

  It is believed that a tom/next CFD market needs to develop to allow dealers the opportunity to extend the term of their original CFD. Some participants believe that this issue will be resolved once the instrument begins to be traded and the community adapts current procedures to meet the changing needs of the market.

- *Dealing room implications and mid-office/ back-office issues.*

  The issue of combining the cash and CFD trading on one desk or using another arrangement is expected to be decided by individual firms. Individual firms may also determine how the CFD is booked and managed within the dealing rooms.

For the mid- and back-offices, a number of questions remain about whether there will be adequate time to permit banks to process currency transactions. Confirmations of a CFD may need to indicate that the deal is a nondeliverable one.

V. SUMMARY AND CONCLUSION

Foreign exchange transactions have been growing rapidly. This growth has raised settlement risk among involved parties.

The CFD presents an opportunity for the community to almost eliminate settlement risk on selected transactions simply by doing away with the settlement of principal.

The CFD may be perceived as an evolutionary product. Its settlement procedures will differ from current operations and will necessitate changes on the trading desk and in the back office. However, it is believed that the current uncertainties surrounding new trading and settlement operations will be sorted out once trading commences, as was the case when NDFs were introduced.

In accordance with the goal of reducing and eliminating settlement risk, it is important to view the CFD as a complement to, rather than a competitor with, other settlement risk-reducing alternatives such as multilateral and bilateral netting. In this way, effective control of settlement risk can be attained. Finally, a CFD is an attractive instrument because it has the potential to eliminate settlement risk, improve efficiencies, enhance liquidity, and substantially lower credit risk.

THE APRIL 1998 FOREIGN EXCHANGE AND INTEREST RATE DERIVATIVES MARKETS SURVEY

TURNOVER IN THE UNITED STATES

September 29, 1998

This report presents the U.S. turnover portion of the 1998 Central Bank Survey of Foreign Exchange and Derivatives Markets. The survey is part of an ongoing series of surveys conducted by central banks every three years on the size, structure, and trends in the foreign exchange and derivatives markets. The turnover survey collected data on over-the-counter transactions executed in the United States during April of 1998 in the foreign exchange market and interest rate derivatives market. The participants included both domestic- and foreign-owned dealers operating in the United States. The instruments covered in the survey include foreign exchange (FX) spot, forwards, and swaps (Foreign Exchange Survey) as well as forward rate agreements, currency and interest rate swaps, and foreign exchange and interest rate options (Derivatives Survey).

Summary of the Foreign Exchange Survey

Overall Volume Trends

The total volume of turnover in the foreign exchange market (spot, forwards, and FX swaps) increased 43 percent from 1995 to 1998 (an annualized growth rate of 13 percent).

- Daily volume rose to $351 billion in 1998 from $244 billion in 1995 (after adjusting for the double counting of transactions between reporting dealers in the United States).
- Turnover in the "other" European Union currencies[1] and the emerging market currencies grew at a faster pace than the market as a whole. Turnover in these currencies more than doubled since the last Survey.
- FX swaps turnover now exceeds turnover in spot transactions. Turnover in the foreign exchange swap market doubled to $166 billion a day, or 47 percent of total turnover, while the proportion of turnover volume in the spot market decreased to 42 percent of total turnover from 55 percent in 1995.

Market Structure

The last three years have seen a dramatic increase in the proportion of transactions executed through automated (electronic) order-matching systems.

- Turnover through automated order-matching systems increased over threefold from the previous survey to $47 billion daily.
- The proportion of interdealer trades (trades conducted between reporting dealers in the

Note: This reprint presents an abridged version of the original report. It excludes Annexes I, II, and III (which detail survey terms and methods and include supplementary tables) as well as charts. Copies of the complete report are available from the Public Information Department at the Federal Reserve Bank of New York and from the web site www.ny.frb.org.

[1]*These currencies include the Austrian schilling, Belgian franc, Danish krone, Spanish peseta, Finish markka, Greek drachma, Irish pound, Italian lira, Luxembourg franc, Dutch guilder, Portuguese escudo, and Swedish krona.*

survey) in the spot market fell to 49 percent from 62 percent. Much of this decline may be due to the greater use of automated order-matching systems, which now account for almost one-third of turnover in the spot market.

Despite the growing number of mergers in the financial industry, the foreign exchange market remained highly competitive. The market share of the top five firms remained relatively constant at 31 percent compared to 30 percent in 1995. Among the top five firms in 1995, only three remained in the top five in 1998.

Summary of the Derivatives Survey

The volume of turnover in the foreign exchange and interest rate derivatives markets (FRAs, interest rate swaps, cross-currency interest rate swaps, and foreign exchange and interest rate options) increased 75 percent from 1995 to 1998 (annualized growth rate of 20 percent).

- Daily turnover volume rose to $91 billion in 1998 from $52 billion in 1995.
- Turnover was largest in foreign exchange options ($32 billion) and interest rate swaps ($31 billion), followed by FRAs, interest rate options, and cross-currency swaps.
- The interdealer share of turnover fell slightly to 46 percent (from 52 percent in 1995). The share of cross border turnover fell to 45 percent (from 57 percent in 1995).

THE FOREIGN EXCHANGE MARKET SURVEY

The reporting panel for this part of the survey consisted of 93 dealers (of which 82 were banks and 11 were nonbanks) and 9 brokerage firms. Brokers and dealers were surveyed separately. The dealers included both foreign- and domestic-owned firms operating in the United States. The sample size is smaller than the 1995 survey, when 130 dealers participated.[2]

The foreign exchange market in the United States continued to grow at the same 13 percent annualized rate reported in the 1995 Survey. The composition of turnover was somewhat different, however, as FX swaps turnover volume surpassed spot turnover.

Instrument Details

- The proportion of turnover in the spot market dropped to 42 percent from 55 percent of total turnover in 1995. Nevertheless, spot market volume grew to $148 billion per day from $134 in 1995.
- FX swaps now account for almost half of turnover volume (47 percent) in the foreign exchange market compared to only one third (34 percent) in 1995. In dollar terms, turnover doubled to $166 billion a day.

  Of the growth in FX swaps volume, 34 percent was due to increased trading in the USD/other European Union currencies (see footnote 1) and USD/emerging market currencies even though these currencies accounted for only 17 percent of FX swaps turnover in 1995.

  The U.S. dollar was a component (comprising one of the two legs of a swap) of 97 percent of all turnover in the FX swaps market in the United States.

  FX swaps turnover in the USD/other European Union currencies increased more than threefold to $28 billion a day in 1998, accounting for 17 percent of the total FX swaps turnover volume. This share is just below the USD/JPY share at 22 percent and USD/DEM share at 20 percent.

  The volume of turnover in the USD/emerging market currencies increased to $14 billion a day from $5 billion in 1995, representing 8 percent of the total FX swaps turnover.

  The average maturity for FX swaps barely changed from 1995. The proportion of turnover in the seven days or less category remained at 69 percent, the over seven days up to a year category increased to 30 percent from 28 percent, and the over one year category declined slightly to 1 percent from 2 percent.
- The share of daily turnover conducted in the forward market remained constant at 11 percent of total turnover. In dollar terms, turnover

[2] This decline in the sample size may be related to the higher dealing capacity of intermediaries in the market.

increased to $37 billion per day in 1998 from $28 billion in 1995.

The proportion of forward contracts that were executed as nondeliverable forwards was small. They represented a little over 8 percent of the total forwards turnover volume—3 percent in the major currencies and 5 percent in the minor currencies.

The average maturity for forwards lengthened somewhat. The proportion of forwards in the seven days or less category declined to 50 percent from 57 percent in 1995, and the proportion of forwards in the over seven days to a year category rose to 48 percent from 41 percent in 1995. Turnover in the over one year category was unchanged at 2 percent.

Currency Trends

The U.S. dollar remained the most actively traded currency. The sum of all transactions involving the dollar was $315 billion per day (90 percent of total turnover) followed by the deutsche mark at $122 billion (35 percent), the Japanese yen at $86 billion (24 percent), other European Union currencies at $41 billion (12 percent), the British pound at $36 billion (10 percent), and the Swiss franc at $31 billion (9 percent).[3] Turnover in the "other" European Union currencies and the emerging market currencies grew at a faster pace than the market as a whole and more than doubled since 1995.

Dollar-based transactions

- USD/DEM remained the most actively traded currency pair. However, its share of total turnover dropped to 25 percent from 30 percent in 1995.
- USD/JPY remained the second most actively traded currency pair, with its proportion of total turnover increasing to 22 percent in 1998 from 20 percent in 1995.
- Turnover in the USD/other European Union currencies more than doubled to $35 billion a day from $16 billion in 1995.
- Turnover in the USD/emerging market currencies more than doubled to $23 billion a day from $10 billion a day in 1995.
- Among the emerging market currencies, the composition of turnover was as follows:

Mexican peso:	22 percent
Other Latin American:	3 percent
Asian (other than JPY and AUD):	33 percent
Remaining other:	42 percent

- Dealers were asked to report the minor currencies in which they had turnover in excess of $250 million in April 1998. The table on page 56 lists the currencies in which ten or more dealers reported turnover.

Deutsche mark–based transactions

- The proportion of turnover transacted in the deutsche mark dropped to 35 percent from 43 percent in 1995, although in dollar terms volume rose to $121 billion a day from $104 billion a day in 1995.
- The proportion of turnover transacted in DEM/FRF declined to less than 1 percent of total turnover from 4 percent in 1995. In dollar terms, turnover dropped to $2 billion in 1998 from $8.5 billion in 1995.
- Turnover in all the other DEM crosses increased slightly in volume, and they all maintained their relative market shares.

Residual transactions

- The dollar value of transactions where neither leg involved the dollar or deutsche mark was very small, at only $2.2 billion a day or six-tenths of a percent of total turnover. This was down slightly from the previous Survey. The apparent decrease, however, may be a valuation effect due to the sharp appreciation of the dollar since 1995. Using constant exchange rates, turnover volume in these currencies would have shown an increase.

[3] The sum of the above exceeds 100 percent since the figure for each currency includes transactions with another currency.

Number of Dealers in Other European and Emerging Market Currencies

Currency	No. of Dealers	Currency	No. of Dealers
Mexican peso	30	Finnish markka	18
Hong Kong dollar	26	Malaysian ringgit	18
Italian lira	25	Danish krone	17
Norwegian krone	25	Thai baht	15
New Zealand dollar	24	Brazil real	14
South African rand	22	Indonesian rupiah	14
Spanish peseta	22	Belgian franc	13
Dutch guilder	21	Portuguese escud	11
Singapore dollar	21	Argentine peso	10
Swedish krona	21	Austrian schilling	10

Market Structure

Although the foreign exchange market continued to grow at the same annualized pace reported in the last Survey, some interesting changes in the market's structure occurred.

Automated order-matching systems

- Turnover in automated (electronic) order-matching systems increased more than three-fold from the last survey to $47 billion a day.
- Trading through automatic order-matching systems is limited almost exclusively to the spot market (98 percent of all transactions).
- Almost one-third of all transactions in the spot market are conducted through an automated order-matching system compared to 10 percent in 1995.

Counterparty breakdown

- Approximately 80 percent of foreign exchange turnover takes place between financial counterparties.
- The proportion of interdealer trading fell to 49 percent in 1998 from 56 percent in 1995. For trades between dealers and customers, transactions with other financial institutions rose to 31 percent from 27 percent in 1995, and the share of trades with nonfinancial customers increased to 20 percent from 17 percent.
- Counterparty breakdowns differ somewhat across products.

  In the spot market, interdealer turnover dropped to 49 percent from 62 percent in 1995. This decrease might be related to the greater use of automated order-matching systems.

  The forward market's breakdown was more evenly divided, with the dealer proportion at 30 percent, other financial institutions at 40 percent, and nonfinancial customers at 30 percent.

  In the FX swaps market, interdealer trades accounted for 53 percent of turnover, other financial institutions accounted for 27 percent, and nonfinancial customers for 20 percent.
- More than half of all the turnover in the United States is transacted with counterparties outside of the United States. In 1998, 58 percent of all transactions were conducted with cross-border counterparties, a slight decrease compared to the 1995 share of 64 percent.

  Among reporting dealers, 68 percent of transactions are conducted with cross-border counterparties, while 32 percent are conducted with local counterparties.

Among trades between reporting dealers and customers (both financial and non-financial customers), 47 percent of transactions are conducted with cross-border counterparties, while 53 percent are conducted with local counterparties.

Competition

- While the survey contained a smaller number of participants, the foreign exchange market remained similarly competitive in 1998 compared to 1995.

  The market share of the top five firms remained relatively constant at 31 percent compared to 30 percent in 1995.[4]

  Among the top five firms in 1995, only three remained in the top five in 1998.

  Only six out of the top ten firms in 1995 remained in the top ten in 1998. Among the six that remained in the top ten, only one saw its rank rise while the other five saw their rank drop.

  The market share of the top ten firms increased slightly to 51 percent from 48 percent in 1995.

Trading patterns

- Survey participants reported trading activity in April relative to the previous six months:

below normal	25 percent
normal	66 percent
above normal	9 percent

- Most trading takes place during the morning hours. Survey participants reported the following breakdown of trading by time period:

  morning turnover (8 a.m. to noon) was 60 percent compared to 58 percent in 1995;

  afternoon turnover (noon to 4 p.m.) was 31 percent compared to 34 percent in 1995;

  evening turnover (4 p.m. to 8 a.m.) remained steady at 9 percent.

- Most transactions in the foreign exchange market are settled on a gross basis, i.e., payments are arranged without payment netting. The larger firms tend to utilize netting agreements more than the smaller firms.

  For the entire Survey sample, 21 percent of transactions by dollar value were settled on a net basis, while 79 percent were settled on a gross basis.

  For the ten largest firms (ranked in terms of total turnover), 26 percent of all transactions by dollar value were settled on a net basis, while 74 percent were settled on a gross basis.

- With the exception of FX swaps, the average deal size remained relatively unchanged compared to the 1995 Survey.

  The average deal size for spot and forward transactions hardly changed at $3.4 million and $4.0 million.

  The average deal size for FX swaps increased to $31 million from $15 million in 1995.

FOREIGN EXCHANGE AND INTEREST RATE DERIVATIVES SURVEY

This section presents results of the over-the-counter derivatives turnover survey. The reporting panel for this part of the survey consisted of 60 dealers (of which 52 were banks and 8 were nonbanks), both foreign- and domestic-owned, operating in the United States.

The volume of turnover in the foreign exchange and interest rate derivatives markets (FRAs, interest rate swaps, cross-currency interest rate swaps, and foreign exchange and interest rate options) increased 75 percent from 1995 to 1998 (annualized growth rate of 20 percent).

[4] Another measure of the competitiveness of an industry, the Herfindahl-Hirschman Index (HHI), found the foreign exchange market to be similarly competitive in 1998 compared to 1995. The HHI index is a measure often used to calculate market concentration. The index can range from zero (perfect competition) to 10,000 (monopoly). The HHI index for the foreign exchange market in 1998 was 317 (compared to 331 in 1995), a figure considered to indicate a high degree of competition.

- Daily turnover volume rose to $91 billion in 1998 from $52 billion in 1995.
- Turnover was largest in foreign exchange options ($32 billion) and interest rate swaps ($31 billion), followed by FRAs, interest rate options, and cross-currency swaps.
- U.S. dollar-denominated contracts or contracts where one leg of the contract was denominated in the U.S. dollar accounted for 80 percent of derivatives turnover. This breakdown differed somewhat across instruments.
- The proportion of business done by the largest firms is more highly concentrated in the derivatives market than in the foreign exchange market. For derivatives products as a group, the largest ten firms account for 84 percent of turnover.
- Market share of the top ten dealers by product:

foreign exchange options	75 percent
interest rate swaps	80 percent
interest rate options	92 percent
FRAs	95 percent

- Almost half (46 percent) of all turnover in the derivatives market was conducted between reporting dealers, while 37 percent was between a reporting dealer and another financial institution, and 17 percent was between a reporting dealer and a nonfinancial customer.

  The interdealer share of turnover (46 percent) fell slightly from the 52 percent figure in 1995.

- Almost 45 percent of all turnover in the derivatives market was with cross-border counterparties, while 55 percent was with local counterparties.

  The share of cross border turnover (45 percent) fell from 57 percent in 1995.

THE RESULTS OF THE BROKERS SURVEY

Brokered turnover volume increased 8 percent from 1995 to 1998 (an annualized growth rate of 2.5 percent). All of this increase is attributable to the growth of automated order-matching systems. Statistics for interest rate products are not reported because of insufficient data (only two of the nine participating brokers reported turnover volume in interest rate derivatives).

- Daily turnover of brokered foreign exchange transactions increased to $83 billion a day from $77 billion a day in 1995.
- Turnover in the automated order-matching systems increased more than threefold to $47 billion a day in 1998 from $14 billion in 1995. Most of the increase was in the spot market.
- In the brokers' market, 57 percent of turnover is now conducted through an automated order-matching system compared to 18 percent in 1995.
- Turnover volume of brokered transactions in the spot and FX swaps markets increased 25 percent and 12 percent respectively, from 1995. Brokered turnover volume in both the forward and options markets, however, fell considerably.

  The brokers' share of turnover in the spot market rose to 41 percent in 1998 from 36 percent in 1995, while its share of the forwards, FX swaps, and options markets all fell.

  Brokered spot transactions now account for 74 percent of total brokers volume compared to 64 percent in 1995.

- The currency composition of brokered transactions is similar to the foreign exchange market as a whole.

  The sum of transactions in which one leg was the dollar totaled $70 billion a day (84 percent of broker turnover), followed by the deutsche mark at $44 billion (52 percent) and the Japanese yen at $19 billion (22 percent).

DOCUMENT OF ORGANIZATION

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

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

THE OBJECTIVES OF THE COMMITTEE ARE

- **to provide** a forum for discussing technical issues in the foreign exchange and related international financial markets;
- **to serve** as a channel of communication between these markets and the Federal Reserve and, where appropriate, to other official institutions within the United States and abroad;
- **to enhance** knowledge and understanding of the foreign exchange and related international financial markets, in practice and in theory;
- **to foster** improvements in the quality of risk management in these markets;

A feasibility study recommending the creation of the Foreign Exchange Committee was first conducted in June 1978. The resulting Document of Organization *represents the study's conclusions and has been periodically updated (most recently in January 1997) to reflect the Committee's evolution.*

- **to develop** recommendations and prepare issue papers on specific market-related topics for circulation to market participants and their management; and
- **to work** closely with FOREX and other formally established organizations representing relevant financial markets.

THE COMMITTEE

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

1. The Committee should consist of no more than thirty members. In addition, the president of FOREX is invited to participate.
2. Institutions participating in the Committee should be chosen in consideration of a) their participation in the exchange market here and b) the size and general importance of the institution. Selection of participants should remain flexible to reflect changes as they occur in the foreign exchange market.
3. Responsibility for choosing member institutions rests with the Federal Reserve Bank of New York. The Membership Subcommittee, chaired by a Federal Reserve Bank official, advises the Federal Reserve on membership issues.
4. The membership term is four calendar years. A member may be renominated for additional terms; however, an effort will be made to maximize participation in the Committee by institutions eligible for membership.
5. Members are chosen with regard to the firm for which they work, their job responsibilities within that firm, their market stature, and their ongoing role in the market.

The composition of the Committee should include New York banks; other U.S. banks; foreign banks; investment banks and other dealers; foreign exchange brokerage firms (preferably to represent both foreign exchange and Eurodeposit markets); the president of FOREX USA, Inc. (*ex officio*); and the Federal Reserve Bank of New York (*ex officio*).

COMMITTEE PROCEDURES

The Committee will meet at least eight times per year (that is, monthly with the exception of April, July, August, and December). The meetings will follow a specified agenda; the format of the discussion, however, will be informal.

Members are expected to attend all meetings.

Any recommendation the Committee wishes to make on market-related topics will be discussed and decided upon only at its meetings. Any recommendation or issue paper agreed to by the Committee will be distributed not only to member institutions, but also to institutions that participate in the foreign exchange market.

The Membership Subcommittee will be the Committee's one standing subcommittee. A representative of the Federal Reserve Bank of New York will serve as Chairman of the Membership Subcommittee. The Membership Subcommittee will aid in the selection and orientation of new members. Additional subcommittees composed of current Committee members may be organized on an ad hoc basis in response to a particular need.

There will be two standing working groups: the Operations Managers Working Group and the Risk Managers Working Group. The working groups will be composed of market participants with an interest and expertise in projects assigned by the Committee.

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

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

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

Summaries of discussions of topics on the formal agenda of Committee meetings will be made available to market participants by the Federal Reserve

Bank of New York on behalf of the Committee. The Committee will also publish an annual report which will be distributed widely to institutions that participate in the foreign exchange market.

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

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

RESPONSIBILITIES OF COMMITTEE MEMBERS

The Foreign Exchange Committee is composed of institutions that participate actively in the foreign exchange markets as well as other financial markets worldwide. As a senior officer of such an institution, the Committee member has acquired expertise that is invaluable to attaining the Committee's objectives. The member's continuous communication with the markets worldwide generates information that is necessary to the Committee's deliberations on market issues or problems. Effective individual participation is critical if the collective effort is to be successful. The responsibilities of membership apply equally to all Committee members.

The specific responsibilities of each member are:

- **to function** as a communicator to the Committee and to the marketplace on matters of mutual interest, bringing issues and information to the Committee, contributing to discussion and research, and sounding out colleagues on issues of concern to the Committee;
- **to present** the concerns of his or her own institution to the Committee; in addition, to reflect the concerns of a market professional as well as the constituency from which his or her institution is drawn or the professional organization on which he or she serves; and
- **to participate** in Committee work and to volunteer the resources of his or her institution to support the Committee's projects and general needs.

LETTERS

Endorsing the EMI's Recommendation on Holiday Conventions

Commenting on the Commodity Futures Trading Commission's May 7, 1998, Concept Release

Regarding the Importance of Updating Standing Settlement Instructions prior to the Introduction of the Euro

Regarding the Benefits of Reduced Trading Activity in the First Week of the Year 2000, Issued Jointly with the Singapore Foreign Exchange Market Committee

COMMITTEE LETTER

ENDORSING THE EUROPEAN MONETARY INSTITUTE'S RECOMMENDATION ON HOLIDAY CONVENTIONS

New York, NY 10045 **March 3, 1998**

Telephone: *212 720-6651*

Facsimile: *212 720-1655*

E-Mail: *fx.committee@ny.frb.org*

http://www.ny.frb.org/fxc/fxc.html

Dear Foreign Exchange Professional:

Over recent months, major European market associations and wholesale payment and settlement organizations have been active in encouraging work directed at standardizing market conventions in order to facilitate trading in the euro. The issue of the timing of cash settlements, complicated by the numerous banking holidays observed within the participating economies, was highlighted in the Bank of England publication *Practical Issues Arising from the Introduction of the Euro*, Issue no. 5, August 7, 1997. Public holidays in the European Union Member States collectively sum to about fifty days each year.

The *European Monetary Institute* (EMI) has recommended that TARGET Interlinking be open on all weekdays when more than one national settlement system is open. With clearing of the euro possible on all weekdays but Christmas and New Year's, the determination of value dates becomes clear. Counterparties have the option to negotiate value dates for individual trades, and hence observe a national holiday. However, the standard payment date for euro transactions would be when TARGET Interlinking is open. If a specific domestic market is closed, arrangements would be made to settle in another European center that is open.

This simplified approach to the holiday problem obviates the need for numerous custom arrangements that would otherwise be required between counterparties. The Foreign Exchange Committee endorses the EMI's recommendation and supports its application to the settlement of foreign exchange transactions, except in rare cases where counterparties will want to negotiate value dates for specific trades.

Attached is a list of the members of the Foreign Exchange Committee and the Committee's Document of Organization. Please feel free to contact me, members of the Committee, or the Committee's Executive Assistant with any questions or comments regarding this letter.

Sincerely,

John J. Finigan, Jr.
Chairman

COMMITTEE LETTER

COMMENTING ON THE COMMODITY FUTURES TRADING COMMISSION'S MAY 7, 1998, CONCEPT RELEASE

Jean A. Webb
Secretary
Commodity Futures Trading Commission
Three Lafayette Center, 1155 21st Street, N.W.
Washington, D.C. 20581

October 8, 1998

Dear Ms. Webb:

The Foreign Exchange Committee appreciates the opportunity to comment on the Concept Release issued by the Commodity Futures Trading Commission (CFTC) on May 7, 1998. The Foreign Exchange Committee was formed in 1978, under the sponsorship of the Federal Reserve Bank of New York, and includes representatives of major domestic and foreign commercial and investment banks and foreign exchange brokers. The Foreign Exchange Committee represents many of the most significant participants in foreign currency trading in the United States.

The purpose of this letter is to draw the CFTC's attention to those portions of the Concept Release and related recent actions by the CFTC that our members believe have a potential negative impact on the foreign exchange market.[1]

Over-the-counter (OTC) foreign exchange trading is explicitly excluded from coverage under the Commodity Exchange Act (CEA) and regulation by the CFTC unless conducted on a "board of trade" by virtue of the so-called Treasury Amendment to the CEA. Even though the Concept Release does not expressly address foreign exchange or foreign exchange clearing and settlement facilities, the CFTC's focus on organized clearing entities in the Concept Release has renewed concern in the private sector that the CFTC will seek to regulate OTC foreign exchange transactions and the clearing and settlement of OTC foreign exchange transactions through an expansive and

---

[1]The Foreign Exchange Committee submitted testimony on the impact of the Concept Release on the foreign exchange market to the House Subcommittee on Risk Management and Specialty Crops on June 10, 1998, and to the House Committee on Banking and Financial Services on July 17, 1998. In addition, the Foreign Exchange Committee joined several trade associations in sponsoring testimony before the Senate Committee on Agriculture, Nutrition and Forestry on July 30, 1998.

unauthorized reading of the term "board of trade" as including OTC foreign exchange clearing and settlement facilities. The result is legal uncertainty that has caused some of our members to consider whether it would be prudent for them to move their business outside the United States[2] and has thwarted the development of risk-reducing facilities for U.S. financial institutions.

CFTC AUTHORITY OVER CLEARING CORPORATIONS

In the accompanying text to questions 33-40 of the Concept Release, the CFTC states that it believes "it is necessary to consider and formulate a program for appropriate oversight and exemption of swaps clearing." However, the CFTC does not have statutory authority over clearing corporations that do not clear for a CFTC-designated contract market. The CFTC has the authority to regulate clearing when it is performed by or for a CFTC-designated contract market, even when the clearing is performed by a separately incorporated clearing corporation.[3] The CFTC's statutory authority does not extend to other clearing corporations that are unconnected to an exchange or other contract market.

The CEA provides that no person shall enter into, or offer to enter into, a transaction involving the sale of a commodity for future delivery, unless it is conducted on or through a "board of trade" designated and regulated by the CFTC as a contract market.[4] The CEA defines "board of trade" as "any exchange or association, whether incorporated or unincorporated, of persons who are

---

[2]*See, for example, Testimony of Dennis Oakley, Managing Director, Chase Manhattan Bank, before the House Committee on Banking and Financial Services (July 17, 1998): "Let me be frank. If the legal uncertainty posed by CFTC assertions of jurisdictions is not removed, Chase will be forced to move this business to another location, probably London, where we don't have the specter of legal jeopardy that has been raised by the CFTC."*

[3]*This point was litigated in the 1978 case* Board of Trade Clearing Corporation v. United States, *1978 U.S. Dist. LEXIS 20220, (D.C.D.C. 1978) (*BOTCC *case), and we do not dispute it here.*

[4]*7 U.S.C. §6.*

engaged in the business of buying or selling any commodity or receiving the same for sale on consignment."[5] But clearing corporations are not boards of trade.

On its face, the CEA definition of "board of trade" does not encompass the clearing function independent of a CFTC-designated contract market. The definition contains the terms "buying and selling," which refer to the execution of a transaction on its trade date. The execution of a transaction does not occur at the clearing corporation, but rather can occur on an exchange. A "board of trade" is the equivalent of an organized exchange, where members can regularly execute orders for standardized contracts with clearance and settlement of those contracts through exchange facilities. There is nothing in the definition of "board of trade" or elsewhere in the CEA to suggest that clearing corporations that do not clear for a CFTC-designated contract market are subject to CFTC jurisdiction.

Recent case law has interpreted the term "board of trade" to mean formally organized futures exchanges.[6] In *Commodity Futures Trading Commission v. Frankwell Bullion Ltd.*,[7] the Ninth Circuit held that the term "board of trade" in the Treasury Amendment meant "on-exchange" and "exempt[ed] all off-exchange transactions." An entity that provides only clearing and settlement services for OTC foreign exchange transactions and does not do so for a CFTC-designated contract market is not a board of trade.

There is support in the legislative history for this position. Among the bills introduced in 1973 to amend the CEA was one which specified that, prior to the clearing of any contracts traded on an exchange, clearinghouses would be required to register with the CFTC. Congress, however, rejected this proposed legislation. Therefore, Congress did recognize the distinction between clearing corporations and contract markets.[8]

---

[5] 7 U.S.C. §1a(1).

[6] The case law has done so in the context of the Treasury Amendment. Nonetheless, this case law is instructive on the limitations of CFTC jurisdiction.

[7] 99 F.3d 299 (9th Cir. 1996).

[8] S. 2837, 93rd Cong., 1st Sess. (Dec. 20, 1973).

In sum, questions 33-40 in the Concept Release ask commenters to answer questions about clearing activities over which the CFTC lacks any authority.

CLEARANCE AND SETTLEMENT OF FOREIGN EXCHANGE PRODUCTS AND OTHER TREASURY AMENDMENT PRODUCTS

The foreign exchange community has been at the forefront in developing clearing and settlement mechanisms that reduce risks and improve efficiencies for all participants in the foreign exchange market. We have been strongly encouraged in these efforts by financial supervisors and regulators in the United States and around the world.[9] Action by the CFTC indicating that it will regulate clearing, as suggested in the Concept Release and recent CFTC staff actions, has already discouraged the private sector's fragile efforts to develop these risk-reducing initiatives in the United States.

Several recent actions by the CFTC indicate a strong desire to regulate the clearing and settlement facilities for other products protected by the Treasury Amendment as boards of trade. These actions include the enforcement action against the Delta Clearing Corporation (DCC) in connection with its proposal to operate a clearing facility for its RAIT product[10] and the investigation of the Government Securities Clearing Corporation's clearing and settlement facilities for its GCF Repo product,[11] both of which involve transactions in government securities protected by the Treasury Amendment, and the discussions leading to the submission of the request for exemptive relief from the London Clearing House (LCH) for its swaps clearing facility.

---

[9]*Bank for International Settlements,* Reducing Foreign Exchange Settlement Risk: A Progress Report *(July 1998) and* Settlement Risk in Foreign Exchange Transactions *(March 1996).*

[10]*RAIT, or repurchase agreement instrument transaction, is a transaction in which one participant agrees to make a payment based upon a specified repo rate agreed to by the participants that may vary on a daily basis, and the other participant agrees to make a payment based upon a fixed rate agreed to by the participants. DCC proposed to provide clearance and settlement services for RAITs before this proposal was rejected by the CFTC.*

[11]*The CFTC has focused specifically on "forwarding starting" GCF repos, which are repos whose opening or start leg will occur one or more days after the transactions are entered into.*

In light of the *CFTC v. Dunn* and *Frankwell* cases, there is no justification for CFTC regulation of the clearing and settlement of foreign exchange products or other Treasury Amendment products. Only action by Congress would give the CFTC these powers.

Actions along the lines of the Concept Release and related CFTC actions will increase legal uncertainty and encourage litigation over the Treasury Amendment. The litigation in this area has proved to be very costly, both in terms of time and financial costs. Legal uncertainty, particularly over the application of the Treasury Amendment to clearing organizations in OTC foreign exchange, will be unproductive and have serious implications for foreign exchange trading in the United States. A part of that market, and many of its participants, may move abroad as a result of the CFTC's aggressive regulatory stance, which would hurt the stature and strength of the United States economy. We urge the CFTC not to engage in damaging efforts to regulate activities beyond the scope of its authority.

CONCLUSION

The Foreign Exchange Committee believes that the clearing- and settlement-related issues raised by the Concept Release are too complex and important to the financial markets of the United States to be decided by the CFTC absent proper authority and to the exclusion of Congress and other federal financial regulatory agencies, the latter of which may have clearer statutory authority to address these issues and many other issues raised in the Concept Release. The Foreign Exchange Committee strongly urges that the CFTC not take any action by way of the Concept Release or similarly targeted enforcement and/or exemptive relief actions that rely on questionable or faulty assertions of jurisdiction. The CFTC's role and input in the supervision of products and activities discussed in the Concept Release is properly realized through its membership in the President's Working Group on Financial Products. The CFTC is a participant in—but not the driver of—the process by which the Working Group reports on new initiatives like the Concept Release to Congress.

Sincerely yours,

John J. Finigan, Jr.
Chairman

COMMITTEE LETTER

REGARDING THE IMPORTANCE OF UPDATING STANDING SETTLEMENT INSTRUCTIONS PRIOR TO THE INTRODUCTION OF THE EURO

New York, NY 10045
Telephone: *212 720-6651*
Facsimile: *212 720-1655*
E-Mail: *fx.committee@ny.frb.org*
http://www.ny.frb.org/fxc/fxc.html

November 25, 1998

Dear Foreign Exchange Professional:

On January 1, 1999, the euro becomes the legal currency of the European Economic and Monetary Union (EMU) and there will be widespread changes in the way payments are sent and received. In a June 1998 report, *EMU: Guide to Operational Issues in the Foreign Exchange Market*, the Committee strongly recommended that revisions to standing settlement instructions, attributable to the euro, be forwarded to counterparties at the earliest possible date, and no later than September 30, 1998. The longer-than-usual period from notification to implementation was suggested by the Committee to provide institutions adequate time to process what was expected to be an unprecedented number of changes.

The Foreign Exchange Committee wishes to remind the foreign exchange community of the importance of having up-to-date standing settlement instructions on file with your counterparties well before their effective date. Accurate settlement instructions ensure that funds will be transferred to the right place, minimize operational risk, and allow for greater efficiencies in transactions. It is strongly urged that if not sent already, changes in standing settlement instructions be remitted immediately.

Please feel free to contact me, or the Committee's Executive Assistant with any questions or comments regarding this letter. Copies of this letter are also available on the web site *www.ny.frb.org/fxc*.

Sincerely yours,

John J. Finigan, Jr.
Chairman

COMMITTEE LETTER

REGARDING THE BENEFITS OF REDUCED TRADING ACTIVITY IN THE FIRST WEEK OF THE YEAR 2000, ISSUED JOINTLY WITH THE SINGAPORE FOREIGN EXCHANGE MARKET COMMITTEE

New York, NY 10045
Telephone: *212 720-6651*
Facsimile: *212 720-1655*
E-Mail: *fx.committee@ny.frb.org*
http://www.ny.frb.org/fxc/fxc.html

November 25, 1998

Dear Foreign Exchange Professional:

Year 2000 compliance is a costly and difficult undertaking for the foreign exchange community. The market is a complicated structure, relying heavily on automation to manage and exchange information and having numerous linkages and interdependencies with correspondents, customers, third-party service providers, and vendors all over the world.

In the interest of advancing market readiness for the century date change, at a joint meeting held on November 5, 1998, the Foreign Exchange Committee and the Singapore Foreign Exchange Market Committee discussed the benefits of adopting measures to reduce transaction volume and payments in the first days of 2000.

Reducing the volume of transactions in the first trading week would give institutions more time and resources to respond to any problems that might arise with the century date change. It would also create a more stable environment for testing systems at the start of the year. In short, the measures that the committees reviewed at their meeting, and are now recommending to the foreign exchange community, are meant to ease stress on a system that is in transition. These measures include the following:

- encouraging counterparties to settle all foreign exchange (spot, forward, and options) transactions on days other than January 3 to 7 in the year 2000, choosing, when appropriate, to settle transactions either prior to the turn of the century, or on days scattered beyond Monday, January 10;
- suggesting that traders explain this alternative to counterparties who are negotiating forward contracts that will settle in early January 2000;
- offering this option to both interbank and corporate counterparties. Although we assume that most businesses are limited in the ability to determine settlement dates for trade-based transactions, some corporations may be able to reschedule transactions to avoid the possibility of Y2K problems. As a group, banks should have greater flexibility in scheduling transactions with other banks; and

- opting to decrease discretionary interbank trades, including spot transactions, in the first week of January 2000.

We expect that without any staggering of settlement dates, Tuesday, January 4, and Thursday, January 6, 2000, may be large transaction volume days. The observance of a bank holiday in both the United Kingdom and Japan on January 3, 2000, may cause a backlog of settlements on January 4 and increase spot trading settlement on January 6. If settlement problems do occur, particularly on these days, solutions may take longer to work out and could be accompanied by higher overall costs than would be the case if settlement volume had been lower.

If you have any questions or comments regarding this proposal, please feel free to contact either of us, or the Executive Assistants of the Foreign Exchange Committee (212 720-8262) and the Singapore Foreign Exchange Market Committee (65-2299168). Copies of this letter are available online at *www.ny.frb.org/fxc*.

Sincerely,

John J. Finigan, Jr.
Chairman
Foreign Exchange Committee

Victor C. S. Liew
Chairman
Singapore Foreign Exchange Market Committee

PRESS RELEASES

Recommending the Closeout of Ringgit Positions

New Ruble Rate Definition Published by ISDA, EMTA, and the FX Committee

PRESS RELEASE

RECOMMENDING THE CLOSEOUT OF RINGGIT POSITIONS

New York, NY 10045
Telephone: *212 720-6651*
Facsimile: *212 720-1655*
E-Mail: *fx.committee@ny.frb.org*
http://www.ny.frb.org/fxc/fxc.html

September 2, 1998

On September 1, 1998, Bank Negara Malaysia (the central bank of Malaysia) announced certain exchange controls involving the Malaysian ringgit and has subsequently made a number of written statements regarding the applicability of these controls. The Foreign Exchange Committee (the Committee) understands that, as a result of these announcements, foreign exchange trades involving ringgit that were entered into before September 1, 1998, may legally be settled until September 9, 1998. Transactions involving ringgit that settle after September 9, 1998, will be subject to exchange controls and may be settled only with the specific approval of Bank Negara Malaysia.

The Committee understands that the settlement process in ringgit has been severely disrupted, which has exposed market participants to unanticipated risk. The Committee recommends as a best practice that all parties to ringgit transactions entered into before September 1, 1998, agree to terminate these transactions and settle them in U.S. dollars as quickly as possible, and in any event by September 9, 1998. The Committee strongly urges this practice as a way to mitigate market risk and promote orderly settlement of ringgit positions by all participants in the foreign exchange market.

The Committee believes that parties to each ringgit transaction must determine a closeout mechanism suitable to their needs. Market practice on closeouts of existing transactions normally involves valuing future payments with a view toward determining discounted future cash flows. The Committee urges that parties to outstanding ringgit transactions contact each other to facilitate speedy agreement on these and other points necessary to closeout their ringgit positions.

PRESS RELEASE

NEW RUBLE RATE DEFINITION PUBLISHED BY ISDA, EMTA, AND THE FX COMMITTEE

New York, NY 10045
Telephone: *212 720-6651*
Facsimile: *212 720-1655*
E-Mail: *fx.committee@ny.frb.org*
http://www.ny.frb.org/fxc/fxc.html

September 9, 1998

The International Swaps and Derivatives Association (ISDA), Emerging Markets Traders Association (EMTA), and The Foreign Exchange Committee (FX Committee) jointly announced today the addition of another Russian ruble rate source to Annex A of the *1998 Foreign Exchange and Currency Option Definitions*.

The revised definition uses the Russian ruble/U.S. dollar rate quoted on the Reuters screen page "EMTA." The following is the wording of the new definition, inserted into Annex A of the Definitions as of today:

"RUB CME-EMTA" and "RUB03" mean that the Spot Rate for a rate calculation date will be the Russian ruble/U.S. dollar rate, expressed as the amount of Russian rubles per one U.S. dollar, for settlement on the same day, which is calculated as of 11:00 a.m., Moscow time (or as soon thereafter as practicable), by the Chicago Mercantile Exchange pursuant to its arrangement with the Emerging Markets Traders Association and which appears on the Reuters screen "EMTA" on that rate calculation date. The text of the definition is also being posted on the web sites of ISDA (www.isda.org), EMTA (www.emta.org), and the FX Committee (www.ny.frb.org/fxc). The 1998 Foreign Exchange and Currency Option Definitions *are intended for use in confirmations of individual transactions governed by Master Agreements such as the ISDA Master Agreements, FEOMA, IFEMA and ICOM.*

THE COMMITTEE'S REFERENCE MATERIAL

INDEX TO 1994-1998 ANNUAL REPORTS

1998 FOREIGN EXCHANGE COMMITTEE MEMBER LISTING

I. New York Banks

John Finigan
Managing Director
Bankers Trust
1 Bankers Trust Plaza
Mail Stop 2374
New York, NY 10006
Phone: 212/250-1710
Fax: 212/250-7032
Term: 1995-98

Adrian Fletcher
Executive Vice President
Republic National Bank
452 Fifth Avenue
New York, NY 10018
Phone: 212/525-5896
Fax: 212/525-5894
Term: 1997-2000

Peter Gallant
Treasurer
Citigroup
Citicorp Center
153 East 53rd Street
New York, NY 10043
Phone: 212/559-6853
Fax: 212/527-2051
Term: 1996-99

Thorkild Juncker
Managing Director
JP Morgan
#60 Victoria Embankment
London EC4Y0JP
ENGLAND
Phone: 011-44-171-779-2028
Fax: 011-44-171-325-8223
Term: 1997-2000

Richard Mahoney
Senior Vice President
The Bank of New York
32 Old Slip
New York, NY 10286
Phone: 212/804-2018
Fax: 212/495-1017
Term: 1997-2000

David Puth
Managing Director
The Chase Manhattan Bank
270 Park Avenue
New York, NY 10017
Phone: 212/834-5060
Fax: 212/834-6554
Term: 1997-2000

William Rappolt
Executive Vice President
Manufacturers &
Traders Bank
350 Park Avenue
New York, NY 10022
Term: 1996-99

II. Other U.S. Banks

Peter Mesrobian
Senior Vice President
First Chicago, NBD
One First National Plaza
Mail Suite 0452
Chicago, IL 60670
Phone: 312/732-6125
Fax: 312/732-4939
Term: 1998-2001

Richard Rua
Senior Vice President
Mellon Bank, N.A.
One Mellon Bank Center
Pittsburgh, PA 15258
Phone: 412/234-1474
Fax: 412/234-8166
Term: 1997-2000

Lewis W. Teel[1]
Executive Vice President
Bank of America
555 California Street
San Francisco, CA 94104
Term: 1996-99

III. Foreign Banks

Daniel Almeida
Managing Director
Deutsche Bank
133 Houndsditch
London EC3A7DX
ENGLAND
Phone: 011-44-171-545-8699
Fax: 011-44-171-545-1267
Term: 1998-2001

Anthony Bustamante
Executive Vice President
HSBC Securities
140 Broadway
New York, NY 10005
Phone: 212/658-5731
Fax: 212/658-1155
Term: 1995-98

Andrew Siciliano[2]
Managing Director
SBC Warburg Dillion Read
Swiss Bank Center
677 Washington Boulevard
Stamford, CT 06912
Term: 1997-2000

Susan Storey
Managing Director
CIBC Wood Gundy
161 Bay Street
BCE Place
Toronto, Ontario M5J 2S8,
CANADA
Phone: 416/594-7167
Fax: 416/956-6139
Term 1995-98

Tomomasa Sumida
Deputy General Manager
& Treasurer
The Bank of Tokyo-Mitsubishi
1251 Avenue of the Americas
New York, NY 10020-1104
Phone: 212/782-4995
Fax: 212/782-6425
Term 1997-2000

Jamie K. Thorsen
Managing Director
Bank of Montreal
115 South LaSalle Street
Chicago, IL 60603
Phone: 312/845-4107
Fax: 312/845-4197
Term: 1995-98

Robert White
Treasurer
Standard Chartered Bank
7 World Trade Center
New York, NY 10048
Phone: 212/667-0351
Fax: 212/667-0520
Term: 1998-2001

IV. Investment Banks

Stephen Bellotti[3]
Managing Director
Merrill Lynch & Co., Inc.
250 Vesey Street, North Tower
New York, NY 10281
Term: 1996-99

Lloyd Blankfein
Partner
Goldman, Sachs & Co., Inc.
85 Broad Street
New York, NY 10004
Phone: 212/902-0593
Fax: 212/902-4141
Term: 1995-98

[1]*Resigned December 1998.*

[2]*Resigned September 1998.*

[3]*Resigned May 1998.*

Paul Kimball
Managing Director
Morgan Stanley & Co, Inc.
1585 Broadway
New York, NY 10036
Phone: 212/761-2860
Fax: 212/761-0052
Term: 1995-98

V. Other Foreign Exchange Dealers

Robert Rubin
Executive Vice President
AIG Trading Group
1 Greenwich Plaza
Greenwich, CT 06830
Phone: 203/861-3334
Fax: 203/861-3820
Term: 1996-99

VI. Foreign Exchange Brokers

Peter Bartko
Chairman
The EBS Partnership
55-56 Lincoln's Inn Fields
London WC2A3LJ
ENGLAND
Phone: 011-44-171-573-4210
Fax: 011-44-171-573-4201
Term: 1997-2000

Robert McCully
Chief Executive Officer
Harlow Meyer Savage LLC
Two World Trade Center
New York, NY 10048
Term: 1998-2001

VII. Observer-President of FOREX, USA, Inc.

Don Lloyd
Managing Director
Bank of Montreal
115 South LaSalle Street
Chicago, IL 60603
Phone: 312/845-4060
Fax: 312/845-4197

VIII. Federal Reserve Bank of New York (Ex Officio)

Peter R. Fisher
Executive Vice President
Markets Group
33 Liberty Street
New York, NY 10045
Phone: 212/720-5003
Fax: 212/720-8892

Dino Kos
Senior Vice President
Markets Group
33 Liberty Street
New York, NY 10045
Phone: 212/720-6548
Fax: 212/720-1222

Eileen Spinner
Executive Assistant
Foreign Exchange
Committee
33 Liberty Street
New York, NY 10045
Phone: 212/720-8262
Fax: 212/720-1655

IX. Counsel

Michael Nelson
Legal Department
Federal Reserve Bank
of New York
59 Maiden Lane
New York, NY 10038
Phone: 212/720-8194
Fax: 212/720-1756

1999 FOREIGN EXCHANGE COMMITTEE MEMBER LISTING

I. New York Banks

John Finigan
Managing Director
Bankers Trust
1 Bankers Trust Plaza
Mail Stop 2374
New York, NY 10006
Phone: 212/250-1710
Fax: 212/250-7032
Term: 1999-2002

Adrian Fletcher
Executive Vice President
Republic National Bank
452 Fifth Avenue
New York, NY 10018
Phone: 212/525-5896
Fax; 212/525-5894
Term: 1997-2000

Peter Gallant
Treasurer
Citigroup
Citicorp Center
153 East 53rd Street
New York, NY 10043
Phone: 212/559-6853
Fax: 212/527-2051
Term: 1996-99

Thorkild Juncker
Managing Director
JP Morgan
#60 Victoria Embankment
London EC4Y0JP
ENGLAND
Phone: 011-44-171-779-2028
Fax: 011-44-171-325-8223
Term: 1997-2000

Richard Mahoney
Senior Vice President
The Bank of New York
32 Old Slip
New York, NY 10286
Phone: 212/804-2018
Fax: 212/495-1017
Term: 1997-2000

David Puth
Managing Director
The Chase Manhattan Bank
270 Park Avenue
New York, NY 10017
Phone: 212/834-5060
Fax: 212/834-6554
Term: 1997-2000

William Rappolt[1]
Executive Vice President
Manufacturers &
Traders Bank
350 Park Avenue
New York, NY 10022
Term: 1996-99

II. Other U.S. Banks

Robert McKnew
Managing Director
Bank of America
1455 Market Street
San Francisco, CA 94103
Phone: 415/953-1972
Fax: 415/953-0511
Term: 1999-2002

Peter Mesrobian
Senior Vice President
First Chicago, NBD
One First National Plaza
Mail Suite 0452
Chicago, IL 60670
Phone: 312/732-6125
Fax: 312/732-4939
Term: 1998-2001

Richard Rua
Senior Vice President
Mellon Bank, N.A.
One Mellon Bank Center
Pittsburgh, PA 15258
Phone: 412/234-1474
Fax: 412/234-8166
Term: 1997-2000

Mark Snyder
Senior Vice President
State Street Bank
225 Franklin Street
Boston, MA 02110
Phone: 617/664-3481
Fax: 617/664-6451
Term 1999-2002

III. Foreign Banks

Daniel Almeida
Managing Director
Deutsche Bank
133 Houndsditch
London EC3A7DX
ENGLAND
Phone: 011-44-171-545-8699
Fax: 011-44-171-545-1267
Term: 1998-2001

Anthony Bustamante
Executive Vice President
HSBC Securities
140 Broadway
New York, NY 10005
Phone: 212/658-5731
Fax: 212/6581155
Term: 1999-2002

Howard Kurz
Managing Director
NatWest Global Financial
Markets
101 Park Avenue
New York, NY 10078
Phone: 212/401-3332
Fax: 212/401-3345
Term: 1999-2002

Susan Storey
Managing Director
CIBC Wood Gundy
161 Bay Street
BCE Place
Toronto, Ontario M5J 2S8,
CANADA
Phone: 416/594-7167
Fax: 416/956-6139
Term 1999-2002

Tomomasa Sumida
Deputy General Manager
& Treasurer
The Bank of Tokyo-Mitsubishi
1251 Avenue of the Americas
New York, NY 10020-1104
Phone: 212/782-4995
Fax: 212/782-6425
Term 1997-2000

Jamie K. Thorsen
Managing Director
Bank of Montreal
115 South LaSalle Street
Chicago, IL 60603
Phone: 312/845-4107
Fax: 312/845-4197
Term: 1999-2002

Robert White
Treasurer
Standard Chartered Bank
7 World Trade Center
New York, NY 10048
Phone: 212/667-0351
Fax: 212/667-0520
Term: 1998-2001

IV. Investment Banks

Lloyd Blankfein
Partner
Goldman, Sachs & Co., Inc.
85 Broad Street
New York, NY 10004
Phone: 212/902-0593
Fax: 212/902-4141
Term: 1999-2002

Paul Kimball
Managing Director
Morgan Stanley & Co, Inc.
1585 Broadway
New York, NY 10036
Phone: 212/761-2860
Fax: 212/761-0052
Term: 1999-2002

[1]*Resigned February 1999.*

Philip Vasan
Managing Director
Credit Suisse First Boston
11 Madison Avenue
New York, NY 10010
Phone: 212/325-4222
Fax: 212/325-8295
Term: 1999-2002

V. Other Foreign Exchange Dealers

Robert Rubin
Executive Vice President
AIG Trading Group
1 Greenwich Plaza
Greenwich, CT 06830
Phone: 203/861-3334
Fax: 203/861-3820
Term: 1996-99

VI. Foreign Exchange Brokers

Peter Bartko
Chairman
The EBS Partnership
55-56 Lincoln's Inn Fields
London WC2A3LJ
ENGLAND
Phone: 011-44-171-573-4210
Fax: 011-44-171-573-4201
Term: 1997-2000

Robert McCully[1]
Chief Executive Officer
Harlow Meyer Savage LLC
Two World Trade Center
New York, NY 10048
Term: 1998-2001

Michael Williams
Senior Managing Director
Cantor Fitzgerald, Inc.
1 World Trade Center
New York, NY 10048
Phone: 212/938-7330
Fax: 212/938-3620
Term: 1999-2002

VII. Observer-President of FOREX, USA, Inc.

Don Lloyd
Managing Director
Bank of Montreal
115 South LaSalle Street
Chicago, IL 60603
Phone: 312/845-4060
Fax: 312/845-4197

VIII. Federal Reserve Bank of New York (Ex Officio)

Peter R. Fisher
Executive Vice President
Markets Group
33 Liberty Street
New York, NY 10045
Phone: 212/720-5003
Fax: 212/720-8892

Dino Kos
Senior Vice President
Markets Group
33 Liberty Street
New York, NY 10045
Phone: 212/720-6548
Fax: 212/720-1222

Eileen Spinner
Executive Assistant
Foreign Exchange
Committee
33 Liberty Street
New York, NY 10045
Phone: 212/720-8262
Fax: 212/720-1655

IX. Counsel

Michael Nelson
Legal Department
Federal Reserve Bank
of New York
59 Maiden Lane
New York, NY 10038
Phone: 212/720-8194
Fax: 212/720-1756

[1] *Resigned February 1999.*