CHAIRMAN'S LETTER

In my fifteen years as a member of the Foreign Exchange Committee—with the last three as Chairman—I have seen many changes in the structure and operation of the foreign exchange market. The market today is not only more electronic but also considerably more intricate than it was just a few years ago. We are trading differently, and traditional trading counterparty relationships are being fundamentally altered. Adding to this mix, market instruments are more complex.

In this new environment, the path for the Committee is relatively straightforward, with two equally important obligations:

- first, to continue working vigorously to understand the new market and any implications for trading issues, including those related to ethical standards; and to address these new developments, when warranted, with best practice recommendations and market guidance, and
- second, to continue being a strong partner to other foreign exchange committees and industry groups worldwide that have similar missions. This means playing a cooperative role in initiating, supporting, and/or facilitating the sharing and adoption—on a global basis—of our industry's best practices.

During 2003, the Committee made progress incorporating the new market mechanisms and procedures in our best practice recommendations and other market guidance. I cite, in particular, the considerable efforts of our Operations Managers Working Group in updating an important market document, *Management of Operational Risk in Foreign Exchange*. We also are reexamining the Committee's guidance in light of the November 2003 arrests of forty-seven market participants for a variety of fraudulent activities.

Our continued close association with other foreign exchange committees and groups during 2003 enabled us to move forward on several vital projects. In particular, we worked closely with the London Foreign Exchange Joint Standing Committee as it spearheaded efforts to eliminate unnamed counterparty trading.

Furthermore, projects to improve documentation of non-deliverable forward contracts (NDFs) in both Asia and Latin America could not have gone forward without the interaction of the Emerging Markets Traders Association, the Singapore Foreign Exchange Market Committee, the Tokyo Foreign Exchange Market Practices Committee, and the Hong Kong Foreign Exchange and Money Market Practices Committee.

In the next section of this letter, I review in more detail the above-mentioned projects as well as a number of other efforts and events that were sponsored in 2003 by the Committee, its associated working groups, and other globally oriented groups.

Following this letter is a report on the legal-based initiatives of the Committee (page 3) and then a summary of the Committee's projects in progress for 2004 (page 7). The middle portion of this 2003 Annual Report (starting on page 9) reprints all reference materials and documents released by the Committee during the year, and the last section (starting on page 89) provides reference material on our members, meetings, and rules.

COMMITTEE PROJECTS

Eliminating Unnamed Counterparty Trading

Of the many activities that the Committee worked on this year, the efforts to eliminate unnamed counterparty trading required particularly close interaction and cooperation among a variety of foreign exchange committees and industry groups.

In unnamed counterparty trading,

- a fund manager, investment advisor, or other intermediary acts as an agent on behalf of a client,
- the client is a principal in the transaction, and
- the principal's identity is not provided to the institutional counterparty.

When an institution does not know the identity of its counterparty, the institution faces increased legal, compliance, and reputational risks. The practice also thwarts effective "know your customer" credit assessment and anti-money-laundering measures.

. . . the efforts to eliminate unnamed counterparty trading required particularly close interaction and cooperation among a variety of foreign exchange committees and industry groups.

The London Foreign Exchange Joint Standing Committee took the lead in drafting best practice recommendations that aim to eliminate unnamed counterparty trading in the London market and revised the Non-Investment Products Code (NIPS) to indicate that unnamed trading is inconsistent with best practice. The group also set a May 2004 deadline for implementation of confidentiality terms that require advisors and other intermediaries to identify their customers to the non-trading divisions of the firms with which they are doing business. Non-trading areas include administrative, compliance, legal, and credit and risk management.

The Foreign Exchange Committee, aware of the strong integration of the global foreign exchange market, endorsed the Joint Standing Committee's actions in a letter sent to the trading community in early January (page 67). The Committee, sensitive to the needs of all counterparties in a trade, stressed in the letter the importance of the rigorous confidentiality agreements.

As the year drew to a close, the Foreign Exchange Committee and the Singapore Foreign Exchange Market Committee discussed at their joint meeting on November 6, 2003, the efforts of the Joint Standing Committee and coauthored a letter of support for those efforts.

Improving Documentation of Asian NDFs

Efforts to improve the documentation of Asian non-deliverable forwards were made by the Foreign Exchange Committee, the Financial Markets Lawyers Group, the Singapore Foreign Exchange Market Committee, the Emerging Markets Traders Association, the Tokyo Foreign Exchange Market Practices Committee, and the Hong Kong Foreign Exchange and Money Market Practices Committee. The impetus to improve Asian NDF documentation came from several major market participants who believed that it was necessary to update the trading terms.

Representatives from the various foreign exchange committees reviewed the templates and details related to the definitions of a price-source disruption event, unscheduled holidays, reference dates, the length of waiting periods, the determination of polling methodologies and mechanisms, and the sponsorship of fallback surveys.

Members of the Financial Markets Lawyers Group and the Singapore Foreign Exchange Market Committee outlined the significant progress made on this issue at the joint meeting between the Singapore Committee and the Foreign Exchange Committee in November. The most notable developments included the construction of new polling processes and mechanisms for six Asian NDF currencies. These projects are currently in the testing phase. Remaining efforts include the completion of confirmation templates that would specify the new processes and fallback procedures.

Monitoring Market Change

Throughout 2003, the Committee monitored the continuing evolution of the foreign exchange market's structure. Clearly, e-commerce is creating efficiencies by increasing the ability of traders to handle large volumes of bids and offers at higher speeds, with less risky settlement and many fewer transaction errors. At the same time, trading margins are narrowing. Trades are being concentrated in the hands of those large institutions that can afford to keep current with state-of-the-art technology and that can offer the necessary liquidity to their counterparties.

While studying the market changes attributable to electronics, the Committee addressed some high-profile market issues in November 2003 when a scandal in the foreign exchange market related to rigged trades and other fraudulent behavior made front-page news. In a letter to the foreign exchange community (page 79), the Committee reminded market participants of its previously published best practices, particularly the guidance provided on the use of points in foreign exchange trading.

THE OPERATIONS MANAGERS WORKING GROUP PROJECTS

An important Committee subgroup, the Operations Managers Working Group, orchestrated a number of important projects during 2003.

Preparing the New Sixty Best Practices

The key project of the Operations Managers was updating *Management of Operational Risk in Foreign Exchange*, a well-regarded and now standard reference document in the foreign exchange market. The original version of this document—often referred to as the *Fifty Best Practices*—was published in 1996. The document's revision involved updating the fifty best practices to take into account all the changes in the market since 1996. Some of those changes include

- the introduction of the euro,
- the consolidation of markets,
- the start up of CLS operations,
- the increased use of outsourcing,
- the evolution and growth of e-commerce, and
- the use of derivatives and emerging market currencies as dominant market instruments.

The 1996 document was expanded to include all these new developments and is now known as the *Sixty Best Practices*. In addition to addressing the above-mentioned topics, the new version includes a separate discussion of pre-trade preparation and documentation, more emphasis on crisis situations outside trading organizations, and a new section on NDFs. The Operations Managers rolled out the new document with a half-day seminar on June 6, 2003, at the Federal Reserve Bank of New York that was

attended by market participants from a variety of institutions. The document is printed in this report (starting on page 11).

Commenting on the Basel II Accord

The Operations Managers Working Group is aware of the importance of operational issues and risks in the performance of financial institutions and has addressed these concerns effectively over its nine-year history. Recently, the working group has been monitoring the Bank for International Settlements' initiatives relating to operational risk, particularly the New Basel Capital Accord, also known as Basel II.

In July, the Operations Managers sent a letter (page 81) to the Bank for International Settlements commenting on the Basel II proposals. In the letter, the working group recognized that the identification of operational risk is a lengthy and difficult task. Furthermore, mitigation of operational risk is a complex endeavor that requires significant supervisory resources as well as the active participation and cooperation of all global financial institutions. The working group will continue to monitor the Basel process and local regulatory implementation efforts and—given its own long-term commitment to operational concerns in the foreign exchange market—will offer suggestions and support when warranted.

The key project of the Operations Managers was updating *Management of Operational Risk in Foreign Exchange*, a well-regarded and now standard reference document in the foreign exchange market.

Other projects of the Operations Managers Working Group in 2003 included efforts to encourage the institutional use of the Master Agreement Addendum for non-deliverable forwards. The group supported the addition of fixing dates on NDF to the SWIFT MT300 electronic confirmation. More information on this addendum is found on the Committee's website at <www.newyorkfed.org/fxc>.

THE CHIEF DEALERS WORKING GROUP

During 2003, the Chief Dealers Working Group addressed the need to conduct more frequent surveys of foreign exchange turnover, including gathering information from U.S. market participants. Currently, there is tremendous dependence on the triennial survey from the Bank for International Settlements. The notable drawback to the survey is its infrequency—trends and patterns are difficult to analyze when data are available

only every three years. In pursuing a more frequent survey, the Chief Dealers Working Group will be coordinating efforts with other institutions and groups, including:

- the Bank of Canada, which calculates a daily turnover survey of its national banks,
- the London Foreign Exchange Joint Standing Committee, which is also working on its own frequent London-based survey, and
- the Emerging Markets Traders Association, which currently provides market volume surveys on more specialized instruments such as non-deliverable forwards.

IMPORTANT EVENTS IN 2003

The Committee's Twenty-Fifth Anniversary

On October 2, 2003, the Foreign Exchange Committee marked its twenty-fifth anniversary with a reception and dinner. About sixty-five members attended the event at the Federal Reserve Bank of New York, including several members from the original Committee roster of 1978-79 and members from the current Committee. The event renewed and strengthened the camaraderie among the current and former leaders within the foreign exchange community. The guest speaker was John Taylor, Under Secretary of the Treasury for International Affairs. His presentation to the group is reprinted here, beginning on page 83.

The Joint Meeting with the Singapore Foreign Exchange Market Committee

The Committee's first joint meeting with the Singapore Foreign Exchange Market Committee was in November 1997 in Singapore. Since that meeting, the two groups have met every November, alternating locations between New York and Singapore. By planning a meeting to be held toward the end of the year, the two committees keep each other updated throughout the year on their projects and begin work to coordinate the agenda several months before the event.

This past year, on November 6, the Singapore Committee came to New York and presented the New York Committee with a thorough analysis of China's economy and a progress report on the Asian NDF project. The President and Chief Executive Officer of the CLS Bank, Joseph DeFeo, discussed the bank's recent progress and its outlook for 2004. The two committees will meet in Singapore for the eighth consecutive joint meeting in November 2004.

The First Global Operations Managers Meeting

On September 17 and 18, the Operations Managers Working Group hosted the first Global Operations Managers Meeting at the Federal Reserve Bank of New York. Approximately sixty members from operations subgroups of the London Foreign Exchange Joint Standing Committee, the European Central Bank Committee, the Canadian Foreign Exchange Committee, and the Tokyo Foreign Exchange Market Practices Committee attended the two-day meeting. Many of these committees had only recently set up operations managers subgroups and were able, through interaction at this meeting, to find help and support for their initial efforts.

The main objectives of the meeting were to introduce groups and participants to one other, improve interaction among the various global groups, encourage project coordination, improve the quality of efforts, and avoid duplication. The meeting included

- discussion of crisis contingency measures, including comments from institutions that dealt with the outbreak of SARS (severe acute respiratory syndrome),
- panels on prime brokerage, straight-through processing, and the future of the foreign exchange business, and
- updates on regulatory change and the impact of the derivatives market on operations.

Eugene Ludwig of the Promontory Financial Group gave a memorable luncheon presentation in which he provided insight into the Group's *Report to the Boards of Allied Irish Banks, p.l.c., Allfirst Financial Inc., and Allfirst Bank Concerning Currency Trading Losses*, a document issued on March 12, 2002. The meeting concluded with a tour of the gold vault at the Federal Reserve Bank of New York.

LOOKING AHEAD

As of the end of 2003, I am stepping down both as Chairman of the Foreign Exchange Committee and as a Committee member. I have served as a member since 1989—the longest tenure on record. After all these years, I leave reluctantly but with the hope that other industry leaders will take steps to participate actively in the efforts of this distinguished and dedicated group and its related working groups. I know that I join many present and former Committee members who say that their participation in the Committee was a special time—a highlight of their career in the foreign exchange market.

I am confident that current members, including the new members who started in January 2004, will continue the tradition of service that we have established. The hope is that all members stay alert to new trends and market directions and are intuitive and creative in suggesting issues for Committee action. In addition, senior officials in the market are encouraged to support the Committee's efforts and to participate in projects that help the Committee to both understand the new market and respond appropriately with the necessary next steps, including formulating best practices.

I know from experience that our most successful projects—whether it be our efforts to understand settlement risk or our work in providing guidance to the market in the form of best practices—resulted from extremely hard work and the strong endorsement and support of all our Committee members. I also know that the Committee will only be successful in guiding our unregulated market if our members take ownership of the projects and act as sponsors within their own organization, as well as within the entire foreign exchange community.

The hope is that all members stay alert to new trends and market directions and are intuitive and creative in suggesting issues for Committee action.

It is particularly important for Committee members to take ownership of our projects as the market grapples with the ongoing development of doing business electronically. Having broad participation in all of its projects will help the Foreign Exchange Committee establish and maintain a strong public image—a boon to the Committee as it tries to offer guidance to market participants.

I firmly believe that as the year 2004 progresses, our Committee and similar groups around the globe will make great strides toward helping market participants understand and adapt to the new electronic age. The use of electronic trading platforms, new trading relationships, and the proliferation of complex trading instruments raise issues that affect every facet of the market. By working together and being attentive and creative, foreign exchange committees and industry groups worldwide will have the tools needed to facilitate a strong, vibrant, and self-regulated foreign exchange market.

David Puth

Legal Initiatives

The Financial Markets Lawyers Group (FMLG) is a key advisory group for the Foreign Exchange Committee. It consists of approximately twenty lawyers from a variety of commercial and investment banks that are active in the foreign exchange market in the United States and Canada, their alternates, and several senior staff members from the Legal Department of the Federal Reserve Bank of New York (FRBNY). A senior FRBNY officer chairs the group. The group meets approximately once a month and most meetings are held at the FRBNY.

The FMLG was established after it was decided that the Foreign Exchange Committee required ongoing counsel on issues related to netting documentation. Since that time, the FMLG has continued to provide consultative support to the Committee while evolving into a group with an independent agenda of issues important to the wholesale financial markets.

ROLES OF THE FMLG

In its role as advisor to the Committee, the FMLG counsels the Committee on an ongoing basis by, for example, reviewing prior to publication any of the Committee's new documents or best practice recommendations and alerting the Committee to legislative developments pertinent to the foreign exchange market. The fluid interaction between the Committee and the FMLG is supported by the efforts of two FRBNY staff members. These two people are FMLG members, attend all Foreign Exchange Committee meetings, and participate in the Committee's working group activities.

Like the Foreign Exchange Committee, the FMLG understands the importance of global cooperation and interacts frequently with other industry groups, including the Emerging Markets Traders Association (EMTA), the International Swaps and Derivatives Association (ISDA), and the Bond Market Association (BMA) on foreign exchange matters. In addition, the FMLG is developing a strong association with the European Financial Markets Lawyers Group and the London-based Financial Markets Law Committee. These three groups plan to meet in London in June 2004.

PROJECTS DURING 2003

The following section provides more detail on the FMLG's key projects in 2003. Many of these efforts underscore the strong bond between the FMLG and the Committee while other projects reflect the cohesive relationship that has evolved among the various legal-oriented groups within the global community.

- **Monitoring Legislative Action.** The FMLG historically and routinely keeps the Committee updated on relevant legislative initiatives. When necessary, the FMLG may suggest actions such as coordinating efforts with other interested industry groups by drafting and sending letters to Congress. Other courses of action or lobbying efforts might include providing testimony or position papers. When needed, FRBNY legal staff and FMLG members draft these papers.

Throughout 2003, the FMLG recognized the importance of keeping close tabs on pending legislation that would expand regulatory oversight of some trading in the energy markets. On the advice of the FMLG, the Committee endorsed and signed two industry letters that were sent to Congress in May and July. (These letters are reprinted on pages 75 and 77.) In addition, the FMLG continued to update the Committee on developments related to bankruptcy reform legislation.

- **Unnamed Counterparties.** The FMLG stepped in on many occasions over the past two years to support the Committee's efforts in the unnamed counterparty project. The FMLG reviewed the London Foreign Exchange Joint Standing Committee's (JSC) initiatives and then helped the Committee draft its own letter and supplementary information that was sent to the financial community in January 2003. In addition, the FMLG analyzed and provided input to the JSC on its proposed confidentiality template slated for implementation in May 2004 in the London market.

- **Asian Non-Deliverable Forward (NDF) Documentation**. This past year, an FMLG member and expert on trade documentation represented the Foreign Exchange Committee in the Asian NDF project—a coordinated effort of the Singapore Foreign Exchange Market Committee, the Tokyo Foreign Exchange Market Practices Committee, the Hong Kong Foreign Exchange and Money Market Practices Committee, and the Emerging Markets Traders Association. The participation of the FMLG was crucial to the success of the effort given the technical legal issues embedded in NDF trade confirmation.

As the year drew to a close, agreement was finalized on a number of issues, paving the way to the timely completion of a new confirmation template for a variety of Asian NDF currencies.

The FMLG also coordinated with EMTA on efforts to revise Brazilian NDF documentation.

- **Emergency Powers in the United Kingdom.** The FMLG, working with and for the Committee, commented on HM Treasury's consultative paper *The Financial System and Major Operational Disruption*. The letter, reiterating widespread industry concerns, noted the potential pitfalls of using legislative action to deal with contingencies and emphasized the need for global interaction in policy decisions (reprinted on page 73).

- **The Operations Managers Working Group.** Over the past two years, the FMLG worked closely with the Operations Managers Working Group on the project to update *Management of Operational Risk in Foreign Exchange,* the Committee's pivotal document. FMLG members made significant contributions to the paper, reflecting the many legal issues involved. Several members of the FMLG participated in the rollout of the document at a conference in June 2003 sponsored by the Federal Reserve Bank of New York.

Even after the publication of the new *Best Practices*, uncertainty persisted about confirmation best practices, particularly the confirmations from nonfinancial cor-

porate clients who trade less frequently and are less familiar with routine market practices. In response, the FMLG reviewed and reaffirmed the confirmation process with the Operations Managers Working Group.

FMLG members noted nonfinancial corporate clients' growing practice of submitting complex mandate or trading authorization limitation letters to trading desks. The FMLG suggested that attempts to shift internal compliance burdens by way of these letters were not consistent with general industry-accepted best practices.

- **Opinions.** The FMLG continued its long-running efforts to coordinate the compilation and update of legal opinions on the Foreign Exchange Options Master Agreement (FEOMA) complex of netting documentation. Each year, the group solicits updated opinions from more than thirty jurisdictions in which member firms are active.

Works in Progress for 2004

The Committee ended 2003 facing many new challenges while continuing efforts on ongoing projects. At the start of every year, the Committee's initiatives are reevaluated as market conditions evolve, members leave the Committee, new members add their input, and the Committee's chairmanship is rotated. In January 2004, as the Committee welcomed a new Chairman and five new members, new and old projects received particularly strong scrutiny and reassessment. The following summary covers the major items of importance for the Committee at the start of 2004.

ETHICS AND E-COMMERCE

Of central interest to the Committee is a response to the so-called Wooden Nickel arrests in November 2003 by the Federal Bureau of Investigation of forty-seven people on charges of foreign exchange fraud. It is alleged that these individuals conspired to rig trades to the detriment of their institutions and their clients. Because some of the allegations assert that the use of "points" facilitated the frauds, the Committee is reviewing its market and best practice recommendations related to the use of points. The Committee is also reviewing other guidance to determine whether there is a need to reemphasize and republish related best practices. In addition, the Committee continues to study the impact of e-commerce on the traditional market structure.

The Committee also plans to study whether the traditional distinctions between the wholesale and retail markets are becoming blurred. If so, the Committee may need to provide guidance to its constituency—the wholesale market participants—so that the interests of all parties involved are protected. Any new or updated guidelines will be published in the Committee's *Guidelines to Foreign Exchange Trading Activities*, which was last revised in 2002.

FINISHING 2003 PROJECTS

The Committee is wrapping up its activities on the following projects:

- **Mandate or authorization letters.** Throughout 2003, members noted the increasing receipt of mandate and authorization limitation letters. The Committee has published a recommendation indicating that attempts to shift the burden of compliance with internal guidelines to dealing counterparties is not consistent with best practice.

- **Unnamed Counterparties.** The Committee continues to encourage the disclosure of names to institutions' non-trading divisions and is monitoring the efforts of the London Foreign Exchange Joint Standing Committee as it recommends the use of its confidentiality provisions.

- **Asian Non-Deliverable Forwards (NDFs).** The Committee, the Financial Markets Lawyers Group, the Singapore Foreign Exchange Market Committee, the Tokyo Foreign Exchange Market Practices Committee, the Hong Kong Foreign Exchange and Money Market Practices Committee, and the Emerging Markets Traders Association will be documenting the agreements reached during recent months on Asian non-deliverable forwards.

EFFORTS OF THE WORKING GROUPS

The **Chief Dealers Working Group** will continue its efforts to set up a semi-annual foreign exchange turnover survey and will coordinate its efforts with the Operations Managers Working Group as well as the London Foreign Exchange Joint Standing Committee.

The plans of the **Operations Managers Working Group** include:

- undertaking efforts to improve the compliance of nonfinancial corporate clients in trading activities. This might include updating the 1998 document *Twenty Best Practices for Nonfinancial Corporates* and the sponsorship of a seminar for corporate clients, including treasurers and hedge fund managers,
- understanding the impact of the new SWIFTNET system on operations divisions,
- continuing efforts to address widespread industry problems when matching and exchanging trade documentation for barrier options and other exotics,
- monitoring the progress on the Bank for International Settlements' New Capital Accord, or Basel II, on foreign exchange operations divisions,
- participating in and supporting the Second Global Operations Managers meeting, tentatively scheduled to be held in London with the London Foreign Exchange Joint Standing Committee as host, and
- publicizing and encouraging institutional use of the Master Agreement Addendum for non-deliverable forwards, first published in January 2003.

Management of Operational Risk in Foreign Exchange

The Foreign Exchange Committee
March 2003

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Management of Operational Risk in Foreign Exchange

Introduction

The FX Marketplace

The foreign exchange (FX) market is the largest and most liquid sector of the global economy. According to the 2001 Triennial Survey conducted by the Bank for International Settlements, FX turnover averages $1.2 trillion per day in the cash exchange market and an additional $1.4 trillion per day in the over-the-counter (OTC) FX and interest rate derivatives market.[1] The FX market serves as the primary mechanism for making payments across borders, transferring funds, and determining exchange rates between different national currencies.

The Changing Marketplace

Over the last decade, the FX market has become more diverse as well as much larger. Although in the past, commercial banks dominated the market, today participants also include commercial as well as investment banks, FX dealers and brokerage companies, multinational corporations, money managers, commodity trading advisors, insurance companies, governments, central banks, pension and hedge funds, investment companies, brokers/dealers, multinational corporations, and other participants in the interdealer market. In addition, the size of the FX market has grown as the economy has continued to globalize. The value of transactions that are settled globally each day has risen exponentially—from $1 billion in 1974 to $1.2 trillion in 2002.

The increased complexity of the market and higher trade volumes have necessitated constant changes in trading procedures, trade capture systems,

operational procedures, and risk management tools. A number of changes have also affected the FX market more broadly over the last few years. Those changes include

- introduction of the euro,
- increased consolidation of both FX dealers and nostro banks, resulting in marketplace consolidation,
- consolidation of FX processing in global or regional processing centers,
- outsourcing of back office functions,
- introduction of CLS Bank in order to substantially reduce FX settlement risk,
- increased focus on crisis management and contingency planning in the wake of several currency crises and the destruction of the World Trade Center in New York City,
- increased focus on "know your customer" anti-money-laundering efforts and other regulatory requirements to limit access by terrorists to worldwide clearing systems,
- increasing use of web portals for FX transactions,
- expansion of prime brokerage, and
- regulatory focus on capital allocations for operational risk.

Developments like these make it crucial that operations, operational technology, and settlement risk management keep pace with the changing FX market.

The History of This Document

In 1995, the Foreign Exchange Committee (the Committee) recognized the need for a checklist of best practices that could aid industry leaders as they develop internal guidelines and procedures to foster improvement in the quality of risk management. The original version of *Management of Operational Risk in Foreign Exchange* was published in 1996 by the Committee's Operations Managers Working Group to serve as a resource for firms as they periodically evaluate their policies and procedures to manage operational risks properly. This update, written in 2003 by the working group listed at the end of this document, takes into account market practices that have evolved since the paper's original publication and supercedes previous recommendations by the Committee on operational issues.

In addition to this document, the Committee has often offered recommendations on specific issues related to operational risk. Although the best practices here are directed at FX dealers primarily, the Committee has also offered guidance to other market participants. Such guidance is mentioned periodically in the best practices here and may also be found at the Committee's website, <www.newyorkfed.org/fxc/>.

What Is Operational Risk?

Operational risk is the risk of direct or indirect loss resulting from inadequate or failed internal procedures, people, and systems, or from external events.[2] For the purposes of this

[1] Bank for International Settlements, *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity 2001* (Basel: BIS, 2002).
[2] Bank for International Settlements, Basel Committee on Banking Supervision, *Operational Risk Supporting Documentation to the New Basel Capital Accord* (Basel: BIS, 2002), p. 2.

paper, we adopt this definition of operational risk put forth by the Bank for International Settlements. However, while reputational risk is not considered part of operational risk for Basel capital purposes, the importance of reputational risk in foreign exchange is reflected in the best practices outlined in this document.

Operational risk for foreign exchange in particular involves problems with processing, product pricing, and valuation. These problems can result from a variety of causes, including natural disasters, which can cause the loss of a primary trading site, or a change in the financial details of the trade or settlement instructions on a FX transaction. Operational risk may also emanate from poor planning and procedures, inadequate systems, failure to properly supervise staff, defective controls, fraud, and human error.[3]

Failure to adequately manage operational risk, in turn, can decrease a firm's profitability. Incorrect settlement of FX transactions, for example, can have direct costs in improper payments and receipts. In addition, trade processing and settlement errors can lead to indirect costs, such as compensation payments to counterparts for failed settlements or the development of large losses in a firm's portfolio as a result of managing the wrong position. Furthermore, investigating problems and negotiating a resolution with a counterparty may carry additional costs. Failure to manage operational risk may also harm a firm's reputation and contribute to a loss of business.

Operational risk has another distinctive quality. Unlike credit and market risk, operational risk is very difficult to quantify. Clearly, an institution can measure some of the losses associated with operational errors or losses that result from the failure of the operational process to catch errors made by sales and trading areas. Determining expected losses, however, given the uncertainty surrounding those losses, is much more complicated for operational risks than for other risk categories.

What Are "Best Practices"?

This document offers a collection of practices that may mitigate some of the operational risks that are specific to the FX industry. The implementation of these practices may also help to reduce the level of risk in the FX market more generally. Finally, acceptance of these practices may help reduce operational costs. When robust controls are in place, less time and energy is needed to investigate and address operational problems.

The best practices in this document are already used to varying degrees by the working group members responsible for this paper. Collectively, the working group feels that these are practices toward which all market participants should strive. Therefore, this compilation is meant to provide a checklist for organizations new to the market,

[3] Foreign Exchange Committee, "Guidelines for the Management of FX Trading Activities," in *The Foreign Exchange Committee 2000 Annual Report* (New York: Federal Reserve Bank of New York, 2001), p. 69.

but it is also designed to serve as a tool for established market participants as they periodically review the integrity of their operating procedures. Each firm is encouraged to take into account its own unique characteristics, such as transaction volume and role in the market, as it makes use of the recommendations. These best practices are intended as goals, not binding rules.

The best practices listed here are recommendations that all parties engaging in FX, regardless of the institution's size or role in the marketplace, should consider adopting for both internal (with the exception of practices that are inapplicable such as credit management and documentation) and external transactions. In addition, it is clear that the larger the participant, the more important it is to implement the recommendations in the most automated manner possible. Smaller participants should make sure that they have appropriate controls in place for any best practice that proves too expensive to automate. Given the differences in the size of firms, it may be helpful to underscore that firms are not bound to integrate all of the recommended practices in this document, but should use them as a benchmark for examining their existing practices.

How to Use This Document

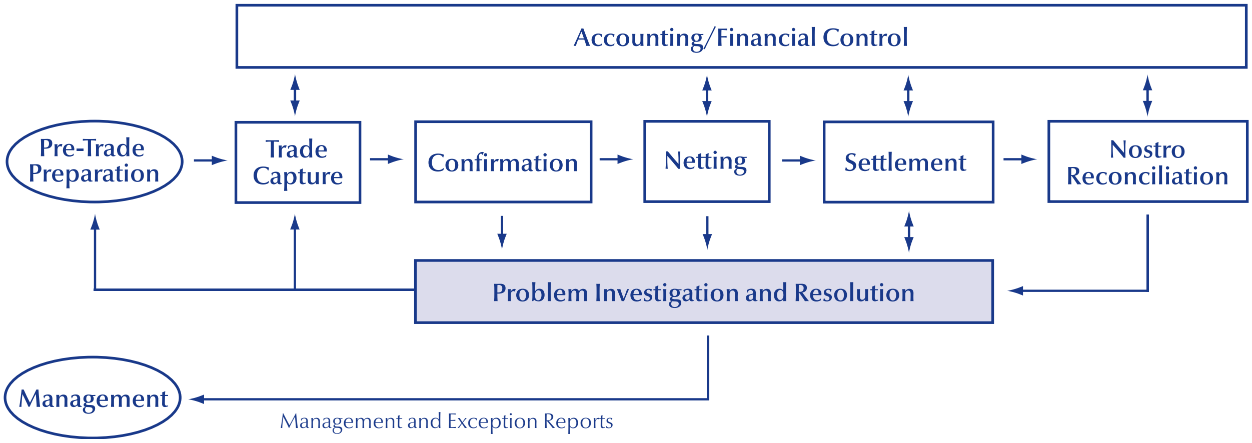
This document is divided into sections based on the seven steps of the FX trade process flow 1) pre-trade preparation, 2) trade capture, 3) confirmation, 4) netting, 5) settlement, 6) nostro reconciliation, and 7) accounting/financial control processes. How each of these seven phases integrates with the others in the FX process flow is outlined in Figure 1 below. Each section of this paper provides a process description of the steps involved in the trade phase discussed in that section, followed by a list of best practices specific to that phase. The paper concludes with a list of general best practices that apply more widely to the overall management of operational risk, including guidance for contingency planning.

This document concentrates on some of the most common areas where operational risk arises in the various stages of the FX process. Often operational errors result from a breakdown in the information flow in the sequential steps of the process. To avoid such problems, it is essential that market participants clearly understand each of the seven stages of FX trade and settlement, and fully comprehend how each phase is related to the larger process flow. A break in the process, especially in the feedback loop, may lead to a breakdown in the flow of information, which in turn increases the potential for financial loss. Proper procedures, including those concerning escalation and notification, should be in place for management to deal with problems wherever they occur in the process flow.

Future Trends

It is important to acknowledge at the outset that the FX business is constantly evolving. Technology continues to advance, trading volume in emerging market currencies continues to increase, new exotic structures are continually introduced, and many institutions are regionalizing their sales and trading and operations areas by creating small satellite offices. Some

Figure 1
The FX Process Flow



of the major trends that will continue to affect FX operational risk are as follows:

- Technology continues to advance rapidly, enabling traders and salespeople to execute many more transactions during periods of market volatility.
- Systems are becoming more standardized, and will use new communication formats (for example, XML protocol).
- Trading volume in emerging market currencies continues to grow as many developing nations become more active in international capital markets. This increase in volume is coupled with new and problematic settlement procedures for these currencies.
- Traders and salespeople continue to develop new and more exotic types of transactions, especially in FX derivative products. These require special, often manual, processing by operations groups until new transaction types can be included in the main processing cycle.
- New types of clients continue to enter the FX market, which require development of new operational procedures.

All of these trends, and many others, will continue to change the industry, eliminating some risks and introducing new ones. It is imperative that management thoroughly understands the operations cycle and best practices surrounding operational risk management to manage risks properly as the FX marketplace continues to evolve.

Definitions of Key Terms

To clarify terms used in this document:

Bank refers here to all market makers in FX, whether commercial or investment banks.

From a bank's viewpoint all deals are conducted with a **counterparty**, which can be another bank, or a corporate, institutional, or retail client. The concepts in this document apply to all such market participants.

Sales and trading refers to the front office. Trading employees execute customer orders and take positions; they may act as a market maker, dealer, proprietary trader, intermediary, or end user. A bank may also have a sales force or marketing staff, which is part of the front office. Salespersons receive price quotes from the bank's trading staff and present market opportunities to current and potential clients.

Operations is used throughout this document when referring to the processing, settlement, back-office, or middle-office areas. Specifically, operations provide support service to sales and trading.

Interdealer refers to trading between market makers.

Nostro bank, **correspondent bank**, **agent bank**, and **clearing bank** are used interchangeably here. A bank may use the services of one or more affiliated or unaffiliated nostro banks to make and receive payments, or it may act as its own nostro bank. Banks generally use a different nostro bank for each currency that they trade.

Vanilla options refers to options that are standard in the industry. In other words, vanilla options are **European style** and expire at an agreed date and time and have no **fixing** or **averaging** of the strike price.

Nonvanilla options generally refer to options that have a fixing or averaging component or are part of a structured (combination) option type, for example, average rate options. Any currency option that is not vanilla is considered nonvanilla, ranging from **American style** options to heavily structured options.

P&L refers to the profit and loss record of a portfolio or transaction.

Prime brokerage describes an arrangement that allows customers to conduct FX transactions (spot, forward, and options) in the name of a bank or "prime broker." In a typical prime brokerage arrangement, the customer chooses one or two prime brokers to service their account. The prime broker's responsibility is to set up documentation and procedures that allow the customer to conduct FX transactions directly with several counterparties, but in the name of the prime broker. These executing counterparties recognize the prime broker as their legal counterparty in such trades. The prime broker enters into equal and opposite trades with the customer and executing counterparties. Specific procedures are agreed upon among the customer, prime broker, and executing counterparties to effectuate the trading and "give up" relationships. The prime broker typically charges the customer a fee for prime brokerage.

Pre-Trade Preparation and Documentation

Process Description

The pre-trade preparation and documentation process initiates the business relationship between two parties. During this process, both parties' needs and business practices should be established. An understanding of each counterparty's trading characteristics and level of technical sophistication should also develop. In summary, the pre-trade process allows both parties to mutually agree on procedures and practices to ensure that business is conducted in a safe and sound manner.

In the pre-trade process, a bank develops an understanding of the inherent business risks and risk mitigants of each of its counterparty relationships. The documentation and agreements reflecting the relationship should be identified and, if possible, executed before trading. Thus, pre-trade preparation involves coordination with sales and trading and operations as well as other support areas such as systems, credit, legal, and compliance to establish trade capture parameters and requirements that should be in place prior to trading. This process is especially important when the business requirements may be unique and require additional controls.

Best Practice no. 1:
Know Your Customer

A bank should know the identity of its counterparties, the activities they intend to undertake with the bank, and why they are undertaking those activities.

All firms should have strong Know Your Customer (KYC) procedures for collecting information required to understand who the customer is and why they are conducting business. KYC procedures have long been the first line of defense for banks in setting appropriate credit limits, determining the most appropriate documentation for the activities being contemplated, identifying additional business opportunities, and protecting against fraud.

KYC procedures have, more recently, also become the cornerstone for combating criminal activity. Illicit activity has become more sophisticated in the methods used to conceal and move proceeds. The global response has been to develop laws and regulations requiring institutions to establish familiarity with each of their counterparties to better identify and report suspicious activity.

At a minimum, information relating to the identity of a counterparty and the counterparty's activity should be gathered to satisfy applicable laws and regulations for prudent business conduct. The reputation and legal risk to banks of not being vigilant in knowing their customers and complying with KYC laws and regulations can be severe. In the United States, examples of laws and regulations that impose obligations of this sort on banks are the Bank Secrecy Act, money laundering regulations, U.S. Treasury, Office of Foreign Assets Control (OFAC) regulations, and the USA PATRIOT Act.

Best Practice no. 2:
Determine Documentation Requirements

A bank should determine its documentation requirements in advance of trading and know whether or not those requirements have been met prior to trading.

A bank should execute transactions only if it has the proper documentation in place. The types of documentation that may be required include 1) master agreements (see Best Practice no. 3), 2) authorized signatory lists, and 3) standard settlement instructions. Such documents should be routinely checked before executing trades. An institution should also establish a policy on whether or not it will trade, and in what circumstances, without first obtaining a master agreement (for example, IFEMA, ICOM, FEOMA, or the ISDA Master) with a customer covering the transactions. It should also be noted that electronic trading often requires special documentation. Specifically, customer and user identification procedures, as well as security procedures, should be documented.

This recommendation emphasizes the principles of awareness and information with respect to documentation. In practice, it may be difficult to do business with a policy that requires documentation to be in place in every instance. In many cases, the risks of not having a particular piece of documentation may be acceptable. Nonetheless, it is crucial that all relevant personnel 1) know the policy of the institution on documentation, 2) know when the documentation is or is not in place, and 3) be able to produce reports regarding documentation status.

Representatives of the business, operations, credit, legal, and compliance areas, for example, need to establish the institution's policies and document their understanding of these policies in writing. The institution should have adequate tracking systems (manual or other) to determine when policy requirements are satisfied or not. These systems should be able to produce reports necessary for proper contract monitoring.

If the policy of the institution is to have a master agreement in place, the institution should be able to produce a report displaying any missing master agreements. Such reports should classify data by age and be distributed to management. Lastly, there should be escalation and support procedures in place for dealing with missing documentation when normal efforts are not enough to obtain it.

Best Practice no. 3: **Use Master Netting Agreements**

If a bank elects to use a master agreement with a counterparty, the master agreement should contain legally enforceable provisions for "closeout" netting and settlement netting.

"Closeout" and settlement netting provisions in master agreements permit a bank to decrease credit exposures, increase business with existing counterparties, and decrease the need for credit support of counterparty obligations.[4] Closeout netting clauses provide for 1) appropriate events of default, including default upon insolvency or bankruptcy, 2) immediate closeout of all covered transactions, and 3) the calculation of a single net obligation from unrealized gains and losses. Closeout provisions have the added benefit of a positive balance sheet effect under Financial Accounting Standards Board (FASB) Interpretation 39, which allows the netting of assets and liabilities in the unrealized gains and losses account if netting is legally enforceable in the relevant jurisdiction.[5]

Closeout netting provisions help to protect a bank in the event of a counterparty default. When a counterparty defaults, and a closeout

[4] U.S. Comptroller of the Currency, *Banking Circular 277* (Washington, D.C.: GPO, 1993), p. 22.
[5] Financial Accounting Standards Board, FASB Interpretation No. 39: Offsetting of Amounts Related to Certain Contracts: An Interpretation of APB Opinion No. 10 and *FASB Statement No.105*, (FASB, March 1992), and *FASB Statement No. 105*: Disclosure of Information about Financial Instruments with Off-Balance-Sheet Risk and Financial Instruments with Concentrations of Credit Risk, (FASB, March 1990).

netting agreement is not in place, the bankruptcy trustee of the defaulting party may demand payment on all contracts that are in-the-money and refuse to pay on those where it is out-of-the-money. If the defaulting counterparty takes this action, the non-defaulting party may be left with a larger-than-expected loss. A master agreement signed by both parties with enforceable closeout netting provisions ensures that the counterparty remains responsible for all existing contracts and not just those it chooses to endorse.[6]

Settlement netting permits parties to settle multiple trades with a counterparty with only one payment instead of settling each trade individually with separate payments. Consequently, settlement netting decreases operational risk to the bank in addition to reducing settlement risk. To realize the settlement netting benefits, however, a bank's operations function must commence settling on a net basis. Therefore, it is essential that operations receive a copy of the agreement or be notified of the terms of the executed agreement. Given the benefits of settlement netting, it is in a bank's best interest to include settlement netting in any master agreement that it may enter into.

The following master agreements have been developed as industry-standard forms. Each form includes provisions for settlement netting (included as an optional term) and closeout netting:

- ISDA Master Agreement
- IFEMA Agreement covering spot and forward currency transactions
- ICOM Agreement covering currency options
- FEOMA Agreement covering spot and forward currency transactions and currency options

These netting provisions should satisfy relevant accounting and regulatory standards as long as legal opinions are able to conclude that the agreements are legally enforceable in each jurisdiction in which they are applied. Banks should confer with local legal counsel in all relevant jurisdictions to ensure that netting provisions are enforceable. To the extent that local counsel suggests that certain provisions of a master netting agreement may be unenforceable, the bank should ensure that other provisions in the agreement could be enforced nonetheless.

Best Practice no. 4:
Agree upon Trading and Operational Practices

Trading and operational practices should be established with all counterparties.

Most banks reach an understanding with all counterparties as to the type of business they will be transacting and how they should interact. Banks should include key operational practices such as providing timely confirmation or affirmation, the use of standing settlement instructions (SSIs), and timely notification of splits.

[6] Group of Thirty, Global Derivatives Study Group, *Derivatives: Practices and Principles* (Group of Thirty, 1993), p.16.

The level of trading activity with fund managers and investment advisors has escalated in recent years. These clients transact in block or bulk trades, which are then split into smaller amounts and entered into specific client accounts managed by fund managers or investment advisors. Until a block or bulk trade is properly allocated to the specific accounts of each fund entity, inaccurate credit risk management information may exist.

The understanding should clearly establish confirmation and settlement procedures for all counterparties and delineate both the bank and client's obligations in the process flow. A bank should strongly encourage clients to confirm bulk trades as soon as possible after the trade is executed.[7] In addition, a bank should request that fund managers provide them with the "split" information on the trade date for all trade types (spot, forwards, swaps, tom/next, etc.) regardless of maturity, so that the bank's credit information can be updated as soon as possible.

Best Practice no. 5:
Agree upon and Document Special Arrangements

If, in the course of the documentation set-up and establishment of trade and operational practices, it becomes clear that a counterparty requires special arrangements—such as third-party payments or prime brokerage service—those arrangements should be agreed upon and documented in advance of trading.

Counterparties at times may request third-party payments to facilitate underlying commercial transactions. Third-party payments are the transfer of funds in settlement of a FX transaction to the account of an entity other than that of the counterparty to the transaction. However, third-party payments raise important issues that need to be closely considered by an organization engaged in such practices.

Firms should recognize that third-party payments cause a significant increase in operational risk. Since the identity and entitlement of the third party is not known to the bank, extreme care should be taken in verifying payment instructions to third parties. Regulatory requirements such as the USA PATRIOT Act, OFAC, and the Bank Secrecy Act should also be applied to third parties. Both the counterparty and bank management should be aware of the risks involved with these transactions and should establish clear procedures beforehand for validating both the authenticity and correctness of such requests.

Prime brokerage arrangements may also involve special occasions for misunderstanding the respective rights and obligations of the various parties. Such arrangements should be evidenced by written agreements (prime broker and dealer, prime broker and customer, dealer and customer) that have been reviewed and approved by legal counsel.

[7] For further information, see Best Practice no. 21, Confirm All Block Trades and Split Allocations.

Trade Capture

Process Description

The trade capture function is the second phase of the FX processing flow. Deals may be transacted directly over a recorded phone line, through a voice broker, via an electronic matching system (for example EBS and Reuters), or through Internet based systems (for example, proprietary trading systems or multidealer trading platforms).

After the deal is executed, the trader, or trader's assistant, inputs trade data into the front-office system or writes a ticket to be entered into a bank's operations system. Deals done over electronic dealing systems such as Reuters or EBS allow deal information to flow electronically to the front-office system. Trade information typically includes trade date, time of trade, settlement date, counterparty, financial instrument traded, amount transacted, price or rate, and may include settlement instructions.

The system used in the front-office processes this information and can provide "real-time" position and profit and loss updates. Trade information captured in the front office system flows to the credit system where settlement risk and mark-to-market (also referred to as pre-settlement) credit risk measures and limits are updated.

Trade information from front-office systems flows through to the operations system, where it is posted to sub-ledger accounts, and the general ledger is updated as trades are processed. Operations staff should be responsible for ensuring that appropriate settlement instructions are captured so that the required confirmation message can be issued. For interbank, institutional, and corporate counterparties with Standard Settlement Instructions (SSIs) on file, the deal is immediately moved to the confirmation process.

However, if SSIs are overwritten or not in place, operations staff must obtain settlement instructions from the counterparty or confirm the settlement instructions received by sales and trading. For forward trades that are not settled until sometime in the future, operations staff may contact the counterparty at a later date for settlement instructions. The financial details of the deal, however, must be confirmed on the trade date. If deals need to be amended, changes should be implemented in a controlled manner involving both sales and trading and operations.

Fund managers and investment advisors frequently trade for more than one underlying fund or counterparty at once. Typically, they transact a single "block" or "bulk" trade, which they then "split" into a series of smaller trades as they allocate the block trade to the underlying funds or counterparties. Operations staff needs to receive split information soon after trade execution to issue confirmations for each of the split transactions.

Inaccurate or untimely trade capture can have implications for P&L and risk management for a bank. If a bank does not capture the correct transaction, then its positions and reported credit exposure will be incorrect.

Best Practice no. 6:
Enter Trades in a Timely Manner

All trades, external and internal, should be entered immediately and be accessible for both sales and trading and operations processing as soon as they are executed.

It is crucial that all trades are entered immediately so that all systems and processes are provided with timely, updated information. No matter how sophisticated the system, data may not be accurate if users enter it incorrectly or delay its entry. For that reason, it is important to ensure that the duties of trade entry are appropriately segregated. Front-end systems that capture deal information may interface with other systems that monitor and update the following:

- credit limit usage,
- intra-day P&L,
- trader positions,
- confirmation processing records,
- settlement instructions, and
- general ledger activity.

A bank's ability to manage risk may be adversely affected if it does not have accurate transaction updates in each of the above areas. Inaccuracies in each category not only erode a bank's profitability, but may also tarnish a bank's reputation. In the event of a settlement error, for example, the bank must pay compensation costs to the counterparty and cover short cash positions. Moreover, incorrect financial statements arising from problems in general ledger data can harm the reputation of the bank. Further, if credit positions are not properly updated, the bank may take on more risk to a counterparty, industry, or country than would be prudent.

In addition, it is important to note that internal trades should be subject to the same degree of diligence as external trades in terms of timely entry because they carry the same risks (with the exception of credit risk).

Best Practice no. 7:
Use Straight-Through Processing

When sales and trading and operations use separate systems, electronic feeds should automatically feed all deals, adjustments, and cancellations from one system to the other. Ideally, the transaction data should also be carried straight-through for posting to the general ledger, updating credit information, generating money transfer instructions, and feeding nostro reconciliation systems.

To ensure timely processing by operations and eliminate potential errors that can occur if trades are reentered into the operations systems, straight-through processing should exist between sales and trading and operations. Such a link should move deals, adjustments, and cancellations to the operations system as soon as sales and trading finalizes them. This transaction data—also passed straight through to other systems in the institution—will further decrease potential errors that can occur when information is manually keyed into systems. This practice also improves the timeliness of the data.

Most brokered transactions are now executed over automated broker systems.

Therefore, straight-through processing links from these systems into sales and trading should also be implemented when volume warrants.

Best Practice no. 8:
Use Real-Time Credit Monitoring

Credit lines and usage information should be updated as soon as deals are entered, and the information should be accessible to sales and trading and risk managers. A bank should establish real-time credit systems to calculate and aggregate exposures globally across all trading centers.

A bank should execute transactions only if credit lines have been approved and are available for a designated counterparty. No trade should be finalized without confirming the availability of sufficient credit. Electronic broker credit prescreening schemes are preferable to the practice of brokers switching counterparties. In the event of default by a counterparty, a bank could lose the positive market value of the positions it has with the defaulting party or, if default occurs in the middle of settlement, it could lose the entire principal of the deal.

A sales and trading area should be able to quickly assess its institution's credit exposure to its counterparties globally. These exposures should be communicated in real-time to the trading system. The system should take into account changes in static credit lines for electronic trading platforms that periodically may have to be updated or revised. The system should also automatically update a counterparty's credit status when the counterparty deals with the bank on a global aggregate basis. This requires straight-through processing from the trade capture system to a real-time credit system.

Sales and trading should see the effects of a deal on a counterparty's credit status immediately, and that unit should know when a counterparty's credit limit is close to being filled and be prevented from dealing with counterparties who have reached or exceeded such limits. Sales and trading and credit management should produce reports of credit line excesses and exceptions on a regular basis for review. Exception reports should identify both counterparties involved and the sales and trading personnel executing the transactions.

Real-time credit systems also allow a bank's credit managers to assess the credit exposure to a counterparty throughout the life of a transaction. Credit officers are better able to manage crisis situations and to adjust limits as the creditworthiness of a counterparty changes. A real-time credit system ensures that any changes in the credit limit of a counterparty are reflected in the sales and trading system immediately.[8]

Best Practice no. 9:
Use Standing Settlement Instructions

Standing Settlement Instructions (SSIs) should be in place for all counterparties. Market participants should issue new SSIs, as well as any changes to SSIs, to each of their trading partners in a secure manner. For banks, the preferable

[8]U.S. Comptroller of the Currency, *Banking Circular 277* (Washington, D.C.: GPO, 1993).

method is through an authenticated medium such as SWIFT messages.

SSIs allow for complete trade details to be entered quickly, so that the confirmation process can begin as soon after trade execution as possible. In general, when SSIs are in place, it is possible to take full advantage of straight-through processing because operations may not have to manually intervene in the transaction during the settlement process. SSIs also allow for payments to be formatted properly and for readable SWIFT codes to be issued. If SSIs are not established, operations must contact the counterparty to obtain settlement instructions and the deal record must subsequently be changed to reflect these settlement instructions. The extra work involved in inputting, formatting, and confirming settlement instructions increases the opportunity for errors in settlement, making SSIs important for risk management and efficiency.

Institutions should update their records promptly when changes to SSIs are received from their counterparties. When an institution changes its SSIs, it should give as much time as possible—a minimum of two weeks notice—to its counterparties so that they can update their records before the date that the new SSIs become effective. A bank should periodically review the SSIs that it has on file.

SSIs for forward transactions can change between the time a deal is confirmed and the time it finally settles. Consequently, a bank should either reconfirm all settlement instructions for forward deals before settlement, or it should reconfirm all outstanding deals whenever SSIs are changed.

SSIs should be in a SWIFT/ISO format to facilitate reference data maintenance and to eliminate the potential for errors in translation. Any deal record with exceptions to an existing SSI should be processed using the same procedures as for nonstandard settlement instructions.

Best Practice no. 10: **Operations Should Be Responsible for Settlement Instructions**

Operations should be responsible for ensuring that settlement instructions are collected and confirmed. If no SSIs are in place, operations should be responsible for obtaining and verifying the instructions.

Although SSIs are preferred, they are not always available, and at times SSIs may not be appropriate for all trades. When SSIs are not used, the settlement instructions may be recorded at the time that sales and trading conducts the trade. These exception settlement instructions should be delivered by the close of business on the trade date (if spot) or at least one day prior to settlement (if forward). Nonstandard settlement instructions should be exchanged electronically if possible and should be checked by operations when the trade is confirmed. By taking responsibility for settlement instructions, operations serve the role of an independent control on sales and trading activity.

Best Practice no. 11: **Review Amendments**

Amendments to transaction details should be conducted in a controlled manner that includes both sales and trading and operations in the process. Particular care should be taken for *amendments to FX swap transactions after the settlement of the near leg.*

If incorrect information was captured in deal entry, certain trades will need to be changed or canceled after they have been released to operations. Mistakes occur when a trader or salesperson enters the wrong counterparty for a deal, an incorrect value date or rate, or makes other data errors.

Although either operations or sales and trading staff can initiate amendments and cancellations, both sales and trading and operations should be involved in the process to maintain proper control. It is imperative, however, that the duties related to processing amendments and cancellations are clearly segregated between operations and sales and trading. This segregation of duties is one of the key control mechanisms of any institution.

The specific process for handling amendments and cancellations will vary from firm to firm and is often dictated by system constraints. However, if operations staff is responsible for amending or canceling a deal, it should obtain supporting documentation and receive prior written authorization from sales and trading before processing the amendments or cancellations. Exception reporting on amendments and cancellations should be made available to sales and trading and operations management regularly. The criteria used for reporting and the frequency of distribution will vary by firm.

Amendments to swap transactions may present difficulties for a bank if the near leg has already settled. When the swap or outright is initially entered into the system, traders cover any resulting currency and interest rate exposure by entering into offsetting deals. The offsetting deals also need to be amended if the swap is entered incorrectly, which may affect P&L. Because the near leg has settled, it cannot be changed to reflect P&L differences. Thus, amendments to swaps should be made with care so that resulting positions and P&L are accurate.

Best Practice no. 12:
Closely Monitor Off-Market Transactions

All dealer institutions that permit requests for historical rate rollovers (HRRs) should have written procedures to guide their use and should detail the added controls required in the trading and reporting of off-market transactions. Operational responsibilities should be clearly defined in regard to monitoring, reporting, and special confirmations, if any are needed. Such special confirmations may be necessary to identify the market forward rate in effect when the HRR was executed.

Historical rate rollovers involve the extension of a forward foreign exchange contract by a dealer on behalf of a customer at an off-market rate. As a general rule, all transactions are executed at current market rates. However, at times commercial considerations may dictate otherwise. For more information, see *The Foreign Exchange Committee Annual Report 2000*, "Guidelines for the Management of FX Trading Activities," p. 74, and *The Foreign Exchange Committee Annual Report 1995*, "Letter on Historical Rate Rollovers."

Confirmation

Process Description

The transaction confirmation is legal evidence of the terms of a FX or a currency derivative transaction. Therefore, the management of the confirmation process is an essential control. This process is handled in many ways within FX markets. For vanilla spot, forward FX, or currency option transactions, counterparties exchange electronic or paper confirmations that identify transaction details and provide other relevant information. For structured and nonstandard transactions (nondeliverable forwards [NDFs] and currency option transactions), documents are prepared and 1) exchanged and matched by both counterparties, in the case of most dealers, or 2) signed and returned in the case of certain clients or counterparties.[9] In either case, it is the market practice to verbally confirm (on a recorded line) the primary economic details of an NDF or exotic currency option transaction between the two counterparties on the day the transaction is executed. Notwithstanding the fact that trades are verbally confirmed, it is still important that a hardcopy confirmation is sent and that the means of such delivery is agreed between the parties.

Given the significance of the confirmation process, it is important that the process is handled independently of the trading room. In most institutions, the operations department performs this activity. Any exceptions to sending confirmations to clients should be reviewed and approved by compliance or legal personnel, and business and operations management.

Exchanging confirmations is essential for mitigating risk in the FX markets. Therefore, outgoing confirmations should be dispatched to the counterparty at the earliest possible opportunity. It is also the responsibility of both counterparties to actively match and validate their own transaction records of incoming electronic or verbal confirmations with counterparties by the end of the business day on the trade date. For some nonvanilla trades, a same day confirmation may cover some specific financials, but a complete long-form confirm may follow at a later date with nonfinancial information.

Confirmations should be transmitted in a secure manner whenever possible. In the most developed markets, confirmations are generally sent via electronic messages through secure networks. In some instances, proprietary systems have been developed to provide access to confirmations to clients. However, a significant number of transaction confirmations are also sent via mail, e-mail, and fax. It is important to note that when these open communication methods are used there is a greater risk of fraudulent correspondence.

A transaction confirmation should include all relevant data that will allow the two counterparties to accurately agree to the terms of a transaction. All relevant settlement instructions for each transaction should be

[9]Typically the price maker prepares the confirmation and the price taker signs the confirmation.

clearly identified in each confirmation. All confirmations should either be subject to the *1998 FX and Currency Option Definitions* issued by the Foreign Exchange Committee, Emerging Markets Traders Association (EMTA), and International Swaps and Derivatives Association (ISDA), or be subject to other appropriate guidelines, and should reference a bilateral master agreement—if one exists between the parties.

Foreign exchange trades are executed in multiple ways, including by phone (direct), voice brokers, electronic dealing platforms, and electronic brokers. As an increasing number of FX transactions are being executed through secure electronic platforms (for example EBS, Reuters) or online electronic dealing platforms, some counterparties have chosen, on a bilateral basis, to eliminate traditional confirmation messages with one another in lieu of electronic affirmation facilities offered by electronic trading systems. These facilities allow operations to review trading system data and validate trade details.

Market participants can affirm that the trade details reflected in the electronic trading system correspond to their own internal books and records. It is important to note, however, that such validation exercises are not equivalent to traditional confirmation messaging because they do not confirm that trade details have been correctly entered into the books and records of each counterparty.[10]

Some transactions between banks are also executed via voice brokers. These bilateral transactions should be checked against the broker advice that is typically received on the trade date from the voice broker. Similarly, in the case of FX prime brokerage relationships, these same procedures should be followed in a timely manner by all three participants. It is important to note that broker confirmations are not bilateral confirmations between the principals of the trade and therefore do not carry the weight of a bilateral confirmation.

When trades are not confirmed, exposure to market risk arises. To mitigate this risk, standard escalation procedures should be in place to pursue and resolve all discrepancies in a timely manner. Operations staff is responsible for reporting all unconfirmed trades and unmatched incoming confirmations to sales and trading. When necessary, the taped phone conversation or the log from the electronic execution system can be used to resolve the discrepancy. Once the problem has been identified, the counterparty with the error should correct the affected deal in its system and issue a corrected confirmation.

Best Practice no. 13: **Confirm and Affirm Trades in a Timely Manner**

Both parties should make every effort to send confirmations, or positively affirm trades, within two hours after execution and in no event later than the end of the day. This guideline applies to

[10] For further guidance on electronic validation and affirmation, see Foreign Exchange Committee, "Supplementary Guidance on Electronic Validations and Confirmation Messaging," in *The Foreign Exchange Committee 2001 Annual Report* (New York: Federal Reserve Bank of New York, 2002).

trades executed with both external and internal counterparties. Any exception to this rule should be clearly documented and approved by operations management and compliance staff.

Prompt confirmations are key to the orderly functioning of the marketplace because they minimize market risk and minimize losses due to settlement errors. In order for confirmations to be timely and accurate, they should be formatted based on trade data captured in the bank's operations system. In order to ensure that confirmations are accurate, they should be generated and sent directly from the operations system to the counterparty without passing through any other internal departments. Senior operations management and compliance staff must approve any exceptions.

Counterparties should either send out their own confirmations, or sign and return (affirm) incoming confirmations. Under no circumstances should either party simply accept receipt of the counterparty confirmation as completion of the confirmation process.

Data included in the confirmation should contain the following: the counterparty to the FX transaction; the office through which they are acting; the broker (if applicable); the transaction date; the value date; the amounts of the currencies being bought and sold; the buying and selling parties; and settlement instructions.

These procedures are meant as practices for executions directly between two parties. In the case of prime brokerage relationships, (in which one financial institution extends its credit to a third party dealing with the institution's customer), confirmations should be exchanged among the three parties in addition to the fulfillment of other requirements for exchanging information. Prime broker relationships alter the control procedures employed with direct dealing; therefore, the prime broker should consider incorporating processes to ensure that communication of notice of execution is correct.

Best Practice no. 14:
Be Diligent When Confirming by Nonsecure Means

A procedure should be in place to call back a counterparty any time the confirmation process occurs via nonsecure media.

Various communication media are currently used for the confirmation process, including fax, mail, and secure electronic messaging such as SWIFT. Authenticated electronic messaging is the most secure means of transmitting confirmations. When other communication media are used, various risks are introduced, ranging from human error to possible fraudulent correspondence. When employing open communication systems, especially mail platforms, this risk increases. There is a direct correlation between the openness of communication links and the possibility of fraudulent actions.

It is recommended that a bilateral agreement that includes a callback procedure be established when any unauthenticated electronic message system is used. This procedure should include the callback to an authorized individual other than the individual who sent the nonsecure confirmation. This conversation should be done on a recorded telephone line and properly noted.

Best Practice no. 15:
Be Diligent When Confirming Structured or Nonstandard Trades

Special care must be taken when confirming the details of structured transactions or nonstandard trades that cannot be confirmed by a bank's normal procedures or processes. Whenever possible, standard confirmation formats should be used. These formats should identify the calculation agent, special rights and responsibilities assigned to each counterparty, and special instructions on pricing sources, if any.

Structured transactions, including nondeliverable forwards (NDFs), often contain unique features such as special pricing or settlement conventions. Trade details may also assign responsibilities to each counterparty by identifying the calculation agent or the confirming party. Every feature of the trade detail affects the valuation of the trade. Consequently, the price, price source, calculation agent, and confirming party must be carefully validated.

Currently, the standard SWIFT confirmation format cannot accommodate all the unique features of structured trades. Confirmations supporting these transactions are often manually prepared, transmitted by fax, and manually matched against accounting records. Because of the complexity of these trades, and the fact that they are often manually confirmed, there is a significant risk that the confirmation process may fail to detect errors or omissions.

Unlike standard trades, confirmations for structured transactions are usually provided by a calculation agent or jointly between two calculation agents. It should be clear which of the two counterparties is acting as calculation agent (or joint calculation agent status should be indicated). Additionally, the roles and responsibilities of the calculation agent or joint agents should be specified. The calculation agent may also have certain rights and obligations related to price observations and confirmations. These rights should be clearly identified in the text of the confirmation or in the trade contract.

Standardizing the confirmation process can substantially reduce the operational risk associated with this process. Every effort should be made to use the standard confirmation formats outlined by the FX Committee, the Emerging Markets Traders Association (EMTA), and the International Swaps and Derivatives Association (ISDA). Not only should these formats be employed, but every confirmation should also clarify when nonstandard price sources, disruption events, expiration times, or any other nonstandard elements of a trade are introduced.

Best Practice no. 16:
Be Diligent When Confirming by Telephone

Extra care is necessary when confirming trade details by telephone. Phone confirmations should be conducted over recorded lines between appropriate individuals. Following the telephone confirmation, both parties should exchange and match a written or electronic confirmation via fax, mail, SWIFT or secured electronic means such as SWIFT.

Not all trades can be fully confirmed electronically; some structured trades are one example. In addition, some counterparties do not have the ability to confirm trades electronically on the trade date. In such instances, the most common method of confirming transactions is by telephone. However, telephone confirmations are the least reliable method for confirming trades and prone to errors. When using this method, attention to detail and clarity must be emphasized.

Operations should aim to complete phone confirmations within two hours from trade execution, and in no event later than the end of the day. It is imperative that these conversations are conducted over recorded telephone lines. The confirmation conversation should also take place between appropriate individuals only. All relevant information, financial details, and settlement instructions should be confirmed. Following the telephone confirmation, both parties should record the date, time, telephone line, and the name of the individual with whom the trade was confirmed. In addition to the telephone confirmation, both parties should exchange and match a formal (mail, SWIFT, or other electronic) confirmation or a callback procedure should follow.

Best Practice no. 17:
Institute Controls for Trades Transacted through Electronic Trading Platforms

If two parties bilaterally choose to validate trade data against an electronic front-end trading system in place of exchanging traditional confirmation messages, both parties should ensure that trade data flows straight through from the front-end system to their respective operations systems. Strict controls must be in place to ensure that the flow of data between the two systems is not changed and that data is not deleted.

Issuing traditional confirmations is always considered a best practice from a risk perspective because they reflect the books and records of both counterparties. However, firms with well-established controls and straight-through processing may consider a bilateral agreement with a counterparty to accept validation of trade data over a secure electronic platform to constitute a legally binding confirmation, if the recorded trade details are deemed sufficient to validate the trade terms. Only institutions that have direct feeds from dealing systems all the way through their operations systems, however, should employ this exception process and consider this acceptable as an alternative to traditional confirmations.

Best Practice no. 18:
Verify Expected Settlement Instructions

A bank should include its own settlement instructions as well as the settlement instructions of its counterparty on confirmations. Upon receipt of a confirmation, firms should systematically check both parties' settlements instructions and ensure that they coincide with those agreed upon at trade capture.

It is in the best interest of a bank to send its own settlement instructions to counterparties. This step provides counterparties with written confirmation of the settlement instructions and can help reduce mistakes and the possibility of fraud.

Similarly, if a bank receives settlement instructions on an inbound confirmation, the bank should check that the instructions match the instructions included in the trade agreement. It is best to discover and correct errors in settlement instructions before payment instructions are issued in order to reduce the incidence of error for both parties.

Best Practice no. 19:
Confirm All Netted Transactions[11]

All transactions, even those that will be netted, should be confirmed individually.

Netting trades for settlement is an important operational function because it allows a bank to reduce settlement risk and operational cost. However, it is still necessary to confirm all transactions individually. If netted trades are not confirmed individually, trades may be mistakenly added or removed from the net agreement, which will be difficult to detect on settlement day. Incorrect netting will distort credit and settlement risk. It may also cause losses to a bank if it must pay gross amounts instead of netted amounts or if it has to cover overdrafts resulting from incorrect settlement. The confirmation of these deals should be performed as it would be in any other transaction or with the aid of a netting service provider.

Best Practice no. 20:
Confirm All Internal Transactions

Internal transactions should be subject to the same procedures as those in place for external clients. Internal counterparties should confirm or affirm transactions as if they transacted a deal with external counterparties.

Quite often, operations and management relax their control procedures when executing internal deals. In some cases, confirmations are not sent to the internal counterparty, and not affirmed by the receiving internal counterparty. However, when confirmations are not properly issued and affirmed, trade details are not verified, and a greater probability of error results.

A bank should recognize that deals done with internal counterparties are not immune from errors. Lack of confirmations will prevent the timely recognition of trade errors, thereby increasing the risk of settlement mistakes or incorrect funding. Consequently, a bank should issue confirmations and should abide by the standard confirmation process for all internal counterparties to preserve controls and risk management procedures.

If multiple systems are used by an institution, then the confirmation process should be automated across those systems. In institutions in which only one system is used across internal counterparties, a process should be set up within that system to insure that both sides of the transaction are properly recorded and matched.

[11] Additional recommendations for netting trades can be found in Foreign Exchange Committee, "Guidelines for FX Settlement Netting," in *The Foreign Exchange Committee 1996 Annual Report* (New York: Federal Reserve Bank of New York, 1997).

Best Practice no. 21: **Confirm All Block Trades and Split Allocations**

When block trades combine several split trades, the full amount of the block trade should be confirmed within two hours of the trade. All allocations for split trades should be confirmed separately within four hours and no later than the end of the business day on the trade date. Sub-account allocations are necessary to evaluate not only credit exposure but also potential regulatory compliance.

In recent years, the use of block (or bulk) trades has increased as trading with fund managers and investment advisors has grown. Such fiduciaries combine several client trades into larger block trades that are then allocated to the fiduciary's specific clients. Until a block is properly allocated to the specific client, inaccurate credit risk management information may exist. Banks should use particular caution when establishing practices for block trades.

Although confirmations of block trade, by themselves, reduce a bank's market risk, confirming only the block trade does not provide the essential customer data for the firm's credit and compliance systems. For a bank to fully understand its counterparty risk, all deals must be confirmed at the split (counterparty) level.

The recommended best practice is to send these confirmations via electronic messages through secure networks within four hours and no later than the end of the day on the trade date. A bank should require that fund managers provide them with the allocation information on the trade date for all trade types regardless of maturity, so that the bank's credit information can be updated as soon as possible.

Best Practice no. 22: **Review Third-Party Advices**

Banks should confirm trades conducted through a broker directly with one another. Review of Reuter's logs, EBS trade tickets, and voice broker advices should not serve as the primary method of bilateral confirmation. These logs and advices should be treated as a third-party verification of trade information.

Bilateral confirmations are written statements of all the essential economic terms of a transaction. Reuters logs and EBS trade tickets are effective ways for operations to review trade information captured in the operations system, and to verify that the economic terms, including settlement instructions, of the trade were properly captured in the risk and confirmation systems of the firm.

However, Reuter's logs, EBS trade tickets, and voice broker advices do not ensure that the counterparty has captured the correct trade information in its operations systems. Therefore, institutions should not rely solely on an incoming broker advice. As the contract binds the two principals to the transaction, direct and timely bilateral confirmations should be exchanged between the two counterparties for every transaction. If a firm does not receive a bilateral confirmation from its counterparty, then it should review with its legal counsel whether the counterparty is bound to the terms and agreement of the deal as documented by the broker advice.

As stated in the process description that begins this section, institutions that have direct feeds from secure electronic platforms (for example EBS, Reuters) and that in addition pass straight through to the operations systems may consider bilaterally agreeing to eliminate any further exchange of confirmation on these transactions.

Best Practice no. 23:
Automate the Confirmation Matching Process

Electronic confirmation matching and tracking systems should be adopted as standard operating procedures.[12]

Electronic confirmation matching requires that two parties agree to electronically match their confirmations through an in-house proprietary system or a third-party vendor. Electronic confirmation matching is the most reliable method of confirming transactions. Such matching decreases market risk and trade errors, minimizes settlement and compensation payments, and reduces operational and overhead costs. Electronic confirmation matching allows a bank to increase the volume of transactions confirmed in a timely manner.

The confirmation process should be additionally controlled by establishing an automated confirmation tracking and follow-up system. Such a system will decrease the chances that deals are not settled properly and help management track and escalate nonconfirmation. Moreover, automating confirmation tracking and follow-up enables a bank to identify counterparties that do not confirm on a regular basis so that they can be addressed. Finally, automation, as opposed to a purely manual system, decreases potential errors caused by human intervention (phone and paper) and reduces operational costs.[13]

Best Practice no. 24:
Establish Exception Processing and Escalation Procedures

Escalation procedures should be established to resolve any unconfirmed or disputed deals. Periodic reports containing transactions that have not been confirmed or affirmed, and counterparties that do not confirm or affirm, should be issued to sales and trading and senior management.

Exposure to market risk arises when trades are not confirmed. To mitigate this risk, standard escalation procedures should be in place to pursue and resolve all discrepancies in a timely manner. Unconfirmed deals may indicate trade entry errors, such as a failure to enter the trade, or that a counterparty did not recognize a trade. Repeated problems may indicate that the counterparty does not execute operational procedures correctly, which may signal the need to reevaluate the trade relationship.

[12] Foreign Exchange Committee, "Standardizing the Confirmation Process," in *The Foreign Exchange Committee 1995 Annual Report* (New York: Federal Reserve Bank of New York, 1996).

[13] Foreign Exchange Committee, "Standardizing the Confirmation Process," in *The Foreign Exchange Committee 1995 Annual Report* (New York: Federal Reserve Bank of New York, 1996).

Internal procedures should be established to monitor unconfirmed trades. When a confirmation is received from a counterparty, and no record of the deal exists internally, operations should immediately establish whether a deal has in fact been conducted by contacting the appropriate person in sales and trading. Operations should then verify the trade information from a related source (for example, Reuters conversation or broker confirmation) or by contacting the counterparty directly. In either case, operations needs to follow escalation practices regarding unconfirmed trades as outlined by the firm. Under no circumstances should a dispute be carried over for more than one day after the trade date, and if such a dispute should arise, it should be carried over only with the approval of senior management.

Escalation procedures should also include notification to sales and trading so that they know which counterparties do not comply with best practices. Senior management should also be informed of unconfirmed deals so that they can evaluate the level of operating risk being introduced by maintaining dealing relationships with noncompliant counterparties. Compensating controls—such as sending out periodic statements with all outstanding forward trades—can be implemented, but it must be recognized that such controls do not eliminate the risks inherent with unconfirmed trades.

The segregation of duties between sales and trading and operations can pose special challenges when dealing with exceptions. Under no circumstances should operations concede control of unconfirmed trades to sales and trading. If confirmations are received that operations does not recognize, it is imperative that operations maintain control of such confirmations until either a cancellation or amendment is received. When trades remain unconfirmed, escalation procedures should be strictly followed and senior operations management should formally review any exceptions to policy.

Netting

Process Description

Bilateral settlement netting is the practice of combining all trades between two counterparties due on a particular settlement date and calculating a single net payment in each currency. If, for example, a bank does twenty-five trades in dollar-yen with the same counterparty, all of which settle on the same day, bilateral settlement netting will enable the bank to make only one or two netted payments instead of twenty-five.[14] The establishment of settlement netting agreements between counterparties may be used to reduce settlement risk, operational risk, and operational costs.

Multilateral settlement netting is the practice of combining all trades between multiple counterparties and calculating a single net payment in each currency. This practice is supported by CLS Bank (CLS). CLS Best Practices can be found on the website <www.cls-services.com>.

[14] Banks may also conduct "novational netting," which nets trades across all currency pairs. For example, a dollar-yen trade and a euro-dollar trade may be netted for a single dollar payment.

Netted payments are calculated for transactions done in the same currencies with equal value dates. The bank and counterparty continue to confirm all deals on a daily basis either directly or through a system that helps support settlement netting. These systems allow a bank to view netted amounts of trades on a screen.

A summary of netted amounts by currencies and value date can also be monitored and individual netted trades can be reviewed subsequently. Trades that have been matched and confirmed are typically identified as well. Any disputes should be investigated and resolved between bank and counterparty operations units. Operations generally confirms netted amounts again on the day before settlement date in addition to confirming the transaction itself on the trade date (see the confirmation section and Best Practice no. 19).

The operational process of settlement netting should be supported by a legal agreement. Such an agreement may be a simple one-page document that only supports settlement netting, or the settlement netting provision may be included in a master agreement (see Best Practice no. 3)

Best Practice no. 25: **Use Online Settlement Netting Systems**

The use of an online settlement netting system is encouraged to calculate net payments in each currency. Online software for calculation of netted payments should be used to ensure proper calculations.

Correct calculations of netted payments are important to ensure accurate settlement amounts, enhance efficiency of operations, and preserve client relationships. If, for example, a bank mistakenly expects a payment of $2 million from a counterparty but receives $1 million, it will initiate investigation procedures and possibly escalation procedures with the counterparty, thus possibly damaging the relationship between institutions. Faulty netting calculations also create an inaccurate assessment of a bank's credit risk with the counterparty.

Because of these risks, a bank should use online (real-time) software to calculate netted payments. By using online software, both counterparties can enter deal information into the trade capture system. The system will confirm the transactions, and will calculate, on a currency-by-currency basis, the net amount due to each counterparty. The two counterparties to the transaction will be notified if these amounts are not equal and the resulting discrepancy may be resolved immediately.

Using online netting systems also helps to reduce settlement risk. Because online systems allow banks to quickly recognize and correct netting errors, currency exposures can be managed more effectively. If a bank conducts ten trades (within the same currency) with a counterparty, it will only experience a currency exposure for two netted amounts (one for the amount it is paying and one for the amount it is receiving) and not for twenty different amounts. When additional trades are done, the resulting exposure is added to the net exposure.

Best Practice no. 26:
Confirm Bilateral Net Amounts
Final amounts should be confirmed bilaterally with the counterparty if they are not done electronically.

Third-party electronic settlement netting systems inform both bilateral parties of the amount that they owe and can expect to receive at some predetermined cutoff time. However, if electronic settlement netting systems are not used, then the calculations performed by one party's operations group may contain an error. To protect against an improper settlement of a net amount, counterparties should confirm the net payment amount with each other at some predetermined cutoff time.

Best Practice no. 27:
Employ Timely Cutoffs for Netting
A bank should adopt the latest cutoff time possible for confirming netted trades. Credit system functions should be in place to accurately reflect the effect of netting.

To include all transactions done between two counterparties and achieve the maximum risk reduction, the net payment amounts should be confirmed at the latest possible time. This measure will allow trades done for settlement on the trade date to be included in the net amount. As netting occurs and other trades are done with the counterparty, credit systems should be updated. Credit systems should be adapted to account for legally enforceable netting agreements and should reflect changes in credit-line usage appropriately. This allows sales and trading to appropriately deal with counterparties based on available credit and to gauge the risk associated with each deal. Deals that miss the netting cutoff should be settled gross and reflected as such for credit purposes.

Best Practice no. 28:
Establish Consistency between Operational Practices and Documentation
Management should ensure that operating practices are consistent with credit policies and other documentation. Credit systems should not reflect settlement netting benefits unless documentation exists to support settlement with counterparties on a net payment basis.

Sometimes operational practices do not follow documented policy. The trade capture system may not indicate netting counterparties, for example, thus preventing the bank from realizing the benefits of netting. In another variance from policy, a bank might practice netting although a formal agreement has not been established with the counterparty to do so. A bank that is caught in a legal dispute, however, will not be able to justify its practices without legal and operational support. Additionally, a bank may be prevented from effectively managing its risk position.

To this end, operations management should strive to establish procedures that are in line with operational goals and follow documented procedures. Management should be certain that operational procedures ensure that netting is carried out between a bank and designated counterparties. Operations should also ensure that netted trades are reflected in trade capture systems and credit systems so that netting is successfully executed. The operational procedures should include any necessary cut-off times, standing settlement instructions (SSIs), and an agreed method of confirmation and affirmation should be supported by each counterparty's documentation policy.

Settlement

Process Description

Settlement is the exchange of payments between counterparties on the value date of the transaction. The settlement of FX transactions can involve the use of various secure international and domestic payment system networks.

Settlement occurs and payments are exchanged on the value date of the transaction. For counterparties that are not settled on a net basis, payment instructions are sent to nostro banks for all the amounts owed—as well as for expected receipts. Settlement instructions are sent one day before settlement, or on the settlement date, depending on the currency's settlement requirements. Settlement instructions should include the counterparty's nostro agent's name and SWIFT address and account numbers if applicable. Systems generate predictions of expected movements in nostro accounts to help manage liquidity and reconcile actual cash movements against the nostro accounts.

All payments are exchanged through the aforementioned nostro accounts. These accounts are denominated in the currency of the country where they are located. When a bank enters into a contract to buy dollars and sell yen, for example, it will credit its yen nostro account and debit its dollar nostro account. The counterparty credits its dollar nostro account and debits its yen nostro account in Japan. Both banks initiate a money transfer to pay their respective counterparties; this is done by a funds movement between the two banks using the local payment system. The money transfer is complete when both counterparties have been paid the appropriate amounts.

If settlement error occurs in the process, it is typically quite costly. If a bank fails to make a payment, it must compensate its counterparty, thus generating additional expense. Settlement errors may also cause a bank's cash position to be different than expected.

In addition, settlement risk—the risk that a bank makes its payment but does not receive the payment it expects—can cause a large loss. This risk arises in FX trading because payment and receipt of payment often do not occur simultaneously. A properly managed settlement function reduces this risk. Settlement risk is measured as the full amount of the currency purchased and is considered at risk from the time a payment instruction for the currency sold becomes irrevocable until the time the final receipt of the currency purchased is confirmed.[15]

Sources of this risk include internal procedures, intramarket payment patterns, finality rules of local payments systems, and operating hours of the local payments systems when a counterparty defaults. Settlement risk may have significant ramifications and is controlled through the continuous monitoring of the bank's nostro balances and through the establishment of counterparty limits. A maximum settlement risk limit is usually established for each counterparty.

Notably, the introduction of the CLS Bank has increased the efficiency of settlement by introducing a mechanism for simultaneous exchange of currencies on an intraday and multilateral basis.

Best Practice no. 29:
Use Real-Time Nostro Balance Projections

Nostro balance projections should be made on a real-time basis and should incorporate the latest trades, cancellations, and amendments.

A bank is exposed to risk when managing its nostro funds if expected cash positions vary greatly from actual cash positions. If more cash is needed than the balance in an account, the bank will incur overdraft costs to fund the positions. Continual overdraft balances will generate expenses for the bank and may cause operational difficulties when the bank makes efforts to determine why errors occurred.

Best Practice no. 30:
Use Electronic Messages for Expected Receipts

A bank should send its nostro banks an electronic message that communicates its expected receipts.

With the receipt of an electronic message advising of expected receipts, nostro banks can identify payments that are directed to an incorrect account early in the process. This allows nostro banks to correct payment errors on a timely basis and aids in the formulation of escalation procedures. This process can help a bank to receive the exact funds they expect and to eliminate unmatched or unreceived payments. Some nostro banks will take the transaction reference number from an incoming electronic message and put the number on its outgoing nostro activity statement.

Some nostro banks, however, are not equipped to process these expected receipt messages. Given the benefits that accrue through the use of expected receipt messages, a bank should consider a nostro's ability to process these messages when choosing which nostro bank to use.

Best Practice no. 31:
Use Automated Cancellation and Amendment Facilities

A bank should establish a real-time communication mechanism with its nostro bank to process the cancellation and amendment of payment instructions.

A bank may need to change or cancel payment instructions after they have been released to nostro banks. Problems may arise if this information is not processed in a timely manner. Amendments occur when an error in

[15]For additional information on settlement risk, please see the following: Foreign Exchange Committee, "Defining and Measuring FX Settlement Exposure," in *The Foreign Exchange Committee 1995 Annual Report* (New York: Federal Reserve Bank of New York, 1996). Foreign Exchange Committee, "Reducing FX Settlement Risk," *In The Foreign Exchange Committee 1994 Annual Report* (New York: Federal Reserve Bank of New York, 1995).

the original instruction has been identified or a counterparty has made a last minute change. Because execution of the erroneous payment instruction will certainly create an improper settlement, the bank needs to be sure the amendment is acted upon so that its nostro balance predictions are accurate. More importantly, a bank may wish to cancel a payment instruction if it is reasonably confidant that a counterparty may not fulfill its obligation to pay the counter-currency.

An automated feed from the operations system to the nostro bank will make communication of amendments and cancellations easier. Nostro banks will be able to establish later deadlines for payment amendments because a real-time link provides more time to process the changes. Such a link also decreases the chance that a bank will miss the payment deadline and should prevent incorrect payments from being released.

Best Practice no. 32:
Implement Timely Payment Cutoffs

Management should work to achieve the latest possible cut-off times for cancellation and alteration of payment instructions to nostro banks as well as the earliest possible times for confirmation of final receipts.

By eliminating restrictive payment cancellation deadlines and shortening the time it takes to identify the final and failed receipt of currencies, a bank can lower its actual and potential settlement exposure. A bank should understand when it can unilaterally cancel or amend a payment instruction and negotiate with its nostro banks to make this cutoff as late as possible. In addition, such policies give a bank more control over its payments, allowing it to react to any problems that arise late in the settlement process.

Best Practice no. 33:
Report Payment Failures to Credit Officers

Operations should ensure that credit reports appropriately update settlement exposure resulting from projected cash flow movements. Exposure amounts should include any failed receipts from previous transactions.

To properly manage its credit risks, a bank needs to monitor settlement exposure to each of its counterparties. Settlement exposure exists for a FX transaction from the time that the payment instruction issued by the bank is no longer unilaterally revocable by the nostro bank to the time that the bank knows it has received the counter-currency from the counterparty. Therefore, credit officers need to know the projected settlement amounts for each counterparty. In addition, any nonreceipts should be included in current exposure amounts reported to the credit officers. Nonreceipts indicate an increased exposure to the counterparty until the amount has been paid, and may also suggest a more serious problem with the counterparty.

Best Practice no. 34:

Understand the Settlement Process and Settlement Exposure

All senior managers should obtain a high level understanding of the settlement process. Additionally, both credit and risk managers (those managing position risk and credit risk) should be cognizant of the impact their internal procedures have on settlement exposure.

Settlement risk may be reduced if those involved in the process better understand the ramifications of its possible failure. Senior management, sales and trading, operations, risk management, and credit management should understand the process and be aware of the timing of the following key events in the process: when payment instructions are recorded, when they become irrevocable, and when confirmation of counterparty payment is received with finality. Knowledge of these items allows the duration and amount of FX settlement exposure to be better quantified.

Both credit and risk managers should develop accurate methods to quantify settlement risk. A bank's actual exposure when settling an FX trade equals the full amount of the currency purchased, and lasts from the time a payment instruction for the currency sold can no longer be canceled unilaterally until the currency purchased is received with finality.[16]

Best Practice no. 35:

Prepare for Crisis Situations outside Your Organization

Operations employees should understand the procedures for crisis situations affecting settlement. They should know who to notify if payments must be canceled or if settlement procedures must be changed.[17]

Crisis situations such as a failure of a bank's settlement processing systems, potential bankruptcy, or political unrest present critical decisions for a bank, especially with regard to credit and liquidity management. Firms should anticipate crises and prepare internally. A bank's failure to settle properly with counterparties could prove harmful if a counterparty defaults on the expected payments. Consequently, operations should know precisely what to do in a crisis. Current nostro bank staff contact lists should be distributed. These lists should contain emergency contact numbers and contact information for each nostro bank's contingency operation.

Operations should also understand alternative settlement procedures and how they are executed. Finally, operations staff should know who to inform and how to inform them of changes or cancellations in payment instructions. A bank may wish to consider simulated exercises of crisis situations to ensure that employees are familiar with alternative procedures and can manage them effectively.

[16] Foreign Exchange Committee, "Defining and Measuring FX Settlement Exposure," in *The Foreign Exchange Committee 1995 Annual Report* (New York: Federal Reserve Bank of New York, 1996).

[17] Foreign Exchange Committee, "Reducing FX Settlement Risk," In *The Foreign Exchange Committee 1994 Annual Report* (New York: Federal Reserve Bank of New York, 1995).

Nostro Reconciliation

Process Description

Nostro reconciliation occurs at the end of the trade settlement process to ensure that a trade has settled properly and that all expected cash flows have occurred. A bank should begin reconciliation as soon as it receives notification from its nostro bank that payments are received. If possible, reconciliation should be performed before the payment system associated with each currency closes. Early reconciliation enables a bank to detect any problems in cash settlement and resolve them on the settlement date. Typically, however, a bank does not receive notification from its nostro banks until one day after settlement, which does not allow them to correct payment errors on the settlement date.

Reconciliation begins with the prediction of cash movements. The bank's operations unit identifies those trades that are valued for settlement the next business day. Operations aggregates all payments for that value date, taking into account netted payments and determining what the expected cash movement will be for each of its nostro accounts. This process allows the bank to accurately fund those nostro accounts.

The main objective of the nostro reconciliation function is to ensure that expected cash movements agree with the actual cash movements of currency at the nostro bank. This involves comparing expected cash movements with actual cash movements both paid out and received in by the nostro bank. If the reconciliation indicates a difference from expected amounts, there are six possible reasons. A bank may have

- expected to receive funds and did not,
- expected to receive funds and received the wrong amount,
- received funds and did not expect to receive them,
- expected to pay funds and did not,
- expected to pay funds and paid the wrong amount, or
- paid funds and did not expect them to be paid.

If any differences are found, the bank must follow up with the nostro bank and/or the counterparty to resolve the discrepancy. The cause for the difference might be that wrong settlement or trade information was captured or that the nostro bank made an error. Most of such errors can be avoided if the confirmation process is followed without exception. If the discrepancy was caused by an error at the bank, then the bank must arrange to pay the counterparty with good value or to pay the counterparty compensation. Similarly, if the error occurred at the counterparty or at the nostro bank, then the bank should expect to receive good value or compensation.

If the nostro reconciliation is not performed, or is performed incorrectly, then the balances at the nostro bank will be different from those the traders believe they are funding. Consequently, the bank will be paying overdraft costs on any short balances or receiving less than market rates on any long balances. In some currencies, the central banks have penalties for carrying short balances in addition to the overdraft charges due. Failure to notify counterparts of problems in a timely manner may lead them to dismiss claims that are over a certain age, causing the bank to absorb the overdraft costs. In addition, nostro reconciliation serves as a main line of defense in detecting fraudulent activity.

Banks should implement procedures to periodically review the terms and conditions of each nostro agent and evaluate usage of each nostro account.

Best Practice no. 36:
Perform Timely Nostro Account Reconciliation

Full reconciliation of nostro accounts should be completed as early as possible.

A bank should attempt to establish capabilities that allow for intraday processing of nostro confirmations of receipts, thereby allowing the reconciliation process to begin before the end of the day. In no instance, however, should the reconciliation be done later than the day following settlement date. The sooner reconciliations are performed, the sooner a bank knows its true nostro balances so that it can take appropriate actions to ensure that its accounts are properly funded. In addition, nonreceipt of funds may indicate credit problems at a counterparty. The sooner this information is known, the sooner a bank can prevent further payments from being made to that counterparty.

Best Practice no. 37:
Automate Nostro Reconciliations

A bank should be capable of receiving automated feeds of nostro activity statements and implement automated nostro reconciliation systems.

A bank should establish facilities for automatically downloading the settlement information it receives from nostro banks as well as its own expected settlement data. A bank should establish an electronic reconciliation system to compare these two streams of data (confirmed payments and receipts from the nostro bank against the expected cash movements from the operations system) to allow for the timely identification of differences. Escalation procedures should be in place to deal with any unreconciled trades and/or unsettled trades. These procedures should be initiated when settlement and/or nostro reconciliations are not successful.

Best Practice no. 38:
Identify Nonreceipt of Payments

Management should establish procedures for detecting non-receipt of payments and for notifying appropriate parties of these occurrences. Escalation procedures should be in place for dealing with counterparties who fail to make payments.

A bank should attempt to identify, as early in the process as possible, any expected payments that are not received. They should be prioritized by counterparty credit ratings, payment amount and currency, or by an internally generated counterparty watch list. All failed receipts should be subject to established follow-up procedures. A bank should also report nonreceipts to credit management and to sales and trading, particularly for any recurring failures with one particular counterparty. Management may wish to consider a limited dealing relationship with counterparties who have a history of settlement problems and continue to fail on their payments to the bank. Payment of interest and penalties should be prompt.

Best Practice no. 39: **Establish Operational Standards for Nostro Account Users**

A bank should require all other users of its nostro accounts to comply with the same operational standards as FX users.

The FX department of a bank may be the primary user of nostro accounts. However, other business groups (for example, fixed income, commodities, emerging markets, and derivatives) may also be users. Clear procedures should be established outlining how each account is funded (that is, individual or group funding). Consistent standards should be in place describing the necessary operating procedures that all users should follow. Without clear rules for sharing in place, the bank runs the risk of overdraft problems.

Accounting/Financial Control

Process Description

The accounting function ensures that FX transactions are properly recorded to the balance sheet and income statement. If transaction information is not recorded correctly, a bank's reputation may be impaired if material restatements of financial accounts are necessary.

Accounting entries are first booked following the initiation of a trade. At this point, details of the deal are posted to contingent accounts (typically in a system used by operations). At the end of each trade day, all sub-ledger accounts flow through to the general ledger. There are two common methods for transferring and validating P&L information in the general ledger.

In some banks, the sales and trading system compiles all of this data and develops a P&L figure for each day. The operations staff later verifies the P&L figure. Other banks calculate two P&L figures independently: one is calculated by sales and trading, and one by the operations system. An independent party, such as the risk management division, verifies both P&L figures. Each morning, the P&L of the prior day's business is verified by the financial management function and analyzed by senior management.

The accounting area should ensure that following the initial entry of a trade into the general ledger, the position is continually marked to market until it is closed out. Daily marking to market calculates unrealized gains and losses on the positions that are fed into the general ledger and the daily P&L. Once these positions are closed out, realized gains and losses are calculated and reported.

All subsidiary ledger accounts (including all brokerage accounts and suspense accounts) are reconciled to the general ledger daily. Additionally, on a monthly basis (usually at month-end) an independent check is done to ensure that all subsystem accounts reconcile to the general ledger accounts. All discrepancies are investigated as soon as possible to ensure that the bank's books and records reflect accurate information. In addition, all discrepancies that have an impact on how the bank reports gains or losses are reported to senior management.

Cash flow movements that take place on settlement date are also posted to the general ledger in accordance with accepted accounting procedures. The receipt and payment of expected cash flows at settlement are calculated in a bank's operations system. There are times when cash flows must be changed because of trade capture errors, which require changes to a sub-ledger account. Accounting entries are modified so that the general ledger accurately reflects business activities; the change flows to the operations system where appropriate cash flow adjustments are made.

Best Practice no. 40:
Conduct Daily General Ledger Reconciliation

Systematic reconciliations of 1) the general ledger to the operations system, and of 2) sales and trading systems to the operations systems should be done daily.

Timely reconciliations will allow for prompt detection of errors in the general ledger and/or sub-ledgers and should minimize accounting and reporting problems. This reconciliation will ensure that the general ledger presents an accurate picture of an institution's market position. When problems are detected, they should be resolved as soon as possible. Senior management should be notified of accounting discrepancies to review and update control procedures as needed.

Best Practice no. 41:
Conduct Daily Position and P&L Reconciliation

Daily P&L and position reconciliations should take place between the sales and trading and operations systems.

Position reconciliations allow a bank to ensure that all managed positions are the same as those settled by operations. This control is imperative when all deal entries and adjustments are not passed electronically between sales and trading and operations. When straight-through processing is in place, the reconciliation ensures that all deals were successfully processed from sales and trading to operations, along with all amendments. Because a discrepancy in P&L between sales and trading and operations can indicate a difference in positions or market parameters (that is, rates or prices) all differences should be thoroughly investigated.

Banks that maintain a single system for trade capture data should ensure that the data source is properly controlled.

Best Practice no. 42:
Conduct Daily Position Valuation

Position valuations should be verified daily by a staff that is separate from sales and trading. Preferably, position valuation should be conducted by an independent third party such as *the risk management staff. Position valuation should be checked against independent price sources (such as brokers or other banks). This is particularly important for banks that are active in less liquid forward markets or in exotic options markets. Trading management should be informed of the procedures used for marking to market to ensure that they can appropriately manage trade positions.*

P&L is an integral part of the daily control process; thus, it is important for the calculation to be correct. The appropriate end of day rates and prices that are used to create the position valuations should be periodically checked by an independent source. Either operations or risk management should check that the rates and prices used by sales and trading for end-of-day valuation are close to the market rates.

Position valuations should be verified using independent sources such as market rate screens, other dealers, and/or broker quotations. In addition, at least once a month, the results of the models should be checked against other dealers and/or brokers to ensure that the valuations produced by the bank's models are consistent with other dealers.

Illiquid markets present additional risk to a bank because illiquid instruments are infrequently traded, making them difficult to price. Often, it is hard for a bank to obtain market quotes, thereby preventing timely and consistent position monitoring. P&L may be distorted and risk may not be properly managed. In such instances, a bank should seek to obtain quotes from other counterparties active in the market. Management should be aware of these procedures so that they may effectively manage and evaluate illiquid market positions. These procedures allow a bank to mark to market its positions and to evaluate associated risks. In addition, firms should take a reserve against this price risk.

Marking to market reflects the current value of FX cash flows to be managed and provides information about market risk.[18] Senior management will be able to better manage and evaluate market positions when they know how positions are valued on a daily basis.

Best Practice no. 43:
Review Trade Prices for Off-Market Rates

Trade prices should be independently reviewed to ensure reasonableness within the market prices that existed on the trade date.

Any trades executed at prices not consistent with the market rates that existed at the time of execution may result in an error for the bank or may unduly enrich the bank or the counterparty. Banks should institute a daily procedure that provides for independent manual or automated review of trade prices versus prevailing market rates.

[18]Group of Thirty, Global Derivatives Study Group, *Derivatives: Practices and Principles* (Group of Thirty, 1993), p.19.

Best Practice no. 44:
Use Straight-Through Processing of Rates and Prices
Rates and prices should be fed electronically from source systems.

The valuation of positions requires many different rates and prices, sometimes collected from different sources. To eliminate the errors associated with collecting and re-keying the required rates and prices, a bank should establish electronic links from the systems that source the rates and price information to the position valuation systems.

Unique Features of Foreign Exchange Options and Non-Deliverable Forwards

Process Description

Foreign exchange (FX) options and non-deliverable forwards (NDFs) have unique features that need to be handled differently than spot and forward FX transactions. Specifically in the areas of

- option exercise and expiry,
- rate fixings for NDFs and some nonvanilla options, and
- premium settlements for options.

Options exercise/expiry requires the determination of the intrinsic value of the instrument. The intrinsic value is the amount by which the option is in-the-money. To determine this value, the strike price of an option must be better than the market rate at the time of expiration. This special event is one of the unique features of options. Options have inherent risk associated with failure to perform events such as exercising in-the-money transactions or obtaining fixings for non-vanilla options (such as average rate or average strike). Senior operations management should clearly define roles and responsibilities to ensure that these inherent risks are reduced.

NDFs, much like options, also require additional processing. NDFs are cash-settled FX instruments that require a rate fixing to determine the cash settlement amount. Daily review of outstanding transactions must be performed to ensure that fixings are obtained as required in the confirmation language. Fixings are communicated by notification of a fixing advice. Responsibility for the notification of the fixing advice should be part of the confirmation process and performed by operations personnel.

The confirmation process for both FX options and NDFs is comparable to straight FX trades. The difference is that FX options and NDFs require additional language and staff must understand more than the usual terms and conditions in order to reduce operational risk. In all other respects, FX options and NDFs should be treated the same way as spot and forward FX trades as outlined in this document.

Best Practice no. 45:
Establish Clear Policies and Procedures for the Exercise of Options
Banks should have clear policies and procedures that define roles and responsibilities and describe internal controls on the process of exercising and expiring foreign currency options.

Banks should mitigate operational risk by implementing policies and procedures in conjunction with oversight departments and by assigning clearly defined roles and responsibilities. Determination of an in-the-money option and notification to the counterparty should be performed via an independent, audible electronic system. Exercising options, for example, should be segregated from sales and trading and performed by staff that communicates between the front- and back-office personnel.

Additionally, to reduce the likelihood that transactions are not exercised, systems should be designed to auto-exercise in-the-money transactions. Oversight is necessary in the form of measuring options against market rates, thereby ensuring that in-the-money transactions are exercised appropriately. Foreign exchange trades resulting from exercised options should automatically and electronically flow to the back-office FX processing system if a separate application is used from the option processing system.

Best Practice no. 46:
Obtain Appropriate Fixings for Nonstandard Transactions

Ensure that nonstandard transactions (such as non-deliverable forwards [NDFs], barrier, average rate, and average strike options) with indexing components are fixed with the appropriate rates as provided in the language of the confirmation or master agreement documentation.

Operations staff, independent of sales and trading, should obtain the fixing rates as defined in the confirmations for all nonstandard transaction types (such as NDFs, average rate, average strike option trades). Confirmations should be reviewed on the trade date to determine the fixing source. This fixing information should be captured by the back-office operational transaction processing system and noted on the individual confirmations. On the fixing date, fixing advices should be generated and forwarded electronically (where possible) to the counterparty reflecting the fixing rate and settlement amount.

Best Practice no. 47:
Closely Monitor Option Settlements

Option premium settlements should be closely monitored to reduce the potential for out-trades.

Premium settlement of options should be monitored closely to reduce the potential for out-trades. Option premium amounts can be small and not reflect the notional amount of the option transaction. Ensuring that the counterparty receives the settlement of the premium can be an indication that the counterparty is aware of the position, albeit not the details of the trade, which would be covered in the confirmation.

General Best Practices

Process Description

This section suggests general best practices that apply to all segments of the FX process flow.

Best Practice no. 48:
Ensure Segregation of Duties

The reporting line for operations personnel should be independent of the reporting line for

other business lines (sales and trading, credit, accounting, audit, and so on). For key areas, operations management should ensure that an appropriate segregation of duties exists within operations and between operations and other business lines.

Operations cannot be completely effective in performing its control functions if its members report to an area that they are assisting. Operations must be able to report any and all issues to an independent management team. To do so, operations must have a reporting line that is not directly subject to an organizational hierarchy that could lead to a compromise of control. In addition, the compensation process for operations personnel should be clearly segregated from that of the compensation process of sales and trading.

Examples of good practices include:

- precluding individuals from having both trading and confirmation/settlement responsibilities concurrently,
- precluding sales and trading personnel from issuing and authorizing payments,
- precluding individuals from having both posting and reconciling access to the general ledger,
- not allowing established procedures to be overridden without operations management's consent, and
- separate database functions between sales and trading and operations.

[19]See the "What Is Operational Risk?" in this document, p. 3.

Best Practice no. 49:

Ensure That Staff Understand Business and Operational Roles

Operations and sales and trading personnel should fully understand all FX business strategies and the role of each participant within the FX process flow (for example, clients, credit, compliance, and audit). Policies and procedures should be documented and updated periodically.

Business strategies, roles, responsibilities, and policies and procedures continually change and evolve. Each group or individual playing a role in the FX process flow should have a complete understanding of how FX trades are initiated, processed, confirmed, settled, controlled, and accounted. Insufficient knowledge of the overall FX process, or the role played by each individual or group, can lead to an improper segregation of duties, insufficient controls, and/or increased risk. All market participants should provide continuous employee education regarding business strategies, roles, responsibilities, and policies and procedures. The development of effective "front-to-back" training should be encouraged to ensure that all elements of the FX business are clearly understood by all. All market participants should insure that policies and procedure documents are current, documented, maintained, and available to all.

Best Practice no. 50:
Understand Operational Risks

Market participants should fully understand operational risks.[19] *To help mitigate operational risks, every market participant should implement adequate controls, modify processes and flows when appropriate, and/or invest in improved technology. Current as well as potential operational risks associated with new industry process changes (for example, the CLS Bank, web portals, and so on), should be assessed on a regular basis, quantified wherever possible, and reported to senior management.*

Areas of exposure within the FX processing cycle need to be identified, quantified where possible, and adequately controlled. With better information regarding operational risks, institutions can make informed decisions about which risks they are going to assume and which risks need to be managed either through enhanced process flows and controls or through investments in improved technology. Proactive thinking concerning current and future trends is recommended.

Best Practice no. 51:
Identify Procedures for Introducing New Products, New Customer Types, or New Trading Strategies

All market participants should have adequate procedures and controls in place for introducing new products, new customers types, or new trading strategies. These procedures and controls should include a provision to ensure that the participant has the capability to initiate, price, value, confirm, and settle these new types of transactions, customers, or strategies. The market participant should also be able to measure, monitor, and report all risks associated with new products, customers, or strategies.

When a new product, new customer, or new business strategy is introduced, all areas—operations, sales and trading, financial control, risk control, legal, compliance, technology, and others—should be fully knowledgeable and prepared to execute and process the new dealings in a controlled environment. New products, new customer types, or new business strategies may introduce different types of risks or increase existing risks. They may also result in different methods of trade capture, confirmation, netting, settling, reconciling, and/or P&L reporting. Any change to existing processes, practices, or policies should be effectively controlled and reported. Procedures and controls that detail operational and systems support guidelines should be documented and published.

Best Practice no. 52:
Ensure Proper Model Signoff and Implementation

Quantitative models often support FX trading activities. As a result, their implementation and management should be a coordinated effort among the various FX business lines. Model implementation and maintenance should ensure that all FX business lines (sales and trading, operations, financial control, risk control, technology, audit, and others) approve, support, and understand the model purpose and capabilities, as well as the roles and responsibilities of each business line. Further, to maintain appropriate segregation of duties, model technical development and data input

and output reporting should be performed independently from sales and trading.

Models may be used to report positions, to manage position risk, or to price financial instruments. New models, or modifications to existing models, may change or challenge established policies, procedures, and/or practices. It is important that all FX business lines understand how the pricing of certain instruments will change and how position monitoring will be evaluated if a new model is introduced or an existing model modified. Model risk and potential business disruptions can be effectively controlled through cross business line approval, implementation, management, and education.

Best Practice no. 53:
Control System Access

Users of a system (for example, operations, sales and trading) should not be able to alter the functionality of production systems. Developers should have limited access to production systems, and only in a strictly controlled environment. Each system should have access controls that allow only authorized individuals to alter the system and/or gain user access. Function-specific user access "profiles" are suggested.

As alternative technologies (for example, web-based trading) continue to emerge in the FX trading and processing environments, rigorous controls need to be implemented and monitored to ensure that data integrity and security are not sacrificed. External user access controls should be as robust as internal user access controls.

Access to production systems should only be allowed for those individuals who require access in order to perform their job function. When creating user access profiles, system administrators should tailor the profile to match the user's specific job requirements, which may include "view only" access. System access and entitlements should be periodically reviewed, and users who no longer require access to a system should have their access revoked. Under no circumstance should operations or sales and trading have the ability to modify a production system for which they are not authorized.

Best Practice no. 54:
Establish Strong Independent Audit/Risk Control Groups

Market participants should have sophisticated and independent audit/risk control groups. It is recommended that market participants perform rigorous self-assessments and publish regular reporting of such to management, the business line, and audit/risk control groups.

The audit/risk control groups play a most important role. They ensure that quantifiable and effective controls are in place and working properly and that policies and procedures are relevant as well as followed. The goal of these groups is to protect the market participant against financial or reputation loss by monitoring or uncovering flaws in the process or procedures and suggesting corrective action. These groups must not have a reporting line that is subject to an organizational hierarchy that could lead to a compromise of control, assessment, or escalation.

Best Practice no. 55:
Use Internal and External Operational Performance Measures

Operational performance reports should be established to clearly measure and report on the quality of both internal and external (outsourced) operational performance. The report measurements should focus on operational efficiency and controls, and be reviewed on a regular basis by both operations and sales and trading management.

Operational performance reporting should contain quantifiable performance metrics at the levels of detail and summary, and indicate the status of operational activities. Typical key performance measures would include confirmation, acceptance and aging reporting, nostro and cash balance reporting, operational error and loss reporting, and any other relevant data deemed necessary by the participant. These reports should serve to control and proactively monitor risk and performance.

Market participants may employ Service Level Agreements (SLAs) as a way of improving and controlling operational performance. SLAs should always be exchanged when outsourcing all or part of a participant's operation. SLAs should clearly define, measure, and report on operational performance. External (outsourced) performance measurements should be as robust as internal performance measurements.

Best Practice no. 56:
Ensure That Service Outsourcing Conforms to Industry Standards and Best Practices

If a bank chooses to outsource all or a portion of its operational functions, it should ensure that its internal controls and industry standards are met. A bank that outsources should have adequate operational controls in place to monitor that the outsourcer is performing its functions according to agreed-upon standards and industry best practices.

A bank may choose to outsource some or all of its operations functions. However, outsourcing should in no way compromise a bank's internal standards for confirmations, settlement and payments. Controls should be in place to monitor vendors to ensure that internal standards are met. For example, trades should still be confirmed in a timely manner and proper escalation and notification procedures must be followed.

Best Practice no. 57:
Implement Globally Consistent Processing Standards

When a bank has multiple processing centers, it should ensure that bankwide standards are met in each location. Banks should use consistent procedures and methodologies throughout the institution. Satellite offices or separate entities require close oversight to ensure that they conform to the standards of the bank.

Some banks may maintain multiple processing centers in different locations around the world. Regional processing may allow a firm to maintain around-the-clock processing for multiple front-end trading locations. However, it is essential that a firm's standards and processes are consistent throughout the bank. Although different processing centers may rely on different systems or technology, the standards and procedures should be the same in every processing center. For example, valuation methodologies should remain consistent throughout the firm.

In addition, some firms may rely on centralized booking and operations, but may have specific exceptions, such as satellite offices, or branches that serve as separate legal entities. Such sites should be carefully monitored to ensure that their bank's standards are being met.

Best Practice no. 58: **Maintain Records of Deal Execution and Confirmations**

Banks should maintain documentation supporting the execution of foreign exchange trades. Such documentation should provide a sufficient audit trail of the events throughout the deal execution, trade, and validation process. This documentation may be in the form of written or electronic communication, a tape recording, or other forms evidencing the agreement between the parties. Documentation should cover communication not only between the sales and trading groups of the bank and the counterparty but also between the operations area of the bank and the counterparty.

Deal execution and confirmation documentation can aid institutions in verifying trade details and ensure that amounts were confirmed as expected. This step may help a bank if it becomes involved in counterparty disputes. For each trade, the following information should be documented: currencies, amount, price, trade date, value date and the notional currency of each transaction.

The length of time that a bank keeps records (which may be left to management's discretion) depends on the type of business they transact and may also be subject to local regulations. Record retention, for example, may depend on the character of a bank's forward trading or long-dated options trading.

It is important to note that trades conducted over the telephone pose particular risks. The phone conversation is the only bilateral record of the trade details, at least until the trade is validated through the traditional confirmation process. Until this confirmation process is completed, market participants should establish close controls to minimize the exposure inherent in such trades.

Best Practice no. 59: **Maintain Procedures for Retaining Transaction Records**

The operations group is responsible for retaining adequate records of all transactions and supporting documentation for the financial statements.

Operations must maintain detailed records of all transactions executed and of all information to support its P&L and position calculations. Each market participant should determine appropriate record retention based on tax, regulatory, and legal requirements for each jurisdiction. It is recommended that records be maintained in duplicate and in a location separate from where primary processing occurs.

If and when external vendors or storage facilities are employed, it is essential that they provide a similar backup facility. Records can be maintained on paper, optical, or magnetic media. If a computer-based format is used, the programs and their documentation need to be retained so that the data can be read at a later date. Special care must be taken because newer versions of software frequently cannot read older data files. Older programs may also not run correctly on newer operating systems or machines. In addition, magnetic media must be maintained carefully because it degrades in adverse conditions.

Best Practice no. 60:
Develop and Test Contingency Plans

Operations and sales and trading should develop plans for operating in the event of an emergency. Contingency plans should be periodically reviewed, updated, and tested. These contingency plans should cover both long-term and short-term incapacitation of a trading or operations site, the failure of a system, the failure of a communication link between systems, or the failure of an internal/external dependency. These plans should include informing, monitoring, and coordinating personnel.[20]

The primary risk of a major disaster is that a market participant may not be able to meet its obligation to monitor its market positions. Many market participants deal in high volumes of large trades. Failure to be able to trade or settle transactions from a given center (or several trading centers in the case of centralized operations processing) could subject the market participant to severe financial and reputational repercussions.

Market participants should identify various types of potential disasters and identify how each may prohibit the participant from satisfying its obligations (that is, issuing and receiving confirmations, performing settlements, and completing daily trading). Disaster recovery plans should identify requisite systems and procedural backups, management objectives, people plans, and the methodology or plan for dealing with each type of disaster. Disaster recovery plans should be reviewed on a regular basis, and tested periodically, to gauge the effectiveness of the plans themselves and measure staff readiness.

An emergency crisis team, equipped with key personnel contact lists, should be established to monitor crisis and coordinate recovery efforts. Market participants should develop contingency contact lists (for both internal and external dependencies) and distribute them to employees. All personnel should know whom to contact in the event of a disaster. Market participants should also maintain emergency contact information to

[20] Additional guidance on foreign exchange contingency planning is provided by Foreign Exchange Committee, "Contingency Planning: Issues and Recommendations," In *The Foreign Exchange Committee 2001 Annual Report* (New York: Federal Reserve Bank of New York, 2002). Several regulatory bodies offer guidance on firmwide contingency planning. The Federal Reserve Bank of New York offers guidance at <http://www.newyorkfed.org/bankinfo/circular/10952.pdf>. Broker/dealers may look to several documents from the Securities and Exchange Commission and the Securities Industry Association for guidance, including <http://www.sec.gov/divisions/marketreg/lessons learned.htm> and <http://www.sia.com/business_continuity/pdf/bestpractices.pdf>

reach primary counterparties. Counterparty information records should include contingency site phone numbers and emergency contact information for key personnel.

Backup sites that can accommodate the essential staff and systems of operations and sales and trading should be set up, maintained, and tested on a regular basis. Particularly for operations, market participants should consider developing a backup site that relies on a separate infrastructure (electricity, telecommunications, etc.) and an alternative workforce. Banks may want to leverage multiple processing sites to serve as emergency backup facilities in the event of an emergency. In case of primary system failure, backup systems should be available and capable of acting as primary systems. These systems should provide for payment and settlement as well as the monitoring and managing of both position and settlement risk. Backup systems should have access to current and historical data which should be backed-up in a separate location from the primary site.

Market participants' business continuity plans should take into consideration the technical support requirements of their critical processing systems. Backup sites should be able to access critical confirmation and netting systems, key liquidity providers, and other industry utilities. Business continuity plans should also consider the recovery capabilities of critical service providers, in particular, their clearing and third party settlement banks.

Additionally, all market participants should identify and practice alternative methods of confirmation and settlement communication with nostro banks. These methods may require the use of fax or telex to ensure proper processing.

During a disaster, a bank should notify its counterparties of potential processing changes. A bank should also provide counterparties with current contact information for key personnel to ensure that counterparties can contact the bank in an emergency.

Market participants should ensure that the communication tools used by operations and sales and trading are secure. If phone systems fail, backup systems should exist (that is, cellular or non-PBX phones). All market participants should be connected to multiple phone substations to further prepare for disaster.

During market disturbances, market participants should pay special attention to guidance communicated by industry groups such as the Foreign Exchange Committee and the Singapore Foreign Exchange Market Committee. Industry groups may provide special recommendations in times of market stress to aid the flow of information on special issues that may arise.

Conclusion

This paper has reviewed the entire foreign exchange process flow and best practices for maintaining a properly controlled environment. However, as noted in the introduction, several trends in the industry will affect a bank's ability to implement the best practices as listed in this document. Although the market will continue to evolve and develop mitigating controls, and any set of recommendations will eventually require revision, management should consider the practices suggested here as helpful responses to recent developments in technology, instruments, and innovations in the marketplace.

The first step toward a properly controlled environment is an appropriate segregation of duties between sales and trading, and operations. However, such segregation of duties does not imply that operations should be viewed as separate from other business lines. On the contrary, the authors of this paper feel that the closer operations management is to the pulse of business, and the better the communication between sales and trading management and operations management, the more responsive operations can be to changes in the business environment. Ultimately, better links between an institution's divisions will enable business as a whole to be better controlled.

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Best Practices Map to 1996 Version and Checklist

Checklist	2003 Version	1996 Version
	Pre-Trade Preparation and Documentation *Process Description*	
	BP no. 1: Know Your Customer	
	BP no. 2: Determine Documentation Requirements	BP no. 4: Trading and Operational Practices Should be Agreed Upon
	BP no. 3: Use Master Netting Agreements	BP no. 19: Master Netting Agreements
	BP no. 4: Agree upon Trading and Operational Practices	
	BP no. 5: Agree upon and Document Special Arrangements	
	Trade Capture	
	BP no. 6: Enter Trades in a Timely Manner	BP no. 1: Timely Trade Entry
	BP no. 7: Use Straight-Through Processing	BP no. 2: Straight-Through Processing of Transactions
	BP no. 8: Use Real-Time Credit Monitoring	BP no. 3: Credit Information Available Online
	BP no. 9: Use Standing Settlement Instructions	BP no. 5: All Market Participants Should Use SSIs
	BP no. 10: Operations Should Be Responsible for Settlement Instructions	BP no. 6: Operations Responsibility for Settlement Instructions
	BP no. 11: Review Amendments	BP no. 8: Review of Amendments
	BP no. 12: Closely Monitor Off-Market Transactions	BP no. 7: Review of Third-Party Payments

Checklist	2003 Version	1996 Version
	Confirmation	
	BP no. 13: Confirm and Affirm Trades in a Timely Manner	BP no. 9: Timely Confirmation/Affirmation BP no. 14: Timely Resolution of Confirmation Exceptions
	BP no. 14: Be Diligent When Confirming by Nonsecure Means	
	BP no. 15: Be Diligent When Confirming Structured or Nonstandard Trades	
	BP no. 16: Be Diligent When Confirming by Telephone	
	BP no. 17: Institute Controls for Trades Transacted through Electronic Trading Platforms	
	BP no. 18: Verify Expected Settlement Instructions	BP no. 10: Expected Settlement Instructions
	BP no. 19: Confirm All Netted Transactions	BP no. 11: Confirm All Netted Transactions
	BP no. 20: Confirm All Internal Transactions	BP no. 13: Confirm All Internal Transactions
	BP no. 21: Confirm All Block Trades and Split Allocations	BP no. 12: Confirm All Split Trades
	BP no. 22: Review Third-Party Advices	BP no. 16: Review of Reuters Logs and Brokers' Advices
	BP no. 23: Automate the Confirmation Matching Process	BP no. 18: Automation of the Confirmation Matching Process
	BP no. 24: Establish Exception Processing and Escalation Procedures	BP no. 17: Escalation Procedures/ Non-confirming Counterparties

Checklist	2003 Version	1996 Version
	Netting	
	BP no. 25: Use Online Settlement Netting Systems	BP no. 20: Online Payment Netting Systems
	BP no. 26: Confirm Bilateral Net Amounts	BP no. 21: Confirmation of Bilateral Net Amounts
	BP no. 27: Employ Timely Cutoffs for Netting	BP no. 22: Timely Cutoffs for Netting
	BP no. 28: Establish Consistency between Operational Practices and Documentation	BP no. 23: Consistent Operational and Documentation Policies
	Settlement	
	BP no. 29: Use Real-Time Nostro Balance Projections	BP no. 24: Online Real-Time Nostro Balance Projections
	BP no. 30: Use Electronic Messages for Expected Receipts	BP no. 25: Electronic Messages for Expected Receipts
	BP no. 31: Use Automated Cancellation and Amendment Facilities	BP no. 26: Automated Cancellation and Amendment Facilities
	BP no. 32: Implement Timely Payment Cutoffs	BP no. 27: Timely Payment Cutoffs
	BP no. 33: Report Payment Failures to Credit Officers	BP no. 28: Reporting Payment Failures to Credit
	BP no. 34: Understand the Settlement Process and Settlement Exposure	BP no. 29: Knowledge of the Settlement Process and Settlement Exposure
	BP no. 35: Prepare for Crisis Situations Outside Your Organization	BP no. 30: Crisis Situations Preparation
	Nostro Reconciliation	
	BP no. 36: Perform Timely Nostro Account Reconciliation	BP no. 31: Timely Nostro Account Reconciliation

Checklist	2003 Version	1996 Version
	BP no. 37: Automate Nostro Reconciliations	BP no. 32: Automated Nostro Reconciliations
	BP no. 38: Identify Nonreceipt of Payments	BP no. 33: Identification of Nonreceipt of Payments
	BP no. 39: Establish Operational Standards for Nostro Account Users	BP no. 34: Operational Standards for Nostro Account Users
	Accounting/Financial Control	
	BP no. 40: Conduct Daily General Ledger Reconciliation	BP no. 35: Daily General Ledger Reconciliation
	BP no. 41: Conduct Daily Position and P&L Reconciliation	BP no. 36: Daily Position and P&L Reconciliation
	BP no. 42: Conduct Daily Position Valuation	BP no. 37: Daily Position Valuation
	BP no. 43: Review Trade Prices for Off-Market Rates	BP no. 38: Review Trade Prices for Off-Market Rates
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	Unique Features of Foreign Exchange Options and Non-Deliverable Forwards	
	BP no. 45: Establish Clear Policies and Procedures for the Exercise of Options	
	BP no. 46: Obtain Appropriate Fixings for Nonstandard Transactions	
	BP no. 47: Closely Monitor Option Settlements	
	General Best Practices	
	BP no. 48: Ensure Segregation of Duties	BP no. 40: Segregation of Duties

Checklist	2003 Version	1996 Version
	BP no. 49: Ensure That Staff Understand Business and Operational Roles	
	BP no. 50: Understand Operational Risks	BP no. 41: Understanding Business and Operational Roles BP no. 42: Understand Operational Risks
	BP no. 51: Identify Procedures for Introducing New Products, New Customer Types, or New Trading Strategies	BP no. 43: Procedures for Introducing New Products
	BP no. 52: Ensure Proper Model Signoff and Implementation	BP no. 44: Model Signoff/Implementation
	BP no. 53: Control System Access	BP no. 45: System Access Control
	BP no. 54: Establish Strong Independent Audit/Risk Control Groups	BP no. 48: Strong Independent Audit Group
	BP no. 55: Use Internal and External Operational Performance Measures	BP no. 46: Operational Performance Measures
	BP no. 56: Ensure That Service Outsourcing Conforms to Industry Standards and Best Practices	
	BP no. 57: Implement Globally Consistent Processing Standards	
	BP no. 58: Maintain Records of Deal Execution and Confirmation	BP no. 47: Taped Conversations between Counterparties
	BP no. 59: Maintain Procedures for Retaining Transaction Records	BP no. 49: Responsibility for Record Retention
	BP no. 60: Develop and Test Contingency Plans	BP no. 50: Contingency Plans

COMMITTEE LETTER

Commenting on the Practice of Unnamed Counterparty Trading

January 2003

Dear Market Participant:

The Foreign Exchange Committee has become increasingly concerned about the risks associated with the practice of trading foreign exchange on an unnamed basis. We believe that this practice presents a problematic risk to the foreign exchange marketplace and the broader financial sector particularly during times of financial market stress. Trading foreign exchange on an unnamed basis refers to the practice whereby an investment advisor engages a dealer to execute a foreign exchange trade with a client of that advisor whose identity is not revealed to the dealer in order to maintain the anonymity of that client. The dealer's counterparty may be a central bank, but may also be an institutional fund or private investor. Such practices constrain the ability of dealers to assess the creditworthiness of their counterparties and complete their "know your customer" and anti-money-laundering review. These conditions expose dealers to clear legal, compliance, credit, and reputational risks. In addition, such practices pose a risk to the broader financial sector given the increased risk of fraud.

While the Committee understands the commercial interest of confidentiality on the part of investment managers, it recommends that investment advisors and dealers alike begin to undertake measures that will ultimately eliminate the current practice of trading on an unnamed basis. Specifically, investment advisors and foreign exchange intermediaries should develop a process whereby client names are disclosed to the credit and legal/compliance staffs of dealers before the execution of foreign exchange trades. In turn, dealers should have procedures in place to ensure that the identity of the intermediary's clients remains strictly confidential and is not revealed to their trading staff. This is a practice commonly achieved in other marketplaces through the use of identification codes or similar identifier systems.

Given the integration of the financial marketplace, the Committee recognizes the global nature of this issue. Other industry groups are also actively discouraging this practice in regional codes of conduct and best practices. In the United Kingdom, for instance, the London Foreign Exchange Joint Standing Committee, the Financial Services Authority (FSA), and several investment manager industry groups are working together to introduce Best Practices similar to those outlined above. These Best Practices will be included in the

Non-Investment Products Code (NIPS code), a reference source used for regulatory review of financial institutions and investment managers in the United Kingdom. We commend and support the Joint Standing Committee's efforts. To the extent that this practice exists in other over-the-counter markets, we urge other industry groups associated with these markets to discourage the practice of trading on an unnamed basis going forward.

The Committee thanks you for your interest in this issue. If you are interested in additional information on trading on an unnamed basis and other interests of the Foreign Exchange Committee, please view our website, <www.newyorkfed.org/fxc>.

Sincerely,

Beau Cummins,
Bank of America

Stephen Desalvo,
FleetBoston Financial

Mark De Gennaro,
Lehman Bros

Peter C. Gerhard,
Goldman Sachs & Co.

Jack Jeffery,
EBS Partnership

James Kemp,
Citigroup

Rob Loewy,
HSBC Bank plc

Richard Mahoney,
Bank of New York

John Nelson,
ABN-AMRO

Phil Newcomb,
Morgan Stanley

David Puth,
JP Morgan Chase & Co.

Ivan Ritossa,
Barclays Capital

Richard Rua,
Mellon Bank, N.A.

Mark Snyder,
State Street Corporation

Susan Storey,
CIBC World Markets

Jamie Thorsen,
Bank of Montreal

Jim Turley,
Deutsche Bank

Nobuyuki Uchida,
Bank of Tokyo Mitsubishi

John Wareham,
AIG International

Robert White,
Standard Chartered Bank

COMMITTEE LETTER
Appendix to Letter on Unnamed Counterparty Trading

Information on Unnamed Counterparty Trading

The Foreign Exchange Committee has issued a letter to foreign exchange market participants discouraging the practice of trading on an unnamed basis. The Committee believes that unnamed trading introduces unacceptable risks to the financial institutions. Unnamed trading has remained extant in the United States and the United Kingdom in response to participants' desire to maintain confidentiality. The Committee recognizes the validity of confidentiality. However, the Committee suggests that alternative trading practices can eliminate unnecessary risks while maintaining the confidentiality of participants' trading activities. The Committee hopes that this text will assist in the effort to gain consensus across over-the-counter trading markets to discontinue unnamed trading.

Definition

Unnamed trading refers to the practice whereby an investment advisor engages a dealer to execute a foreign exchange trade with a client of that advisor whose identity is not revealed to the dealer in order to maintain the client's anonymity. A dealer who trades with unnamed counterparties relies on representations and warranties from the investment advisor. Industry good practice calls for a dealer to obtain representations and warranties from the investment advisor regarding, among other things, general agency authority, money laundering due diligence, sufficiency of assets, and notice and close-out rights upon default.

It is far from certain that a dealer would be able to collect damages from an investment advisor whose representations and warranties turn out to be false, even if due to fraud on the advisor's part. Thus, while representations and warranties from investment advisors reduce the risks of trading on an unnamed basis, this practice continues to carry legal, credit, and reputational risks. Unnamed trading disrupts the normal credit assessment and monitoring process of the open market in the following ways:

- Limiting credit information: Dealers cannot assess the creditworthiness of their unnamed counterparties. Institutions that trade with a participant usually assess the creditworthiness of that participant and trade within an appropriate level of credit exposure and pricing structure. Collectively, credit checks by dealers determine proper exposure and pricing levels in the marketplace. However, when dealing with unnamed counterparties, dealers typically rely on very limited information and representations from the investment manager that the manager is holding sufficient assets of the unnamed participant to settle trades.

- **Inhibiting response to credit disruptions:** Dealers must rely on investment advisors to inform them when there has been a decline in the value of an unnamed counterparty's assets such that the level of assets held by the investment advisor can no longer cover outstanding trades. At that point, there is an immediate withdrawal of all credit available to the counterparty and an urgency to close out existing exposure. This scenario leaves the dealer with elevated credit risk and impedes the unnamed counterparty's ability to manage its remaining assets.

- **Amplifying market stress:** In times of financial market crisis, unnamed trading increases uncertainty and leads to confusion. This results in errors in assessing exposures and delays in workouts, thereby magnifying the impact of the crisis for the dealers and the marketplace.

- **Limiting information for anti-money-laundering compliance:** It could be illegal or too great a reputational risk for a dealer to conduct a trade with certain unnamed counterparties. Because the dealer cannot on its own verify the name and check that it does not appear on lists of proscribed counterparties (for example, in U.S. Office of Foreign Asset Control regulations), doing business on an unnamed basis may present higher legal and reputational risks.

Alternatives to Unnamed Trading

Unnamed trading has evolved over the last decade to address the needs of clients who find it imperative that their trading strategies and positions not be disclosed widely to the trading markets. Confidentiality is a valid concern for some counterparties. However, a valid need for confidentiality can be met with means other than unnamed trading. An alternative to unnamed trading is for the investment advisor to disclose the names of sensitive counterparties only to the dealers' administrative, credit, legal, and compliance functions. Dealers' trading areas can and should remain uninformed of the identity of the client who wishes to remain confidential. Rigorous nondisclosure agreements will aid in ensuring necessary confidentiality.

Current Environment

Concern over unnamed trading by dealers and investment advisors has escalated after a recent near-default and subsequent trade workout of an unnamed counterparty. Amid the workout, dealers found they held exposures to a counterparty that they would have reduced earlier had they known the counterparty's identity. This event illustrated the risks of unnamed trading and built momentum for a change throughout the market. The Foreign Exchange Committee and the London Foreign Exchange Joint Standing Committee have responded. The Joint Standing Committee has proposed changes to the Non-Investment Products Code (NIPS Code) to promote market practices similar to those outlined above.[1] The Foreign Exchange Committee has issued letters to industry groups and industry participants highlighting the risks associated with trading on an unnamed basis and discouraging its practice. As the Joint Standing Committee institutes regulatory change to eliminate this practice in the United Kingdom, the Foreign Exchange Committee strives to build consensus among market participants likewise to discontinue unnamed trading in the United States.

[1]The Non-Investment Products Code is a reference source used for regulatory review of financial institutions and investment managers.

COMMITTEE LETTER • ISSUED JOINTLY WITH THE FINANCIAL MARKETS LAWYERS GROUP

Commenting on HM Treasury's Consultation Paper *The Financial System and Major Operational Disruption*

FSM Team
Room 4/16
HM Treasury
1 Horse Guards Road
London SW1A 2HQ
England

May 9, 2003

Dear Sirs:

The Foreign Exchange Committee (FXC) and the Financial Markets Lawyers Group (FMLG) welcome the opportunity to comment on HM Treasury's consultation paper *The Financial System and Major Operational Disruption*.

The FXC, which is sponsored by the Federal Reserve Bank of New York (FRBNY), includes representatives of leading international commercial banks, investment banks, and other financial institutions who participate actively in the foreign exchange markets. The FXC's objectives include 1) providing a forum for discussing technical and market issues in the foreign exchange and related international markets, 2) serving as a channel of communication between those markets and the official sector in the United States, 3) enhancing knowledge and understanding of the foreign exchange and related international markets, and 4) fostering improvements in the quality of risk management in these markets. The FXC was very active on and after September 11 and has revised its best practices for contingency operations given the disruptions that occurred during that period.

The FMLG is a committee of lawyers working in-house at major international financial institutions; a list of our members is also attached. The FMLG meets in New York, also under the auspices of the Federal Reserve Bank of New York, and has members outside the United States—including in the United Kingdom. Moreover, attorneys on the FMLG support over-the-counter (OTC) financial product businesses with offices in London that participate quite actively in the London markets. Among other things, the FMLG supports and provides legal guidance to the FXC.

FMLG and FXC member institutions are also members of trades groups like the Bond Market Association (BMA) and the International Swaps and Derivatives Association, which we understand have commented or will comment at length on the consultation paper. Through this letter, the FMLG and FXC briefly wish to echo several particular points made in the BMA's letter, namely:

- It would be helpful for U.K. officials to engage in a full analysis of their existing powers to deal with contingencies as a prelude to considering any further legislation, particularly legislation that would increase governmental suspension powers. We know, for example, that U.S. authorities have engaged in such a self-examination in the wake of September 11. As a result, U.S. authorities have asked for relatively modest new powers when it comes to market closures, and we would hope that would be the case in the United Kingdom.

- As a general matter, measures increasing the power of governmental entities to close financial markets or otherwise making it more likely that governmental entities could close financial markets may undermine legal certainty in financial transactions. The ability of a regulatory body to close an over-the-counter market should be extremely well tailored, and the law should emphasize that such power is to be exercised only when needed and with the consultation of participants in those markets.

- English law is a common choice of law for contracts governing OTC products, even in cases when they and the counterparties have no nexus to the United Kingdom. We would hope that any contingency or suspension powers vested in U.K. authorities would not attempt to affect such contracts.

- The London markets are inextricably bound to other over-the-counter markets. We urge regulators in the United Kingdom to consult with regulators in the United States and in other over-the-counter dealing centers to ensure that the full extent of an action to close or disrupt markets in London is understood.

The FMLG appreciates this opportunity to comment on the consultation paper, and our members look forward to a future dialogue with the Treasury on these important issues.

Very truly yours,

Joyce M. Hansen
Chair
Financial Markets Lawyers Group

David Puth
Chair
Foreign Exchange Committee

212-720-6651 • Fax: 212-720-1655 • nyfx.committee@ny.frb.org • http://www.newyorkfed.org/fxc

COMMITTEE LETTER
Commenting on Provisions of Senate Bill 509

The Honorable Bill Frist
Majority Leader
United States Senate
Washington, D.C. 20510

The Honorable Tom Daschle
Democratic Leader
United States Senate
Washington, D.C. 20510

May 2003

The Honorable Bill Frist and the Honorable Tom Daschle:

We urge you to oppose any financial derivatives, energy derivatives, metals derivatives, and energy trading market provisions contained in S. 509 that may be offered as amendments by Senator Feinstein to H.R. 6, the Energy Policy Act of 2003.

The provisions of S. 509 (introduced by Senator Feinstein in March and referred to the Senate Agriculture Committee) include, in addition to other problematic provisions, language that would expand the Federal Energy Regulatory Commission (FERC) jurisdiction, creating uncertainty and unnecessary jurisdictional confusion between the FERC and the Commodity Futures Trading Commission (CFTC) for financial and energy derivatives transactions. The amendment also contains specific provisions to expand FERC jurisdiction over "other financial transactions." In addition to creating legal uncertainty within the over-the-counter derivatives markets, this provision would potentially call into question the CFTC's exclusive jurisdiction over futures and options on futures.

Provisions contained in S. 509 are similar to the Feinstein amendment, which was offered to last year's Senate energy bill. The amendment was defeated in a cloture motion on April 10, 2002. In addition, key financial regulators have also opposed these types of provisions. The Chairman of the Board of Governors of the Federal Reserve, the Secretary of the Treasury, the Chairman of the Securities and Exchange Commission and the Chairman of the Commodity Futures Trading Commission, collectively known as the President's Working Group on Financial Markets, all opposed earlier versions of the proposed legislation.

We ask that you preserve the legal certainty achieved with passage of the Commodity Futures Modernization Act of 2000 and oppose any amendments relating to financial derivatives and the energy trading markets.

Sincerely,

American Bankers Association

ABA Securities Association

Association for Financial Professionals

Bond Market Association

Emerging Markets Trade Association

Financial Services Roundtable

Foreign Exchange Committee

Futures Industry Association

International Swaps and Derivatives Association

Managed Funds Association

National Mining Association

Securities Industry Association

cc: United States Senate

COMMITTEE LETTER

Commenting on the Energy Market Oversight Amendment to Senate Bill 14

The Honorable Bill Frist
Majority Leader
United States Senate
Washington, D.C. 20510

The Honorable Tom Daschle
Democratic Leader
United States Senate
Washington, D.C. 20510

July 29, 2003

The Honorable Bill Frist and the Honorable Tom Daschle:

We urge you to oppose the energy market oversight amendment to S. 14 that we understand will be offered by Senators Feinstein, Levin, and Lugar.

Versions of this amendment have twice been rejected by the United States Senate on April 10, 2002, and, most recently, on June 11, 2003. Although the draft amendment made available last week reflects changes since it was last defeated, the initiative still contains inappropriate layers of regulation, including indirect establishment of capital requirements, that will negatively impact the recovering energy trading markets and encourage business to be conducted in jurisdictions outside of the United States.

The amendment is unnecessary. As the President's Working Group on Financial Markets noted in their June 11 letter opposing the previous version of the amendment, actions by various federal agencies against wrongdoing in the energy markets have resulted in substantial monetary penalties and other sanctions and make clear that wrongdoers in the energy markets are fully subject to the existing enforcement authority of federal regulators.

We ask that you again oppose the latest version of this amendment during Senate consideration of the pending energy legislation.

Sincerely,

ABA Securities Association
Association for Financial Professionals
Bond Market Association
Emerging Markets Traders Association
Financial Services Roundtable
Foreign Exchange Committee
Futures Industry Association
International Swaps and Derivatives Association
Managed Funds Association
National Mining Association
Securities Industry Association

cc: United States Senate

COMMITTEE LETTER
Commenting on the Need for the Highest Ethical and Managerial Standards

December 1, 2003

To the Foreign Exchange Trading Community:

Late last month, Federal authorities charged a large number of individuals working in New York-area foreign exchange trading firms with criminal behavior. The Foreign Exchange Committee is deeply concerned by these allegations.

Over the past twenty-five years the Committee, consisting of representatives from many of the world's leading foreign exchange trading organizations, has had the objective of enhancing practices in—and the functioning of—the wholesale foreign exchange market.

The Committee wishes to remind foreign exchange market participants of its *2002 Guidelines for Foreign Exchange Trading Activities*, which warn firms against possible abuses and questionable trading practices. The recent law enforcement actions highlight the need for market participants to conduct their operations in accordance with the highest ethical and managerial standards.

1. THE COMMITTEE'S CONCERNS OVER ABUSES IN THE RETAIL FOREIGN EXCHANGE MARKET

Many of the recent allegations concern market practices in the retail foreign exchange market, where investors are less able to protect themselves from fraud than institutional traders in the wholesale foreign exchange market. This alleged malfeasance has the capacity to undermine the reputation of all institutions and individuals who trade foreign exchange.

The Committee has long supported the Federal regulatory enforcement authority to protect small, individual investors from abuse and will continue to do so in the future. Although the retail foreign exchange market is not a focus of our best practice efforts, the Committee is currently reviewing market developments in areas where there is a confluence of wholesale and retail foreign exchange trading.

2. THE USE OF POINTS IN FOREIGN EXCHANGE TRADING

The behavior cited in last month's charges involved the use of points or points-type compensation between individuals or firms. The Committee has for many years strongly discouraged the use of points in foreign exchange trading and has noted that points can obscure unethical behavior and have the potential to distort a firm's financial records. As the Committee stated in a 1991 letter on points: *"Any institution engaging in this practice undermines the integrity of the U.S. foreign exchange market and the stature and prestige of its own organization, its managers, and its employees."*

The Committee will examine what measures can be taken by both foreign exchange dealers and brokers to minimize potential abuses by targeting circumstances that lead to the use of points. Such measures might include enhanced controls, contemporaneous time-stamping of trades, and straight-through processing.

3. GOING FORWARD

Committee members are assessing their own operations with a view toward strengthening internal controls and ethical standards where necessary; the Committee encourages other market participants to do the same. The Committee intends to update its market guidance as necessary. Any Committee efforts will be coordinated to the extent possible with other foreign exchange market advisory groups elsewhere in the Americas, Europe, and Asia, with which the Committee collaborates regularly.

Whether the issue be points, questionable behavior, or any other practices that adversely affect the integrity of the foreign exchange market, the Foreign Exchange Committee believes that all market participants need to take measures to preserve a fair, transparent, and efficient marketplace.

Very truly yours,

David Puth
Chairman
Foreign Exchange Committee

COMMITTEE LETTER
FROM THE OPERATIONS MANAGERS WORKING GROUP
Commenting on the *Overview of the New Basel Capital Accord*

July 31, 2003

To the Basel Committee on Banking Supervision:

The New York Foreign Exchange Committee's Operations Managers Working Group appreciates the opportunity to review the third consultative paper on the new Basel Capital Accord. Our working group is a subgroup of the New York Foreign Exchange Committee. We develop, publish, and encourage industrywide operations-based best practices for the entire foreign exchange community.

Our membership includes foreign exchange operations professionals from a number of large financial institutions. Because our group's expertise is operations, we focused our attention on the operations risk sections of the *Overview of the New Basel Capital Accord*.

It is clear that the upcoming implementation of rigorous analysis and measurement of operational risk represents quite a challenge for large global financial institutions. Yet, the benefits of this work are apparent. We believe the difficult transition process will be effectively facilitated by the flexibility outlined by your committee as well as the planned close interaction of international supervisors with the financial community.

While we recognize that your group has set up very effective support for the transition to the new capital regime, we want to share with you a few of our thoughts about the Accord.

We acknowledge the potential for an uneven playing field among the variety of institutions around the globe as they, supported by their supervisors, seek to measure and account for their operations risk. Here, we think the Basel Accord Implementation Group (AIG) provides an important solution. The AIG is helpful as it provides a mechanism to guide the global market through the many ongoing innovations that routinely occur in our very creative environment.

We believe, in line with the Basel Capital Accord II, that an accurate capture of risk in new trends may be difficult. Recent fast-moving trends in the operations area caution against rigid capital regimes. For example, many global banks may be relying on remote locations and outsourcing for an increasing portion of their operations support. Limited history with this operational approach may make effective measurement of operational risk difficult.

We also recognize the strain these new processes will put on supervisory resources in the member countries. The demands on the supervisors to support the global institutions may be substantial. Success will require significant supervisory resources in combination with the active participation and cooperation of all global financial institutions. In other words, the Capital Accord's success hinges on the effective collaboration of the public and private sectors.

Again, we appreciate the opportunity to review and study the new risk management plans for the global financial institutions. We hope our brief comments are helpful to you as you finalize your documents.

Sincerely,

Mel Gunewardena
Chairman
Operations Managers Working Group

"A Foreign Exchange and Policy Retrospective"

Written Version of Remarks Delivered at the Twenty-Fifth Anniversary of the Foreign Exchange Committee

John B. Taylor, Under Secretary of the Treasury for International Affairs

October 2, 2003

"A Foreign Exchange and Policy Retrospective"

Good evening. It is a pleasure for me to be here to help mark the twenty-fifth anniversary of the Foreign Exchange Committee. I thank David Puth for his kind introduction and Dino Kos for the invitation to speak. I have benefited greatly from the conversations I have had with both of them and others close to the foreign exchange markets since I have been in my current position at the U.S. Treasury.

We appreciate the work of the Foreign Exchange Committee over the past twenty-five years. You have helped to foster the successful development of one of the largest and most valuable markets in the world. The growth and stability of the world economy depends on a reliable and efficient means of making payments, transferring funds, and determining the rate of exchange between currencies. With around-the-clock trading and turnover of about $1.2 trillion a day, the foreign exchange markets deliver an essential service to a multitude of corporations, governments, investors, and people on holiday. It is worthy of note on this anniversary occasion that foreign exchange trading is now hundreds of times greater than that at the time of the birth of the Committee.

Good market structure must embrace integrity and transparency. So we applaud the work of the Committee on guidelines for trading and best practices on operations. I examined the Committee's most recent update of best practices from March of this year. There are sixty best practices in all. I must say that the one that especially attracted my attention was the last one: Best Practice number 60: Develop and Test Contingency Plans. Contingency planning—both the strategic and tactical parts—is something we have been doing a lot of lately in the Treasury.

Contingency Planning: An Important Example

You may have heard about our contingency planning for the currency in Iraq. It was developed well before the start of the military conflict. Its aim was to establish economic stability and prevent economic crisis in the wake of the fall of Saddam's regime. This required that Iraqi workers be paid and that Iraqi pensioners receive payments following Saddam's fall. It also required that the currency remain stable. Our plan was to pay people in U.S. dollars, on an interim basis, using Saddam's dollar assets that were frozen back in 1990. This would both create stability and give the Iraqi people the means of purchasing goods, including consumer goods from abroad. After making these initial dollar payments, we then planned to help the Iraqi people introduce a new Iraqi currency of their own choosing.

I am happy to say that this plan is on track. We have paid millions of Iraqis over a billion dollars in U.S. currency. I am also happy to say that there has been no collapse of the Iraqi currency, that a new national currency has been designed, and that it is ready to be introduced into circulation. We are shipping twenty-seven Boeing 747 planeloads of the new currency to Iraq from printing facilities in England, Spain, Germany, and Sri Lanka. I have a few specimens here if you want to see them.

As this story illustrates, currency markets are an even larger part of our job at the U.S. Treasury than commonly appreciated. And there are other interesting stories I could tell—about the warlords' currencies in Afghanistan, about provincial currencies in Argentina. But tonight I would like to share some perspectives on the more developed currency markets that you are engaged in.

Policy Principles

Our policy on exchange rates is part of our overall international economic strategy. The strategy stems from a deep commitment to economic growth and economic stability. The recent G-7 Agenda for Growth, just agreed to by finance ministers and central bank governors in Dubai, is our latest pro-growth initiative. It is a short one-page attachment to the G-7 statement. It provides a process for benchmarking and reporting, in which each G-7 country takes actions to spur growth and create jobs. It focuses on supply-side policies that increase flexibility and remove structural barriers to economic activity. I think this G-7 Agenda for Growth is a tremendous achievement. It reflects the product of Secretary Snow's hard work in his travels to Europe in July and Asia in September in challenging other financial officials to dedicate themselves to strengthening growth.

We have also been encouraging countries to adopt flexible exchange rate regimes. Flexible exchange rates promote smooth adjustments in the international financial system. They ease the adjustment to changing fundamentals. To work well, however, flexible exchange rate regimes require a monetary policy with a focus on price stability and with a transparent procedure for setting the instruments of policy. In fact, I often refer to this as the *trinity*: 1) a flexible exchange rate, 2) a goal of price stability, and 3) a systematic process for adjusting the policy instruments.

We emphasize that the choice of an exchange rate regime is one where country ownership is particularly important. We also recognize that, especially in the case of small open economies, there are benefits from a "hard" exchange rate peg, whether dollarizing, as with El Salvador, joining a currency union, as with Greece, or using a credible currency board, as in Bulgaria or Hong Kong. Of course, these various hard pegs will not prevent the adverse consequences of poor economic policies

The recent G-7 statement also addresses exchange rate issues, as has been much discussed. I know from spending time on trading floors that a lot of trading and price changes take place on the basis of headlines flashing across traders' screens. So let me read all three sentences on the exchange rate that appeared in the G-7 statement. They are fully consistent with the principles that Secretary Snow has been stressing. It says that:

> *"We reaffirm that exchange rates should reflect economic fundamentals. We continue to monitor exchange markets closely and cooperate as appropriate. In this context, we emphasize that more flexibility in exchange rates is desirable for major countries or economic areas to promote smooth and widespread adjustments in the international financial system based on market mechanisms."*

Let me emphasize that there was full agreement about this statement, not just Secretary Snow and Chairman Greenspan, but all the other ministers and central bank governors.

It is also important to note that in Dubai, shortly after the release of the G-7 statement, Secretary Snow reaffirmed the commitment to the strong dollar policy. Talking down a currency is bad economics.

Finally, it should be emphasized that this statement about exchange rates was put forth in the context of the broad G-7 Agenda for Growth, which I already highlighted.

Historical Perspective

This twenty-fifth anniversary of the Foreign Exchange Committee is an opportunity to put these policy principles in historical perspective. The birth of the Committee happens to correspond to the period I would characterize as the peak of the bad old days of high inflation and output instability. Much progress has been made since then.

In the 1970s, monetary policy frequently failed to lean hard enough against the wind. As a result, inflation would rise, bringing pressure on the exchange rate, and eventually leading to a decline in output. These swings in inflation and output resulted in more volatile exchange rates.

Monetary policy has changed since these bad old days as evidenced by much greater price stability and output stability in the United States and many parts of the world. The change for the better is reaffirmed by the relatively resilient global economy in the wake of recent shocks. And the move by Brazil, Korea, Mexico and others to adopt flexible exchange rates, combined with clear price stability goals and a system for adjusting

the policy instruments, is one of the reasons we are seeing fewer crises and greater stability. More generally, it is good news that nearly 100 countries have chosen to abandon pegged exchange rates and have either floated their exchange rate, dollarized, joined a currency union, or created a currency board.

This progress can be attributed to historical developments in three broad areas.

First, recognition that higher inflation would not bring about lower unemployment, a view that was widely held before the 1970s.

A second development—closely related to the first—concerns the procedures used at central banks for setting the instruments of monetary policy. The main change here is that decisions about the instrument of policy—frequently the overnight interest rate—are being approached and analyzed in a more systematic fashion both in research and in practice. And when viewed in this more systematic fashion, one can detect an increased responsiveness of the instruments of policy to inflation and the real economy.

Third, success is infectious. The diffusion of ideas and experience about monetary policy around the world represents another development behind more stable international prices. The Great Inflation of the late 1960s and 1970s is frequently discussed as if it were solely an American inflation. But this same general inflation pattern—and in particular the end of inflation in the 1980s—can be found in many countries and regions of the world. In recent years the diffusion of ideas and experiences is found in the increasing number of central banks emphasizing price stability, transparency, and independence. In fact, the diffusion of ideas has been a powerful force throughout the industrialized world and—perhaps of even larger impact—in improving stability in many emerging market economies previously plagued by hyperinflation.

Groups like the Foreign Exchange Committee help create the diffusion of good ideas. By continuing to bring together the best practices and promoting them, I am sure that the Committee will continue to contribute significantly. And it is important that is does so, because the next twenty-five years are likely to bring about as many changes as we have seen in the past twenty-five years.

Thank you.

Membership

THE RESPONSIBILITIES OF MEMBERSHIP

The Foreign Exchange Committee is a select group of individuals who have achieved stature within their own institutions and the marketplace. By becoming members of the Committee, these individuals expand their focus beyond their own institutions to encompass the entire market. The various responsibilities of the Committee members are outlined in the document of organization, reprinted on page 103. Some important requirements for membership are explained below:

- Frequent face-to-face interaction is encouraged to maximize camaraderie and facilitate problem solving and crisis management. To accomplish this, members need to attend all Committee meetings; there are no alternate members and no provisions for conferencing to outside locations.

- The Committee seeks to improve market conditions and reduce risk by developing recommendations or other guidance for market participants. To ensure that the Committee is current on market problems and issues, members need to expeditiously alert the Committee to important developments that they might encounter during a day's activity.

- Each member must be an effective communicator and problem solver with a commitment to raise and, when possible, resolve market and industry issues. The Committee's sponsor, the Federal Reserve Bank of New York, views the Committee as an advisory group that identifies market-related problems, suggests solutions or next steps, and provides feedback on any agreed-upon actions. Members need to meet these expectations.

- Once the Committee takes an action at a meeting, members share and disseminate information, best practices, or related recommendations throughout their own institutions as well as among industry groups and organizations. The Committee's ability to solve problems and gather support for its actions and recommendations depends on the strong link that members have with each other, with their sponsor (the Federal Reserve Bank of New York), and with their institutions and other participants in the foreign exchange market.

- Finally, all members should participate in projects and volunteer their organizations' resources when needed.

MEMBERSHIP SUBCOMMITTEE

The Membership Subcommittee manages the organization of the Committee by choosing new members, assigning duties, assessing the participation of the current membership, and changing, if needed, the composition of the Committee. The Membership Subcommittee is the only standing subgroup of the Committee; other subgroups function on a temporary basis and are formed to address specific issues or concerns.

The Federal Reserve representative on the Committee chairs the Membership Subcommittee. Subcommittee members (see below for 2003 and 2004 membership) include the Committee's Chair as well as several longstanding and respected members of the Committee.

Much of the subcommittee's work occurs during October and November as the Committee prepares for the upcoming year. In its first conference call, the subcommittee:

- reviews the current Committee membership, taking account of meeting attendance and project participation over the past year;
- notes members whose four-year terms expire at year-end; and
- lists members who resigned or intend to resign prior to the end of their term because of developments at their institution such as retirement, resignation, reassignment, or institutional merger activity.

In planning for the new year and considering new individuals for membership, the Committee may reduce or increase the size of the Committee while recognizing that the document of organization caps the number of members at thirty.

Members whose terms are expiring are often offered a four-year renewal. The Committee's core group of long-standing members, whose terms have been renewed several times, benefits the entire group by providing a consistency of objectives and an enhanced knowledge of the Committee's history. Members who have been unable to meet the expectations for attendance and project participation may be asked to either step down or recommend others within their organization who might provide the Committee with more active and consistent support.

When discussing new members, the group considers each candidate's caliber, position, and recognition in the marketplace, as well as the degree of importance the candidate's institution has in the foreign exchange arena. The subcommittee considers individuals who have contacted the Committee directly. In addition, members of the Committee, the subcommittee, or other market participants may nominate an individual who they feel will benefit the Committee's mission.

The subcommittee also weighs the institutional composition of the Committee in its membership decisions on the theory that membership should reflect the overall organization of the actual market. During 2004, the Committee's membership will include individuals from commercial and investment banks, a voice broker, and the EBS Partnership.

Finally, the subcommittee designates appropriate members to function as liaisons to facilitate communication between the Committee and its existing working groups. The liaisons for 2003 and 2004 for the two existing working groups are identified below.

ASSIGNMENTS, 2003 AND 2004

2003

Committee Chairman

David Puth

Liaisons for Working Groups

Chief Dealers
James Kemp
Sue Storey

Operations Managers
Richard Rua
Robert White

Risk Management
Jamie Thorsen

Membership Subcommittee

Dino Kos (Chairman)
James Kemp
David Puth
Mark Snyder
Jamie Thorsen

2004

Committee Chairman

Mark Snyder

Liaisons for Working Groups

Chief Dealers
James Kemp
Sue Storey

Operations Managers
Richard Rua
Robert White

Risk Management
Jamie Thorsen

Membership Subcommittee

Dino Kos (Chairman)
James Kemp
Mark Snyder
Jamie Thorsen

Meetings, 2003 and 2004

The Foreign Exchange Committee meets approximately eight times a year. Of the eight meetings held, two are usually luncheons while the remaining six consist of a two-hour late afternoon sessions followed by a reception and dinner. The Chairman, working with the executive assistant and other representatives from the Federal Reserve Bank of New York, is responsible for the agenda. In preparing for the meetings, the Chairman solicits advice from the other Committee members and receives updates from members who interact with the Operations Managers Working Group and Chief Dealers Working Group.

The meetings are action oriented rather than information based. Each meeting opens with a discussion and analysis of market conditions. The Chairman will often ask members specific questions and request their feedback, comment, or advice. In 2003, for example, members began a number of meetings with detailed comments on the recent trading patterns of the U.S. dollar, euro, and yen. Other topics included the fixed-rate Asian currencies and the evolving Latin American currencies and their impact on developed economies. The discussions during the markets development portion of the meeting not only provide important information and guidance for the Committee's sponsor, the Federal Reserve Bank of New York, but often plant seeds for future projects and initiatives. The market development section is followed by a review of specific industry developments, including legal matters.

In the second half of the meeting, the members turn to the specific projects or initiatives of the Committee and its associated working groups. The individual members who sponsor the Committee's projects lead the project discussion with the objective of obtaining approval of next or final steps. In 2003, for example, some of the projects included efforts to eliminate unnamed counterparty trading and to simplify trade-related documentation for nondeliverable forwards (NDFs). Decisions on project-related work are made during meetings.

The Committee underscores the importance of strong interaction with its associated global groups by routinely inviting guests from other foreign exchange committees and related industry groups. At the February 2003 meeting, the Committee invited members of the Operations Managers Working Group. The chairman and assistant to the London Foreign Exchange Joint Standing Committee were guests at the June meeting and Bank of Canada representatives to the Canadian Foreign Exchange Committee attended the Committee's September luncheon. On November 6, the Committee held its seventh

annual joint meeting with the Singapore Foreign Exchange Market Committee. The guest at that meeting, held in New York, was the chairman of CLS Bank.

2003

January 9

February 13

March 27

June 11

September 11

October 2

November 6
(in New York with the Singapore Foreign Exchange Committee)

2004

January 8

February 12

March 11

May 6

June 10

September 16

October 14

November 4
(in Singapore with the Singapore Foreign Exchange Committee)

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Document of Organization

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

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

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

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

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

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

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

THE COMMITTEE OBJECTIVES 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 System 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,

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

- **to work** closely with the Financial Markets Association–USA and other formally established organizations representing relevant financial markets.

THE COMMITTEE

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

1. The Committee should consist of no more than thirty members. In addition, the president of the Financial Markets Association–USA is invited to participate.

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

3. Responsibility for choosing member institutions rests with the Federal Reserve Bank of New York. The Membership Subcommittee, chaired by a Federal Reserve Bank official, advises the Federal Reserve on membership issues.

4. The membership term is four calendar years. A member may be renominated for additional terms; however, an effort will be made to maximize participation in the Committee by institutions eligible for membership.

5. Members are chosen with regard to the firm for which they work, their job responsibilities within that firm, their market stature, and their ongoing role in the market.

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

COMMITTEE PROCEDURES

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

Members are expected to attend all meetings.

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

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

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

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

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

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

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

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

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

RESPONSIBILITIES OF COMMITTEE MEMBERS

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

The specific responsibilities of each member are

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

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