



***The Foreign  
Exchange Committee***



***Annual Report  
2006***

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## ■ CHAIR'S LETTER

As I step down after three years as Chairman of the Foreign Exchange Committee, I am convinced more than ever that private sector industry leaders can advance markets by working together with public sector officials. The members of the Foreign Exchange Committee bring knowledge, insight, high standards of excellence, a global outlook, and integrity to the work of the Committee. Through consultation, collaboration, commitment, and goodwill, the Committee has been able to craft guidance for wholesale currency market participants that has enhanced the market's integrity and operation for more than twenty-five years. In the years ahead, it will be critical for market leaders serving on the Committee to follow in the steps of their predecessors by taking ownership of projects and raising issues of concern as the market evolves. The 2006 members answered the call to engage fully in this important cause, and I am pleased to report on the highlights of this productive year.

The structure of the market has undergone significant change in the past three to four years. In 2006, the pace of change accelerated, and the new market that had been anticipated for years fully arrived. The combination of sophisticated electronic trading technologies, prime brokerage, and a more diverse set of market participants has altered counterparty relationships, affected liquidity conditions, and fostered a dramatic increase in the number of transactions. Today, nonbank participants are providing the market with liquidity via electronic platforms barely possible just one or two years ago. Retail investor access to the market has increased, bringing business risks as well as opportunities to wholesale market participants. High-velocity algorithmic trading and constant streamed liquidity are now commonplace across many currency pairs twenty-four hours a day.

In 2006, the Committee responded to these market structure changes by holding two precedent-setting events and completing work on a major project:

- On May 31, the first Compliance Forum on Foreign Exchange was held.
- On October 26, the first Foreign Exchange Committee Global Conference was convened at the Federal Reserve Bank of New York.
- On June 19, the Committee published *Autodealing: Market Impact and Best Practice Recommendations*.

In addition to these accomplishments, the Committee released an enhanced Master Confirmation Agreement for Non-Deliverable Forward FX Transactions and published its biannual volume surveys.

### **Analyzing the Effect of Autodealing and Formulating Best Practice Recommendations**

By publishing *Autodealing: Market Impact and Best Practice Recommendations*, the Committee completed a multiyear effort to provide guidance to the industry on the major structural changes in the foreign exchange market in recent years. In 2005, the Committee published *Foreign Exchange Prime Brokerage: Product Overview and Best Practice Recommendations* and composed a letter to wholesale market participants on the subject of retail foreign exchange. These two documents, along with the autodealing paper, reflected the Committee's recognition that the elements of a foreign exchange transaction are increasingly being unbundled and repackaged and that multiple links are being introduced in the distribution chain. Additionally, the combination of the rapid growth of retail FX trading, autodealing, and prime brokerage has had a significant effect on how our market functions.

In my introductory letter to the autodealing paper, I observed that autodealing has improved the overall operational efficiency of the dealer community—by increasing deal flow, deepening liquidity, and stimulating the development of straight-through processing capabilities. At the same time, autodealing has heightened the sensitivities of market participants to the capacity of their respective technological infrastructures and permitted an increase in anonymous trading. The best practice recommendations address risk management and technology considerations for operating within the autodealing setting, steps to apprise new entrants of professional practices and standards of behavior, reputational risk and confidentiality issue monitoring, and management of latency issues. The Committee encourages all market participants to appreciate the impact of autodealing on the FX market worldwide and urges them to adapt to the changes that are accompanying it.

## The First Compliance Forum on Foreign Exchange

In hosting the first Compliance Forum on Foreign Exchange, the Committee brought together compliance professionals from member firms to discuss issues of mutual interest. For instance, what level of due diligence is sufficient to meet anti-money-laundering standards and to know your customer requirements when opening accounts for trading with agency investment managers? What standards are commonly in place for safeguarding client information across dealers' trading desks? Members of the Risk Management and Compliance Subcommittee led a discussion of these and other topics with the compliance officers. The Committee supports holding another event in 2007 because major market participants face similar concerns, and this type of gathering offers an important opportunity to share ideas and develop industry contacts as well as to highlight new areas of concern. The complexities introduced by evolving market structures, new products, altered counterparty relationships, and advances in technology all lead to new compliance issues and the need to find suitable standards and, perhaps, guidelines.

## The First Foreign Exchange Committee Global Conference

For many years, the Committee has maintained formal and informal contact with various foreign exchange industry bodies in other market centers around the world. Those of us in the currency market are acutely aware of, perhaps more so than other market participants, how financial markets have become increasingly global and interconnected. Today, the foreign exchange market is arguably the world's largest market and has become a global, distributed network—operating 24/6—for the world's economy and financial markets. It is critical infrastructure to world trade, foreign direct investment, and cross-border securities investment. The largely over-the-counter nature of the FX market and the absence of central exchange structures make it uniquely dispersed. And although the market itself has not been regulated, many participants—in particular, banks and broker-dealers—are. These realities and the aforementioned dramatic changes to the market in recent years have made it a goal of mine to bring together in one place the leaders of the other major foreign exchange committees.

*Today, the foreign exchange market is arguably the world's largest market and has become a global, distributed network—operating 24/6—for the world's economy and financial markets.*

On October 26, the chairs of these committees, as well as the committee secretaries and relevant central bank sponsors and private sector liaisons, assembled in the boardroom of the Federal Reserve Bank of New York for a four-hour meeting followed by a dinner reception. The expectation was that by getting together, we could facilitate communication and understanding between our respective committees and promote the smooth and efficient operation of the global foreign exchange market. To accomplish this objective, we focused on five broad agenda items:

- to highlight committee mandates and organizing principles,
- to share perspectives on critical issues, developments, and trends,
- to discuss key committee initiatives and projects,
- to determine appropriate ways in which the global committees can enhance collaboration, and
- to examine methods for improved communication among the committees.

Participating organizations were the Foreign Exchange Committee, the Foreign Exchange Joint Standing Committee, the Singapore Foreign Exchange Market Committee, the Canadian Foreign Exchange Committee, the Tokyo Foreign Exchange Market Committee, the Foreign Exchange Contact Group, the Australian Foreign Exchange Committee, and the Treasury Markets Association of Hong Kong.

The participants recognized many common objectives, and all endorsed the concept of forging a global network of independent foreign exchange committees with subsequent meetings planned for future years.

## Reflecting on the Past and Looking Ahead

As I look back on my eight years on the Committee, the last three as Chairman, I believe a key element of our success has been the willingness of members to work together to reach mutually agreeable solutions that enhance our market. We have done this while being mindful of our intentionally limited role, so that the currency market can continue to thrive as one of the freest markets on the planet. As a result, the market can meet the needs of enterprises and people around the globe more effectively.

*I believe a key element of our success has been the willingness of members to work together to reach mutually agreeable solutions that enhance our market.*

It is not too bold to say that for the past twenty-eight years, members of the Committee have shaped best practices and established standards that have not favored competing interests, yet they have fostered an incredibly successful self-regulated market. More so than ever before, the FX market plays an integral role in the efficient allocation of capital and labor and in the transparent analysis of national economies and the currencies that represent them. Current and former members of the Committee are to be commended for contributing to this evolution, and new members will undoubtedly have opportunities to contribute in the years ahead. As members discover shared purposes beyond narrow self-interest, they will find their reward for the many hours they commit to serving the industry.

In 2007 and beyond, a number of key issues will face the Committee. The role of technology in the FX marketplace will no doubt continue to evolve, presenting even more challenges to best practice guidelines and market conventions. The dramatic increase in new market participants beyond banks and broker-dealers will raise the issue of Committee membership composition and the prospect of including representatives of buy-side institutions. Regulatory initiatives around the world that directly affect the foreign exchange market will likely benefit from the insights of the Committee, so that unintended consequences and unnecessary and unwieldy market constraints on this highly global business can be avoided. Furthermore, I suspect that members of the rapidly growing retail segment of the foreign exchange industry will continue to refer to the work done by the Committee in this area during my tenure as Chair.

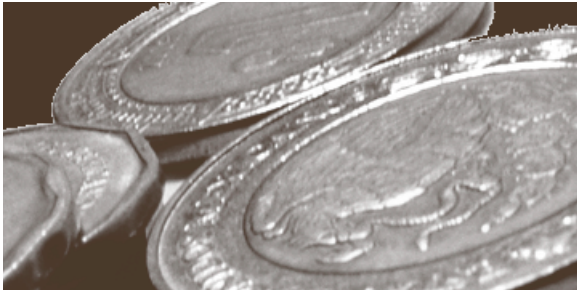
Finally, I would like to thank the Committee members with whom I have had the privilege to work during these past years, as well as the former members who served with me since 1999. Because of your willingness to participate in projects and contribute at our meetings, we have accomplished a great deal. Thank you mostly for your camaraderie and friendship; I have found this aspect of serving on the Committee perhaps the most personally rewarding and satisfying.

**Mark Snyder**





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*Actions and  
Initiatives*

# Works in Progress for 2007

In 2006, the Committee continued to identify risks associated with the evolution of the foreign exchange market, issuing a set of best practice recommendations for dealers and prime brokers operating in the autodealing environment. The Committee also continued its efforts, in conjunction with the International Swaps and Derivatives Association, Inc., and EMTA, Inc., to publish documentation and guidance on non-deliverable forward FX transactions and to provide updated documentation on FX and currency option definitions.

Technological developments are transforming the marketplace. Looking ahead, the Committee in 2007 will assess the effect of these developments on market conditions and practices. It will continue to work with industry members to ensure that emerging risks are properly identified, measured, and managed in order to promote the ongoing smooth functioning of the market.

## **Technology**

Advances in information technology—in particular, the prevalence of electronic trading platforms—are facilitating the entry of new participants into the foreign exchange market. Within this context, the liquidity landscape of the marketplace is being altered as nonbank institutions are increasingly providing liquidity on electronic trading platforms, whereas previously the interbank market traditionally had been the primary source of liquidity. In 2007, the Committee will explore issues surrounding the effect of rapidly developing technology on liquidity provision, market structure, and market resilience.

## **Retail Foreign Exchange Trading**

Retail foreign exchange is one of the fastest-growing segments of the FX market. Two years ago, the Committee published a document addressing potential risks arising in retail foreign exchange trading. With this segment of the market continuing to expand globally, the Committee in 2007 will collect new data and update the information on market practices presented in its December 2005 document.

## **Best Execution**

The market expansion fueled by new technology will affect financial market supervision and regulation. In various locales and asset classes, this has led to a discussion of risk, responsibility, and execution standards. The Committee in 2007 will closely monitor developments in various financial markets, with a view toward assessing the possible effects on foreign exchange.

## **Updating Trading Guidance**

The Committee recognizes the value of revising its guidance to address emerging issues in an evolving industry. In 2007, the Committee plans to revise the *Guidelines for Foreign Exchange Trading Activities* to reflect more accurately developments in the market and incorporate best practices to address changes in market behavior.

## **Efforts of the Working Groups**

The Chief Dealers Working Group in 2007 will continue to publish the Survey of North American Foreign Exchange Volume. The group will also assist the Committee in its initiative to update the *Guidelines for Foreign Exchange Trading Activities* and to examine the liquidity implications of technological developments and electronic trading.

The agenda of the Operations Managers Working Group includes continuing its efforts to develop, in conjunction with the Financial Markets Lawyers Group and EMTA, Inc., a Master Confirmation Agreement for Non-Deliverable Forward FX Transactions; to explore the changing nature of the confirmation process and the implications of advances in technology and electronic trading; and to update the Committee's guidance on managing operational risk in foreign exchange, as needed.

# Legal Initiatives

## Introduction to the FMLG

The Financial Markets Lawyers Group (FMLG) is a committee of lawyers from leading worldwide financial institutions that supports over-the-counter (OTC) foreign exchange and other financial markets trading. It originated in the late 1980s, when a group of lawyers joined together to develop a model master netting agreement for foreign exchange trading in the United States. The FMLG advises the Foreign Exchange Committee on many initiatives and also pursues its own capital markets initiatives. The FMLG is sponsored by, but independent of, the Federal Reserve Bank of New York (FRBNY). A senior FRBNY legal officer chairs the FMLG, and senior staff of the Bank's Legal Department are members.

The FMLG provided support to the Foreign Exchange Committee in the development and publication in 1997 of master netting agreements for foreign exchange transactions—the International Foreign Exchange and Options Master Agreement (FEOMA), the International Foreign Exchange Master Agreement (IFEMA), the International Currency Options Market Master Agreement (ICOM), and the International Foreign Exchange and Currency Option Master Agreement (IFXCO). Recent accomplishments include the introduction with cosponsors of the industry's first Master Confirmation Agreement for Non-Deliverable Forward Foreign Exchange Transactions. The FMLG also introduced the industry's first Foreign Exchange Master Give-Up Agreement and cosponsored the *1998 FX and Currency Option Definitions (1998 Definitions)*. Members have participated in a number of global initiatives, including the Global Documentation Steering Committee, the Hague Convention on collateral accounts, and industry preparation for Y2K and conversion to the euro. The FMLG continues to draft new trade documentation, best practice recommendations, legal briefs, comment letters, and policy papers associated with OTC market developments.

The FMLG has relationships with OTC industry associations and official institutions worldwide to

maintain channels of communication and cooperation on issues of importance to the foreign exchange and OTC markets. Among the groups that it enjoys close ties with are EMTA, Inc., the International Swaps and Derivatives Association, Inc., and the Securities Industry and Financial Markets Association in the United States; the European Financial Markets Lawyers Group, sponsored by the European Central Bank; and the Financial Markets Law Committee and the Foreign Exchange Joint Standing Committee, sponsored by the Bank of England. This year, the FMLG participated in a successful trilateral meeting of representatives of the Financial Markets Law Committee and the European Financial Markets Lawyers Group.

## FMLG Initiatives during 2006

Many of the FMLG's projects in 2006 underscore its strong bond with the Foreign Exchange Committee. Other efforts reflect the FMLG's policy interests and the coherent relationship that has evolved among legal-oriented industry groups within the global community.

### *NDF Master Confirmation Agreement*

This year, the FMLG played a key role in assisting the Committee and coordinating with the Foreign Exchange Joint Standing Committee and EMTA, Inc., in the development of the industry's first Master Confirmation Agreement for Non-Deliverable Forward Foreign Exchange Transactions (NDFs). The Master Confirmation Agreement was published in December 2006 to provide market documentation for NDFs that would streamline confirmation processes by automatically incorporating terms of currency-specific NDF confirmation templates published by EMTA, Inc. The Agreement also allows parties to confirm their NDFs in a variety of ways, including by electronic messaging on electronic trading, messaging, or settlement systems. The FMLG is working with CLS Bank and will work with other electronic systems interested in developing and implementing a multilateral form of the Master Confirmation Agreement.



### *FMLG-CLS Working Group*

The FMLG established a working group, with the participation of representatives from CLS Bank, to lend expertise in CLS Bank's plans to initiate settlement services for NDFs and currency option premiums. The FMLG provided input on CLS Bank's documentation associated with this initiative, which is expected to be implemented in July 2007.

### *Prime Brokerage*

The FMLG continues its work in the prime brokerage arena, forming working groups that have undertaken studies of reverse give-up FX prime brokerage relationships and fixed-income prime brokerage principal letters. The working groups intend to provide industry guidance on related legal and operational issues.

### *Monitoring and Influencing Legislative, Regulatory, and Judicial Action*

Throughout 2006, the FMLG closely followed pending legislation and regulation that could potentially affect the foreign exchange and financial markets. It joined with other industry groups in commenting on and endorsing the enactment of netting-friendly legislation in Canada. The FMLG also continues to share its expertise with regulators on how the customer due diligence requirements of the USA Patriot Act should apply in the foreign exchange prime brokerage context.

### *Opinions*

The FMLG continued its long-term efforts to coordinate the annual compilation and updating of legal opinions on IFEMA, ICOM, FEOMA, and IFXCO. This year, David Miller of the FMLG solicited updated opinions from more than thirty jurisdictions in which member firms are active.



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*Publications*

# Why Ethics Matter in FX Trading:

## Best Practices, Market-Based Discipline, and Supervision Support Principles

*A speech presented by Mark Snyder, Chair, Foreign Exchange Committee, at the FX Trading and Management Conference, New York City, November 1, 2006*

### Introduction

I am honored to share with you some thoughts on the ethical implications of the critical, permanent changes under way in the foreign exchange market. And, as I am about to complete my three-year term as Chairman of the Foreign Exchange Committee, I want to tell you about interesting work being done by the Committee, particularly our ground-breaking partnership with industry bodies around the world and our recently published letter, *Autodealing: Market Impact and Best Practice Recommendations*.

As a self-supervising, transnational, unregulated trading community, the foreign exchange market—more than any other financial market—must shoulder the responsibility of ensuring that its practices are state-of-the-art, that market forces are allowed to work unhindered, and that its practitioners adhere to high ethical standards. The FX market's history of supervision without proscriptive regulation has many sources:

- The FX market is by its very nature transnational, so it cannot easily fall under the mandate of single national regulators.
- A supranational regulatory body is very unlikely because sovereign governments and their central banks, I venture to guess, will never cede authority over their currency policies.
- The over-the-counter nature of the market and the absence of central exchange structures make the FX market uniquely dispersed.
- Wholesale FX market participants, by virtue of their size, depth, and global reach, have traditionally been able to “take care of themselves.”

- Ethical behavior has been enforced by market forces—network effects make unprofessional practices known among market participants—with resulting subtle and sometimes non-so-subtle sanctions.
- Finally, while the market itself has not been regulated, many participants—in particular, banks and broker-dealers—have been. And their FX activities have been subject to review, with problematic practices subject to criticism and penalty.

This approach has not been the “parking ticket” approach common to the proscriptive regulatory regimes of other asset classes. But nonetheless, the admonishments of banking supervisors and broker-dealer regulators have been persuasively communicated.

This self-regulating structure has resulted in a remarkable success story:

- World trade, foreign direct investment, cross-border securities investment, and FX volumes are at record levels.
- Investors are increasingly employing currency hedging and looking at currencies as a separate asset class.
- Bank-to-bank trade execution is largely electronic, and the rest of the market is migrating in that direction.
- Effective industry bodies, such as the FX Committee and the U.K.'s Foreign Exchange Joint Standing Committee, have successfully established a global understanding of best practices.

The currency market—the world's largest financial market—provides critical 24/6 digital infrastructure to support these trends. In fact, it is not too much of a stretch to say that

the FX market today functions as a “distributed network” for the global economy.

There have been bumps along the road—scandals involving unauthorized trading, fraud, and unprofessional trading practices. But despite the fact that the OTC forex market is essentially supranational and not proscriptively regulated, the ethical character of the currency market is as good as, or better than, that of any other financial market.

Our market has withstood the dynamic changes of modern finance very well. The currency market provides abundant liquidity to other markets and stimulates the emergence of new technologies, risk approaches, products, and services that ensure a smooth market environment for the greatest boom in cross-border finance that the world has ever seen.

Volumes have grown exponentially. Depending on how we measure it, turnover may already be at \$2.5 trillion per day. Margins are razor-thin. Liquidity is deep and competition is vigorous. The market is rapidly evolving electronic trading technologies that are generating further efficiency. Most enterprises, from small factories to global asset managers, can obtain the currency they need—when and how they need it and with very low transaction costs.

These are the attributes of a thriving marketplace. To keep it that way, we must do all we can to ensure its healthy, ethical development.

## Market Best Practices and the Foreign Exchange Committee

For the past twenty-eight years, the Foreign Exchange Committee—comprised of representatives of major FX market institutions and the Federal Reserve Bank of New York—has met to discuss technical issues and best practices of the currency market. The Foreign Exchange Committee has served as an impartial forum for the exchange of knowledge and information among leading currency practitioners—all with a view to forging a collective vision of the standards and practices that we believe would best serve an efficient and successful market.

The FX Committee and its counterparts around the world are characterized by a diverse collection of views and the vigorous exchange of ideas and opinion. When the Committee achieves consensus on a technical recommendation or urges a “best practice,” I can assure you that consensus has been well earned through comprehensive discussion and a candid exchange of perspectives.

Over the years, the Committee has helped our industry evolve through many tumultuous phases in the growth of financial markets—the rocky road to European currency union; the interplay between currency, fixed-income, and equity markets; market dislocations associated with dramatic currency movements in Europe, Asia, and elsewhere; the Russian debt crisis; the collapse of LTCM; the exponential rise in currency and interest rate derivatives; the proliferation of hedge funds; and the dramatic expansion of electronic FX trade execution and algorithmic trading.

Throughout, our intention has been to ensure a smooth-functioning and growing currency market. As finance has globalized and capital has moved with steadily increasing volumes and speed, the FX market has become a mission-critical infrastructure for every other securities market.

## Measuring the Expanding FX Turnover

Since 1989, global foreign exchange turnover has more than quadrupled, to perhaps as much as \$2.5 trillion per day.

For the past two years, the FX Committee has been building on the valuable work of the Bank for International Settlements’ Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in an effort to get a clearer picture of the size and shape of our market. Toward this end, we have developed a semi-annual survey of FX trading volumes to provide the market with frequent, accurate information on the size and structure of foreign exchange activity.

According to our fourth Survey of North American Foreign Exchange Volume, for the April 2006 reporting period:

- Average daily volume of over-the-counter FX instruments totaled \$507 billion.
- Average daily volume of these instruments increased 31 percent from the April 2005 period, led by a 66 percent rise in forward transactions.
- Average daily volume of these instruments increased 21 percent from the October 2005 reporting period.

We continue to see accelerating growth in FX volume as well as a strong increase in electronic trading as a percentage of the total. Since the initiation of this process, the FX Committee has issued its survey results simultaneously with survey results released by the U.K.’s Foreign Exchange Joint Standing Committee.

This year, for the first time, we are joined in the simultaneous release of survey results by the Singapore Foreign Exchange Market Committee, the Canadian Foreign Exchange Committee, and the Tokyo Foreign Exchange Market Committee.

A critical element of these surveys is that they are well coordinated. All the FX committees are structuring their surveys in very similar ways. It is a question of comparing apples to apples, so that currency market practitioners around the world work from a common understanding.

Suffice it to say, FX markets are booming, and a global constellation of FX committees are increasing their communication and collaboration to establish common sets of data and a common understanding of market developments and trends. Only last week, the Foreign Exchange Committee hosted the first gathering of FX committees, which included:

- the U.K. Foreign Exchange Joint Standing Committee,
- the Singapore Foreign Exchange Market Committee,

- the Canadian Foreign Exchange Committee,
- the Tokyo Foreign Exchange Market Committee,
- the Australian Foreign Exchange Committee,
- the Treasury Markets Association of Hong Kong, and
- the euro area's Foreign Exchange Contact Group.

We discussed such topics as foreign exchange market developments and trends, committee mandates and organizing principles, cross-collaboration on global events, and the coordination of our foreign exchange volume surveys.

## Critical Documents from the FX Committee

The Committee and our partner organizations have long sought to play a positive role in the cooperative evolution of risk modeling and management methodologies.

Over the years, the Committee has developed and updated numerous documents. Notably, there are three general documents that everyone in the market should be aware of:

First, *Guidelines for Foreign Exchange Trading Activities* seeks to provide all participants in the wholesale foreign exchange community with a common set of best practices that will assist in the conduct of their business. Through this document, the Committee seeks to promote market efficiencies and transparency and to facilitate informed decision making.

The second document is *Management of Operational Risk in Foreign Exchange*, a comprehensive text that details sixty best practices to help manage the revolutionary changes being witnessed in the FX marketplace. While FX was once a rather narrowly defined industry comprised principally of banks, today it is a market that includes commercial and investment banks, FX dealers and brokers, multinational corporations, money managers, commodity traders, insurance companies, governments and central banks, pension and hedge funds, prime brokers, and other entities.

In recognition of the growing variety of institutions now involved in foreign exchange, I would draw your attention to the third document, *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants*, which shares the experiences of financial institutions regularly engaged in the FX market with nondealer institutions that may engage in FX markets on a more occasional basis. The document highlights twenty-one issues related to risk awareness for nondealers such as asset managers, hedge funds, and corporations.

These documents represent the collected wisdom of hundreds of FX professionals who have guided our industry for a quarter century. These guidelines, and others produced by partner committees in other markets, can serve as a vital blueprint for other industry centers, particularly in emerging economies where cross-border investment and trade are booming and where currency trade lacks the depth and experience of traditional currency centers like New York and London.

## FX Committee Letter on Autodealing

Finally, I would like to draw your attention to a new and very timely FX Committee letter, *Autodealing: Market Impact and Best Practice Recommendations*.

Autodealing—the use of algorithmic trading—has been growing rapidly in currency markets, transforming both the speed and depth of the markets. Bearing this in mind, the FX Committee created a subcommittee charged with examining the current trading environment, analyzing the effect of autodealing, and establishing recommendations for firms employing these fast-evolving techniques.

The autodealing document produced by the subcommittee reviews the effects of autodealing on the FX market, particularly developments and advancements in technology, changes in trading activities and strategies, and descriptions of various market “channels,” including “white labeling.”

Autodealing has improved the overall operational efficiency of the dealer community by increasing deal flow, deepening liquidity, and stimulating the development of straight-through processing capabilities. At the same time, it has heightened the sensitivities of market participants to the capacity of their respective technological infrastructures and permitted an increase in anonymous trading.

Electronic FX dealing began in the bank-to-bank market in the early 1990s, when dealing systems enabled the automatic matching of trading interests of large market-making banks. These early innovations eventually gave rise to autodealing strategies in which large banks with substantial capital and well-developed proprietary trading technologies began to deliver electronic pricing and trading directly to their clients.

This technology led to the growth of “white labeling,” the sale of trading systems by a large global bank or technology vendor to smaller banks. Through this arrangement, large banks benefit by gaining access to additional client transaction volume and client banks benefit by gaining access to liquidity and more efficient trading platforms while outsourcing market risk to larger banks.

“White labeling” was followed by the introduction of multidealer electronic marketplaces in which secondary-market participants could access liquidity from multiple competing bank sources. Prime brokerage services have driven substantial growth in these platforms by granting secondary institutions access to credit from multiple counterparties. Moreover, quite key to the emergence of FX autodealing, prime brokerage services have also enabled some nontraditional market participants to enter the traditional market.

Some of these clients use autodealing to trade anonymously in the interdealer market. In such cases, the identities of the executing dealer and prime broker are revealed to each other, while the client remains anonymous. Moreover, given the separation between a bank's prime broker unit and trading desk, the client's identity can remain anonymous to the trading desk of the prime brokerage bank.



The FX Committee letter calls on institutions using autodealing to deploy adequate risk management and technology, including working with electronic brokers to understand pricing and dealing protocols and ensuring that their risk management systems are stress-tested and that latencies are measured and monitored.

The letter notes that while autodealing and prime brokerage may decrease transparency and allow for anonymous trading in certain situations, it should not be considered a negative market development. Rather, it is an innovation for which banks and prime broker-dealers should prepare themselves.

The letter calls on banks that offer “white labeling” or prime brokerage to review internal policies rigorously to ensure that the banks do not incur any reputational risks or face confidentiality issues as a result of a client engaging in autodealing anonymously through the bank’s extension of credit.

Finally, the Committee letter notes that technology now allows clients to access dealers’ liquidity through a variety of channels—brokers, ECNs, technology vendors, bank GUIs, and APIs. Dealers using these channels should carefully manage risks associated with system and network latency—whether within their own systems, at a broker or ECN, within the network used to link to their clients, or within the client’s trading infrastructure. Banks should be able to measure and monitor relative latencies in their provision of pricing to clients across various channels and to manage related risks.

Autodealing clearly demands focused attention to a variety of risk issues. But the significant and growing role of autodealing is only the latest market innovation in a natural progression ongoing for many years. Given the supervised yet unregulated nature of the FX market, participants should be aware of all the challenges and opportunities implied by autodealing. Liquidity providers should use technology to offer infrastructure and risk management tools; prime brokers should be aware that clients are transacting in their name and be prepared to investigate any complaint by an executing dealer that their customer may have engaged in unprofessional or unethical trading practices.

## The New FX Market

The foreign exchange market is undergoing an historic transformation that brings both opportunities and risks. We are witnessing:

- The introduction of new electronic trading technologies and methods and the development of unbundled products and services.
- The arrival of new market participants—from the rapid increase in new hedge funds to retail investors and retail aggregators—many of whom trade FX as an independent asset class.

Together, these new products and players are testing and transforming the very nature of the relationships between market participants. While the long-term structural implications of these events are expected to be profound, it is impossible to predict how these shifting pieces will eventually coalesce. In the immediate term, we can see that they have completely changed the character of our trading liquidity.

We are currently facing difficult new issues with regard to the nature and transparency of our increasingly abundant trading liquidity. In addition, the advent of new products and participants is changing fundamental relationships among FX trading partners.

Today, the elements of an FX trade have been unbundled and repackaged, and multiple links have been introduced into the distribution chain. For example, a corporate client might contract for FX from a local bank that is “white labeling” the liquidity of a major global bank. That major global FX dealer may also be providing liquidity to a retail aggregator, which then facilitates FX trading for thousands of individual investors. Perhaps an FX dealer provides trade execution/liquidity to a hedge fund, only to “give up” the trade to the customer’s FX prime broker. Conversely, those hedge funds could also be making markets in selected instances and currency pairs, in the name of their FX prime broker, given the new access to electronic broking platforms.

At a broader level, we see that market participants that were formerly wholesale competitors might now act as clients while traditional customers increasingly behave as market makers. The provision of liquidity and credit is evolving into two distinct services. For those participants providing liquidity, that function has become more challenging as new products have also introduced an element of anonymity into the market.

This dynamism is a hallmark of the FX market and should be welcomed. The “new FX market” is enabling a more efficient allocation of risk capital among market participants and allowing the law of comparative advantage to rule the day among competing service providers. These benefits are enabling more corporations, fund managers, and individual investors to access low-cost currency transactions as never before with less administrative burden.

However, market participants should be mindful of the risks and challenges associated with a rapidly evolving marketplace and ensure that their management systems for controlling credit, operational, and legal risks keep pace with business developments.

There is one other risk category that bears close monitoring in this new market. Overarching this complex thicket of market, credit, legal, and operational risks is a risk consideration that is difficult to quantify, but perhaps most significant in its implication: reputational risk. Reputational risk is the current and prospective impact on earnings and capital arising from negative public opinion regarding an institution’s products or activities. This affects the institution’s ability to establish new relationships or services or to continue servicing existing relationships. Reputational risk may expose the institution to litigation, financial loss, or a decline in its customer base.

## Chairing the FX Committee

As I am wrapping up my three-year term as Chairman of the FX Committee, I hope you will permit me a moment of personal reflection on what has been one of the most rewarding experiences of my career.

In a free market in which private sector agents have a big say over an industry, there is often a temptation to regulate from without. I think we all agree that this is practically and politically infeasible in the case of the transnational FX market. But by working closely with the FX Committee, the Federal Reserve Bank of New York has been rather clever—letting our industry determine its own way while at the same time making clear its own views or areas of concern.

The FX Committee meets eight times a year to work out consensus views on some stubbornly difficult challenges. By grappling with solutions to these issues, the FX market effectively takes ownership of their resolution. After all, if we determine a course of action and undertake it, there is no one else to blame after the fact. And when the New York Fed wants to make its own views known to the Committee, well, there is something about meeting in the Bank's boardroom—next to a crackling fire with portraits of past Fed chairmen and New York Fed presidents staring down at you—that makes you want to do the right thing.

The issues that I have been privileged to help the Committee formulate are among the most challenging that we face today:

- We championed the trend away from unnamed trading, drawing the distinction between appropriately confidential trading and unwise anonymous trading. In practice, this means allowing compliance, legal, and credit personnel to receive all the information they need to assess counterparty risk while leaving the client's identity unknown to the front office—which is, after all, but one other market participant.
- Other issues on which I think we made real progress include clarifying industry views on the division between wholesale and retail FX trading, the constructive benefits of prime brokerage, and the technical and legal implications of autodealing—about which I spoke earlier.

While these operational and technical discussions have been compelling, the most significant lasting benefit of working with an organization such as the FX Committee, for someone like me, was the opportunity to develop a cooperative relationship with many leading industry figures from around the world. The FX Committee gives one a feeling of shared purpose and makes one want to achieve something substantial—beyond narrow self-interest.

Regularly meeting with peers and competitors from around the world—outside the ambit of day-to-day market activities—gives us the opportunity to consider issues that are of concern or that may arise in the future, and then assist all market participants by shaping a best practice or standard that does not favor competing commercial interests.

In this regard, I would like to make particular mention of some individuals who have made a big impact on me. These colleagues are not only some of the most intelligent, hard-working, and personable leaders with whom I have had the opportunity to work, but each has a terrific sense of humor:

- Paul Kimball of Morgan Stanley, who encouraged me to join the Committee and chaired the Committee when I joined in 1999.
- Lloyd Blankfein of Goldman Sachs, who was a Committee member for thirteen years and is of course the most well-known former Committee member now that he is CEO and Chairman of Goldman.
- David Puth of J.P. Morgan, who preceded me in the Committee Chairmanship and has provided me with invaluable advice.
- And Dino Kos and his team at the Federal Reserve Bank of New York, who provide critical infrastructure, guidance, and a home away from home for the FX Committee. Dino's quiet wisdom and perspective have been at the core of the Committee's achievements over the many years of his membership.

I wish I could take the time to name and thank all the many past and present members who have made serving on the Committee meaningful and a lot of fun, but I will find another occasion for that.

## Ethics and Best Practices

I will wrap up by reiterating a concept that I find myself returning to in many of my industry talks. Ethics matter—not only in the sense of enlightened self-interest, but also because we are of course much more than simply rational, profit-maximizing economic agents. At their truest and best, market participants want to be part of something beyond themselves that has virtue and integrity.

The foreign exchange market plays an integral role in the efficient use of capital and labor allocation and in the transparent analysis of national economies and the currencies that represent them. And while the transnational FX market is probably impossible to regulate, self-supervision has worked—our market delivers a vital 24/6 service critical to every other financial market.

Foreign exchange markets are the central nervous system of the global economy. It is up to us to ensure that these markets function in a trustworthy and ethical manner for the benefit of people all over the world.

## ■ COMMITTEE LETTER

### **Announcing the Publication of *Autodealing: Market Impact and Best Practice Recommendations***

June 21, 2006

Dear Market Participant:

Autodealing—the use of algorithmic trading models—has grown rapidly in the foreign exchange markets during the last decade, transforming the speed and depth of the market for foreign exchange. In response, the Foreign Exchange Committee established a subcommittee charged with examining the current trading environment, analyzing the effect of autodealing on that environment, and establishing recommendations for firms operating within this evolving marketplace.

The subcommittee's efforts resulted in the publication of *Autodealing: Market Impact and Best Practice Recommendations*. The document reviews the evolution of autodealing in the foreign exchange market, with a view toward analyzing its effect on trading in this market. In particular, the document considers: 1) developments and advancements in technology, 2) changes in trading activities and strategies, and 3) descriptions of the various market "channels" (such as "white labeling") currently in use.

Additionally, the document evaluates the impact of this evolution on market functioning. Autodealing has improved the overall operational efficiency of the dealer community—by increasing deal flow, deepening liquidity, and stimulating the development of straight-through processing capabilities. At the same time, autodealing has heightened the sensitivities of market participants to the capacity of their respective technological infrastructures and permitted an increase in anonymous trading.

The document also offers several recommendations to firms for managing their risk in this marketplace. These recommendations draw heavily on prior Foreign Exchange Committee publications, such as *Guidelines for Foreign Exchange Trading Activities* and *Prime Brokerage: Product Overview and Best Practice Recommendations*. The best practice recommendations address risk management and technology considerations for operating within the autodealing setting, steps to apprise new entrants of professional practices and standards of behavior, reputational risk and confidentiality issue monitoring, and management of latency issues.

Since its inception, the Foreign Exchange Committee has consistently reviewed and monitored developments in the foreign exchange market to ensure an efficient and effective marketplace for foreign exchange dealing. The evolution of autodealing has been a key component of market growth in recent years, and the adaptation of market participants to this change is of great importance. The autodealing document, along with other publications, can be found at <http://www.newyorkfed.org/fxc>.

Mark Snyder  
Chair  
Foreign Exchange Committee

# Autodealing: Market Impact and Best Practice Recommendations

Recent autodealing product and technology developments have led to changes in market practice for participants in the global foreign exchange market. The Foreign Exchange Committee acknowledges the need to assess the impact of these developments on market conditions and emphasize best practices that address the risks of participating in the changing environment.

“Autodealing” refers to algorithmic trading models that employ electronic price feeds to generate dealable prices and transact based on dealable prices. Autodealing has come about as the result of a variety of developments in the foreign exchange marketplace and has itself further transformed the functioning of the foreign exchange market.

## Evolution of Autodealing and Current Market Overview

Foreign exchange electronic dealing began in the bank-to-bank market in the early 1990s when dealing systems developed by EBS and Reuters enabled the automatic matching of trading interests of large market-making banks. Today, these systems provide electronic brokering for foreign exchange transactions, allowing member banks to trade various currency crosses with one another by way of electronically posting bids and offers and striking at various price levels. These trades are electronically matched between banks that have established bilateral credit lines within the systems. The counterparties to a transaction are not identified until after the deal is struck. The trading platforms feed the transaction information into banks’ downstream settlement systems, enabling deal settlement through the regular settlement practices of the member banks.

Electronic brokering is now used by financial institutions worldwide. More recently, electronic brokers have spun off

products to allow nonbank institutions to access interbank liquidity. These dealing systems also provide credit management and deal control. The features provided by electronic brokering platforms have dramatically increased deal flow frequency, contributed to deeper liquidity, and increased controls on the extension of counterparty credit in the foreign exchange market.

Indeed, electronic brokering services gave rise to autodealing strategies in the foreign exchange market. In the late 1990s, banks with substantial capital and well-developed proprietary trading technologies began to deliver electronic pricing and trading capabilities to their clients directly. This changing market landscape was characterized by a consolidation of secondary-market share and a concentration of liquidity when banks merged, the cost of developing competitive proprietary customer platforms increased, and margins shrank.

These developments in technology and market concentration led to the growth of so-called “white labeling”—the sale of a comprehensive trading system by a large global bank or technology vendor to a smaller bank. Large banks marketed white-labeling services to access additional client transaction volume and earn the fees associated with providing these comprehensive trading systems. Clients benefited by gaining access to liquidity and more efficient trading platforms without incurring the associated capital expenditure. By using white-labeling services, client banks were able to outsource their market risk to the larger bank.

White-labeling solutions were followed swiftly by the introduction of bank- and vendor-owned multidealer electronic marketplaces in which secondary-market participants could access liquidity from multiple bank sources in competition. The offerings in this category currently include FXall, FXConnect, Hotspot, Lava, Currenex, and others. Multibank platforms began

with a request-for-quote protocol; next, some of these platforms moved to a streaming, executable price model; and currently, a few even offer market-making capabilities not unlike the interbank platforms.

For secondary-market participants to trade in multibank streaming executable price and market-making environments, they need readily available access to credit from multiple counterparties. This need has been met by the introduction of prime-brokerage services, which have enabled substantial growth in the trading volume on these multidealer portals. A prime-broker bank allows the client to deal in the bank's name subject to a "give-up" after the trade is executed. This service makes available significant liquidity to the client. Additionally, on some platforms, the use of prime-brokerage services can facilitate anonymity greater than that of a market-making bank that deals on a bank-to-bank platform without the use of a prime broker.

In addition to increasing trading on multibank-to-client portals, prime-brokerage services have enabled some nontraditional market participants to enter the traditional interdealer market through services such as EBS Prime. Some of these clients use autodealing trading systems, while others use more traditional manual trading techniques. The use of these services may allow prime-brokerage clients to trade anonymously in the interdealer market. In such a case, the identities of the executing dealer and prime broker are revealed to each other as counterparties to the trade when a trade is matched electronically but the prime-brokerage client remains anonymous to the executing dealer. Given the separation between a bank's prime-brokerage services unit and its trading desk, the client's identity also remains anonymous to the trading desk of the prime broker's bank, in most circumstances. Although the client's traded position is transferred to the prime-broker bank's trading desk, in the absence of an agreement to the contrary, the trading desk is not apprised of the client's identity.

## Implications of Autodealing for the Market

### *New Types of Market Activity*

Autodealing has led to the further development of several new types of automated market activity:

- computerized proprietary mathematical models that trade for profit by reacting to patterns in foreign exchange market prices or in foreign exchange relative to other asset classes;
- models that conduct arbitrage between available prices on a single platform or between platforms;
- automated risk management models that cover risk positions assumed from customers;
- risk-taking models that respond quickly to events that can be monitored electronically (such as data releases) and execute orders across multiple systems; and

- price aggregation on platforms such as Currenex, Lava, Portware, and Flextrade, where a single, co-mingled price is posted at any given time.

### *Market Effects of Autodealing*

The resulting effects of these new types of automated market activities may include the following:

- In periods of low price volatility, the increased number of bids and offers in the market from autodealing participants may enhance market liquidity for all market participants.
- When new information is introduced to the market, the market reacts more quickly than was possible before the advent of autodealing. Autodealing market participants are interconnected via systems with minimal human intervention. This connectivity can bring temporary challenges to manual dealers trying to access liquidity in competition with computer programs, particularly in the moments following the release of new information.
- Prices are quoted and canceled far more frequently in the automated environment than they were in the previous environment that permitted only manual dealing.
- Many new participants have entered the foreign exchange market, specifically hedge funds and proprietary traders that have experience accessing markets other than foreign exchange through autodealing interfaces.
- Systematic traders may pursue the strategy of placing bids and offers on one platform, outside of prices that are available on other platforms, to arbitrage liquidity and credit. This type of trading activity may give the illusion of more liquidity in the market than may actually be available at a given point in time.
- Increased price transparency and secondary-market access to additional pools of automated liquidity have reduced bid-offer spreads and margins earned by market-making banks from their customer business.
- Latency differences—differences in the reaction times of systems technology—may arise between platforms and bank systems. These differences may provide arbitrage opportunities for some autodealing models.
- Some market participants have expressed concerns about autodealing stratagems that appear designed to influence prices artificially. Such schemes may raise reputational issues for the market and for those who provide access to the market.

In summary, autodealing has altered the landscape of the foreign exchange market by increasing both deal flow and the number of market participants, deepening liquidity during periods of low volatility, and accelerating the development of straight-through processing capabilities. As a result, autodealing has improved the overall operational efficiency of the dealing community. At the same time, autodealing has added to the number of transactions conducted anonymously through prime-brokerage facilities, and it has heightened the sensitivity of market participants to the performance of their technologies and the capacity of their infrastructures.



## Recommended Practices for Dealers and Prime Brokers

In light of the changes brought about by autodealing, market participants should review their policies and procedures to ensure that they address risks arising in the current environment. The Foreign Exchange Committee recommends the following practices for dealers and prime brokers.

### *Ensure Adequate Risk Management and Technology when Operating in the Autodealing Space*

The introduction of high-frequency automated trading has contributed to growth in foreign exchange volumes and hastened the entrance of new participants into the market. These positive developments have in turn increased the pressure on dealers to ensure that their risk management practices evolve appropriately. Dealers that are accessing or providing liquidity to electronic brokers need to understand how their trades are interacting with the brokers' systems. In particular, dealers should work with electronic brokers to understand pricing and dealing protocols on these systems to make certain that their risk management systems can adequately support their provision of liquidity to particular brokers. Systems should be stress tested, and latencies should be measured and monitored. Risk systems and credit limits should likewise be able to handle the increase in volumes. For more specific guidance, participants should refer to the Committee's *Guidelines for Foreign Exchange Trading Activities*, pages 5 and 6: "Electronic Trading with Brokers" and "Electronic Trading with Customers."

### *Apprise New Market Entrants of Professional Practices and Standards of Behavior*

Autodealing technology, in combination with prime-brokerage services, may allow for anonymous trading on some multibank platforms. Anonymous trading, by its nature, contributes to a decrease in certain aspects of "transparency" within the foreign exchange market. However, neither autodealing nor anonymous trading should be viewed as negative market developments in their own right; rather, they should be treated as developments that dealers should be aware of and prepared for going forward. This is particularly the case for banks that are acting as prime brokers for autodealing clients.

Prime brokers should take steps to familiarize their clients with industry best practices. In general, clients should understand that, as noted in the Committee's *Guidelines for Foreign Exchange Trading Activities*, "It is important for market participants to adhere to the general standard (applicable at all times) that they not engage in trading practices that constitute fraudulent, deceptive, or manipulative acts or practices under applicable laws and regulations, or in practices that violate their institutions' ethical rules or any rules of electronic trading systems." Prime brokers should refer their clients to the Committee's *Prime Brokerage: Product Overview and Best Practice Recommendations*, placing particular emphasis on best practices no. 21 and no. 22, specifically in regard to autodealing and anonymous dealing, to ensure proactively that those clients who deal

in the marketplace under the prime broker's name have been made aware of these market best practices.

### *Monitor Reputational Risks and Confidentiality Issues*

Banks that offer "white-labeling" solutions or prime-brokerage services or both should rigorously review internal policies and controls to ensure that they do not incur any reputational risks or confidentiality issues as a result of a client engaging in autodealing anonymously through the bank's extension of credit. Clients trading anonymously in the name of the prime broker and engaging in practices generally deemed unprofessional by the market could cause the bank to incur reputational risks. Confidentiality issues might arise if a bank's trading desk gains access to the trading information of a client that expects anonymity.

The Committee's *Guidelines for Foreign Exchange Trading Activities* should be reviewed, with particular emphasis on the "Know Your Customer" section on page 12. The Committee's *Prime Brokerage: Product Overview and Best Practice Recommendations* should be followed whenever possible. With regard to reputational risks, banks should note best practice no. 22, which indicates that a prime broker should be prepared to investigate a complaint by an executing dealer that a client may have engaged in illegal or unethical trading practices and that the prime broker should be prepared to evaluate the reputational risks of continuing to act as a prime broker for the client. With regard to confidentiality issues, banks should note best practice no. 18, which states in part, "[e]xcept in cases of default, clients have the right to expect that their identity, orders, and strategies will be handled in a manner that protects their interests and confidentiality." The best practice also specifies that the prime broker should establish with the client the level of confidentiality required at the outset of the relationship.

### *Manage Latency Issues*

Technological improvements have provided clients with the ability to access dealers' liquidity through a variety of channels, such as brokers, electronic communication networks (ECNs), technology vendors, bank graphical user interfaces (GUIs), and application program interfaces (APIs). Dealers wishing to access their global clients through these channels are faced with the growing challenge of managing the risk associated with system and network latency. Latency can occur within a bank's infrastructure, at a broker or ECN, within the network used to access the client, or within the client's trading infrastructure. Latency may vary depending on the channel through which the bank accesses the client. Banks must be able to measure and monitor the relative latencies in their provision of pricing to clients across various channels and have adequate systems in place to manage their risks. Because the foreign exchange market is global, dealers that provide streaming liquidity need to consider co-locating intelligent and dynamic pricing engines alongside their main sources of liquidity and take into consideration the rate sources that reflect the strongest volumes in a given trading location and currency pair.

## Conclusion

The dynamic nature of the foreign exchange market will continue to facilitate the entrance of new participants and technologies into the marketplace. Within this context, the significant and growing role of autodealing should be viewed as a healthy and natural progression. The self-regulatory nature of the foreign exchange market and the global span of its entire suite of products will continue to ensure that the foreign exchange market is on the forefront of innovation within the world's capital markets. Autodealing will likely continue to be an important part of this environment.

As such, it is imperative that market participants be cognizant of the challenges and opportunities that autodealing presents for all parties. Liquidity providers should make sure that they possess the technology required to provide the necessary infrastructure and risk management tools in the autodealing space. Additionally, banks providing prime-brokerage services in the autodealing environment should be particularly aware of the fact that clients are transacting in the prime broker's name and be prepared to investigate a complaint by an executing dealer that their customer may have engaged in illegal or unethical trading practices. Whenever possible, banks should refer new market entrants to existing best practices for guidance on appropriate conduct.

## ■ ANNOUNCEMENT

### **The Master Confirmation Agreement for Non-Deliverable Forward FX Transactions**

New York, December 13, 2006

The Foreign Exchange Committee (FXC), EMTA, Inc. (EMTA), and the Foreign Exchange Joint Standing Committee (FXJSC) jointly announce the publication of the Master Confirmation Agreement for Non-Deliverable Forward FX Transactions ("Master Confirmation"), accompanied by Practice Notes. The Master Confirmation is a bilateral agreement for the use of market participants who wish to enter into NDF transactions under the terms of the *1998 FX and Currency Option Definitions* (published by the International Swaps and Derivatives Association, Inc., EMTA, and the FXC) and of currency-specific NDF transaction confirmation templates published by EMTA. The Master Confirmation accommodates NDF transactions with a U.S. dollar settlement currency as well as cross-currency NDF transactions with a non-U.S. dollar settlement currency.

The cosponsors expect that the Master Confirmation will offer market participants adopting it a legal framework for highly efficient confirmation processes for NDF transactions. The Master Confirmation would allow parties to streamline the content of NDF transaction confirmations to material economic terms, because it incorporates by reference terms of effective EMTA currency-specific NDF confirmation templates and allows parties to include customized provisions in an addendum for NDF transactions in particular currency pairs.

The Master Confirmation also allows parties to execute confirmations by fax, telex, e-mail, or electronic messages exchanged between the parties or matched on an electronic system acceptable to the parties. Because a major objective of the Master Confirmation is to facilitate use of a wide variety of methods of confirming NDF transactions, the cosponsors anticipate that electronic systems may be interested in implementing it on a multilateral basis for the benefit of their members. The cosponsors will work with any interested electronic system in developing an appropriate multilateral form of the Master Confirmation for purposes of its implementation in the electronic system.

The Master Confirmation supersedes the Master Agreement Addendum for Non-Deliverable Forwards published by the FXC in April 2003.

The Practice Notes can be found at <<http://www.newyorkfed.org/fxc/2006/fxc121306b.pdf>>.

# Master Confirmation Agreement

## for Non-Deliverable Forward FX Transactions\*

dated as of \_\_\_\_\_, \_\_\_\_\_  
(the "Effective Date") between

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

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

The parties wish to facilitate the process of entering into and confirming non-deliverable forward foreign exchange transactions and accordingly agree as follows:

1. **Application:** This Master Confirmation Agreement for Non-Deliverable Forward FX Transactions ("Master Confirmation") shall apply to each non-deliverable forward foreign exchange transaction ("NDF Transaction") entered into between Party A and Party B on or after the Effective Date, unless the Addendum or a confirmation of a NDF Transaction specifies that this Master Confirmation does not apply. This Master Confirmation includes the Addendum hereto.
2. **FX Definitions:** The definitions and provisions contained in the 1998 FX and Currency Option Definitions (including Annex A thereto), as published by the International Swaps and Derivatives Association, Inc., EMTA, Inc. ("EMTA"), and the Foreign Exchange Committee, and as modified or amended in the Master Agreement specified in the Addendum hereto (the "1998 Definitions"), are incorporated into this Master Confirmation. Any amendments or successor definitions to the 1998 Definitions are incorporated into this Master Confirmation with respect to each NDF Transaction that has a Trade Date that falls on or after the effective date of such amendments or successor definitions, and are referred to herein (together with the 1998 Definitions) as the FX Definitions. For the avoidance of

doubt, if amendments or successor definitions to the 1998 Definitions become effective after the Trade Date of a NDF Transaction, such amendments or successor definitions shall not apply to or amend the terms of such NDF Transaction, unless otherwise agreed by the parties.

3. **Transaction Confirmation:** The parties shall confirm the Economic Terms (as defined in paragraph 5 below) of each NDF Transaction in a Confirmation (each such Confirmation, a "Transaction Confirmation"). Each Transaction Confirmation may be executed and delivered in counterparts (including by facsimile transmission), or may be created by an exchange of telexes, an exchange of electronic messages on an electronic messaging, trading or settlement system (including, without limitation, by means of matching electronic messages sent by each party), or an exchange of e-mails. Each Transaction Confirmation shall be deemed to incorporate and be subject to all of the terms of this Master Confirmation. This Master Confirmation, together with each Transaction Confirmation, constitutes a "Confirmation" as referred to in, and is subject to, the terms and conditions of the Master Agreement.
4. **Relevant EMTA Template:** If, on the Trade Date of a NDF Transaction, template terms for the confirmation of a NDF Transaction in the Currency Pair that is the subject of such NDF Transaction are recommended by EMTA or a recognized successor and have an effective date that falls on or before such Trade Date ("Relevant EMTA Template"), then all of the terms of such Relevant EMTA Template (published and available at [www.emta.org](http://www.emta.org) or any successor website) shall apply to such NDF Transaction, except to the extent otherwise provided in the Addendum or a Transaction Confirmation. For the avoidance of doubt, if a Relevant EMTA Template becomes effective after the Trade Date of a NDF Transaction, such Relevant EMTA Template shall not apply to or amend the terms of such NDF Transaction, unless otherwise agreed by the parties.

\*Published on December 13, 2006.

5. **Economic Terms:** Each Transaction Confirmation shall specify the following terms or, alternatively, the terms that the parties agree to specify in their Transaction Confirmation by using the facilities of a particular electronic messaging, trading or settlement system (“Economic Terms”):

Trade Date  
Reference Currency  
Reference Currency Notional Amount  
Notional Amount or Forward Rate  
Reference Currency Buyer  
Reference Currency Seller  
Settlement Currency Valuation Date [Specify date only; all other terms in the Relevant EMTA Template apply.]  
Settlement Date [Specify date only; all other terms in the Relevant EMTA Template apply.]  
Settlement

This Master Confirmation shall apply only if the Transaction Confirmation specifies, or the parties otherwise agree in the Transaction Confirmation, that Settlement is Non-Deliverable.

6. **Priority:**

- (a) In the event of any inconsistency between the FX Definitions and a Confirmation, the Confirmation shall prevail. In the event of any inconsistency between the provisions of a Transaction Confirmation and the Master Agreement, the Transaction Confirmation shall prevail for the purpose of the relevant NDF Transaction.
- (b) In the event of any inconsistency between the Addendum or a Transaction Confirmation and a Relevant EMTA Template, the Addendum or Transaction Confirmation shall prevail, subject to the following. If the parties elect to include in the Addendum terms for a NDF Transaction with a Currency Pair for which a Relevant EMTA Template has not become effective on the effective date of the Addendum, such terms shall govern each NDF Transaction for such Currency Pair with a Trade Date that falls before the effective date of a Relevant EMTA Template for such Currency Pair. If a Relevant EMTA Template has become effective on or before the Trade Date of a NDF Transaction with such Currency Pair, the terms of the Relevant EMTA Template shall supersede the relevant terms in the Addendum, but shall not apply to or amend the terms of any NDF Transaction with a Trade Date that precedes the effective date of the Relevant EMTA Template, unless otherwise agreed by the parties.
- (c) If the parties are or become subject to a multilateral form of a master confirmation agreement for NDF Transactions (a “Multilateral Master Confirmation”), by protocol or otherwise, the following rules of priority apply:
- (i) If the parties sign onto or become subject to a Multilateral Master Confirmation after the Effective Date, in the event

of any inconsistency between this Master Confirmation and such Multilateral Master Confirmation, such Multilateral Master Confirmation shall prevail with respect to NDF Transactions governed by such Multilateral Master Confirmation, unless otherwise agreed by the parties; and

- (ii) If the parties have signed onto or are subject to a Multilateral Master Confirmation on or before the Effective Date, in the event of any inconsistency between this Master Confirmation and such Multilateral Master Confirmation, this Master Confirmation shall prevail with respect to the NDF Transactions governed by such Multilateral Master Confirmation, unless otherwise agreed by the parties.

For the avoidance of doubt, if the parties sign onto or become subject to a Multilateral Master Confirmation after the Trade Date of a NDF Transaction, such Multilateral Master Confirmation shall not apply to or amend the terms of such NDF Transaction, unless expressly specified in such Multilateral Master Confirmation or otherwise agreed by the parties.

7. **Quoting Dealing Disclaimer:**

The parties acknowledge that one or both parties to a NDF Transaction, acting directly or through a branch or an affiliate, may be requested to provide a quotation or quotations from time to time for the purpose of determining an industry rate for the Currency Pair that is the subject of the NDF Transaction and that such quotation may affect, materially or otherwise, the settlement of the NDF Transaction.

8. **Representations:**

- (a) This Master Confirmation is a legal, valid and binding obligation of each party, enforceable against each party in accordance with its terms.
- (b) Each party will be deemed to represent to the other party on the date on which it enters into a NDF Transaction that (absent a written agreement between the parties that expressly imposes affirmative obligations to the contrary for that NDF Transaction): (i)(A) it is acting for its own account, and it has made its own independent decisions to enter into that NDF Transaction and as to whether that NDF Transaction is appropriate or proper for it based upon its own judgment and upon advice from such advisors as it has deemed necessary; (B) it is not relying on any communications (written or oral) of the other party as investment advice or as a recommendation to enter into that NDF Transaction, it being understood that information and explanations related to the terms and conditions of a NDF Transaction shall not be considered investment advice or a recommendation to enter into that NDF Transaction; and (C) it has not received from the other party any assurance or guarantee as to the expected results of that NDF Transaction; (ii) it is capable of evaluating and understanding (on its own behalf or through independent



professional advice), and understands and accepts, the terms, conditions and risks of that NDF Transaction; and (iii) the other party is not acting as a fiduciary or an advisor for it in respect of that NDF Transaction.

9. **Governing Law/Jurisdiction:** This Master Confirmation shall be governed by the law, and the provisions on submission to jurisdiction, elected in the Master Agreement or the Addendum.

PARTY A:

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

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

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

PARTY B:

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

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

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

## ■ ANNOUNCEMENT

### **Foreign Exchange Committee Issues Revision to IFXCO**

New York, December 4, 2006

The Foreign Exchange Committee has issued a revision to the International Foreign Exchange and Currency Option Master Agreement ("IFXCO") published on June 1, 2005. This revision is effective December 4, 2006, and makes clear that the parties to an FX transaction or currency option transaction governed by IFXCO intend to be legally bound from the moment they agree to the terms of the transaction, orally or otherwise. The amendment to IFXCO is accompanied by an explanatory note from the Financial Markets Lawyers Group.

The explanatory note can be found at <http://www.newyorkfed.org/fxc/ongoingwork/fxdocumentation.html>.

# Amendment to Section 1.2 of IFXCO

Effective December 4, 2006, the following is added as the last sentence of Section 1.2 of the International Foreign Exchange and Currency Option Master Agreement published by the Foreign Exchange Committee on June 1, 2005:

In furtherance of the foregoing, the Parties acknowledge that they intend that they are legally bound by the terms of an FX Transaction or Currency Option Transaction from the moment they agree to those terms (whether orally or otherwise).

# Changes to Rate Source Definitions

During 2006, EMTA, Inc., the International Swaps and Derivatives Association, Inc., and the Foreign Exchange Committee jointly announced amendments to Annex A to the *1998 FX and Currency Option Definitions* in order to revise as well as add new rate source definitions for several currencies.

The rate source definitions were revised for the Indian rupee, Colombian peso, Korean won, and Chinese renminbi. New rate source definitions were added for the Philippine peso, Chilean peso, Colombian peso, and Peruvian sol.

# New and Amended Rate Source Definitions for the Indian Rupee and Philippine Peso

Effective as of October 25, 2006, EMTA, Inc., the International Swaps and Derivatives Association, Inc., and the Foreign Exchange Committee jointly announce amendments to Annex A to the *1998 FX and Currency Option Definitions* to revise the rate source definition for the Indian rupee and to add a new rate source definition for the Philippine peso. Effective as of October 25, 2006, Annex A is amended with a revised Section 4.5(a)(ii)(A) and a new Section 4.5(a)(iv)(F), as follows:

(ii) **Indian Rupee.**

(A) "INR RBIB" or "INR01" each means that the Spot Rate for a Rate Calculation Date will be the Indian Rupee/U.S. Dollar reference rate, expressed as the amount of Indian Rupee per one U.S. Dollar, for settlement in two Business Days reported by the Reserve Bank of India which appears on the Reuters Screen RBIB Page at approximately 12:30 p.m., Mumbai time, or as soon thereafter as practicable, on that Rate Calculation Date.

(iv) **Philippine Peso.**

(F) "PHP PDSPESO" or "PHP06" each means that the Spot Rate for a Rate Calculation Date will be the Philippine Peso/U.S. Dollar morning weighted average rate for that Rate Calculation Date, expressed as the amount of Philippine Pesos per one U.S. Dollar, for settlement in one Business Day reported by the Philippine Dealing System PDEX which appears on the Reuters Screen PDSPESO Page to the right of the caption "AM WT AVE" at approximately 11:30 a.m., Manila time, or as soon thereafter as practicable, on that Rate Calculation Date.

**Practitioner's Note:**

- Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of October 25, 2006, if they desire to incorporate the amended Indian rupee or the new Philippine peso rate source definition, as applicable, into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Indian rupee and Philippine peso rate source definitions will apply to trades that incorporate the *1998 FX and Currency Option Definitions* and have a trade date on or after October 25, 2006.



# New and Amended Rate Source Definitions for the Chilean Peso, Colombian Peso, and Peruvian Sol

Effective as of August 1, 2006, EMTA, Inc., the International Swaps and Derivatives Association, Inc., and the Foreign Exchange Committee jointly announce amendments to Annex A to the *1998 FX and Currency Option Definitions* to amend certain rate source definitions for the Colombian peso and to add new rate source definitions for the Chilean peso, the Colombian peso, and the Peruvian sol. Effective as of August 1, 2006, Annex A is amended to add new Sections 4.5(c)(iii)(G) and (H), to amend Section 4.5(c)(iv)(B) and add new Section 4.5(c)(iv)(C), and to add new Sections 4.5(c)(vii)(C) and (D), as follows:

## (iii) Chilean Peso.

(G) "CLP DÓLAR OBS" or "CLP10" each means that the Spot Rate for a Rate Calculation Date will be the Chilean Peso/U.S. Dollar "observado" rate, expressed as the amount of Chilean Pesos per one U.S. Dollar, for settlement in one Business Day reported by the Banco Central de Chile ([www.bcentral.cl](http://www.bcentral.cl)) as the "Dólar Observado" (Dollar Observado) rate by not later than 10:30 a.m., Santiago time, on the first Business Day following that Rate Calculation Date.

(H) "EMTA CLP INDICATIVE SURVEY RATE" or "CLP11" each means that the Spot Rate for a Rate Calculation Date will be the Chilean Peso/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Chilean Pesos per one U.S. Dollar, for settlement on the same day, as published on EMTA's web site ([www.emta.org](http://www.emta.org)) at approximately 11:00 a.m., Santiago time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate shall be calculated by EMTA (or a service provider EMTA may select in its sole discretion) pursuant to the EMTA CLP Indicative Survey Methodology (which means a methodology, dated as of August 1, 2006, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Chilean Peso/U.S. Dollar markets for the purpose of determining the EMTA CLP Indicative Survey Rate).

## (iv) Colombian Peso.

(B) "COP TRM" or "COP02" each means that the Spot Rate for a Rate Calculation Date will be the Colombian Peso/U.S. Dollar fixing rate, expressed as the amount of Colombian Pesos per one U.S. Dollar, for settlement on the same day reported by the Colombian Financial Superintendency ([www.banrep.gov.co](http://www.banrep.gov.co))

as the "Tasa Representativa del Mercado (TRM)" (also referred to as the "Tasa de Cambio Representativa del Mercado" (TCRM)) by not later than 10:30 a.m., Bogotá time, on the first Business Day following that Rate Calculation Date.

(C) "EMTA COP INDICATIVE SURVEY RATE" or "COP03" each means that the Spot Rate for a Rate Calculation Date will be the Colombian Peso/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Colombian Pesos per one U.S. Dollar, for settlement on the same day, as published on EMTA's web site ([www.emta.org](http://www.emta.org)) at approximately 11:30 a.m., Bogotá time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate shall be calculated by EMTA (or a service provider EMTA may select in its sole discretion) pursuant to the EMTA COP Indicative Survey Methodology (which means a methodology, dated as of August 1, 2006, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Colombian Peso/U.S. Dollar markets for the purpose of determining the EMTA COP Indicative Survey Rate).

## (vii) Peruvian Sol.

(C) "PEN WT AVE" or "PEN03" each means that the Spot Rate for a Rate Calculation Date will be the midpoint of the Peruvian Sol/U.S. Dollar closing weighted average bid and offer ("compra y venta") exchange rates expressed as the amount of Peruvian New Soles per one U.S. Dollar for settlement on the same day, reported by the Superintendencia de Banca, Seguros y AFP ([www.sbs.gob.pe](http://www.sbs.gob.pe)) of the Republic of Peru at approximately 5:00 p.m., Lima time, on that Rate Calculation Date.

(D) "EMTA PEN INDICATIVE SURVEY RATE" or "PEN04" each means that the Spot Rate for a Rate Calculation Date will be the Peruvian Sol/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Peruvian Soles per one U.S. Dollar, for settlement on the same day, as published on EMTA's web site ([www.emta.org](http://www.emta.org)) at approximately 11:00 a.m., Lima time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate shall be calculated by EMTA (or a service provider EMTA may select in its sole discretion) pursuant to the EMTA PEN Indicative Survey Methodology (which means a methodology, dated as of August 1, 2006, as amended from time to time, for a centralized industry-wide survey of financial

institutions that are active participants in the Peruvian Sol/U.S. Dollar markets for the purpose of determining the EMTA PEN Indicative Survey Rate).

### Practitioner's Notes:

- Each of the CLP10, COP02, and PEN03 rate source definitions refers to an authoritative source for the rate source quote for purposes of clarity in the event of a dispute. A reference to the website of the quoting or sponsoring entity is included as additional information but may not be the exclusive place of publication for the rate quote, which may also be published or hosted by one or more information vendors.
- PEN03 describes a midpoint rate, to be calculated by market participants based upon the compra y venta (bid and offer) rates published by the Superintendencia de Banca, Seguros y AFP, rounded to the fourth decimal point (for example, 1.0000).
- The CLP DÓLAR OBS (CLP10) rate is also currently published on Reuters Page CLPOB= and Bloomberg Page PCRCDOOB.
- The COP TRM (COP02) rate is also currently published on Reuters Page CO/COLO3 and Bloomberg Page TRM.
- The PEN WT AVE (PEN03) rate is also currently published on Reuters Page PDSB and Bloomberg Page PSSO.
- Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of August 1, 2006, if they desire to incorporate the new Chilean peso, Colombian peso, or Peruvian sol rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above rate source definitions will apply to trades that incorporate the *1998 FX and Currency Option Definitions* and have a trade date on or after August 1, 2006.

# Korean Won Rate Source Definitions Updated by EMTA, ISDA, and the FXC

Effective as of April 3, 2006, EMTA, Inc., the International Swaps and Derivatives Association, Inc., and the Foreign Exchange Committee jointly announce an amendment to Annex A of the *1998 FX and Currency Option Definitions* to revise certain of the Korean won rate source definitions. Effective as of April 3, 2006, Sections 4.5(a)(iii)(A) and (B) of Annex A are amended in their entirety as follows:

## (iii) Korean Won.

- A. "KRW KFTC18" or "KRW02" each means that the Spot Rate for a Rate Calculation Date will be the Korean Won/U.S. Dollar market average rate, expressed as the amount of Korean Won per one U.S. Dollar, for settlement in two Business Days reported by the Korea Financial Telecommunications and Clearing Corporation which appears on the Reuters Screen Page KFTC18 to the right of the caption "USD Today" that is available at approximately 3:30 p.m., Seoul time, on the Rate Calculation Date or as soon thereafter as practicable.
- B. "KRW TELERATE 45644" or "KRW03" each means that the Spot Rate for a Rate Calculation Date will be the Korean Won/U.S. Dollar market average rate, expressed as the amount of Korean Won per one U.S. Dollar, for settlement in two Business Days reported by the Korea Financial Telecommunications and Clearing Corporation which appears on Telerate Page 45644 to the right of the caption "USD Today" that is available at approximately 3:30 p.m., Seoul time, on the Rate Calculation Date or as soon thereafter as practicable.

## Practitioner's Notes:

- The Korean won rate, supplied by Seoul Money Brokerage Services, LTD, is a market average rate for settlement in two business days in Seoul. The KRW rate is reported by the Korea Financial Telecommunications and Clearing Corporation and is published on Reuters Page KFTC18 and Telerate Page 45644.
- Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of April 3, 2006, if they desire to incorporate the new Korean won rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Korean won rate source definitions would apply to trades that incorporate the *1998 FX and Currency Option Definitions* and have a trade date on or after April 3, 2006.

# Chinese Renminbi Rate Source Definition Updated by EMTA, ISDA, and the FXC

Effective as of March 6, 2006, EMTA, Inc., the International Swaps and Derivatives Association, Inc., and the Foreign Exchange Committee jointly announce an amendment to Annex A of the *1998 FX and Currency Option Definitions* to revise the rate source definition for CNY SAEC (CNY01). Effective March 6, 2006, Annex A is amended to replace Section 4.5(a)(i)(A) in its entirety with the following new provision:

(i) **Chinese Renminbi.**

(A) "CNY SAEC" or "CNY01" each means that the Spot Rate for a Rate Calculation Date will be the Chinese Renminbi/U.S. Dollar official fixing rate, expressed as the amount of Chinese Renminbi per one U.S. Dollar, for settlement in two Business Days reported by the People's Bank of China, Beijing, People's Republic of China, which appears on the Reuters Screen "SAEC" Page opposite the symbol "USDCNY=" at approximately 9:15 a.m., Beijing time, on that Rate Calculation Date.

**Practitioner's Note:**

- Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of March 6, 2006, if they desire to incorporate the amended CNY SAEC (CNY01) rate source definition into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Chinese renminbi rate source definition will apply to trades that incorporate the *1998 FX and Currency Option Definitions* and have a trade date on or after March 6, 2006.

User's Guide:

# 2004 Asian Currency Non-Deliverable FX Documentation

Effective as of December 1, 2004

Updated October 25, 2006

Singapore Foreign Exchange Market Committee

EMTA, Inc.

Foreign Exchange Committee

## Introduction

The Singapore Foreign Exchange Market Committee (SFEMC), EMTA, Inc. (EMTA), and the Foreign Exchange Committee (FXC) have cosponsored the publication of updated template terms for non-deliverable foreign exchange transactions for six Asian currencies (the "2004 Templates"). The Tokyo Foreign Exchange Market Committee and the Treasury Markets Forum of Hong Kong support the cosponsors in their publication of the updated documentation for the benefit of market participants.

The 2004 Templates are intended to be used with the *1998 FX and Currency Option Definitions* (including Annex A thereto) published by the International Swaps and Derivatives Association, Inc., EMTA, and the FXC (the "*1998 Definitions*"). The six Asian currencies that the 2004 Templates address are the Chinese Renminbi (CNY), the Indonesian Rupiah (IDR), the Indian Rupee (INR), the Korean Won (KRW), the Philippine Peso (PHP), and the Taiwanese Dollar (TWD). In conjunction with the 2004 Templates, the cosponsors have published related survey methodologies (the "Methodologies") and amendments to the rate source definitions in Annex A of the *1998 Definitions*.

The 2004 Templates provide suggested contract terms to which market participants may agree on a bilateral basis in order to reduce documentation and settlement risk, generally promote sound market practice, and contribute to overall efficiency of the non-deliverable FX marketplace. Notwithstanding, the SFEMC, EMTA, and FXC recognize each market participant's need to develop standards for contractual relationships that reflect its own policies, procedures, and tolerance for risk. Each market participant is encouraged to use the 2004 Templates in their entirety or in part, in light of individual considerations.

In 2001, EMTA introduced to the industry standardized terms for the above currencies (the "2001 Templates") (excluding the Indonesian Rupiah, for which final template terms were never published) that reflected then-current market practice and helped to promote market efficiencies and reduce documentation risk. Since 2001, significant developments have taken place in the non-deliverable FX markets, and in particular in several of the Latin American markets. Substantial efforts have been made to improve the documentation architecture for these markets to better address concerns regarding the

possibility of an extended closure of a local market and to improve valuation options and procedures in the event of such an occurrence. In large part, this effort has involved a move away from reliance on Calculation Agent Determination and the introduction of intermediate, market-based valuation alternatives.

The 2004 Templates extend the documentation improvements made in the Latin American markets into the Asian non-deliverable FX markets, modified as appropriate to take account of regional differences in market practices and conventions. Among other differences, while the templates for Latin American currencies are tailored to each market, a single standard for all six of the Asian currencies was deemed appropriate. As a result, all of the 2004 Templates and the six related Methodologies are substantially the

same, with only very minor differences among them. These differences include the currency addressed by the template terms, the Settlement Rate Option, the Valuation City for Valuation Date purposes, and, in the case of one of the Methodologies, the start time for the fallback survey. Accordingly, it is possible to discuss the 2004 Templates and the Methodologies generically in this User's Guide, while noting these minor differences, where relevant.

Capitalized terms in this User's Guide have the meanings ascribed to them in the *1998 Definitions*, the 2004 Templates, and the Methodologies.

The complete document can be found at <<http://www.newyorkfed.org/fxc/2006/fxc061025b.pdf>>.

## ■ ANNOUNCEMENT

### **Clarifying Amendment to Definition of “Settlement Date” in SFEMC/EMTA/FXC NDF Template Terms**

New York, May 17, 2006

The Foreign Exchange Committee (FXC), together with its cosponsors the Singapore Foreign Exchange Market Committee (SFEMC) and EMTA, Inc. (EMTA), is issuing an amendment to the definition of “settlement date” in the Template Terms for the 2004 Asian Currency Non-Deliverable FX Documentation jointly recommended by the SFEMC, EMTA, and FXC (updated in July 2005). This amendment clarifies that, when the valuation date for an FX transaction is adjusted as a result of a valuation postponement, then the settlement date for the FX transaction is likewise adjusted.

It is understood that this amendment is a technical and clarifying amendment, and it does not purport to change current market practice. Current market practice observes a corresponding adjustment to the settlement date either in the case of the occurrence of an unscheduled holiday or as a result of a valuation postponement.

Effective May 17, 2006, this amendment is being simultaneously adopted in all currently recommended SFEMC/EMTA/FXC Template Terms. Specifically, the Template Terms for the following currencies will be amended to reflect this new language: Chinese renminbi (CNY), Indonesian rupiah (IDR), Indian rupee (INR), Korean won (KRW), Malaysian ringgit (MYR), Philippine peso (PHP), and Taiwanese dollar (TWD). The new Template Terms are available on the FXC’s website (<http://www.newyorkfed.org/fxc/>), together with the updated guides originally issued with the Template Terms. In addition, this amendment is being simultaneously adopted by EMTA for all other currently recommended EMTA Template Terms.

On and after the effective date of the simultaneous amendment, any new Template Terms for non-deliverable FX transactions will include this new language.

Note: Defined terms used above have the meanings set forth in the *1998 FX and Currency Option Definitions* published by the International Swaps and Derivatives Association, Inc., EMTA, and the FXC.



## ■ ANNOUNCEMENT

### Technical Revisions to the 2005 Barrier Option Supplement

New York, May 5, 2006

The Foreign Exchange Committee (FXC), the International Swaps and Derivatives Association, Inc. (ISDA), and EMTA, Inc., announce two technical revisions to the 2005 Barrier Option Supplement to the *1998 FX and Currency Option Definitions* (the "2005 Supplement").

The first revision suggests how to incorporate into a barrier or binary option transaction the terms of the 2005 Supplement. The relevant confirmation of the barrier or binary option transaction should state that "the *1998 FX and Currency Option Definitions*, as amended by the 2005 Barrier Option Supplement, as published by the International Swaps and Derivatives Association, Inc., EMTA, Inc., and the Foreign Exchange Committee are incorporated into this Confirmation." For purposes of clarity, this provision has been added to Exhibits I and II of the 2005 Supplement, which illustrate how barrier and binary options may be confirmed under the terms of the 2005 Supplement and the *1998 FX and Currency Option Definitions* ("*1998 Definitions*") (see the second paragraph and footnote 2 of each Exhibit).

The second revision further describes the approach taken to the conventions for stating currency pairs in the Currency Pair Matrix that was published with the 2005 Supplement. The Matrix is provided as a best practice to facilitate the use of standard market convention when specifying the exchange rates relating to certain terms in a confirmation of a barrier or binary option transaction that incorporates the provisions of the 2005 Supplement. The introductory statement to the Matrix has been revised to highlight that its conventions for stating currency pairs may be different from trading conventions. No changes have been made to the Matrix itself, only to the introductory text.

### Supplementary Note to Currency Pair Matrix

This Currency Pair Matrix, dated December 5, 2005, is provided as a best practice to facilitate the use of standard market convention when specifying the exchange rates relating to certain terms in a confirmation that incorporates the provisions of the 2005 Barrier Option Supplement to the *1998 FX and Currency Option Definitions* (the "2005 Supplement"), published by ISDA, Inc., EMTA, Inc., and the Foreign Exchange Committee. These terms include the Barrier Level defined in Section 3.9(e) of the 2005 Supplement, Upper and Lower Barrier Level defined in Section 3.9(q) and 3.9(k) of the 2005 Supplement, and the Initial Spot Price, which may be included in the confirmation pursuant to Section 3.9(o) of the 2005 Supplement. The Matrix addresses the currencies set out in Section 4.3 of Annex A of the *1998 Definitions*. All currency pairs in the Matrix are presented in the form of a fraction ("Currency Pair Fraction"). The numerator of this fraction is defined as the "Numerator Currency," and the denominator of this fraction is defined as the "Denominator Currency." Each Currency Pair Fraction is expressed as the amount of Numerator Currency per one unit of Denominator Currency. Updates to the Matrix will be published on the websites of the cosponsors.

The approach taken to stating each currency pair in this Matrix is generally consistent with the approach taken in the *1998 Definitions*. For non-deliverable transactions, Annex A of the *1998 Definitions* expresses each settlement rate option as a spot rate for the reference currency per unit of settlement currency. Accordingly, the most common expression in confirmations of deliverable and non-deliverable transactions has become a statement of the counter-currency in the numerator and the base currency in the denominator of the Currency Pair Fraction (x units of counter-currency for one unit of base currency). This expression can differ from the common trading practice of quoting the base currency in the numerator and the counter-currency in the denominator of the Currency Pair Fraction (one unit of the base currency for x units of the counter-currency). Those responsible for preparing confirmations of transactions under the 2005 Barrier Option Supplement should ensure that the price and other agreed-upon terms are expressed in a manner that is consistent with the Matrix.

It should be noted that, in certain instances, the Matrix provides expressions of currency pairs that differ from the approach taken in the *1998 Definitions*. At the time that the *1998 Definitions* were developed, trading in certain currency pairs was not common, and certain products, such as barrier options, were not addressed. In particular, more recent currency pairs in the Matrix are not

expressed as the amount of reference currency per unit of settlement currency when the result would be an unduly small numerical expression of an exchange rate. For example, the Matrix provides for specification of JPY/BRL for relevant terms of confirmations of transactions documented under the 2005 Supplement (the amount of JPY as settlement currency, for one unit of BRL as reference currency). Moreover, the Matrix is to be used in conjunction with the 2005 Supplement, specifically for expressing currency pairs in confirmations of barrier options to clearly establish rate movement and barrier breach. Because the Matrix is not intended to standardize market conventions for all purposes and transaction types, it is possible that certain currency transactions could include exchange rates that are expressed using conventions not consistent with the Matrix. For example, for purposes of valuation of a non-deliverable transaction with BRL as the reference currency and JPY as the settlement currency, a BRL/JPY exchange rate may be specified even though the Matrix specifies JPY/BRL for a barrier currency option transaction involving the same currency pair.

## ■ ANNOUNCEMENT

Contact: Susanna Klein  
Telephone: 212-804-2191

### **Foreign Exchange Committee Releases FX Volume Survey Results**

New York, January 22, 2007

The Foreign Exchange Committee today released the results of its fifth Survey of North American Foreign Exchange Volume. For the October 2006 reporting period, key findings include:

- average daily volume in over-the-counter foreign exchange instruments (including spot transactions, outright forwards, foreign exchange swaps, and options) totaled \$534 billion;
- average daily volume of these instruments decreased 7.5 percent overall compared with the April 2006 reporting period, with the largest percentage drops occurring in spot and outright forward transactions;
- average daily volume of these instruments increased 11.9 percent from the October 2005 reporting period—led by the over-the-counter option market, which increased by 24.6 percent over the past year.

“After record-high trading volumes this past spring, we have seen a slight drop in average daily volume since our last survey. However, volume levels across-the-board are still significantly higher than they were a year ago,” said Richard Mahoney, Chair of the Foreign Exchange Committee. “This survey continues to provide a valuable service to market participants by breaking down the composition of monthly and daily trading volume by trade type, execution type, counterparty type, and currency pair.”

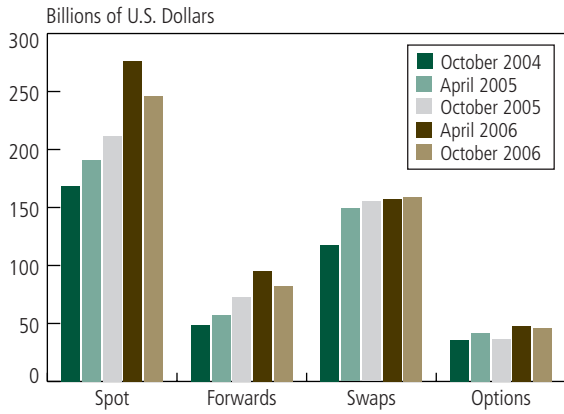
The survey was developed in order to provide the market with frequent information on the size and structure of foreign exchange activity in North America. To achieve a representative survey, the Committee invited thirty-one leading financial institutions active in the North American foreign exchange market to contribute data on the level of turnover during the month of October 2006. The Committee also collaborated with the United Kingdom’s Foreign Exchange Joint Standing Committee, the Singapore Foreign Exchange Market Committee, and the Canadian Foreign Exchange Committee, which conducted similar surveys for the U.K., Singaporean, and Canadian markets, respectively, over the same time period. The three committees are releasing their survey results today.

For the purposes of the survey, turnover is defined as the gross value of all new deals entered into during the reporting period and is measured in terms of the notional amount of the contracts. Survey data are broken out by four foreign exchange instruments, thirteen currency pairs, four counterparty types, and five execution method categories and are reported both in terms of daily average and total monthly volume. The reporting basis for the survey is the location of the price-setting dealer. While similar in nature, the survey is not comparable to the Bank for International Settlements’ Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity, given the differences in the reporting methodologies.

The Foreign Exchange Committee includes representatives of major domestic and foreign commercial and investment banks engaged in foreign exchange transactions in the United States, as well as foreign exchange brokers. The Committee’s objectives include: 1) serving as a forum for the discussion of best practices and technical issues in the foreign exchange market, 2) fostering improvements in risk management in the foreign exchange market by offering recommendations and guidelines, and 3) enhancing the legal certainty of foreign exchange contracts through the development of standard documentation. The Committee was formed in 1978 under the sponsorship of the Federal Reserve Bank of New York.

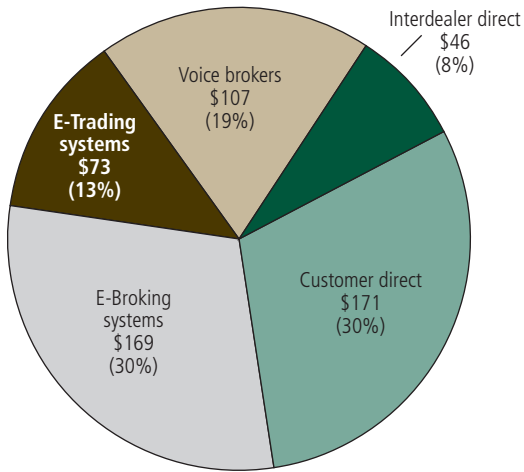
The results of this survey, together with the list of reporting dealers and explanatory notes, are available at <<http://www.newyorkfed.org/fxc/volumesurvey>>. The results of the Foreign Exchange Joint Standing Committee’s survey for the U.K. market can be found at <<http://www.bankofengland.co.uk/markets/forex/fxjsc/index.htm>>. The results of the Singapore Foreign Exchange Market Committee’s survey for the Singaporean market can be found at <<http://www.sfemc.org>>. The results of the Canadian Foreign Exchange Committee’s survey for the Canadian market can be found at <[http://www.cfec.ca/fx\\_volume.html](http://www.cfec.ca/fx_volume.html)>.

### Average Daily Volume by Foreign Exchange Instrument



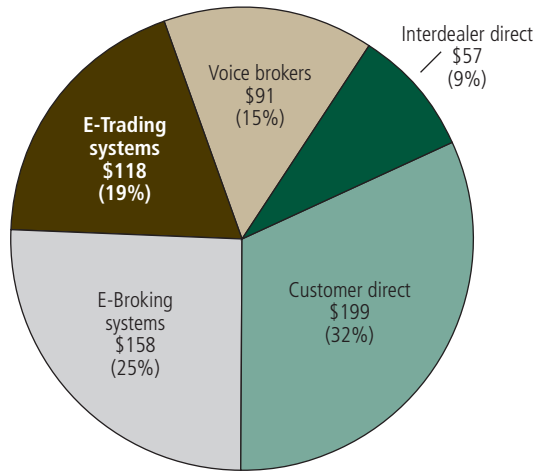
### Average Daily Volume by Dealing Channel, October 2005

Billions of U.S. Dollars Total = \$566\*



### Average Daily Volume by Dealing Channel, October 2006

Billions of U.S. Dollars Total = \$622\*



\*Volume figures include spot, forwards, swaps, and options. The data are unadjusted for double-counting among reporting dealers.

# Survey of North American Foreign Exchange Volume

## Explanatory Notes

### *Survey Terms and Methods*

The Survey of North American Foreign Exchange Volume is designed to measure the level of turnover in the foreign exchange market. The survey defines foreign exchange transactions as spot, forwards, swaps, and options that involve the exchange of two currencies. Turnover is defined as the gross value in U.S. dollar equivalents of purchases and sales entered into during the reporting period. The data cover a one-month period in order to reduce the likelihood that very short-term variations in activity might distort the data.

Turnover is measured in terms of nominal or notional amount of the contracts. No distinction is made between sales and purchases (for example, a purchase of \$3 million against the U.S. dollar and a sale of \$2 million against the U.S. dollar would amount to a gross turnover of \$5 million). Nondollar amounts are converted using the prevailing exchange rate on the transaction date. Direct cross-currency transactions are counted as a single transaction.

Transactions passing through a vehicle currency are counted as two separate transactions against the vehicle currency (for example, if a bank sells \$1 million against the euro and then uses the euro to purchase Japanese yen, the reported turnover would be \$2 million). Transactions with variable nominal or notional principal amounts are reported using the principal amount on the transaction date.

The data collected for the survey reflect all transactions entered into during the reporting month, regardless of whether delivery or settlement is made during the month.

Average daily turnover was obtained by dividing the total volume reported by twenty trading days in the United States in April 2006 and by twenty-two trading days in the United States in October 2006. There were thirty-one reporting dealers for the survey.

### *Consolidation Rules*

The survey covers all transactions that are priced or facilitated by traders in North America (the United States, Canada, and Mexico). Transactions concluded by dealers outside of North America are excluded even if they are booked to an office within North America. The survey also excludes transactions between branches, subsidiaries, affiliates, and trading desks of the same firm.

### *Instruments*

The survey is divided into separate schedules by product type. If a transaction is composed of several component instruments, each part in principle is reported separately, if feasible.

- Spot transactions are single outright transactions that involve the exchange of two currencies at a rate agreed to on the date of the contract for value or delivery within two business days, including U.S. dollar-Canadian dollar (USD-CAD) transactions delivered within one day.
- Outright forwards involving the exchange of two currencies at a rate agreed to on the date of the contract for value or delivery at some time in the future (more than one business day for USD-CAD transactions or more than two business days for all other transactions). This category also includes forward foreign exchange agreement transactions (FXA), non-deliverable forwards, and other forward contracts for differences.
- Foreign exchange swaps involve the exchange of two currencies on a specific date at a rate agreed to at the time of the conclusion of the contract, and a reverse exchange of the same two currencies at a date further in the future at a rate agreed to at the time of the contract. For measurement purposes, only the long leg of the swap is reported so that each transaction is recorded only once.
- Currency options are over-the-counter contracts that give the right or the obligation—depending on whether the reporter is the purchaser or the writer—to buy or sell a currency with another currency at a specified exchange rate during a specified time period. This category also includes exotic foreign exchange options such as average rate options and barrier options.

### *Counterparties*

The survey covers four types of counterparties:

- reporting dealers participating in the survey,
- other foreign exchange dealers that do not participate in the survey,
- other financial customers that are end-users in the foreign exchange market, and
- nonfinancial customers for all other counterparties not defined above.

Transactions between two reporting dealers are reported twice, once by each dealer. The total figures are adjusted to avoid the double counting of such trades.

### *Maturities*

Turnover reported in forwards and swaps is further broken down by original contractual maturity using the following three splits:

- up to one month, including contracts having an original maturity of less than thirty-one calendar days,
- one month to one year, including contracts having an original maturity of thirty-one calendar days but no more than one year, and
- more than one year, including contracts with an original maturity of more than one year.

Turnover reported for options is broken down by maturity using the following three splits:

- up to one month, including options with an expiration date of less than thirty-one calendar days,
- one to six months, including options with expirations of 31 to 180 calendar days, and
- more than six months, including options with expirations of more than 180 calendar days.

### *Execution Method*

All transactions are also reported according to the execution method used to settle the transaction. Execution method is broken down into the following five categories:

- interbank direct transactions between two dealers in which both dealers participate in the semiannual survey and are not intermediated by a third party (for example, executed via direct telephone communication or direct electronic dealing systems such as Reuters Conversational Dealing),
- customer direct transactions between the reporting dealer and customers or nonreporting dealers that are not intermediated by a third party (for example, executed via direct telephone communication or direct electronic dealing systems such as Reuters Conversational Dealing),
- electronic broking systems transactions that are conducted via an automated order matching system for foreign exchange dealers (for example, EBS and Reuters Matching 2000/2),
- electronic trading systems transactions that are conducted via multibank dealing systems and single-bank proprietary platforms that are generally geared toward customers (for example, FXall, Currenex, FXConnect, Globalink, and eSpeed), and
- voice broker transactions that are conducted via telephone communication with a foreign exchange voice broker.

In addition, a separate item capturing the total number of trades is reported for each currency pair and instrument type.



## Reporting Dealers

ABN AMRO

Bank of America

Bank of Montreal

The Bank of New York

Bank of Tokyo-Mitsubishi

Barclays Capital

Bear Stearns

BNP Paribas

Calyon

Canadian Imperial Bank of Commerce

Citigroup

CSFB

Deutsche Bank AG

Dresdner Bank AG

Goldman Sachs & Co.

HSBC Bank USA

JPMorgan Chase Bank

Lehman Brothers

Mellon Bank N.A.

Merrill Lynch

Mizuho Corporate Bank

Morgan Stanley

Royal Bank of Canada

Royal Bank of Scotland

Skandinaviska Enskilda Bank

Société Générale

Standard Chartered

State Street Corporation

Sumitomo Mitsui Banking Corporation

UBS Bank

Wells Fargo Bank N.A.

## Tables

<b>MARKET SHARE, October 2006</b>					
Percent					
<b>Instrument</b>	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
<b>SPOT TRANSACTIONS</b>					
Ranges held	≥7.33	4.74 - 2.51	2.26 - 1.28	1.18 - 0.43	≤0.40
Market share	60.85	21.06	11.51	4.79	1.80
<b>OUTRIGHT FORWARDS</b>					
Ranges held	≥6.82	6.48 - 2.43	2.36 - 1.03	0.54 - 0.35	≤0.20
Market share	63.98	22.34	10.19	2.71	0.79
<b>FOREIGN EXCHANGE SWAPS</b>					
Ranges held	≥5.42	5.07 - 3.68	3.19 - 1.72	1.52 - 0.52	≤0.48
Market share	51.94	25.93	14.17	6.18	1.77
<b>OTC FOREIGN EXCHANGE OPTIONS</b>					
Ranges held	≥7.65	5.73 - 3.06	1.88 - 0.85	0.85 - 0.17	≤0.14
Market share	64.73	24.07	7.96	2.89	0.36
<b>Counterparty</b>	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
<b>REPORTING DEALERS</b>					
Ranges held	≥6.68	6.24 - 3.01	2.87 - 1.53	1.51 - 0.41	≤0.40
Market share	51.65	27.47	13.64	4.88	2.34
<b>OTHER DEALERS</b>					
Ranges held	≥6.25	4.94 - 3.20	3.07 - 1.44	1.28 - 0.68	≤0.49
Market share	53.87	23.58	14.34	6.32	1.88
<b>OTHER FINANCIAL CUSTOMERS</b>					
Ranges held	≥7.89	7.69 - 2.56	2.29 - 0.35	0.32 - 0.10	≤0.10
Market share	67.84	23.13	7.53	1.21	0.29
<b>NONFINANCIAL CUSTOMERS</b>					
Ranges held	≥4.88	4.42 - 1.48	1.39 - 1.02	0.93 - 0.28	≤0.20
Market share	71.98	16.82	7.03	3.35	0.81

Notes: The data are adjusted for double reporting of trades between reporting dealers. Total market share may not sum to 100 percent because of rounding.

**MARKET SHARE, October 2006**

Percent

<b>Currency Pair</b>	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
<b>U.S. DOLLAR VERSUS</b>					
Euro					
Ranges held	≥6.66	6.44 - 2.92	2.91 - 1.56	1.38 - 0.50	≤0.26
Market share	51.71	28.38	13.21	5.45	1.27
Japanese yen					
Ranges held	≥8.32	7.83 - 2.69	2.46 - 1.02	0.93 - 0.59	≤0.40
Market share	56.32	26.90	10.80	4.38	1.58
British pound					
Ranges held	≥6.30	5.34 - 2.63	2.46 - 1.16	1.14 - 0.22	≤0.22
Market share	59.81	23.80	10.98	4.47	0.96
Canadian dollar					
Ranges held	≥6.49	5.89 - 3.74	3.61 - 2.16	1.32 - 0.30	≤0.28
Market share	48.48	28.98	16.41	5.01	1.14
Swiss franc					
Ranges held	≥8.14	5.60 - 2.10	1.72 - 1.19	0.93 - 0.21	≤0.13
Market share	66.25	21.59	8.24	3.33	0.59
Australian dollar					
Ranges held	≥6.83	6.55 - 3.59	3.24 - 1.76	1.10 - 0.43	≤0.31
Market share	51.17	28.46	14.97	4.52	0.85
Argentine peso					
Ranges held	≥6.27	4.98 - 2.50	2.42 - 1.12	0.79 - 0.00	≤0.00
Market share	70.20	19.29	9.51	0.96	0.00
Brazilian real					
Ranges held	≥6.49	5.75 - 2.07	0.96 - 0.61	0.49 - 0.08	≤0.03
Market share	73.52	19.65	5.15	1.67	0.04
Chilean peso					
Ranges held	≥10.30	4.63 - 2.41	2.31 - 0.06	0.06 - 0.00	≤0.00
Market share	74.02	19.01	6.86	0.10	0.00
Mexican peso					
Ranges held	≥7.29	7.22 - 3.02	2.52 - 1.11	0.81 - 0.10	≤0.08
Market share	56.51	29.00	10.36	3.89	0.26
All other currencies					
Ranges held	≥5.83	4.79 - 2.87	2.69 - 1.21	0.91 - 0.37	≤0.36
Market share	58.73	24.16	12.41	3.67	1.05
<b>EURO VERSUS</b>					
Japanese yen					
Ranges held	≥4.80	4.48 - 1.71	1.45 - 0.77	0.75 - 0.51	≤0.39
Market share	71.31	16.70	7.05	3.76	1.18
British pound					
Ranges held	≥6.16	5.74 - 2.85	2.78 - 0.99	0.97 - 0.51	≤0.38
Market share	57.81	24.09	12.42	4.47	1.20
Swiss franc					
Ranges held	≥5.82	5.24 - 3.19	3.09 - 0.77	0.76 - 0.20	≤0.16
Market share	61.15	24.64	11.12	2.61	0.48
<b>ALL OTHER CURRENCY PAIRS</b>					
Ranges held	≥6.87	6.01 - 2.33	2.02 - 1.31	1.11 - 0.53	≤0.44
Market share	55.26	27.75	10.48	5.32	1.18

Notes: The data are adjusted for double reporting of trades between reporting dealers. Total market share may not sum to 100 percent because of rounding.

**MARKET SHARE, April 2006**

Percent

<b>Instrument</b>	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
<b>SPOT TRANSACTIONS</b>					
Ranges held	≥6.77	6.51 - 2.67	2.55 - 1.32	1.23 - 0.42	≤0.40
Market share	54.33	26.88	11.53	5.38	1.85
<b>OUTRIGHT FORWARDS</b>					
Ranges held	≥6.47	5.78 - 2.92	1.94 - 0.88	0.63 - 0.33	≤0.23
Market share	50.21	24.09	8.49	2.96	0.87
<b>FOREIGN EXCHANGE SWAPS</b>					
Ranges held	≥6.39	5.82 - 3.36	3.15 - 1.68	1.62 - 0.49	≤0.41
Market share	47.48	28.98	15.20	6.69	1.69
<b>OTC FOREIGN EXCHANGE OPTIONS</b>					
Ranges held	≥5.72	5.39 - 2.09	2.01 - 0.97	0.84 - 0.20	≤0.15
Market share	65.63	22.02	8.48	3.41	0.46
<b>Counterparty</b>					
	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
<b>REPORTING DEALERS</b>					
Ranges held	≥5.42	5.17 - 2.84	2.52 - 1.75	1.66 - 0.43	≤0.41
Market share	37.06	23.82	13.36	4.88	2.16
<b>OTHER DEALERS</b>					
Ranges held	≥5.94	5.37 - 3.32	3.15 - 1.92	1.88 - 0.62	≤0.61
Market share	39.28	22.83	15.12	8.06	2.26
<b>OTHER FINANCIAL CUSTOMERS</b>					
Ranges held	≥8.15	6.27 - 2.05	1.84 - 0.37	0.27 - 0.14	≤0.12
Market share	52.67	23.80	6.65	1.15	0.24
<b>NONFINANCIAL CUSTOMERS</b>					
Ranges held	≥3.93	2.76 - 1.61	1.46 - 1.04	1.00 - 0.33	≤0.25
Market share	74.34	12.87	7.60	4.02	1.18

Notes: The data are adjusted for double reporting of trades between reporting dealers. Total market share may not sum to 100 percent because of rounding.

**MARKET SHARE, April 2006**

Percent

<b>Currency Pair</b>	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
<b>U.S. DOLLAR VERSUS</b>					
Euro					
Ranges held	≥6.59	6.25 - 2.86	2.54 - 1.60	1.43 - 0.45	≤0.33
Market share	50.92	29.34	12.73	5.53	1.47
Japanese yen					
Ranges held	≥7.56	6.70 - 2.33	2.27 - 1.36	1.02 - 0.65	≤0.65
Market share	55.03	26.97	10.97	4.83	2.21
British pound					
Ranges held	≥6.78	6.40 - 2.67	2.40 - 1.30	1.29 - 0.37	≤0.34
Market share	54.33	28.55	10.73	5.16	1.20
Canadian dollar					
Ranges held	≥6.08	5.89 - 4.78	3.46 - 1.47	1.37 - 0.44	≤0.32
Market share	47.88	32.16	12.99	5.69	1.26
Swiss franc					
Ranges held	≥6.42	5.35 - 2.55	2.08 - 1.03	0.86 - 0.42	≤0.24
Market share	60.95	24.92	9.87	3.66	0.62
Australian dollar					
Ranges held	≥7.08	6.93 - 3.58	3.38 - 1.39	1.13 - 0.51	≤0.28
Market share	49.47	29.91	14.98	4.63	0.99
Argentine peso					
Ranges held	≥6.12	5.04 - 1.25	0.99 - 0.03	0.00 - 0.00	≤0.00
Market share	76.72	20.43	2.81	0.00	0.00
Brazilian real					
Ranges held	≥8.80	4.32 - 1.52	1.10 - 0.27	0.25 - 0.07	≤0.04
Market share	77.31	18.55	3.20	0.90	0.05
Chilean peso					
Ranges held	≥6.63	5.13 - 1.52	1.50 - 0.01	0.01 - 0.00	≤0.00
Market share	75.05	21.86	3.07	0.01	0.00
Mexican peso					
Ranges held	≥7.63	7.46 - 2.44	2.17 - 1.03	1.01 - 0.12	≤0.07
Market share	60.30	26.66	8.90	3.94	0.20
All other currencies					
Ranges held	≥6.54	5.72 - 2.74	2.71 - 1.34	1.02 - 0.39	≤0.35
Market share	56.26	26.43	12.23	4.05	1.02
<b>EURO VERSUS</b>					
Japanese yen					
Ranges held	≥5.15	4.75 - 2.28	1.75 - 1.31	1.30 - 0.67	≤0.47
Market share	61.23	22.45	9.20	5.54	1.57
British pound					
Ranges held	≥5.93	5.18 - 3.55	3.21 - 1.79	1.42 - 0.53	≤0.41
Market share	54.27	26.05	13.06	5.54	1.11
Swiss franc					
Ranges held	≥4.67	3.83 - 2.88	2.74 - 0.84	0.81 - 0.37	≤0.33
Market share	65.44	19.66	10.77	3.45	0.70
<b>ALL OTHER CURRENCY PAIRS</b>					
Ranges held	≥5.72	5.60 - 3.25	2.35 - 1.49	1.18 - 0.85	≤0.41
Market share	54.70	27.06	10.87	6.09	1.29

Notes: The data are adjusted for double reporting of trades between reporting dealers. Total market share may not sum to 100 percent because of rounding.

## I. TOTAL FOREIGN EXCHANGE VOLUME, October 2006

Millions of U.S. Dollars

### AVERAGE DAILY VOLUME

<b>Instrument</b>	<b>Current Amount Reported</b>	<b>Dollar Change over Previous Year</b>	<b>Percentage Change over Previous Year</b>
Spot transactions	246,318	34,519	16.3
Outright forwards	82,443	9,253	12.6
Foreign exchange swaps	159,153	4,019	2.6
OTC foreign exchange options	45,782	9,051	24.6
<b>Total</b>	<b>533,696</b>	<b>56,842</b>	<b>11.9</b>

### TOTAL MONTHLY VOLUME

<b>Instrument</b>	<b>Current Amount Reported</b>	<b>Dollar Change over Previous Year</b>	<b>Percentage Change over Previous Year</b>
Spot transactions	5,418,907	1,182,971	27.9
Outright forwards	1,813,721	349,905	23.9
Foreign exchange swaps	3,501,389	398,764	12.9
OTC foreign exchange options	1,007,167	272,531	37.1
<b>Total</b>	<b>11,741,184</b>	<b>2,204,171</b>	<b>23.1</b>

Note: The lower table reports notional amounts of total monthly volume adjusted for double reporting of trades between reporting dealers; there were twenty trading days in October 2005 and twenty-two in October 2006.



**2a. SPOT TRANSACTIONS, Average Daily Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	13,237	38,775	19,355	5,260	76,627
Japanese yen	6,461	16,844	10,186	2,450	35,941
British pound	4,614	13,604	10,135	2,165	30,518
Canadian dollar	3,686	7,535	4,218	1,579	17,018
Swiss franc	2,863	7,727	6,426	1,036	18,052
Australian dollar	1,531	4,119	2,258	704	8,612
Argentine peso	21	23	13	10	67
Brazilian real	430	681	434	181	1,726
Chilean peso	132	156	153	42	483
Mexican peso	1,801	3,499	1,650	793	7,743
All other currencies	1,902	4,661	4,543	2,548	13,654
<b>EURO VERSUS</b>					
Japanese yen	1,977	5,438	4,326	360	12,101
British pound	959	2,801	1,149	634	5,543
Swiss franc	1,241	3,458	2,121	423	7,243
<b>ALL OTHER CURRENCY PAIRS</b>	1,419	5,077	2,496	1,998	10,990
<b>Total<sup>a</sup></b>	<b>42,274</b>	<b>114,398</b>	<b>69,463</b>	<b>20,183</b>	<b>246,318</b>

**2b. OUTRIGHT FORWARDS, Average Daily Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	1,155	4,399	11,502	3,656	20,712
Japanese yen	706	2,783	6,629	1,715	11,833
British pound	727	1,924	3,826	1,578	8,055
Canadian dollar	501	1,334	2,808	1,686	6,329
Swiss franc	284	891	2,112	741	4,028
Australian dollar	242	1,140	1,787	660	3,829
Argentine peso	41	105	33	17	196
Brazilian real	641	1,673	1,125	197	3,636
Chilean peso	175	592	111	87	965
Mexican peso	173	600	603	660	2,036
All other currencies	1,230	3,758	4,980	2,334	12,302
<b>EURO VERSUS</b>					
Japanese yen	140	384	482	351	1,357
British pound	49	195	281	534	1,059
Swiss franc	27	138	290	230	685
<b>ALL OTHER CURRENCY PAIRS</b>	277	1,056	1,854	2,234	5,421
<b>Total<sup>a</sup></b>	<b>6,368</b>	<b>20,972</b>	<b>38,423</b>	<b>16,680</b>	<b>82,443</b>

Notes: The tables report notional amounts of average daily volume adjusted for double reporting of trades between reporting dealers. The amounts are averaged over twenty-two trading days in October.

<sup>a</sup>Figures may not sum to totals because of rounding.

**2c. FOREIGN EXCHANGE SWAPS, Average Daily Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	6,123	20,456	10,096	3,714	40,389
Japanese yen	4,637	12,341	8,279	1,380	26,637
British pound	3,186	11,406	4,942	1,221	20,755
Canadian dollar	5,585	12,109	5,318	1,710	24,722
Swiss franc	1,764	5,450	2,097	386	9,697
Australian dollar	1,551	5,080	2,707	428	9,766
Argentine peso	4	4	2	0	10
Brazilian real	43	41	33	5	122
Chilean peso	22	45	3	1	71
Mexican peso	1,588	4,759	1,722	414	8,483
All other currencies	2,043	7,680	3,524	967	14,214
<b>EURO VERSUS</b>					
Japanese yen	62	147	313	117	639
British pound	10	90	201	376	677
Swiss franc	17	101	127	163	408
<b>ALL OTHER CURRENCY PAIRS</b>	181	683	1,245	454	2,563
<b>Total<sup>a</sup></b>	<b>26,816</b>	<b>80,392</b>	<b>40,609</b>	<b>11,336</b>	<b>159,153</b>

**2d. OTC FOREIGN EXCHANGE OPTIONS, Average Daily Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	3,412	3,074	2,891	1,324	10,701
Japanese yen	2,906	2,146	3,159	1,179	9,390
British pound	1,194	548	1,623	311	3,676
Canadian dollar	1,096	1,391	776	244	3,507
Swiss franc	315	321	490	138	1,264
Australian dollar	492	280	656	102	1,530
Argentine peso	18	47	28	10	103
Brazilian real	375	585	540	101	1,601
Chilean peso	56	64	28	6	154
Mexican peso	588	746	871	86	2,291
All other currencies	671	592	856	1,512	3,631
<b>EURO VERSUS</b>					
Japanese yen	470	566	837	164	2,037
British pound	317	188	356	47	908
Swiss franc	329	478	235	116	1,158
<b>ALL OTHER CURRENCY PAIRS</b>	944	1,257	1,283	347	3,831
<b>Total<sup>a</sup></b>	<b>13,183</b>	<b>12,283</b>	<b>14,629</b>	<b>5,687</b>	<b>45,782</b>

Notes: The tables report notional amounts of average daily volume adjusted for double reporting of trades between reporting dealers. The amounts are averaged over twenty-two trading days in October.

<sup>a</sup>Figures may not sum to totals because of rounding.

**2e. AVERAGE DAILY VOLUME, by Execution Method and Currency Pair, October 2006**

Columns 1-6 in Millions of U.S. Dollars

Currency Pair	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>U.S. DOLLAR VERSUS</b>							
Euro	14,761	55,447	49,024	28,797	24,326	172,355	37,431
Japanese yen	9,061	31,557	25,440	20,865	11,587	98,510	22,332
British pound	5,602	20,089	19,168	17,893	9,969	72,721	14,770
Canadian dollar	6,596	19,748	18,119	7,034	10,943	62,440	11,418
Swiss franc	3,686	8,880	8,656	11,891	5,152	38,265	11,495
Australian dollar	2,847	8,658	6,976	4,922	4,147	27,550	6,341
Argentine peso	79	167	56	34	123	459	62
Brazilian real	1,361	3,538	413	629	2,633	8,574	1,027
Chilean peso	345	692	101	215	704	2,057	259
Mexican peso	3,284	8,144	5,762	1,266	6,246	24,702	3,426
All other currencies	4,314	21,665	7,469	5,756	10,439	49,643	11,164
<b>EURO VERSUS</b>							
Japanese yen	1,355	3,740	5,529	7,233	926	18,783	6,600
British pound	1,077	2,571	3,110	2,186	577	9,521	2,754
Swiss franc	892	2,088	3,441	3,728	957	11,106	2,980
<b>ALL OTHER CURRENCY PAIRS</b>	2,002	11,527	4,292	5,731	2,072	25,624	10,044
<b>Total<sup>a</sup></b>	<b>57,262</b>	<b>198,511</b>	<b>157,556</b>	<b>118,180</b>	<b>90,801</b>	<b>622,310</b>	<b>142,103</b>

**2f. AVERAGE DAILY VOLUME, by Execution Method, Instrument, and Counterparty, October 2006**

Columns 1-6 in Millions of U.S. Dollars

	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>INSTRUMENT</b>							
Spot transactions	18,981	76,627	101,237	69,733	22,000	288,578	115,880
Outright forwards	4,560	45,234	5,548	19,112	14,351	88,805	18,887
Foreign exchange swaps	18,755	51,018	39,335	27,947	48,909	185,964	5,061
OTC foreign exchange options	14,966	25,628	11,438	1,388	5,540	58,960	2,275
<b>Total<sup>a</sup></b>	<b>57,262</b>	<b>198,507</b>	<b>157,558</b>	<b>118,180</b>	<b>90,800</b>	<b>622,307</b>	<b>142,103</b>
<b>COUNTERPARTY</b>							
Reporting dealers	57,262	0	65,368	20,536	34,093	177,259	33,090
Banks/other dealers	0	64,686	77,935	41,174	44,244	228,039	54,463
Other financial customers	0	91,870	10,100	50,005	11,150	163,125	43,127
Nonfinancial customers	0	41,952	4,154	6,465	1,313	53,884	11,424
<b>Total<sup>a</sup></b>	<b>57,262</b>	<b>198,508</b>	<b>157,557</b>	<b>118,180</b>	<b>90,800</b>	<b>622,307</b>	<b>142,104</b>

Note: The amounts reported in the tables are averaged over twenty-two trading days in October and are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**3a. SPOT TRANSACTIONS, Total Monthly Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	291,208	853,040	425,805	115,711	1,685,764
Japanese yen	142,140	370,559	224,092	53,898	790,689
British pound	101,503	299,293	222,965	47,634	671,395
Canadian dollar	81,091	165,779	92,795	34,738	374,403
Swiss franc	62,994	169,984	141,366	22,783	397,127
Australian dollar	33,684	90,614	49,670	15,478	189,446
Argentine peso	452	502	282	226	1,462
Brazilian real	9,465	14,977	9,540	3,978	37,960
Chilean peso	2,903	3,441	3,372	924	10,640
Mexican peso	39,613	76,974	36,307	17,443	170,337
All other currencies	41,849	102,533	99,948	56,052	300,382
<b>EURO VERSUS</b>					
Japanese yen	43,502	119,636	95,170	7,913	266,221
British pound	21,090	61,621	25,282	13,959	121,952
Swiss franc	27,294	76,086	46,664	9,302	159,346
<b>ALL OTHER CURRENCY PAIRS</b>	31,214	111,695	54,915	43,959	241,783
<b>Total<sup>a</sup></b>	<b>930,002</b>	<b>2,516,734</b>	<b>1,528,173</b>	<b>443,998</b>	<b>5,418,907</b>

**3b. OUTRIGHT FORWARDS, Total Monthly Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	25,418	96,770	253,041	80,442	455,671
Japanese yen	15,541	61,226	145,831	37,724	260,322
British pound	15,996	42,324	84,163	34,713	177,196
Canadian dollar	11,019	29,349	61,777	37,085	139,230
Swiss franc	6,245	19,595	46,454	16,299	88,593
Australian dollar	5,319	25,076	39,306	14,531	84,232
Argentine peso	908	2,301	736	365	4,310
Brazilian real	14,108	36,803	24,746	4,344	80,001
Chilean peso	3,859	13,018	2,442	1,904	21,223
Mexican peso	3,811	13,190	13,269	14,522	44,792
All other currencies	27,056	82,672	109,562	51,344	270,634
<b>EURO VERSUS</b>					
Japanese yen	3,082	8,443	10,610	7,715	29,850
British pound	1,081	4,294	6,181	11,747	23,303
Swiss franc	604	3,040	6,391	5,060	15,095
<b>ALL OTHER CURRENCY PAIRS</b>	6,102	23,228	40,788	49,151	119,269
<b>Total<sup>a</sup></b>	<b>140,149</b>	<b>461,329</b>	<b>845,297</b>	<b>366,946</b>	<b>1,813,721</b>

Note: The tables report notional amounts of total monthly volume adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**3c. FOREIGN EXCHANGE SWAPS, Total Monthly Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	134,711	450,036	222,122	81,717	888,586
Japanese yen	102,004	271,503	182,144	30,364	586,015
British pound	70,087	250,926	108,733	26,861	456,607
Canadian dollar	122,868	266,397	117,005	37,611	543,881
Swiss franc	38,819	119,901	46,142	8,488	213,350
Australian dollar	34,122	111,754	59,548	9,419	214,843
Argentine peso	94	81	39	4	218
Brazilian real	954	892	726	120	2,692
Chilean peso	476	991	69	19	1,555
Mexican peso	34,937	104,701	37,887	9,113	186,638
All other currencies	44,939	168,969	77,526	21,264	312,698
<b>EURO VERSUS</b>					
Japanese yen	1,354	3,232	6,893	2,581	14,060
British pound	221	1,983	4,425	8,273	14,902
Swiss franc	365	2,223	2,787	3,588	8,963
<b>ALL OTHER CURRENCY PAIRS</b>	3,984	15,018	27,387	9,992	56,381
<b>Total<sup>a</sup></b>	<b>589,935</b>	<b>1,768,607</b>	<b>893,433</b>	<b>249,414</b>	<b>3,501,389</b>

**3d. OTC FOREIGN EXCHANGE OPTIONS, Total Monthly Volume, October 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	75,072	67,624	63,604	29,119	235,419
Japanese yen	63,936	47,223	69,503	25,937	206,599
British pound	26,260	12,064	35,711	6,844	80,879
Canadian dollar	24,103	30,594	17,066	5,358	77,121
Swiss franc	6,933	7,064	10,784	3,037	27,818
Australian dollar	10,826	6,151	14,442	2,239	33,658
Argentine peso	401	1,028	613	210	2,252
Brazilian real	8,256	12,861	11,883	2,218	35,218
Chilean peso	1,234	1,397	612	130	3,373
Mexican peso	12,939	16,423	19,172	1,902	50,436
All other currencies	14,771	13,014	18,825	33,255	79,865
<b>EURO VERSUS</b>					
Japanese yen	10,345	12,448	18,423	3,611	44,827
British pound	6,964	4,134	7,832	1,030	19,960
Swiss franc	7,238	10,509	5,161	2,562	25,470
<b>ALL OTHER CURRENCY PAIRS</b>	20,777	27,646	28,225	7,624	84,272
<b>Total<sup>a</sup></b>	<b>290,055</b>	<b>270,180</b>	<b>321,856</b>	<b>125,076</b>	<b>1,007,167</b>

Note: The tables report notional amounts of total monthly volume adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**3e. TOTAL MONTHLY VOLUME, by Execution Method and Currency Pair, October 2006**

Columns 1-6 in Millions of U.S. Dollars

Currency Pair	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>U.S. DOLLAR VERSUS</b>							
Euro	324,739	1,219,827	1,078,531	633,524	535,177	3,791,798	823,488
Japanese yen	199,336	694,251	559,670	459,027	254,905	2,167,189	491,296
British pound	123,235	441,950	421,702	393,651	219,327	1,599,865	324,930
Canadian dollar	145,114	434,445	398,616	154,758	240,741	1,373,674	251,198
Swiss franc	81,092	195,357	190,441	261,601	113,340	841,831	252,884
Australian dollar	62,630	190,473	153,474	108,276	91,236	606,089	139,506
Argentine peso	1,730	3,674	1,241	743	2,696	10,084	1,353
Brazilian real	29,939	77,834	9,090	13,843	57,926	188,632	22,601
Chilean peso	7,594	15,219	2,222	4,728	15,489	45,252	5,705
Mexican peso	72,253	179,169	126,756	27,852	137,423	543,453	75,362
All other currencies	94,907	476,626	164,328	126,621	229,658	1,092,140	245,612
<b>EURO VERSUS</b>							
Japanese yen	29,815	82,271	121,629	159,128	20,361	413,204	145,203
British pound	23,689	56,553	68,422	48,085	12,691	209,440	60,596
Swiss franc	19,629	45,934	75,705	82,019	21,061	244,348	65,568
<b>ALL OTHER CURRENCY PAIRS</b>							
	44,053	253,592	94,422	126,087	45,577	563,731	220,972
<b>Total<sup>a</sup></b>	<b>1,259,755</b>	<b>4,367,175</b>	<b>3,466,249</b>	<b>2,599,943</b>	<b>1,997,608</b>	<b>13,690,730</b>	<b>3,126,274</b>

**3f. TOTAL MONTHLY VOLUME, by Execution Method, Instrument, and Counterparty, October 2006**

Columns 1-6 in Millions of U.S. Dollars

	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>INSTRUMENT</b>							
Spot transactions	417,587	1,685,803	2,227,209	1,534,122	484,005	6,348,726	2,549,370
Outright forwards	100,318	995,157	122,056	420,457	315,729	1,953,717	415,523
Foreign exchange swaps	412,606	1,122,404	865,362	614,836	1,075,993	4,091,201	111,332
OTC foreign exchange options	329,242	563,811	251,627	30,526	121,888	1,297,094	50,049
<b>Total<sup>a</sup></b>	<b>1,259,753</b>	<b>4,367,175</b>	<b>3,466,254</b>	<b>2,599,941</b>	<b>1,997,615</b>	<b>13,690,738</b>	<b>3,126,274</b>
<b>COUNTERPARTY</b>							
Reporting dealers	1,259,754	0	1,438,100	451,790	750,053	3,899,697	727,971
Banks/other dealers	0	1,423,084	1,714,571	905,818	973,372	5,016,845	1,198,187
Other financial customers	0	2,021,145	222,199	1,100,103	245,304	3,588,751	948,793
Nonfinancial customers	0	922,943	91,384	142,233	28,888	1,185,448	251,323
<b>Total<sup>a</sup></b>	<b>1,259,754</b>	<b>4,367,172</b>	<b>3,466,254</b>	<b>2,599,944</b>	<b>1,997,617</b>	<b>13,690,741</b>	<b>3,126,274</b>

Note: The amounts reported in the tables are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.



**4a. OUTRIGHT FORWARDS, Total Monthly Volume by Maturity, October 2006**

Millions of U.S. Dollars

Currency Pair	Maturity		
	Up to One Month	One Month to One Year	More Than One Year
<b>U.S. DOLLAR VERSUS</b>			
Euro	254,594	221,679	4,797
Japanese yen	173,797	99,149	2,905
British pound	92,569	99,625	992
Canadian dollar	85,030	63,768	1,441
Swiss franc	49,026	45,634	166
Australian dollar	51,180	38,149	210
Argentine peso	1,934	2,859	418
Brazilian real	61,225	31,801	1,077
Chilean peso	13,679	11,260	139
Mexican peso	27,083	20,458	1,047
All other currencies	136,421	156,521	4,737
<b>EURO VERSUS</b>			
Japanese yen	20,993	11,869	58
British pound	15,438	8,818	116
Swiss franc	9,646	5,958	88
<b>ALL OTHER CURRENCY PAIRS</b>	82,251	42,419	686
<b>Total<sup>a</sup></b>	<b>1,074,866</b>	<b>859,967</b>	<b>18,877</b>

**4b. FOREIGN EXCHANGE SWAPS, Total Monthly Volume by Maturity, October 2006**

Millions of U.S. Dollars

Currency Pair	Maturity		
	Up to One Month	One Month to One Year	More Than One Year
<b>U.S. DOLLAR VERSUS</b>			
Euro	830,305	189,194	3,786
Japanese yen	587,292	95,755	4,962
British pound	416,494	108,911	1,274
Canadian dollar	593,837	70,549	2,352
Swiss franc	226,753	25,249	160
Australian dollar	217,945	30,274	736
Argentine peso	194	116	0
Brazilian real	1,552	2,076	17
Chilean peso	1,128	875	25
Mexican peso	187,842	31,144	2,577
All other currencies	287,469	67,339	2,818
<b>EURO VERSUS</b>			
Japanese yen	12,426	2,982	1
British pound	11,760	3,303	57
Swiss franc	7,404	1,918	4
<b>ALL OTHER CURRENCY PAIRS</b>	48,264	11,987	107
<b>Total<sup>a</sup></b>	<b>3,430,665</b>	<b>641,672</b>	<b>18,876</b>

Note: The tables report notional amounts of total monthly volume that are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**4c. OTC FOREIGN EXCHANGE OPTIONS, Total Monthly Volume by Maturity, October 2006**

Millions of U.S. Dollars

Currency Pair	Maturity		
	Up to One Month	One to Six Months	More Than Six Months
<b>U.S. DOLLAR VERSUS</b>			
Euro	131,284	134,846	44,350
Japanese yen	89,108	117,457	63,955
British pound	48,162	53,968	4,998
Canadian dollar	44,058	48,666	8,490
Swiss franc	19,902	13,470	1,371
Australian dollar	19,750	22,772	1,950
Argentine peso	153	992	1,506
Brazilian real	25,746	12,702	5,018
Chilean peso	678	3,376	552
Mexican peso	21,150	25,291	16,923
All other currencies	47,929	26,938	19,759
<b>EURO VERSUS</b>			
Japanese yen	14,354	35,089	5,720
British pound	3,281	22,465	1,173
Swiss franc	18,967	7,602	6,134
<b>ALL OTHER CURRENCY PAIRS</b>	32,030	46,635	26,374
<b>Total<sup>a</sup></b>	<b>516,552</b>	<b>572,269</b>	<b>208,273</b>

Note: The table reports notional amounts of total monthly volume that are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

## I. TOTAL FOREIGN EXCHANGE VOLUME, April 2006

Millions of U.S. Dollars

### AVERAGE DAILY VOLUME

<b>Instrument</b>	<b>Current Amount Reported</b>	<b>Dollar Change over Previous Year</b>	<b>Percentage Change over Previous Year</b>
Spot transactions	276,052	85,093 <sup>a</sup>	44.6
Outright forwards	95,619	38,165	66.4
Foreign exchange swaps	157,503	8,403	5.6
OTC foreign exchange options	48,089	6,653	16.1
<b>Total</b>	<b>577,263</b>	<b>138,314<sup>a</sup></b>	<b>31.5</b>

### TOTAL MONTHLY VOLUME

<b>Instrument</b>	<b>Current Amount Reported</b>	<b>Dollar Change over Previous Year</b>	<b>Percentage Change over Previous Year</b>
Spot transactions	5,521,016	1,510,884 <sup>a</sup>	37.7
Outright forwards	1,912,480	705,969	58.5
Foreign exchange swaps	3,150,197	19,118	0.6
OTC foreign exchange options	961,882	91,760	10.5
<b>Total</b>	<b>11,545,575</b>	<b>2,327,731<sup>a</sup></b>	<b>25.3</b>

Note: The lower table reports notional amounts of total monthly volume adjusted for double reporting of trades between reporting dealers; there were twenty-one trading days in April 2005 and twenty in April 2006.

<sup>a</sup>Reflects a revision to the April 2005 data.

**2a. SPOT TRANSACTIONS, Average Daily Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	21,172	45,168	27,542	5,261	99,143
Japanese yen	10,624	18,840	14,310	2,696	46,470
British pound	5,536	11,981	8,939	1,762	28,218
Canadian dollar	4,040	6,334	3,336	1,646	15,356
Swiss franc	3,686	7,025	7,300	889	18,900
Australian dollar	2,214	4,332	2,798	638	9,982
Argentine peso	34	52	43	12	141
Brazilian real	643	1,309	710	239	2,901
Chilean peso	172	344	130	39	685
Mexican peso	2,220	3,338	1,750	2,107	9,415
All other currencies	2,115	4,780	4,296	2,180	13,371
<b>EURO VERSUS</b>					
Japanese yen	2,255	4,312	2,748	424	9,739
British pound	1,410	2,855	1,076	508	5,849
Swiss franc	1,483	3,169	1,678	344	6,674
<b>ALL OTHER CURRENCY PAIRS</b>	1,958	4,003	1,776	1,471	9,208
<b>Total<sup>a</sup></b>	<b>59,562</b>	<b>117,842</b>	<b>78,432</b>	<b>20,216</b>	<b>276,052</b>

**2b. OUTRIGHT FORWARDS, Average Daily Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	2,907	5,405	12,691	4,584	25,587
Japanese yen	1,439	2,775	7,078	2,178	13,470
British pound	1,035	1,893	4,980	1,884	9,792
Canadian dollar	547	1,221	2,509	1,811	6,088
Swiss franc	567	948	2,140	774	4,429
Australian dollar	475	1,182	2,146	686	4,489
Argentine peso	30	80	50	13	173
Brazilian real	731	1,938	1,687	220	4,576
Chilean peso	205	589	156	37	987
Mexican peso	352	745	766	1,216	3,079
All other currencies	1,443	3,613	5,296	2,347	12,699
<b>EURO VERSUS</b>					
Japanese yen	239	525	759	320	1,843
British pound	105	275	480	496	1,356
Swiss franc	84	296	493	492	1,365
<b>ALL OTHER CURRENCY PAIRS</b>	374	917	2,413	1,982	5,686
<b>Total<sup>a</sup></b>	<b>10,533</b>	<b>22,402</b>	<b>43,644</b>	<b>19,040</b>	<b>95,619</b>

Notes: The tables report notional amounts of average daily volume adjusted for double reporting of trades between reporting dealers. The amounts are averaged over twenty trading days in April.

<sup>a</sup>Figures may not sum to totals because of rounding.

**2c. FOREIGN EXCHANGE SWAPS, Average Daily Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	6,125	22,065	16,992	3,288	48,470
Japanese yen	5,799	9,189	8,357	1,160	24,505
British pound	3,385	9,001	5,160	1,249	18,795
Canadian dollar	4,847	9,965	5,272	1,512	21,596
Swiss franc	1,641	4,051	2,174	258	8,124
Australian dollar	1,240	4,015	2,073	303	7,631
Argentine peso	4	3	2	2	11
Brazilian real	30	36	36	46	148
Chilean peso	13	25	3	0	41
Mexican peso	2,664	4,625	2,453	342	10,084
All other currencies	1,890	7,179	4,025	663	13,757
<b>EURO VERSUS</b>					
Japanese yen	30	88	323	72	513
British pound	43	114	308	341	806
Swiss franc	49	38	118	78	283
<b>ALL OTHER CURRENCY PAIRS</b>	214	622	1,649	254	2,739
<b>Total<sup>a</sup></b>	<b>27,974</b>	<b>71,016</b>	<b>48,945</b>	<b>9,568</b>	<b>157,503</b>

**2d. OTC FOREIGN EXCHANGE OPTIONS, Average Daily Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	4,019	3,874	4,060	1,802	13,755
Japanese yen	2,979	2,919	3,116	740	9,754
British pound	668	936	1,668	364	3,636
Canadian dollar	841	1,421	1,058	342	3,662
Swiss franc	350	339	423	142	1,254
Australian dollar	466	615	613	155	1,849
Argentine peso	7	30	17	2	56
Brazilian real	254	339	329	125	1,047
Chilean peso	18	21	11	0	50
Mexican peso	614	941	390	157	2,102
All other currencies	347	630	746	442	2,165
<b>EURO VERSUS</b>					
Japanese yen	947	874	1,040	107	2,968
British pound	203	184	166	176	729
Swiss franc	404	176	963	271	1,814
<b>ALL OTHER CURRENCY PAIRS</b>	711	903	1,426	208	3,248
<b>Total<sup>a</sup></b>	<b>12,828</b>	<b>14,202</b>	<b>16,026</b>	<b>5,033</b>	<b>48,089</b>

Notes: The tables report notional amounts of average daily volume adjusted for double reporting of trades between reporting dealers. The amounts are averaged over twenty trading days in April.

<sup>a</sup>Figures may not sum to totals because of rounding.

**2e. AVERAGE DAILY VOLUME, by Execution Method and Currency Pair, April 2006**

Columns 1-6 in Millions of U.S. Dollars

Currency Pair	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>U.S. DOLLAR VERSUS</b>							
Euro	19,212	60,421	72,463	42,373	26,709	221,178	46,229
Japanese yen	11,302	31,892	28,010	26,977	16,856	115,037	24,388
British pound	5,283	20,123	18,603	16,922	10,134	71,065	12,578
Canadian dollar	6,229	18,710	16,182	6,736	9,118	56,975	10,559
Swiss franc	3,268	8,387	10,710	12,161	4,426	38,952	11,417
Australian dollar	2,707	8,488	7,755	4,858	4,539	28,347	6,514
Argentine peso	68	222	34	36	96	456	82
Brazilian real	1,700	4,623	297	482	3,228	10,330	1,067
Chilean peso	384	985	41	233	527	2,170	329
Mexican peso	3,973	10,541	6,662	1,223	8,128	30,527	3,585
All other currencies	4,081	21,725	7,427	5,255	9,298	47,786	11,178
<b>EURO VERSUS</b>							
Japanese yen	2,327	4,428	4,904	5,321	1,551	18,531	4,954
British pound	769	2,538	3,646	2,471	1,075	10,499	2,892
Swiss franc	1,145	3,309	3,449	3,325	926	12,154	2,946
<b>ALL OTHER CURRENCY PAIRS</b>							
	3,303	11,225	3,442	3,474	2,694	24,138	6,043
<b>Total<sup>a</sup></b>	<b>65,751</b>	<b>207,617</b>	<b>183,625</b>	<b>131,847</b>	<b>99,305</b>	<b>688,145</b>	<b>144,761</b>

**2f. AVERAGE DAILY VOLUME, by Execution Method, Instrument, and Counterparty, April 2006**

Columns 1-6 in Millions of U.S. Dollars

	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>INSTRUMENT</b>							
Spot transactions	31,919	71,919	124,098	78,163	29,503	335,602	113,990
Outright forwards	6,028	47,591	12,359	20,967	19,206	106,151	23,780
Foreign exchange swaps	15,266	58,528	41,206	24,522	45,956	185,478	4,675
OTC foreign exchange options	12,538	29,580	5,962	8,195	4,641	60,916	2,317
<b>Total<sup>a</sup></b>	<b>65,751</b>	<b>207,618</b>	<b>183,625</b>	<b>131,847</b>	<b>99,306</b>	<b>688,147</b>	<b>144,762</b>
<b>COUNTERPARTY</b>							
Reporting dealers	65,750	0	81,725	27,420	46,866	221,761	42,229
Banks/other dealers	0	62,731	85,739	36,554	40,437	225,461	49,462
Other financial customers	0	104,082	13,700	58,951	10,321	187,054	40,587
Nonfinancial customers	0	40,803	2,460	8,921	1,681	53,865	12,484
<b>Total<sup>a</sup></b>	<b>65,750</b>	<b>207,616</b>	<b>183,624</b>	<b>131,846</b>	<b>99,305</b>	<b>688,141</b>	<b>144,762</b>

Note: The amounts reported in the tables are averaged over twenty trading days in April and are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**3a. SPOT TRANSACTIONS, Total Monthly Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	423,450	903,351	550,850	105,228	1,982,879
Japanese yen	212,472	376,802	286,203	53,926	929,403
British pound	110,710	239,627	178,776	35,250	564,363
Canadian dollar	80,800	126,688	66,715	32,911	307,114
Swiss franc	73,721	140,505	146,005	17,779	378,010
Australian dollar	44,273	86,633	55,968	12,756	199,630
Argentine peso	682	1,041	867	237	2,827
Brazilian real	12,863	26,173	14,193	4,782	58,011
Chilean peso	3,445	6,879	2,597	784	13,705
Mexican peso	44,398	66,756	34,995	42,132	188,281
All other currencies	42,305	95,590	85,925	43,600	267,420
<b>EURO VERSUS</b>					
Japanese yen	45,094	86,242	54,969	8,482	194,787
British pound	28,191	57,092	21,516	10,170	116,969
Swiss franc	29,652	63,374	33,563	6,884	133,473
<b>ALL OTHER CURRENCY PAIRS</b>	39,152	80,063	35,511	29,418	184,144
<b>Total<sup>a</sup></b>	<b>1,191,208</b>	<b>2,356,816</b>	<b>1,568,653</b>	<b>404,339</b>	<b>5,521,016</b>

**3b. OUTRIGHT FORWARDS, Total Monthly Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	58,138	108,105	253,824	91,686	511,753
Japanese yen	28,785	55,491	141,567	43,550	269,393
British pound	20,709	37,856	99,606	37,674	195,845
Canadian dollar	10,936	24,420	50,181	36,224	121,761
Swiss franc	11,348	18,965	42,801	15,490	88,604
Australian dollar	9,503	23,648	42,924	13,730	89,805
Argentine peso	599	1,597	1,006	261	3,463
Brazilian real	14,628	38,768	33,745	4,410	91,551
Chilean peso	4,104	11,771	3,118	739	19,732
Mexican peso	7,035	14,891	15,318	24,329	61,573
All other currencies	28,854	72,257	105,924	46,932	253,967
<b>EURO VERSUS</b>					
Japanese yen	4,781	10,503	15,183	6,395	36,862
British pound	2,101	5,503	9,601	9,928	27,133
Swiss franc	1,690	5,920	9,857	9,832	27,299
<b>ALL OTHER CURRENCY PAIRS</b>	7,486	18,339	48,265	39,649	113,739
<b>Total<sup>a</sup></b>	<b>210,697</b>	<b>448,034</b>	<b>872,920</b>	<b>380,829</b>	<b>1,912,480</b>

Note: The tables report notional amounts of total monthly volume adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**3c. FOREIGN EXCHANGE SWAPS, Total Monthly Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	122,497	441,293	339,850	65,765	969,405
Japanese yen	115,974	183,783	167,148	23,203	490,108
British pound	67,708	180,023	103,208	24,980	375,919
Canadian dollar	96,938	199,295	105,445	30,250	431,928
Swiss franc	32,825	81,025	43,489	5,165	162,504
Australian dollar	24,807	80,294	41,469	6,068	152,638
Argentine peso	78	65	30	50	223
Brazilian real	602	727	722	918	2,969
Chilean peso	256	492	53	0	801
Mexican peso	53,276	92,497	49,068	6,850	201,691
All other currencies	37,809	143,588	80,507	13,269	275,173
<b>EURO VERSUS</b>					
Japanese yen	594	1,753	6,451	1,444	10,242
British pound	867	2,283	6,153	6,818	16,121
Swiss franc	978	768	2,360	1,570	5,676
<b>ALL OTHER CURRENCY PAIRS</b>	4,285	12,443	32,984	5,087	54,799
<b>Total<sup>a</sup></b>	<b>559,494</b>	<b>1,420,329</b>	<b>978,937</b>	<b>191,437</b>	<b>3,150,197</b>

**3d. OTC FOREIGN EXCHANGE OPTIONS, Total Monthly Volume, April 2006**

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
<b>U.S. DOLLAR VERSUS</b>					
Euro	80,379	77,476	81,209	36,036	275,100
Japanese yen	59,573	58,373	62,321	14,801	195,068
British pound	13,355	18,730	33,368	7,283	72,736
Canadian dollar	16,815	28,422	21,162	6,847	73,246
Swiss franc	6,995	6,782	8,468	2,850	25,095
Australian dollar	9,330	12,306	12,255	3,107	36,998
Argentine peso	141	593	343	42	1,119
Brazilian real	5,070	6,776	6,586	2,506	20,938
Chilean peso	355	427	224	9	1,015
Mexican peso	12,280	18,823	7,796	3,144	42,043
All other currencies	6,948	12,599	14,920	8,849	43,316
<b>EURO VERSUS</b>					
Japanese yen	18,942	17,490	20,806	2,135	59,373
British pound	4,052	3,683	3,329	3,525	14,589
Swiss franc	8,079	3,522	19,264	5,418	36,283
<b>ALL OTHER CURRENCY PAIRS</b>	14,213	18,055	28,528	4,167	64,963
<b>Total<sup>a</sup></b>	<b>256,527</b>	<b>284,057</b>	<b>320,579</b>	<b>100,719</b>	<b>961,882</b>

Note: The tables report notional amounts of total monthly volume adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.



**3e. TOTAL MONTHLY VOLUME, by Execution Method and Currency Pair, April 2006**

Columns 1-6 in Millions of U.S. Dollars

Currency Pair	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>U.S. DOLLAR VERSUS</b>							
Euro	384,231	1,208,416	1,449,267	847,462	534,173	4,423,549	924,576
Japanese yen	226,042	637,834	560,200	539,534	337,119	2,300,729	487,765
British pound	105,654	402,467	372,053	338,440	202,678	1,421,292	251,552
Canadian dollar	124,572	374,197	323,634	134,718	182,359	1,139,480	211,184
Swiss franc	65,352	167,748	214,209	243,211	88,523	779,043	228,340
Australian dollar	54,140	169,762	155,091	97,161	90,783	566,937	130,271
Argentine peso	1,365	4,435	674	729	1,914	9,117	1,630
Brazilian real	34,005	92,455	5,949	9,630	64,559	206,598	21,348
Chilean peso	7,676	19,693	829	4,657	10,545	43,400	6,588
Mexican peso	79,464	210,814	133,230	24,456	162,567	610,531	71,700
All other currencies	81,624	434,509	148,532	105,099	185,969	955,733	223,570
<b>EURO VERSUS</b>							
Japanese yen	46,543	88,564	98,083	106,426	31,019	370,635	99,076
British pound	15,376	50,765	72,926	49,418	21,508	209,993	57,843
Swiss franc	22,906	66,181	68,982	66,495	18,530	243,094	58,923
<b>ALL OTHER CURRENCY PAIRS</b>							
	66,054	224,494	68,830	69,489	53,872	482,739	120,869
<b>Total<sup>a</sup></b>	<b>1,315,004</b>	<b>4,152,334</b>	<b>3,672,489</b>	<b>2,636,925</b>	<b>1,986,118</b>	<b>13,762,870</b>	<b>2,895,235</b>

**3f. TOTAL MONTHLY VOLUME, by Execution Method, Instrument, and Counterparty, April 2006**

Columns 1-6 in Millions of U.S. Dollars

	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
<b>INSTRUMENT</b>							
Spot transactions	638,378	1,438,371	2,481,956	1,563,256	590,065	6,712,026	2,279,808
Outright forwards	120,560	951,826	247,180	419,336	384,116	2,123,018	475,591
Foreign exchange swaps	305,314	1,170,551	824,121	490,443	919,118	3,709,547	93,501
OTC foreign exchange options	250,750	591,593	119,231	163,893	92,820	1,218,287	46,335
<b>Total<sup>a</sup></b>	<b>1,315,002</b>	<b>4,152,341</b>	<b>3,672,488</b>	<b>2,636,928</b>	<b>1,986,119</b>	<b>13,762,878</b>	<b>2,895,235</b>
<b>COUNTERPARTY</b>							
Reporting dealers	1,315,003	0	1,634,506	548,401	937,325	4,435,235	844,588
Banks/other dealers	0	1,254,625	1,714,776	731,089	808,748	4,509,238	989,236
Other financial customers	0	2,081,649	273,996	1,179,012	206,426	3,741,083	811,738
Nonfinancial customers	0	816,068	49,209	178,428	33,622	1,077,327	249,672
<b>Total<sup>a</sup></b>	<b>1,315,003</b>	<b>4,152,342</b>	<b>3,672,487</b>	<b>2,636,930</b>	<b>1,986,121</b>	<b>13,762,883</b>	<b>2,895,234</b>

Note: The amounts reported in the tables are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**4a. OUTRIGHT FORWARDS, Total Monthly Volume by Maturity, April 2006**

Millions of U.S. Dollars

Currency Pair	Maturity		
	Up to One Month	One Month to One Year	More Than One Year
<b>U.S. DOLLAR VERSUS</b>			
Euro	341,097	209,492	19,291
Japanese yen	163,334	118,415	16,416
British pound	109,927	101,980	4,637
Canadian dollar	61,063	64,028	7,589
Swiss franc	56,909	41,376	1,657
Australian dollar	53,199	40,821	5,279
Argentine peso	1,633	2,186	235
Brazilian real	79,350	20,797	6,025
Chilean peso	13,136	10,232	463
Mexican peso	39,034	25,682	3,879
All other currencies	126,639	138,431	17,740
<b>EURO VERSUS</b>			
Japanese yen	32,864	8,701	72
British pound	20,210	8,867	151
Swiss franc	20,532	8,421	24
<b>ALL OTHER CURRENCY PAIRS</b>	77,225	42,701	1,285
<b>Total<sup>a</sup></b>	<b>1,196,152</b>	<b>842,130</b>	<b>84,743</b>

**4b. FOREIGN EXCHANGE SWAPS, Total Monthly Volume by Maturity, April 2006**

Millions of U.S. Dollars

Currency Pair	Maturity		
	Up to One Month	One Month to One Year	More Than One Year
<b>U.S. DOLLAR VERSUS</b>			
Euro	902,443	153,303	36,137
Japanese yen	493,092	97,525	15,449
British pound	356,799	78,766	8,050
Canadian dollar	470,419	53,592	4,838
Swiss franc	166,360	26,417	2,535
Australian dollar	151,875	19,549	6,017
Argentine peso	198	101	0
Brazilian real	1,593	1,869	105
Chilean peso	740	278	35
Mexican peso	212,897	30,452	11,607
All other currencies	252,355	39,815	20,799
<b>EURO VERSUS</b>			
Japanese yen	8,355	1,956	520
British pound	11,544	4,903	536
Swiss franc	5,843	536	269
<b>ALL OTHER CURRENCY PAIRS</b>	43,754	13,073	2,250
<b>Total<sup>a</sup></b>	<b>3,078,267</b>	<b>522,135</b>	<b>109,147</b>

Note: The tables report notional amounts of total monthly volume that are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.

**4c. OTC FOREIGN EXCHANGE OPTIONS, Total Monthly Volume by Maturity, April 2006**

Millions of U.S. Dollars

Currency Pair	Maturity		
	Up to One Month	One to Six Months	More Than Six Months
<b>U.S. DOLLAR VERSUS</b>			
Euro	193,487	121,210	40,771
Japanese yen	109,519	72,312	72,798
British pound	36,989	45,426	3,668
Canadian dollar	37,882	35,777	16,394
Swiss franc	15,239	12,892	3,950
Australian dollar	21,565	22,260	2,491
Argentine peso	125	832	302
Brazilian real	10,140	11,957	3,905
Chilean peso	587	761	22
Mexican peso	21,509	22,480	10,322
All other currencies	13,817	27,056	9,382
<b>EURO VERSUS</b>			
Japanese yen	28,957	37,858	11,489
British pound	6,259	9,665	2,711
Swiss franc	10,016	16,540	17,801
<b>ALL OTHER CURRENCY PAIRS</b>	34,094	26,832	18,239
<b>Total<sup>a</sup></b>	<b>540,185</b>	<b>463,858</b>	<b>214,245</b>

Note: The table reports notional amounts of total monthly volume that are not adjusted for double reporting of trades between reporting dealers.

<sup>a</sup>Figures may not sum to totals because of rounding.



***The Foreign  
Exchange Committee  
2006 Annual Report***



***Membership  
and Meetings***



# Membership Report

## 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. In joining 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 in this volume. 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 have 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 have 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 selecting new members, assigning duties, assessing the participation of the current membership, and changing, if necessary, 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 the next page for 2006 and 2007 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 meeting, 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 institutions such as retirement, resignation, reassignment, or institutional merger activity.

In planning for the new year and considering new individuals for membership, the subcommittee 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 invited to renew for an additional four-year term. The Committee's core group of longstanding 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 2007, the Committee's membership will include individuals from commercial and investment banks and two interdealer brokers.

Finally, the subcommittee designates appropriate members to function as liaisons to facilitate communication between the Committee and its existing working groups. The liaisons for 2006 and 2007 for the two existing working groups are identified below.

## Assignments, 2006 and 2007

### 2006

#### *Committee Chair*

Mark Snyder

#### *Liaisons for Working Groups*

##### *Chief Dealers*

Susan Storey

Benjamin Welsh

##### *Operations Managers*

Richard Rua

Ellen Schubert

#### *Membership Subcommittee*

Dino Kos (Chair)

Jack Jeffery

Douglas Rhoten

Mark Snyder

Jamie Thorsen

#### *Communication Subcommittee*

Simon Eedle

Jamie Thorsen

### 2007

#### *Committee Chair*

Richard Mahoney

#### *Liaisons for Working Groups*

##### *Chief Dealers*

Russell LaScala

Susan Storey

##### *Operations Managers*

Peter Connolly

Richard Rua

#### *Membership Subcommittee*

William Dudley (Chair)

Jeff Feig

Jack Jeffery

Richard Mahoney

Christiane Mandell

Philip Newcomb

Jamie Thorsen

#### *Risk Management and Compliance Subcommittee*

Peter Connolly

Jamie Thorsen

# Meetings, 2006 and 2007

The Foreign Exchange Committee meets approximately eight times a year. Of the eight meetings, about half are luncheons while the others consist of two-hour, late-afternoon sessions followed by a reception or dinner. The Chair, working with the executive assistant and other representatives from the Committee's sponsor, the Federal Reserve Bank of New York, is responsible for the agenda. In preparing for the meetings, the Chair solicits advice from Committee members and receives updates from members who interact with the Operations Managers Working Group and the 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 Chair often asks members specific questions and requests feedback, comments, or advice. In 2006, members began each meeting by offering detailed comments on the recent trading patterns of the U.S. dollar, euro, yen, and other currencies. During the markets development portion of the meeting, the discussions not only provide important information and guidance for the Committee's sponsor, but often plant the seeds for future projects and initiatives. A review of specific industry developments, including legal matters, follows this part of the meeting.

In the second half of each meeting, members address specific projects or initiatives of the Committee and its associated working groups. The individual members who sponsor the Committee's projects lead the discussion, with the objective of obtaining approval of next or final steps. In 2006, Committee projects included a paper that analyzed the effects of autodealing on the foreign exchange marketplace and offered recommendations on ways for firms to manage their risks within this

environment. Decisions on project-related work are made during the 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 May 2006 meeting, the Committee invited members of the Operations Managers Working Group. In October 2006, the Committee hosted representatives from its counterparts in the United Kingdom, Japan, the Euro area, Hong Kong, Singapore, Australia, and Canada. This meeting of the representatives from each of the global foreign exchange committees was the first of its kind.

## 2006

January 5

February 16

March 23

May 4

June 8

September 7

October 5

November 9

## 2007

January 4

February 15

March 22

May 10

June 7

September 6

October 4

November 8



# Member List, 2006

## **John Anderson**

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## **Nigel Babbage**

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## **Peter Connolly**

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## **Simon Eedle**

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## **Jeff Feig**

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## **Peter C. Gerhard**

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## **Naoto Hirota**

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Term: 2006-2009

## **Jack Jeffery**

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***The Foreign  
Exchange Committee***  
*2006 Annual Report*



*Reference  
Material*



# 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:

- be representative of institutions, rather than individuals, participating in the market;
- be composed of individuals with a broad knowledge of the foreign exchange market and in a position to speak for their respective institutions;
- have sufficient stature in the market to engender respect for its views, even though the Committee would have no enforcement authority;
- 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
- 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:

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

- 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; however, the format of the discussion 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 Chief Dealers 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 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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