

The Foreign Exchange Committee

2005 ANNUAL REPORT



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CHAIR'S LETTER

In the past year, the Foreign Exchange Committee has successfully met its mandate of improving the integrity and functioning of the wholesale over-the-counter foreign exchange market by responding to a number of complex challenges. These challenges stemmed from marketplace changes that were first observed about five years ago and that have evolved into major forces reshaping the conduct of foreign exchange trading. These forces include the emergence of currency as a separate asset class and the associated arrival of new market participants, significant growth in foreign exchange trading volume and liquidity, the rapid increase of new electronic trading technologies and methods, and the heightened activity in exotic derivatives and newly tradable and non-deliverable currencies. Together, these forces have produced what is essentially a new foreign exchange market.

Anticipating this transformation, the Foreign Exchange Committee has been working to apply long-standing principles to the formulation of best practice recommendations and communications regarding the new market. This market is characterized by more complex market instruments, changed counterparty roles, and new means of executing and settling trades. One key principle is that the best markets are those that are efficient, fair, and flexible, with participants who act with integrity. Markets that exhibit these characteristics not only serve their participants well, but also serve broader purposes within the global financial system and the economy. To promote and maintain an efficient and ethical market, the Committee has sought to offer guidance that balances the legitimate interests of all market participants without interfering with the market's natural evolution.

The Foreign Exchange Committee completed three major projects related to the market forces noted above, continued work on two others, and initiated work on one more.

The completed projects are:

- ❧ publication of *Foreign Exchange Prime Brokerage: Product Overview and Best Practice Recommendations* and the Master FX Give-Up Agreement,
- ❧ publication of a letter to wholesale market participants regarding retail foreign exchange, and



- ❧ publication of the new International Foreign Exchange and Currency Option Master Agreement (IFXCO) and the *2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions*.

Ongoing Committee projects that reached notable milestones are:

- ❧ publication of Malaysian ringgit non-deliverable forward (NDF) documentation and
- ❧ publication of the semiannual Survey of North American Foreign Exchange Volume.

In addition, the Committee began work on a new project addressing autodealing developments in the foreign exchange market.

The foreign exchange prime brokerage, retail foreign exchange, and autodealing projects were initiated because the Committee recognized that the elements of a foreign exchange trade are increasingly being unbundled and repackaged and that multiple links are being introduced in the distribution chain. For example, some banks may provide their clients with liquidity while “white labeling” that liquidity from another bank; other banks may provide liquidity to a retail aggregator, which then facilitates foreign exchange trading for many individual investors. A foreign exchange dealer may provide liquidity to a hedge fund, and these trades are then “given up” to the customer’s foreign exchange prime broker. Finally, some market participants may access electronic broker platforms featuring anonymous high-speed “program trading” capabilities in order to make markets in selected currency pairs in the name of their foreign exchange prime broker.

FORMULATING GUIDELINES FOR FOREIGN EXCHANGE PRIME BROKERAGE

Recognizing the dramatic growth of foreign exchange prime brokerage as well as its impact on recent market developments, the Committee established a subcommittee to explore the risks associated with the product. The subcommittee spent many months researching and analyzing the prime brokerage product; the group’s findings have been published in *Foreign Exchange Prime Brokerage: Product Overview and Best Practice Recommendations*. Released in December 2005, this document describes foreign exchange prime brokerage services and presents twenty-two new best practices intended to help market participants mitigate some of the credit, operational, and reputational risks associated with prime brokerage services. The Committee strongly believes that the implementation of these practices may help reduce the level of risk in the foreign exchange market more generally. The Committee encourages all market participants to review these best practice recommendations with the appropriate professionals in their respective organizations. Working closely with the Financial



Markets Lawyers Group, the Committee also published the first industry Master FX Give-Up Agreement for counterparties involved in foreign exchange prime brokerage transactions. This document clarifies the terms for risk allocation and the responsibilities that the give-up relationship imposes on the prime broker, executing dealers, and the prime broker's customer. By putting the participants that use this important new service offering on clearer and more uniform legal ground, these efforts should provide much greater certainty to the market.

CLARIFYING ROLES AND RISKS IN RETAIL FOREIGN EXCHANGE

Retail foreign exchange trading has grown rapidly in recent years as individuals seeking to generate returns for their investment portfolios have acquired greater market access through new trading technologies and business models. These technologies and

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business models have made it possible for price discovery, liquidity, execution, confirmation, and reporting services to be delivered in real, or near real, time. Moreover, in the foreign exchange distribution channel, transaction services that were historically bundled together and offered by a single provider have now been broken out into their components, with specialized entities providing the individual services. Examples of this segmentation include retail aggregators

that act as portals for retail investors trading foreign exchange on a margin basis and "white labeling," whereby banks or e-commerce platforms allow their customers to trade at prices quoted by a third-party bank.

These innovations separate wholesale foreign exchange dealers from retail end users, a development that may complicate the dealers' execution of their responsibilities. Such responsibilities include typical know-your-customer and anti-money-laundering obligations and compliance with statutory and supervisory guidance. Of particular concern is a dealer's exposure to reputational risk if the dealer is linked to a chain of transactions that result in dissatisfaction or litigation or both. In response to the apparent blurring of the demarcation between the wholesale and retail segments of the foreign exchange market, the Committee prepared a market letter dealing with retail foreign exchange trading and wholesale market participants. In the document, the Committee calls for good legal documentation and stresses the importance of understanding know-your-customer obligations and contractual relationships. The Committee also notes that while reputational risk is not new to the foreign exchange market, recent developments



related to retail foreign exchange may be increasing this type of risk for market participants. Accompanying this market letter is a detailed appendix containing descriptions of retail aggregation, white labeling, and a legal framework for understanding the retail-wholesale boundary in the foreign exchange market.

EXAMINING AUTODEALING DEVELOPMENTS IN THE FOREIGN EXCHANGE MARKET

During 2005, the Committee's Chief Dealers Working Group voiced concerns that unprofessional trading behavior might be increasing with the advent of autodealer technologies, particularly in conjunction with the element of anonymity afforded by electronic foreign exchange prime brokerage services. Some market participants are worried that an increase in unprofessional trading behavior might undermine the reputation and confidence of the market and constrain the ability of the market to self-regulate. The Committee has formed a subcommittee to review and analyze these concerns and consider what, if any, action the Committee should take.

OTHER NOTEWORTHY ACCOMPLISHMENTS

In other work, the Committee has addressed developments heightening the complexity of the foreign exchange market, including the overall increase in trading volumes. While the Committee began its semiannual market volume survey only in October 2004, analysis of data from the October 2004 and April 2005 surveys confirms what major market participants already know to be true—that currency market volumes are up dramatically. The use of almost all traditional market instruments has increased, and growth has also occurred in the more complex products such as currency option contracts. To strengthen the legal framework for all market participants, the Committee published the International Foreign Exchange and Currency Option Master Agreement (IFXCO) and the *2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions*. The Committee also published Malaysian ringgit non-deliverable forward documentation, which adds to work on Asian currency NDFs begun in recent years. Each of these three publications is designed to help market participants speak a common language so that the terminology means the same to all concerned. Indeed, standardized agreements make the conduct of business much simpler for everyone and contribute to the legal certainty of agreements for all market participants.

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2006 AND BEYOND

The Foreign Exchange Committee has no enforcement authority; rather, its role is to deepen understanding of the foreign exchange market, foster improvements in the quality of foreign exchange risk management, investigate topics of interest to market participants, and develop best practice recommendations for distribution to market participants and their management. In accordance with this mandate, the Committee has an important role to play in enhancing the reputation of the foreign exchange market. Consequently, the Committee will continue to reach out to new market participants to make them aware of its work over the past twenty-eight years.

For the wholesale over-the-counter currency markets to function smoothly, all participants must share responsibility for maintaining the highest professional standards of conduct and ethics. Thus, the Committee and its counterparts around the world will continue to pursue ambitious initiatives. Certainly, the changes to the market noted in this letter have precipitated much of the work undertaken by the Committee in recent years. These forces are expected to continue to shape market activity in 2006 and beyond. Unquestionably, market innovations will continue to alter the terrain for agreements and conventions. By anticipating and preparing for new trends, the Committee will continue to take a proactive approach. Its members are committed to examining new issues and working collaboratively to craft guidance that serves the market and its participants well. This dedication will certainly help the Committee to build on its predecessors' accomplishments and to achieve its mandate going forward.

Mark Snyder



Foreign Exchange Committee

Annual Report

2005

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A confluence of new products, participants, and technology is blurring the conventional distinctions that have long characterized the foreign exchange market. Fundamental relationships among all participants in the market are being tested and transformed, with significant implications for market structure and potentially for market functioning. In 2005, the Committee focused on identifying the risks associated with the evolution of the foreign exchange market, publishing a letter on issues related to intermediated distribution arrangements in the retail foreign exchange market and issuing documentation and best practice recommendations regarding foreign exchange prime brokerage. Looking ahead, the Committee will continue to work with the industry to ensure that emerging risks are properly identified, measured, and managed in order to promote the continued smooth functioning of the market.

UPDATING TRADING GUIDANCE

As the foreign exchange industry continues to evolve, the Committee recognizes the value of revising its guidance to address emerging issues. As reflected in the Bank for International Settlements' *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity 2004*, trading in foreign currency options has surged in recent years, increasing 95 percent between 2001 and 2004. At the

same time, foreign exchange losses such as those announced by National Australia Bank early in 2004 underscore the challenges of trading in these more complex instruments.

In this context, in 2004, the Committee updated its *Management of Operational Risk in Foreign Exchange* to address more fully issues associated with foreign exchange derivatives. In 2005, the Committee, the International Swaps and Derivatives Association, Inc. (ISDA), and EMTA, Inc. (EMTA) published common reference terms for a variety of barrier and binary options to improve the efficiency of the documentation process, reduce confirmation and settlement risk, and enhance legal certainty for all market participants. Looking ahead to 2006, the Committee plans to review and revise the *Guidelines for Foreign Exchange Trading Activities* to better reflect developments in this increasingly important market segment.

AUTODEALING

Advances in information technology have facilitated the increased activity of newer participants and a proliferation of products in the foreign exchange market. The homogeneous nature of the basic spot foreign exchange product and the size of the market contributed to the adoption of the electronic trading model in foreign exchange. This



model was first manifested in the interdealer market, in which electronic broking systems became the primary means of interbank trading. According to the Committee's *October 2005 Survey of North American Foreign Exchange Volume*, approximately half of all trades between dealers are now executed via electronic broking or dealing systems. This move toward electronic trading has been followed in the dealer-to-customer arena, with Internet-based single- and multibank portals continuing to gain traction. The same survey reveals that between 20 and 25 percent of all trades between customers and dealers occur electronically.

More recently, the role of automation has developed and expanded with the introduction of autodealing, with the industry moving beyond manual traders that execute with one another via electronic communication networks to computers that now trade directly with other computers via automated program trading. In 2006, the Committee and the Chief Dealers Working Group will explore potential liquidity and pricing issues related to autodealing.

NON-DELIVERABLE FOREIGN EXCHANGE PRODUCTS

Over the past two years, the Committee, the Singapore Foreign Exchange Market Committee, and EMTA, acting as cosponsors, have published updated documentation for non-deliverable foreign exchange transactions for seven Asian currencies in order to reduce documentation and settlement risk and facilitate improved efficiency in the non-deliverable foreign exchange market. In 2006, the Committee will coordinate further with EMTA in the

development of market standards for non-deliverable transactions in emerging market currencies. In addition, the Committee is in the process of updating its Master Agreement Addendum for the confirmation of non-deliverable forwards to reflect the template terms introduced since its publication in 2003. More generally, the Committee will continue to support EMTA's efforts to provide standardized terms for non-deliverable foreign exchange agreements, particularly as they relate to the settlement of these transactions in the event of unexpected local market disruptions.

CLS BANK

As the Continuous Linked Settlement (CLS) Bank enters its third year of operation, the Committee will continue to focus on specialized issues involving CLS Bank and its integration within the marketplace. In 2006, the Committee, together with the Financial Markets Lawyers Group and the Operations Managers Working Group, will coordinate with CLS Bank as it introduces new services such as non-deliverable forward and option premium settlement.

EFFORTS OF THE WORKING GROUPS

The Chief Dealers Working Group, in close association with London's Foreign Exchange Joint Standing Committee, will continue its efforts to publish the semiannual *Survey of North American Foreign Exchange Volume*. The group will also assist the Committee in its initiative to update the *Guidelines to Foreign Exchange Trading Activities* to better reflect best practices in foreign exchange derivatives trading and to examine the pricing and liquidity implications of autodealing.



The agenda of the Operations Managers Working Group includes

- ⌘ continuing efforts to address, in coordination with the Financial Markets Lawyers Group, ISDA, and EMTA, industry challenges in matching and exchanging documentation for exotic option transactions;
- ⌘ exploring the changing nature of the confirmation process and the implications of advances in automation and technology and, if appropriate, updating the Committee's guidance on managing operational risk in foreign exchange; and
- ⌘ updating the format and terms and encouraging further progress in the institutional implementation of the Master Agreement Addendum for the confirmation of non-deliverable forwards, first published in January 2003.



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. The FMLG 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 of its 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 group, and senior staff of the FRBNY's Legal Department are members.

The FMLG has 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, this year, the International Foreign Exchange and Currency Option Master Agreement (IFXCO). Recent accomplishments of the FMLG include the introduction of the first industry foreign exchange master give-up agreement and cosponsorship of the *1998 FX and Currency Option Definitions* (1998 Definitions). FMLG members have participated in a number of global initiatives, including the Global Documentation Steering Committee,

the Hague Convention on collateral accounts, industry preparation for Y2K, and the European Union's adoption of the euro. The FMLG continues to draft new trade documentation, best practice recommendations, legal briefs, comment letters, and policy papers related to OTC market developments.

The FMLG maintains links to OTC industry associations and official institutions worldwide in order to maintain channels of communication and cooperation on issues that are important to the foreign exchange and OTC markets. Among the groups with which the FMLG enjoys close ties are the Bond Market Association, EMTA, Inc. (EMTA), and the International Swaps and Derivatives Association, Inc. (ISDA), 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 hosted at the Federal Reserve Bank of New York a successful trilateral meeting of representatives from the European Financial Markets Lawyers Group and the Financial Markets Law Committee.

FMLG INITIATIVES DURING 2005

Many of the FMLG's projects in 2005 underscore the Group's strong bond with the Committee. Other FMLG efforts reflect the Group's policy interests and the coherent relationship that has evolved among legal-oriented industry groups within the global community.



Prime Brokerage

This year, Robert Spielman of the FMLG played a key role in assisting the Committee in the development of the industry's first Master FX Give-Up Agreement. The Master FX Give-Up Agreement was published in April 2005 to provide market documentation and specific terms and elections to address risk allocation in the give-up relationship. In addition, the FMLG contributed to the Committee's December 2005 best practice recommendations for mitigating credit, operational, and reputational risks associated with the prime brokerage service.

Documentation

The Committee launched the IFXCO Master Agreement in June 2005. Garland Sims of the FMLG led this effort to update other master agreements published by the Committee by incorporating in the IFXCO Master Agreement terms from the 1998 Definitions and recommendations of the Global Documentation Steering Committee. Additionally, the IFXCO Master Agreement simplifies execution through use of an Adherence Agreement to its Terms.

This year, the Committee published the *2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions* (2005 Supplement) with the support of the FMLG and its cosponsors, ISDA and EMTA. The 2005 Supplement enables market participants to use the framework of the 1998 Definitions to readily document a variety of barrier and binary options. The 2005 Supplement sets forth common reference terms for a growing sector of the foreign exchange marketplace and offers the benefits of efficient documentation processes and enhanced legal certainty to market participants.

Retail Foreign Exchange

The FMLG provided counsel to the Committee regarding the legal framework for retail and wholesale foreign exchange. This analysis informed the Committee's study of the market implications of retail aggregation and white labeling, a topic discussed in the Committee's December 2005 letter to the foreign exchange market.

Monitoring and Influencing Legislative, Regulatory, and Judicial Action

Throughout 2005, the FMLG closely followed pending legislation and regulation that could potentially affect the foreign exchange and financial markets. The FMLG updated the Committee on regulation of the commodities markets and the impact of bankruptcy reform legislation.

FMLG-CLS Working Group

The FMLG established a working group this year, with the participation of representatives from CLS Bank and EMTA, to lend expertise to CLS Bank's plans to initiate settlement services for non-deliverable forward transactions and currency option premiums.

Opinions

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





Publications

SPEECH

New Opportunities and Risks in Foreign Exchange: The Role of the Foreign Exchange Committee, by Mark Snyder, Chair

ARTICLE

The Changing Nature of Operational Risk in Foreign Exchange, by Dino Kos, Member

DOCUMENTS

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New Opportunities and **Risks** in **Foreign Exchange:**

The Role of the Foreign Exchange Committee

**A speech presented by Mark Snyder,
Chair, Foreign Exchange Committee,
at the *Profit & Loss* Forex Network conference**

Chicago, September 20, 2005



New Opportunities and **Risks** in **Foreign Exchange:**

The Role of the Foreign Exchange Committee

Introduction

I am honored to have served as Chairman of the Foreign Exchange Committee for the past year and a half, and I very much appreciate the opportunity to share with you some of our recent work and the ambitious agenda we see before us.

The Foreign Exchange Committee is wholly dedicated to improving the integrity and functioning of the worldwide wholesale over-the-counter foreign exchange market. And as the market rapidly evolves, we are working hard to ensure that all participants—traditional banks, corporations, and asset managers, as well as fast-growing participants such as hedge funds and the burgeoning retail aggregation foreign exchange trading community—know about and understand best practices.

In my comments today, I have three objectives:

- First, I'd like to discuss the remarkable growth of global currency markets and some of the issues that have arisen with the arrival of new participants, the proliferation of electronic distribution channels, and the introduction of innovative products and services.
- Second, I'd like to reflect on the special responsibilities that all of us here shoulder as leading participants in the world's largest capital market.
- Finally, I'd like to briefly describe recent initiatives of the Foreign Exchange Committee and give you a sense of what we see on the road ahead.



The Changing Foreign Exchange Market

The foreign exchange market is undergoing a historic transformation. We are witnessing:

- ~ the rapid expansion of global trade,
- ~ a dramatic increase in the cross-border flows of stocks and bonds,
- ~ the emergence of newly liquid, tradable currencies and heightened activity and interest in non-deliverable currencies,
- ~ the introduction of new electronic trading technologies and methods and the development of new products and services, and
- ~ the arrival of new market participants—including new hedge funds, retail investors, and retail aggregators—many of which trade foreign exchange as an independent asset class.

Together, these new products and players are testing and transforming the very nature of the relationships among various market participants.

Suffice it to say that all these events are taking place rapidly and concurrently, so that the foreign exchange market resembles a kind of vortex with all these trends altering the market—perhaps permanently. This new activity, together with new electronic trading systems that tend to accelerate change, has made the market more complex. It is a very challenging time for the foreign exchange market, and the long-term implications of many of the changes we are observing now are as yet unknown.

While the 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.

Foreign exchange volumes are up—way up. According to the Foreign Exchange Committee’s second Survey of North American Foreign Exchange Volume, average daily trading in traditional foreign exchange instruments totaled \$401 billion in April 2005—a remarkable increase of more than 20 percent from the inaugural October result. I’ll talk more about the survey later in my remarks.

Furthermore, new issues have arisen with regard to the nature and transparency of this abundant liquidity. The advent of new products and participants is changing the existing relationships among foreign exchange market participants. In a typical over-the-counter foreign exchange trade, the dealer provides the client with liquidity by taking on a position and increasing its market risk. The dealer also assumes the client’s credit risk, both for settlement and for replacement risks, if the client fails before settlement. Those arrangements are well understood by all market participants.

Today, however, the elements of a foreign exchange trade have been unbundled and repackaged, and multiple links have been introduced into the distribution chain. For example, a corporate client might contract for foreign exchange from a local bank that is “white labeling” the liquidity of a major global



bank. That major global foreign exchange dealer may also be providing liquidity to a retail aggregator, who then facilitates foreign exchange trading for thousands of individual investors. Perhaps a foreign exchange dealer provides research trading services and liquidity to a hedge fund or a real-money absolute return fund, and these trades are “given up” to the customer’s foreign exchange prime broker. Conversely, the hedge funds could also be making markets in selected instances and currency pairs—in the name of their foreign exchange prime broker—given new access to electronic broking platforms.

Indeed, agents that used to be wholesale competitors might now act as clients, whereas traditional customers may increasingly behave as market makers. The provision of liquidity and the provision of credit are evolving into two distinct services. For those participants providing liquidity, the function has become more challenging because new products have also introduced an element of anonymity to the market. For example, under the prime brokerage framework, it is not always easy for the banks that are the ultimate source of most trading liquidity to identify market conditions precisely.

This dynamism is a hallmark of the foreign exchange market; it should be welcomed. However, market participants should be mindful of the risks and challenges associated with a rapidly evolving marketplace to ensure that their risk management systems keep pace with business developments.

Credit Risk

For example, one important implication arising from the prime brokerage product is the redefinition of credit relationships and the reallocation of credit risk. While the client is able to trade with a variety of counterparties or executing dealers, the counterparty or executing dealer “gives up” that trade to the prime broker. When the prime broker accepts the credit risk for both the client and the counterparty bank, there is clearly a greater concentration of credit risk, as well as heightened pressure to manage that credit risk appropriately. The task of managing that risk becomes even more challenging in the tri-party framework. Like a standard counterparty relationship, foreign exchange prime broker arrangements require active credit-limit monitoring against the limits set forth in the governing legal agreements. However, the foreign exchange prime broker model involves an additional layer of complexity because of the presence of three parties to each transaction—the client, the executing dealer, and the prime broker. In this context, real-time usage updates of applicable lines and limits are critical.

Operational Risk

The complexity of the prime brokerage model also has implications for operational risk because the model involves not only more parties but also more processes. As anyone here from the operational side of the business can attest, there are some days when tracking down confirmations and effecting settlements between two parties pose a great challenge—so you can imagine what is involved when a third party is introduced to the process.



Moreover, while a traditional foreign exchange transaction proceeds directly from execution to confirmation and settlement, prime brokerage introduces to the foreign exchange process the additional steps of notification and trade acceptance or rejection. Following a trade execution between a client and an executing dealer, both parties must provide the trade details to the prime broker for acceptance or rejection. At that point, separate confirmations must be exchanged between both the prime broker and the executing dealer and the prime broker and the client as legal evidence of the terms of the transaction. Because each stage of the process is generally dependent on the successful conclusion of the preceding step, timeliness and accuracy in each leg of trade processing are key to orderly market functioning and the minimization of market risk for the client and the executing dealer.

Legal Risk

These innovations introduce new aspects of legal risk because they make it more challenging for well-meaning market participants to be sure that they understand who has know-your-customer requirements in the distribution chain of transactions. Products and services such as white labeling and retail aggregation separate the wholesale foreign exchange dealer from the end user, perhaps by multiple intermediaries. This situation may complicate the execution of responsibilities that accompany foreign exchange trading—from typical know-your-customer and anti-money-laundering obligations to compliance with statutory and supervisory guidance invoked for particular client or market segments. Banks

need to know their retail aggregator clients. And aggregators need to know their retail customers and serve them with integrity. The same can be said for the white-label framework.

We encourage market participants to review their legal and contractual relationships with clients, intermediaries, vendors, and anyone else that might be considered a counterparty. Market participants should ensure that the existence of intermediaries does not obscure the responsibility for compliance with anti-money-laundering, counterterrorism, bank secrecy, and privacy regulations by the party or parties that bear the legal responsibility.

Standardized documentation can play a key role in the reduction of legal risk in foreign exchange. The Foreign Exchange Committee believes in the collaborative development of industry norms and standard practices. Entities can and should compete aggressively. But at the same time, all market participants should speak a common language—so that the technical, operational, and legal terminology is understood by all concerned. Standardized agreements make life much simpler for everyone and contribute to the legal certainty of contracts for all market participants. And it is vitally important that new market players understand and internalize industry standards.

Reputational Risk

Market, credit, operational, and legal risks have been the traditional focus of the Foreign Exchange Committee. And while new



products introduce new elements to risk management, these types of risk are familiar territory that we have successfully navigated in the past. Consequently, I am confident that the Committee, with the market's full participation, will develop norms of behavior and commonly agreed-upon standards that will mitigate many risks associated with the new products and services. However, there is a substantial and growing risk that may emerge from the current environment of rapid market evolution that we haven't previously addressed directly.

Reputational risk is the impact, both current and prospective, on earnings and capital produced by negative public opinion regarding an institution's products or activities. Negative publicity can affect the institution's ability to establish new relationships or services or to maintain existing relationships. This risk may expose the institution to litigation, financial loss, or a decline in its customer base.

Because the foreign exchange market is in a rapid state of change with new participants, practices, and technologies, there exists the possibility of a misstep that could have an enormous impact. One area of particular concern is the entry of new retail investors into the foreign exchange market. These individual investors, trading through aggregators that have different legal personalities, domiciles, and regulatory status, may pose some problems. In many cases, these individual traders can use greater leverage than they normally could with, for example, equity margin trading. In addition, there have been

media reports and lawsuits alleging that unscrupulous retail foreign exchange aggregators have defrauded their clients.

The Foreign Exchange Committee's role is not to police these or any market participants; however, we do think that we have a role when it comes to the overall reputation of our market. The foreign exchange banks exist to serve market participants—of whatever stripe. However, the fact that some banks have no direct contact with retail investors, rather only with aggregators, has raised questions. What we want to avoid is an unfortunate situation in which unsound trading practices by individuals or aggregators or both create a negative "black mark" on the reputation of an otherwise prudent institution and, by extension, on the reputation of all of us who are significant participants in the foreign exchange market.

Again, the Foreign Exchange Committee cannot regulate behavior or instruct market participants. But if a market participant violates a norm, we do not want ignorance to be an excuse. The Committee is reaching out to new market participants to make them aware of the work we have done with traditional dealers and nondealer participants, so that they understand the "rules of the road" and can efficiently take part in this great market with full awareness of the best practices and, indeed, an understanding of the obligations of participation. We want everyone to know about the standards and practices we have worked hard to establish, with the hope that the participants that abide by these guidelines will help create a smooth and scandal-free market.

To this end, the Foreign Exchange Committee is currently preparing the final draft of a market letter on the retail trade. In this document, we will reiterate our calls for good legal documentation and stress the importance of understanding know-your-customer obligations and contractual relationships. We will emphasize that foreign exchange dealers run a reputational risk if they are linked to a chain of transactions that result in an illegality or other unfortunate consequence.

In the letter, we will encourage market participants to review their legal and contractual relationships with clients, intermediaries, vendors, and other entities that might be considered counterparties. And we will reiterate that the existence of multiple intermediaries does not lessen the responsibility of market participants to comply with existing anti-money-laundering, counter-terrorism, bank secrecy, and privacy regulations.

Appendices to the letter will present detailed descriptions of the services provided by aggregators acting as portals for both retail investors that trade foreign exchange on a margin basis and banks or e-commerce platforms that allow their customers to trade at prices quoted by a third-party bank through white labeling.

The Committee's intention is to remind all participants of the potentially catastrophic impact of reputational risk and to reaffirm its belief that business in our market should be conducted prudently, legally, and ethically.

Unique Demands of a Cross-Border, Nonregulated Market

The foreign exchange market is unique. Because 100 percent of its transactions have cross-border implications and because it is the only over-the-counter trading arena that, by definition, transcends the boundaries of any national jurisdiction, it is the ultimate global market.

Clearly, regulators play their role in the licensing and supervision of individual market participants. And the world's central bankers will never relinquish their important role when it comes to their national currencies. However, any governmental or inter-governmental agency would have a difficult time imposing prescriptive rules and rigid controls on the market because the uniquely supranational foreign exchange market is literally everywhere, operating twenty-four hours a day. It is the ultimate virtual market—the central nervous system of global finance, without which every other capital market would seize up and cease functioning.

I might also mention that I cannot foresee a day when a nation's central bank would cede its sovereign authority over the currency component of its monetary policy to any worldwide currency regulatory body.

This situation places the unique burdens of probity and ethics upon all market participants. In practical terms, in order for our market to function smoothly, all the participants must share responsibility. This is why the Foreign Exchange Committee and its



counterparts around the world have adopted an ambitious agenda of initiatives.

The Role of the Foreign Exchange Committee: The Road Ahead

The Foreign Exchange Committee exists to

- ⌘ provide a forum for discussing best practices and technical issues in the foreign exchange market,
- ⌘ foster improvements in risk management in the foreign exchange market by presenting timely recommendations and guidelines, and
- ⌘ enhance the legal certainty of foreign exchange contracts through the development of standard documentation.

We have achieved much over the years, but we cannot afford to rest. The changes we have seen in the market in recent years have altered the environment for familiar agreements and practices. And this development has, in turn, changed the effectiveness of the agreements. Thus, the Foreign Exchange Committee works to update long-standing documents and best practices to keep abreast of events.

At the same time, changes in the marketplace and notable events have driven the establishment of increased know-your-customer duties, disaster recovery requirements, and, sometimes, regulatory or supervisory oversight. In accordance with these changes, the Committee is developing new documents and guidelines.

The Committee tries always to be proactive—anticipating trends and preparing for them, not just reacting to events as they occur. Often, a major part of what we do consists of simply asking questions:

- ⌘ Is the infrastructure and framework of the foreign exchange market up to the challenges presented by rapid change?
- ⌘ Is our legal framework sufficiently robust?
- ⌘ Are market participants sufficiently aware of the changes taking place around them?
- ⌘ Are foreign exchange market professionals and their staffs aware of the challenges they face and the standards that our market expects them to maintain?

I'd like to take this opportunity to mention three major documents that have served us well as the core of the Committee's knowledge base.

- ⌘ *Guidelines for Foreign Exchange Trading Activities* is a long-standing master document, published for the first time in 1979 and regularly updated—most recently in July 2004. Noting that market activities that were considered appropriate even a few years ago need to be reconsidered in the electronic age, the document identifies essential best business practices for the foreign exchange marketplace.

The guidelines address best practices for trading staff, including recommendations on electronic trading; sound sales practices, including know-your-customer obligations and the risks of trading with unnamed or undisclosed counterparties; the development of an



ethical environment; legal and compliance issues and documentation; risk management and mitigation; and operational best practices.

❧ *Management of Operational Risk in Foreign Exchange*, first published in 1996 by the Committee's Operations Managers Working Group and updated in 2003, serves as a resource for firms as they evaluate and update their risk management procedures. Comprising sixty best practices, the document covers pre-trade and trade; confirmation, netting, and settlement; accounting/finance control; and the unique features of foreign exchange options and non-deliverable forwards. The document recommends close coordination between sales and trading personnel and operational staff to best respond to changes in the business environment.

❧ Finally, I'd like to draw your attention to our *Recommendations for Nondealer Participants*. Earlier in my remarks, I noted that the Committee is updating its market practice recommendations to take account of newer entrants to the foreign exchange marketplace. In recent years, the market has indeed grown more diverse, with commercial and investment banks being joined increasingly by very active corporations, investment managers, hedge funds, retail aggregators, and high-net-worth individuals, as well as central banks whose foreign reserves have risen dramatically.

This document, first drafted in 1998 and updated in 2004, recognizes that non-dealer participants in the foreign exchange market may have unique needs with regard to internal guidelines and procedures for

risk management. Accordingly, the document delivers to these new entrants the collected wisdom of foreign exchange veterans, summarized in twenty-two best practice recommendations specifically tailored to the special requirements of nondealers.

Foreign Exchange Volume Survey

Before I leave you today, I'd like to briefly update you on an exciting new initiative of the Foreign Exchange Committee—our semi-annual Survey of North American Foreign Exchange Volume. The Committee developed this survey in the belief that market participants could use more frequent volume data to support business decisions, resource allocation, and risk management in the rapidly evolving foreign exchange market. We coordinated our work with the Bank of England's Joint Standing Committee on Foreign Exchange, which is conducting a similar survey for its market.

Working together with staff at the Federal Reserve Bank of New York to develop the best methods of data collection and aggregation, the Committee was determined to create a survey that would provide an accurate picture of market activity in North America. In line with this goal, the survey covers thirty-one participating institutions and captures an estimated 90 percent of market activity.

We produced our first survey in October of last year and our second survey in April of this year. Although it is impossible to discern long-term market trends from only two surveys, we did observe an increase in volume of more



than 20 percent—a finding that highlights the growing importance of currency as an asset class. We also noted that nonbank financial firms, essentially fund managers, were responsible for fully 30 percent of foreign exchange volume in April—up from 25 percent in October.

As in all of our work, the Committee encourages the market to comment on and participate in the refinement of the survey. We see the survey, together with the survey conducted by our colleagues in the United Kingdom, as a means of clarifying the depth of liquidity in different currency pairs and products—and as part of a larger effort to render the market more transparent and efficient and to facilitate risk management.

The coordination of the New York and London Committees on these surveys bodes well for greater coordination in the worldwide foreign exchange market as a whole. Our standing subcommittees maintain regular contact with similar bodies in Canada, Europe, Hong Kong, Japan, and Singapore. I believe that as our market widens to embrace more currencies, new technologies, and different kinds of market participants—in multiple jurisdictions around the world—we will be seen as a model for global capital market coordination.

Conclusion

I appreciate the invitation from *Profit & Loss* magazine, the Financial Markets Association–USA, and the Financial Markets Association of Canada to come here today to tell you about the work of the Foreign Exchange Committee. We see great opportunities ahead as our market grows, and I believe that a real spirit of collaboration—and even of mission—is driving our work. I would encourage any institution or individual committed to foreign exchange to make use of our guidelines and to avail themselves of our expertise.

Like other capital markets, the foreign exchange market holds many investment and trading risks and opportunities. Our objective is to minimize the kind of operational, transactional, reputational, and legal risks that arise through differences in understanding. Accordingly, we support collaborative efforts to smooth out market standards and practices so that all participants can concentrate on competing vigorously and fairly.

I know that I speak for all my colleagues on the Committee when I urge everyone involved in this most critical of capital markets to embrace the best practices and norms that we have developed for the common good. The foreign exchange market does have a unique responsibility for self-governance. And I hope that all of you share the Committee's belief in collaboration and sound market practice for our mutual benefit.



The Changing Nature
of **Operational**
Risk
in Foreign Exchange

Dino Kos

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The Changing Nature of **Operational** **Risk** in Foreign Exchange¹

The rapid pace of change in the foreign exchange market has created many new opportunities for profit. New trading methods, new customers, and new products reflect the dynamism of what continues to be the largest marketplace in the world. The heady pace of innovation shows no signs of slowing, and taking advantage of these emerging opportunities requires agility and speed.

However, while innovative products and ways of trading create new possibilities for profit, they also introduce novel and sometimes unfamiliar operational risks that must be identified and managed. Failure to do so can result—and in recent years has resulted—in large and publicized losses entailing financial and reputational consequences that linger long after the loss is recognized in financial statements.

The Foreign Exchange Committee has published a variety of documents outlining what it views as “best practices” to mitigate operational risks. Although banks and other financial firms are at the heart of the foreign exchange market, entities such as hedge funds, corporations, central banks, and other end users are equally exposed to operational risks and should be vigilant about adopting best practices to guard against the possibility of loss.

Operational Risk Defined

Traditionally, operational risk in financial institutions has been defined as the risk of loss from breakdowns associated with the confirmation, netting, settlement, and accounting of financial transactions. In short, this definition was about “back-office”



risks. However, in recent years the concept of operational risk has broadened. For example, the Basel Committee has defined operational risk as the risk of direct or indirect loss resulting from inadequate or failed internal procedures, people, and systems or from external events.² While this definition was developed specifically for a regulatory capital requirement, private institutions have also moved toward a more holistic concept of operational risk.

A review of recent events highlights the many ways that operational risk exposures can manifest themselves. The events of September 11 and the 2003 blackout in the United States directly affected financial institutions' front- and back-office capabilities—disrupting or delaying trade execution, confirmation, settlement, and netting services. Other examples include the large foreign exchange trading losses at Allfirst Bank and the National Australia Bank (NAB), which resulted from the breakdown of fundamental internal control processes, including weaknesses in the segregation of duties, trade confirmation, control of system access, and review of off-market trades.³

These events reflect the traditional concept of operational risk, driven by internal control lapses or external incidents. However, the

more inclusive definition of operational risk would incorporate a number of additional critical events that have occurred in recent years. For example, the potential and realized losses related to corporate failures, such as Enron, meet the broader definition of operational risk. In situations such as these, weaknesses in corporate governance, compliance, and ethics were the factors leading to a firm's losses and, in some cases, even bankruptcy. With respect to financial institutions, not only did banks record direct credit losses from Enron, but those firms that engaged in complex structured financings with the company also reached significant settlements with various government agencies and remain exposed to civil litigation.⁴

While reputational risk is not considered part of operational risk for Basel risk capital purposes, the two types of risk have become increasingly intertwined as the just-mentioned corporate failures have unfolded. Lapses in the operational control environment generally result in immediate and direct losses—as demonstrated by the Allfirst and NAB cases.⁵ However, the damage to a firm's reputation and the potential decline in business activity associated with such lapses could persist and potentially outstrip the original "headline" cost. Thus, an investment in control and

¹ A slightly different version of this article appeared under the title "Management of Operational Risk in Foreign Exchange" in *The Euromoney Foreign Exchange & Treasury Management Handbook 2005*, 13th ed. (London: Euromoney Yearbooks, 2005), pp. 65-70.

² Bank for International Settlements, Basel Committee on Banking Supervision, *Operational Risk Supporting Documentation to the New Basel Capital Accord* (Basel: BIS, 2002), p. 2.

³ PricewaterhouseCoopers, *Investigation into Foreign Exchange Losses at the National Australia Bank* (PricewaterhouseCoopers, 2004), pp. 1-2; Promontory Financial Report and Wachtell, Lipton, Rosen & Katz, *Report to the Boards of Directors of Allied Irish Banks, P.L.C., Allfirst Financial Inc., and Allfirst Bank Concerning Currency Trading Losses* (Promontory Financial Report and Wachtell, Lipton, Rosen & Katz, 2002), pp. 1-2.

⁴ William Rutledge, *Remarks before the ABA/Forward Financial Operations Conference* (New York: Federal Reserve Bank of New York, 2004), p. 1.

⁵ PricewaterhouseCoopers, *Investigation into Foreign Exchange Losses*, pp. 1-2; Promontory Financial Report and Wachtell, Lipton, Rosen & Katz, *Report to the Boards of Directors*, p. 29.



operational risk capacities can more than pay for itself.

Operational Risk in Foreign Exchange

Operational risk in the foreign exchange context centers on processing, product pricing, and valuation.⁶ Failure to appropriately manage operational risk can reduce an institution's profitability. Incorrect settlement of foreign exchange transactions, for example, can have direct costs in improper payments and receipts. In addition, trade processing and settlement errors can lead to significant indirect costs, such as compensation payments to counterparties for failed settlements or losses in a firm's portfolio from managing the wrong position. Furthermore, investigating problems and negotiating a resolution with a counterparty may carry additional costs.

Operational risk has another unique characteristic. In contrast to credit and market risk, operational risk has proved very difficult to quantify. Clearly, an institution can measure some of the losses either associated with operational errors or resulting from a failure of the operational process to catch sales and trading function mistakes or fraud. Many institutions also employ additional operational risk management tools, such as key risk indicators and control self-assessment programs. However, determining expected losses, given the uncertainty of those losses, is

much more complicated for operational risk than for other risk categories. Basel II represents an effort by the industry and regulators to develop creative approaches to capture this elusive concept.

Given the challenges of identifying, quantifying, and controlling the full range of operational risks, senior management vigilance, a robust control culture, and individual ethics assume heightened importance. The management of operational risk requires those at the top of the organization chart to focus on the issue. Together, the board of directors and senior management should develop—and periodically review—the operational risk framework. Moreover, senior management must reinforce an institution's formal policies and procedures with a strong control culture. An independent, accountable, and sophisticated audit and/or risk control function with direct reporting lines to senior management is a critical element in fostering a climate of control. Incorporating the results of audit and compliance reviews into a manager's compensation can also demonstrate that operational risk management is an institutional priority. Of course, individual decisions form the basis for an institution's activities. Thus, the importance of attracting ethical staff and developing (and enforcing) an appropriate code of conduct cannot be overstated. As noted in the supervisor's and auditor's reports regarding the recent events at NAB, significant costs are associated with weaknesses in any or all of these factors.

⁶ Foreign Exchange Committee, "Management of Operational Risk in Foreign Exchange," in *2003 Annual Report* (New York: Federal Reserve Bank of New York, 2004), pp. 11-66.

Recent Trends and Challenges Ahead

The foreign exchange market exhibits constant change and remarkable innovation. Going back only fifteen years, one can see that the very nature of how risk is intermediated has changed. Paper-based systems have been supplanted by automated ones. Electronic trading platforms have transformed the inter-bank market, while greater transparency has created a more level playing field among different groups of market participants.

The changes in the foreign exchange marketplace are exceptional in both nature and number. On the business front, intense competition among financial institutions has heightened pressures to consolidate over the last decade. The most recent *Euromoney* poll indicates that market share remains heavily concentrated, with roughly half of the total market in the hands of a small number of players. Another reflection of this consolidation trend is the number of dealers participating in the Bank for International Settlements' Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity. At its peak, 180 firms responded to the survey of the U.S. market in 1992, while only about 40 institutions participated in 2004. At the same time, average daily volume in traditional foreign exchange instruments reached \$1.9 trillion in 2004, compared with \$820 billion in 1992.⁷ As a higher volume of

transactions flows through a smaller number of participants, operational risk has become more concentrated.

With respect to operational and processing developments, the introduction of CLS Bank in 2002 marked a major milestone in the private sector's effort to minimize foreign exchange settlement risk, with gross trades settled through CLS Bank averaging \$1.6 trillion per day in November 2004. CLS Bank has certainly increased efficiency of settlement by introducing a mechanism for simultaneous exchange of currencies on an intraday and multilateral basis.

The growth of electronic trading in the foreign exchange market is one of the most significant trends of recent years, and it is clear that more trades will be conducted electronically in the future as single bank and multibank electronic trading portals continue to gain traction. With the advent of single trade entry capabilities, screen-based systems have both enhanced the efficiency of the trading process and reduced errors. Electronic execution also allows for straight-through processing to update credit limit usage, intraday P&L, confirmation processing records, settlement instructions, and general ledger activity—thereby reducing operational risk. However, while the introduction of more advanced technology and systems minimizes some risks, a more sophisticated approach to operational risk management is required.

⁷ Bank for International Settlements, *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in April 2004—Preliminary Global Results* (Basel: BIS, 2004), p. 9.



Events in recent years have highlighted the importance of robust contingency planning for all foreign exchange market participants. Overall, the industry responded quickly and efficiently to the events of September 11, and the scope of disruptions was surprisingly limited. However, the experience emphasized that contingency planning could be improved. The increased interdependency among market participants has heightened the need for firms to integrate their business continuity plans with those of key liquidity providers, utilities, and clearing and third-party settlement banks to ensure that everyone is operating under the contingency assumptions.⁸

Financial institutions' interest in outsourcing continues to expand beyond the outsourcing of mainframes and data networks to include various business processes, such as back-office and accounting and finance functions. While a firm may outsource day-to-day processes, its responsibilities for complying with internal, industry, and regulatory standards are in no way diminished. Moreover, relationships with outside service providers expose firms to new risks that must be managed. For example, an institution should establish procedures to monitor service providers to ensure that they are performing functions according to agreed-upon standards and practices.

The pace of change shows no sign of abating. Technology continues to advance rapidly, while systems are becoming more

standardized. Technological advances have facilitated the introduction and proliferation of new services such as prime brokerage and white labeling. In addition, traders and salespeople continue to develop new and more exotic types of transactions, particularly foreign exchange derivative products. These require special, often manual, operational processing until they can be incorporated in the main processing cycle. As reflected in the most recent BIS survey, emerging market currency trading volume has continued to rise. This increase in emerging market volume is coupled with new and evolving settlement procedures for these currencies. Finally, the foreign exchange market continues to attract new types of participants, a trend that requires the development of new operational procedures.

The Foreign Exchange Committee and Operational Risk

All of these developments, and many others, will continue to change and challenge the market, eliminating some risks while introducing others. The identification and management of operational risk have always been priorities of the Foreign Exchange Committee's work. The Committee has provided guidance and leadership to the global foreign exchange market since 1978. Composed of representatives from major financial institutions engaged in foreign currency trading in the United States and sponsored by the Federal Reserve Bank of

⁸Foreign Exchange Committee, "Contingency Planning: Issues and Recommendations," in *2001 Annual Report* (New York: Federal Reserve Bank of New York, 2002), pp. 45-7.

New York, the Committee has set the following goals for itself: 1) serving as a forum for the discussion of good 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) facilitating greater legal certainty for all parties active in foreign exchange through the development of standard documentation such as master agreements and confirmation templates.

Over the years, the Foreign Exchange Committee has worked with the industry through many events critical to the development of financial markets, including the market dislocations associated with the currency crises in Asia and Latin America, the introduction of the euro, the preparation for Y2K, the rise in currency and interest-rate derivatives trading, the proliferation of electronic foreign exchange trading platforms, and events such as September 11 and the 2003 blackout.

The importance the Committee places on the management of operational risk is reflected in its structure, publications, and projects. In 1995, the Committee formally established the Operations Managers Working Group, composed of several senior operations managers from committee member institutions. The group proactively identifies emerging operations-related issues, develops recommendations and best practices associated with operational policies and procedures, and facilitates the understanding of and improvements in operational risk management.

The group's collective experience is encapsulated in one of the Foreign Exchange

Committee's primary publications, *Management of Operational Risk in Foreign Exchange*. First published in 1996 and updated in 2004, this document identifies a series of practices that may mitigate some of the operational risks specific to the foreign exchange industry. The best practices cited in the document are designed to assist industry managers as they develop internal guidelines to improve the quality of risk management. As individual firms benchmark their existing practices against this checklist and, where appropriate, adopt the recommended best practices, their overall systemic risk is reduced. The Committee regularly reviews these practices to ensure that they remain relevant and address emerging issues. For example, last year the Committee introduced additional guidance addressing foreign exchange derivatives.

The Foreign Exchange Committee recognizes that the range of participants and the nature of their activities in the foreign exchange market have broadened in recent years as institutional and leveraged investors' interest in foreign exchange as an asset class has intensified and as corporate hedging strategies have become increasingly sophisticated. In an effort to share the experiences of financial institutions and to promote risk awareness, the Committee in 2004 updated its document *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants*. Although the document addresses the entire foreign exchange trade process, recommendations aimed at reducing operational risk figure prominently given the challenges of processing transactions with more limited resources.



The Foreign Exchange Committee strongly encourages the use of standard documents to provide a sound mutual basis for conducting financial market transactions and to reduce operational and legal risk for all parties. Over the years, the Committee has developed a variety of master agreements covering market practice and convention and establishing terms for netting, termination, and liquidation. The Committee has also worked with the International Swaps and Derivatives Association, Inc., and EMTA to introduce standard trading documentation for non-deliverable forwards and related emerging market transactions. Moreover, the introduction of the *Master Agreement Supplement for Non-Deliverable Forwards* has contributed to a more efficient and error-resistant confirmation process by eliminating the need for long-form faxed confirmations.

Conclusion

Like the market itself, operational risk in foreign exchange is fluid and dynamic. As the nature of the industry's participants, products, and technology evolves, it is critical that managers understand the operational cycle, commit to adopting best practices to manage operational risk, and instill a culture of awareness and control throughout their institutions. Whether it's a major dealer, hedge fund, corporation, or central bank, a firm that thinks that it cannot afford, or can skimp on, appropriate risk management infrastructure should expect to pay a price in the long run. Investment in risk control on an individual-firm level will also benefit the market as a whole. As participants pursue their common self-interest, the overall efficiency and effectiveness of the market will be served by the implementation of sound operational risk management practices.

Foreign Exchange
Prime
Brokerage
Product Overview and
Best Practice Recommendations



Foreign Exchange Prime Brokerage

Product Overview and Best Practice Recommendations

Overview

Foreign exchange prime brokerage allows a client to source liquidity from a variety of executing dealers while maintaining a credit relationship, placing collateral, and settling with a single entity—the prime broker.

As illustrated in the figure on the following page, a prime-broker client conducts a trade with an executing dealer (also known as a “spoke bank” or “give-up bank”) in the name of its prime broker. When the prime broker is informed of and accepts the transaction by the client and executing dealer, the prime broker, rather than the client, becomes the party to the transaction with the executing dealer. In addition, the prime broker will contemporaneously enter into an offsetting transaction with the client (or funds managed by the client or banks holding accounts managed by the client). The prime broker and the executing dealer confirm and settle the trade, while the prime broker settles with the client on a net basis. In exchange for the authority to trade in its name, the prime broker typically charges the client a fee on a volume basis for the trades conducted according to this arrangement.

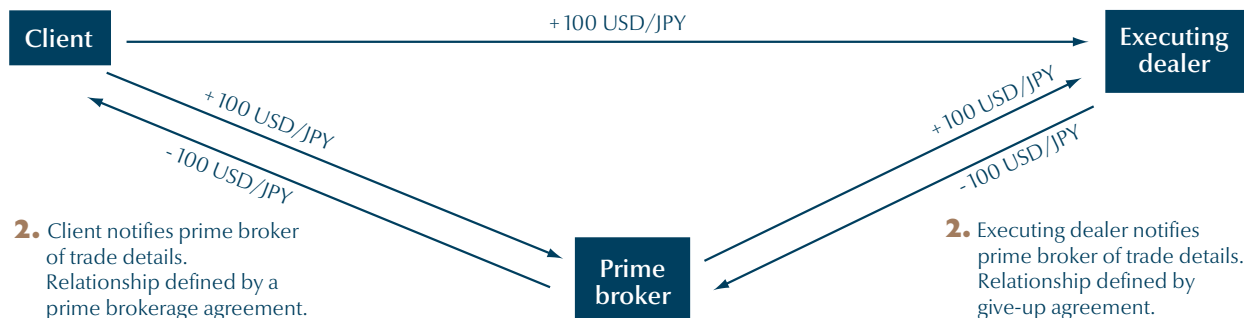
Product Participants and Evolution

Prime brokerage emerged in the early 1990s with the use of semi-formalized “give-up” arrangements initiated by a few financial institutions. The product gained momentum in the late 1990s when several banks entered the prime brokerage business with dedicated market and sales efforts, as well as tighter and more formal operational



FX Prime Brokerage Deal Process

1. Client trades with executing dealer (for example, sells 100 USD/JPY).



2. Client notifies prime broker of trade details. Relationship defined by a prime brokerage agreement.

2. Executing dealer notifies prime broker of trade details. Relationship defined by give-up agreement.

3. Prime broker confirms matching details and inputs back-to-back trades. Block trades broken down according to agreed-upon allocations.

controls, procedures, and processes. This focus laid the foundation for a rapid expansion of the client base.

Clients

Foreign exchange prime brokerage has typically been used by hedge funds and commodity trading advisors (CTAs). Prime brokerage allows these market participants, despite their limited credit history or higher risk profile, to use the prime broker's (presumably) higher credit rating to gain access to new counterparties. Generally, these firms also maintain low headcounts and prefer to outsource or centralize as much trade processing as possible. The hedge fund industry has come to rely on prime brokerage to such an extent that new hedge fund managers include appointing a prime broker among their first business decisions.

While the growth of the hedge fund industry has contributed to the development of the prime brokerage business, it is important to note that the client base is quite diverse. In addition to hedge funds and CTAs, prime brokerage clients include small banks, other asset managers, endowments, foundations, partnerships, private family offices, and pension funds. The service is less frequently used by corporations and large banks.

Prime Brokers

Although the prime brokerage client base has broadened in recent years, the rapid growth of hedge funds is the main driver behind the development of the prime brokerage service. Currently, the hedge fund industry is estimated to represent \$875 billion in assets and to be growing at about 20 percent per year, with approximately 8,350 active



hedge funds.¹ According to one source, in 1997, fewer than ten organizations in the global marketplace used a foreign exchange prime broker, and the market was dominated by four banks. In 2005, market participants estimate that between 450 and 600 clients use the prime brokerage service, and at least twenty different banks offer the service as a core foreign exchange product. Despite the large number of institutions establishing prime brokerage functions, the market has become increasingly concentrated in recent years. According to the Hennessee Group's tenth annual survey, the market share of the six largest prime brokers increased to 83 percent in 2003, from 70 percent in 1999.

Typical Service

The core services offered by the prime broker to a client are leverage, access to market liquidity, and consolidated settlement, clearing, and reporting. In addition to allowing a client to trade in its name, the prime broker can provide a range of services, which may include commission accrual and payment, statement and confirmation generation, and housing and administering of client accounts.

Some prime brokerage providers have begun to offer more sophisticated services, with the goal of becoming a "one-stop shop" for hedge funds. These include start-up services, capital introduction services, front-and back-office systems and technology, research, and cash management services. Market participants have noted increased

demand for end-to-end technology to support hedge funds—including risk analytics and portfolio management and reporting systems—so that portfolios can be actively monitored and analyzed.

The nature of prime-brokered trade execution has also evolved. In the traditional model, foreign exchange prime-brokered transactions are initiated manually by the client. While the client trades in the name of the prime broker—using the prime broker's credit line with the executing dealer—the execution of a transaction involves direct communication between the client and executing dealer in which the identities of both parties are known.

More recently, prime brokers have begun to provide trade execution via electronic communication networks and electronic broking platforms. These platforms allow for automated program trading, which typically involves the use of an application programming interface that provides access to executable prices via two-way message interface between the foreign exchange market and a client's internal trading infrastructure. Notably, in the electronic prime-broker model, there is typically no identification of the trade as being prime-brokered at the time of execution—the executing dealer only sees the name of the prime broker. The identity of the client initiating the trade is not known to the executing dealer—providing an element of anonymity to the client.

¹Hedge Fund Association. Friedland, D. *Facts About Hedge Funds* <<http://www.thehfa.org/AboutUs.cfm>>.



Value Proposition

Benefits to the Client

Prime brokerage allows the client to maximize its credit relationships and activities while improving efficiency. In addition, prime brokerage streamlines the credit and documentation process, given that the client is subject to one internal credit review and executes one master trading agreement and credit support annex with the prime broker, rather than many agreements with multiple dealers. A prime brokerage arrangement provides for the more efficient use of collateral for margin relationships. Further, margin positions can be netted as the client needs to manage just one credit relationship to gain trading relationships with many counterparties. In addition, the client is able to access pricing and liquidity from a greater number of dealers and potentially expand the range of its activities.

By outsourcing operational activities, prime brokerage reduces a client's operational and settlement risk while lowering its expenses. A client realizes a reduction in capital expenditures because back-office expenses are outsourced to the prime broker. In addition, trade allocation, confirmation, and settlement are consolidated with the prime broker, allowing firms to maintain a small operations staff and still execute complex and high-volume trading structures.

Prime brokerage allows a client to consolidate positions and improve execution. For example, a client may establish a foreign exchange position with several different counterparties, which are then consolidated into a single position with the prime broker.

The client can manage a single position more easily than it can manage many individual positions with a variety of counterparties. In addition, prime brokerage offers the client greater liquidity to execute larger trades.

Benefits to the Prime Broker

For the prime broker, the product generates a new, fee-based revenue stream, which is increasingly attractive as foreign exchange spreads continue to narrow. In addition, the product contributes to an expansion of the prime broker's client base and a strengthening of its existing client relationships.

Prime brokerage provides efficiencies of scale with respect to transaction processing and technology investments and allows an institution to leverage its technology and operating infrastructure. As execution continues to migrate to electronic platforms, prime brokerage presents an opportunity to build a fee business into an institution's electronic foreign exchange platform in order to extract investment costs.

Benefits to the Executing Dealer

The executing dealer benefits from increased execution flows with the ability to transact business with counterparties that would typically require credit enhancement.

Legal Framework and Agreements

The establishment of a prime brokerage arrangement requires specific legal documentation that articulates the rights and responsibilities of the client, prime broker,



and executing dealers. A foreign exchange prime broker documents its relationship with the client through a prime brokerage agreement and its relationship with the executing dealer through a give-up agreement.

Prime Brokerage Agreement

Under this agreement, the prime broker agrees that the client may enter into foreign exchange transactions with dealers approved by the prime broker and that the prime broker, rather than the client, will become the party to these transactions if the applicable terms specified in the prime brokerage agreement are satisfied. Generally, these terms are of two types. First, each transaction will have allowable products, such as spot, forward, or option transactions, and a tenor that does not exceed a specified maximum. Second, the transaction will have to be within specified limits, which may include settlement, open position limits, or both. These limits usually apply to the aggregate of all transactions executed by the client with an executing dealer and are typically either specified in the prime brokerage agreement or sent to the client by the prime broker so as to be known to the client at all times.

The prime brokerage agreement typically includes agreement by the client to enter into or, if the client is a manager or advisor, have funds or accounts that it manages enter into (in each case, the “relevant account”), one or more transactions that offset the transaction accepted by the prime broker. This process gives the relevant account the economic benefit of the transaction, as intended, while the prime broker assumes the credit risk of

the executing dealer. In addition, the client can achieve efficient use of its collateral by consolidating much of its trading position with the prime broker. Lastly, the prime brokerage agreement describes the procedure by which the prime broker is notified of the transaction by the client.

Give-Up Agreement

In this agreement between the prime broker and the executing dealer, the prime broker agrees to become the counterparty to each transaction executed by the client with the executing dealer, subject to compliance with the specified terms. A give-up agreement is customarily executed as a master agreement and is supplemented by a give-up agreement notice for each prime-broker client that will execute trades with the applicable executing dealer. The give-up agreement notice identifies the client and contains the allowable products, tenors, and specific limits that apply to the trades that the prime broker will accept for that client. The terms specified in the give-up agreement notice are typically either the same as those included in the prime brokerage agreement or sent to the client by the prime broker. Because these terms are specified in the give-up agreement notice, the executing dealer is able to determine, before executing any trade with the prime broker’s client, whether the prime broker is obligated to accept the give-up of the transaction. In addition, the prime broker may be contacted and asked to accept transactions that may be outside the limits specified in the agreements.

The Foreign Exchange Committee recently published a Master FX Give-Up Agreement



for use by market participants in documenting foreign exchange give-up relationships. This agreement was the product of in-depth discussions among market participants and contains generally accepted standard provisions addressing most aspects of the give-up relationship between a prime broker and an executing dealer. With respect to a few provisions, the Master FX Give-Up Agreement permits the parties to choose which of several clearly defined alternatives they want to apply in their agreement by selecting them in a schedule that is part of the agreement.

The Master FX Give-Up Agreement is a bilateral master agreement to be entered into by the prime broker and an executing dealer. The bilateral nature of the agreement reflects the need for efficiency and standardization and takes into account the fact that a prime broker may designate a number of clients to engage in foreign exchange give-up transactions on its behalf pursuant to a single master agreement.

Compensation Agreement

The Master FX Give-Up Agreement may be accompanied by a Compensation Agreement, to be executed by the prime broker's client and an executing dealer. The Compensation Agreement provides for the compensation of losses in the event that the give up of a transaction is not accepted by the prime broker.

The Foreign Exchange Committee recommends that executing dealers evaluate the likelihood that prime brokers will reject transactions when they enter into give-up agreements and assess the possibility that they

will incur trading losses as a result. In so doing, executing dealers should evaluate the controls that they have in place to reduce the chance of incurring such losses. Such controls can include internal procedures designed to reduce the possibility of executing trades that may be rejected, use of the Compensation Agreement, or some combination of methods. While the risk of a prime broker rejecting a trade has generally been considered by market participants to be minimal, the Committee suggests that executing dealers consider the execution of a Compensation Agreement as a means of addressing that risk. The Committee adds that parties asked to sign a Compensation Agreement should recognize and understand the reasons an executing dealer would ask them to do so.

Best Practice Recommendations

Following is a collection of practices that may mitigate some of the credit, operational, and reputational risks associated with the prime brokerage service. These best practices, consistent with the recommendations and guiding principles set forth in the Counterparty Risk Management Group II report, provide greater clarity regarding the relationship among the prime broker, executing dealer, and client. The implementation of these practices may also help to reduce the level of risk in the foreign exchange market more generally. The recommendations below represent practices already implemented in varying degrees by Foreign Exchange Committee member institutions. The Committee encourages all market participants to strive to adopt these practices.



Of course, each firm should take into account its own unique characteristics, such as transaction volume and role in the market, as it considers the adoption of the recommendations. These best practices are intended as goals rather than binding rules.

The recommendations outlined below should be read in conjunction with the Committee's three primary documents—*Guidelines for Foreign Exchange Trading Activities*, *Management of Operational Risk in Foreign Exchange*, and *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants*.

Credit Risks

Like a standard counterparty relationship, prime brokerage arrangements require active credit-limit monitoring against the limits set forth in the governing legal agreements; however, the prime brokerage model involves an additional layer of complexity given the tri-party framework. An executing dealer should execute and a prime broker accept a transaction only if credit lines have been approved and are available for a client.

Best Practice no. 1:

No trade should be finalized without confirming sufficient availability under the give-up line. Give-up line usage information should be updated as soon as a deal is accepted by the prime broker, and the updated information should be accessible to prime brokerage service personnel, risk managers, and executing dealers.

Best Practice no. 2:

Prime brokers should establish real-time credit systems to actively monitor open positions against limits and pending give-up trades. A prime broker's sales area should be able to quickly assess its credit exposure to a client and its systems should automatically update a client's credit status when a trade is accepted by the prime broker.

Best Practice no. 3:

Prime brokers should develop policies and procedures to address credit-limit breaches and should document the approval of limit exceptions. A prime broker should produce reports of credit line excesses and exceptions on a regular basis for review. Exception reports should identify the client and executing dealer involved in the transactions. Persistent credit limit exceptions should prompt a review and possible adjustment of a client's credit limit.

Best Practice no. 4:

Executing dealers should also develop appropriate tools to monitor open positions and limits against pending trades. Use of such tools with straight-through processing features for the acceptance and processing of trades should be encouraged, given the increasing volumes observed in the foreign exchange markets. Real-time give-up line management further enhances the value realized in monitoring positions and limits.



Operational Risks

The prime brokerage transaction process flow is divided into four steps: 1) notification, 2) matching and acceptance or rejection, 3) confirmation, and 4) allocation. The executing dealer and the client are required to notify the prime broker once a trade has been executed—informing the prime broker of the material terms of a transaction. The material terms of a foreign exchange transaction typically include: transaction date, settlement date, amounts of each currency to be delivered by each party, and buying and selling parties. The material terms of an option transaction typically include: amounts of each currency, type of currency option transaction (for example, American or European), strike price, premium, expiration date, and any other terms considered material in the market.

Once the prime broker receives notification of a trade, it has certain rights and obligations with respect to the acceptance or rejection of the trade, and must determine if a transaction meets the applicable conditions of the prime brokerage and give-up agreements. The prime broker may reject a trade given up for any of the following reasons:

- 1) the trade is not a permitted transaction type as specified in the give-up agreement with the executing dealer,
- 2) the trade is not within the specified tenor limits,
- 3) the trade is not within the specified credit limits, or
- 4) the trade details provided by the executing dealer and the client do not match.

The standards and procedures governing the notification of trade details and the acceptance or rejection of trades are typically the subject of bilateral agreements between the prime broker and the executing dealer and the prime broker and the client. In practice, notifications from the executing dealer to the prime broker are made in a timely manner. However, notifications from the client may not be as consistent and thus can affect the timing of trade acceptance or rejection by the prime broker; late executing dealer notices can have the same effect. The adoption of several best practices can assist in facilitating efficient notification and acceptance processes.

Once a prime broker has matched and accepted a trade, separate confirmations must be exchanged between 1) the prime broker and the executing dealer and 2) the prime broker and the client, as legal evidence of the terms of the transaction. Confirmations are important for the orderly functioning of the marketplace since they minimize market risk and the losses caused by settlement errors. A transaction confirmation should include all relevant data that will allow the two counterparties to accurately agree to the terms of a transaction. In addition, all relevant settlement instructions for each transaction should be identified in each confirmation.

An investment manager or other party acting as an agent may undertake “block” or “bundled” trades on behalf of multiple counterparties. Such trades, once accepted by the prime broker, are subsequently split into smaller amounts and allocated to specific underlying funds or counterparties.



Best Practice no. 5:

The give-up agreement between the prime broker and executing dealer and the prime brokerage agreement between the prime broker and client should clearly specify the permitted transaction types, tenors, and credit limits and the procedure by which such limits are to be calculated. The Master FX Give-Up Agreement published by the Foreign Exchange Committee can be used by the prime broker and executing dealer for this purpose.

Best Practice no. 6:

Executing dealers and clients should have internal controls designed to monitor the permitted transaction types, tenors, and credit limits so that they execute only those trades that were authorized by the prime broker. Because they are legally obligated to accept trades within the terms specified in the relevant agreements, prime brokers should have similar controls to determine whether they are obligated to accept a particular trade when it is given up to them.

Best Practice no. 7:

Executing dealers, clients, and prime brokers should have the proper processes in place to send and receive notices of give ups and should provide the names and contact details of the appropriate personnel to the other parties in a give-up relationship.

Best Practice no. 8:

The executing dealer and client should each notify the prime broker of the details of any trades that they execute for give up to the

prime broker as soon as practicable or otherwise within the time frame specified with the relevant legal agreement.

Best Practice no. 9:

Whenever feasible, executing dealers, clients, and prime brokers should use electronic-trade message systems linked to the prime broker's electronic matching system. In this way, prime brokers can automate the matching and validation of executing dealer and client trade notifications, providing timely notice of matched and unmatched trades to all parties through directed communication or available trade blotters.

Best Practice no. 10:

A prime broker should notify the executing dealer and client as soon as practicable if it rejects a trade involving transactions or amounts that were not authorized according to the applicable agreements. Timely notification minimizes an executing dealer's potential loss from the liquidation of a nonaccepted trade. Nonacceptance of an executed trade by the prime broker may place the executing dealer at risk of loss, especially where there is no agreement in place between the executing dealer and the client on the disposition of nonaccepted trades. Accordingly, compensation agreements between executing dealers and clients may be considered.

Best Practice no. 11:

A prime broker should confirm trades if, and only if, the type of trade is permitted under the give-up agreement, the trade complies with the applicable trade type and tenor



and is within the applicable limits, and the prime broker has received matching trade notifications from the executing dealer and client. Confirming trades prior to the receipt of matched notices may raise legal and market risks that should be avoided. For structured transactions, which contain unique features such as special pricing or settlement conventions that affect the valuation of the trade, matching should include all relevant terms. Mismatched trade terms may expose the prime broker to basis risk.

Best Practice no. 12:

All parties should make every effort to exchange confirmations at the earliest possible opportunity. In the wholesale foreign exchange market, parties should make every effort to send confirmations or positively affirm trades within two hours after execution and in no event later than the end of the day. Standard escalation procedures should be in place to pursue and resolve all discrepancies in a timely manner.

Post-Trade Events

Structured transactions involve post-trade events that could give rise to “market” risk or “basis” risk for the prime broker. Basis risk can occur if the parties interpret post-trade events differently. For example, with respect to an exotic option transaction, a situation may arise in which the executing dealer informs the prime broker that the barrier on its trade has been broken and the trade knocked out even as the client contends that its trade with the prime broker remains valid.

A prime broker must determine whether it will assume the basis risk in these situations or “pass through” the risk by requiring the client to accept the decision of the executing dealer. In addition, with respect to options, parties must designate the party responsible for determining the occurrence of a post-trade event.

Best Practice no. 13:

The give-up agreement between the prime broker and executing dealer and the prime brokerage agreement between the prime broker and client should specify the party responsible for the determination and notification of post-trade events.

Best Practice no. 14:

The prime brokerage agreement between the prime broker and client should specify whether the prime broker will assume or pass through the basis risk associated with varying interpretations of post-trade events by the parties.

Best Practice no. 15:

The relevant staffs of the executing dealer and prime broker should be trained to identify potential post-trade issues. All such issues should be raised immediately for timely resolution.

Dispute Resolution

From time to time, a dispute may arise regarding the basic terms of a trade, a post-trade event, or some other aspect of the prime-broker relationship. As a general matter, any dispute will be governed by the terms of any agreements between the parties. However, as a



practical matter, the interaction among the executing dealer, prime broker, and client may give rise to considerations beyond the usual issues raised in direct dealings.

Best Practice no. 16:

The prime broker is obligated to take on a trade only when the material terms of the trade have been agreed upon by the executing dealer and the client. If such details do not match, the prime broker should reject the trade in the manner provided in the appropriate agreements. Assuming this is done, disputes with respect to trade details must be resolved between the executing dealer and the client.

Best Practice no. 17:

If a prime broker rejects a trade because the material terms of the trade submitted by the executing dealer and client do not match, the prime broker should notify the client and, if specified in the applicable give-up agreement, the executing dealer as soon as practicable so that the client can promptly contact the executing dealer and attempt to resolve the discrepancy. Executing dealers, clients, and prime brokers should have authorized personnel available throughout the business day that are able to work to resolve any discrepancies in a timely manner.

Confidentiality

For many clients, confidentiality is a core component of the foreign exchange prime brokerage relationship. Generally, clients expect that a prime broker's front-office sales or trading staff will not have access to information regarding the trades executed or overall

positions created through the give-up relationship. The possibility that the sales or trading staff could use the information to the detriment of the client exposes the prime broker to reputational and legal risk.

Best Practice no. 18:

Except 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. At the outset of the relationship, the prime broker should determine the client's confidentiality requirements. In the absence of a formal understanding, the prime broker should assume that the client requires confidentiality of its give-up trading activity.

Best Practice no. 19:

Prime brokers should establish and control access to their systems to ensure that only authorized staff are able to access or alter information regarding client give-up trades and positions.

Best Practice no. 20:

Prime-broker client service and operations staff should understand the confidentiality requirements of each client. In addition, front-office staff should be similarly trained so that there is a common understanding between the front- and back-office staffs regarding what is and is not appropriate information exchange.

Reputational Risks

As with any other relationship, a prime broker could face reputational risk with respect to its



relationship with clients. A prime broker accepts trades executed by its client on an arm's-length contractual basis and does not assume fiduciary obligations with respect to that client. Nevertheless, the prime broker could incur harm to its reputation if that client or one of its employees were, for example, to engage in fraud or other improper activities through its foreign exchange trading. Improper activities include practices that are designed to disrupt trading or misrepresent current market prices. Even if a situation does not result in litigation, a firm's reputation may suffer as a result of such client activities through adverse publicity or other factors.

Best Practice no. 21:

To mitigate reputational risk, prime brokers should perform due diligence, including an anti-money-laundering review, with respect to their clients.

Best Practice no. 22:

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. The prime broker should evaluate the reputational risk posed to it and assess whether it should modify its role or cease acting as prime broker for the client. While this best practice does not impose a legal obligation on the prime broker to the executing dealer or its client, the prime broker should ascertain whether the client's trading activity gives rise to any legal or regulatory obligation on the part of the prime broker.



Master FX Give-Up Agreement

Published as of April 6, 2005

by the Foreign Exchange Committee



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Master FX Give-Up Agreement

Agreement

MASTER FX GIVE-UP AGREEMENT (“Agreement”) dated as of _____,
by and between _____ (“Prime Broker”)
and (“Dealer”).

I. Construction and Definitions.

This Agreement includes the Schedule hereto. In the event of any inconsistency between the provisions of the Schedule and the other provisions of Sections 1 through 9 of this Agreement, the Schedule will prevail. In the event of any inconsistency between a Give-Up Agreement Notice (a “Notice”) and the other provisions of this Agreement, the Notice will prevail. In addition to terms defined elsewhere in this Agreement, as amended from time to time, and the applicable Notice, the following terms shall have the meanings specified below. All capitalized terms used herein without definition shall have the meanings set forth in the Master Agreement and the *1998 FX and Currency Option Definitions* (published by the International Swaps and Derivatives Association, Inc., EMTA, Inc. (formerly known as the Emerging Markets Traders Association), and the Foreign Exchange Committee).



“Accepted Transaction” has the meaning set forth in Part 5 of the Schedule.

“Counterparty Transactions” has the meaning set forth in Section 2.

“Counterparty FX Transactions” means Counterparty Transactions that are FX Transactions.

“Counterparty Option Transactions” means Counterparty Transactions that are Currency Option Transactions.

“Dealer Notice” has the meaning set forth in Section 4(b).

“Designated Party” means each entity designated as such in a Notice.

“Designated Party Notice” means the notice of the relevant Counterparty Transaction received by Prime Broker from the relevant Designated Party.

“Dollar Value” means, with respect to an amount of currency at any time (i) if such currency is U.S. Dollars, such amount and (ii) in all other cases, the amount of U.S. dollars that could be purchased at the market rate prevailing at such time against delivery of such amount of currency on a specified Settlement Date. Such rate shall be determined by Prime Broker (in good faith and in a commercially reasonable manner) to be the midmarket rate available to Prime Broker at such time in the foreign exchange market reasonably selected by Prime Broker. If Prime Broker is unable to obtain a market rate pursuant to the preceding sentence, Prime Broker will determine the rate in good faith and in a commercially reasonable manner.

“Master Agreement” has the meaning set forth in the applicable Schedule.

“Material Terms” means (i) for Counterparty FX Transactions: Settlement Date, amounts of each currency to be delivered by each party, and any other terms considered material in the market; and (ii) for Counterparty Option Transactions: the amounts of each currency, the type of Currency Option Transaction (e.g., American or European), the Strike Price, Premium, Expiration Date, and any other terms considered material in the market.

“Net Daily Settlement Amount” means, with respect to Counterparty Transactions executed by a Designated Party for any Settlement Date, the sum of the Dollar Value for each currency for which the aggregate Dollar Value results in a net amount owed to Prime Broker by Dealer with respect to such Counterparty Transactions, excluding any option premia that may be owed to Prime Broker and assuming (i) in respect of Counterparty Option Transactions, the exercise thereof on the Expiration Date and (ii) in respect of Counterparty FX Transactions that are Non-Deliverable, the actual exchange of the amounts of the relevant currencies.

“Net Open Position” means the aggregate amount owed by Dealer to Prime Broker with respect to Counterparty Transactions executed by a Designated Party, calculated as follows:

- (A) for each Counterparty FX Transaction (assuming, in respect of Counterparty FX Transactions that are Non-Deliverable, the actual exchange of the amounts of the relevant currencies), determine the Dollar Value for each currency (including



U.S. dollars) owed by Dealer to Prime Broker or owed by Prime Broker to Dealer under such Counterparty FX Transaction;

- (B) for each currency (including U.S. Dollars), determine the net Dollar Value amount owed by Dealer to Prime Broker or owed by Prime Broker to Dealer by summing the Dollar Values of all long and short positions in such currency as determined in clause (A) above;
- (C) for each Counterparty Option Transaction purchased or sold by Dealer in a Counterparty Transaction executed by such Designated Party, determine the Dollar Value of such Counterparty Option Transaction pursuant to the applicable methodology specified in the Schedule; and
- (D) aggregate (i) the Dollar Value amounts determined pursuant to clause (B) and (ii) the Dollar Value amount or amounts determined pursuant to clause (C) above pursuant to the applicable methodology specified in the Schedule.

“Netted Option” means a Counterparty Option Transaction sold by Prime Broker and owned by Dealer which shall, for the purposes of determining the Net Daily Settlement Amount and Net Open Position, be discharged and terminated together with a Counterparty Option Transaction sold by Dealer and owned by Prime Broker upon satisfying the following criteria:

- (i) each Counterparty Option Transaction being with respect to the same Put Currency and Call Currency;
- (ii) each having the same Expiration Date and Expiration Time;

- (iii) each being of the same style, i.e., either both being American Style Options or both being European Style Options;
- (iv) each having the same Strike Price;
- (v) each being transacted by the same pair of Offices of Dealer and Prime Broker;
- (vi) neither of which shall have been exercised by delivery of a Notice of Exercise;
- (vii) each having the same other Material Terms, except that the currency amounts need not be the same in the case of a partial discharge and termination; and
- (viii) each having been executed by the same Designated Party.

In the case of a partial discharge and termination (i.e., where the relevant Counterparty Option Transactions are for different amounts of the Currency Pair), only the portion discharged and terminated shall be considered a Netted Option.

“Notice” has the meaning set forth above in this Section.

“Notice of Barrier Event” means telex, telephonic, or other electronic notification (excluding facsimile transmission) given by the calculation agent with respect to a Counterparty Option Transaction immediately following a Barrier Event, as agreed to at the time such Counterparty Option Transaction is entered into, as evidenced in a confirmation.

“Proceedings” means any suit, action, or other proceedings relating to this Agreement.



2. Authorization.

Prime Broker has authorized each party designated as a Designated Party in a Notice to enter into foreign exchange transactions (“Counterparty Transactions”) on its behalf with Dealer. Such Counterparty Transactions shall be limited to the types, maximum tenors, currencies, and Specified Offices of Dealer and Prime Broker, as specified in such Notice. No Designated Party may make or receive deliveries of currencies on behalf of Prime Broker, or give any directions in respect of deliveries of currencies, in connection with any Counterparty Transaction.

Notices shall be substantially in the form of Exhibit 1 hereto. Each Notice shall supplement, be governed by, and form a part of this Agreement. Any Counterparty Transactions entered into under this Agreement shall be subject to the Master Agreement.

3. Limits.

With respect to Counterparty Transactions, the authority set forth in Section 2, in respect of any particular Designated Party, is expressly limited to a Net Daily Settlement Amount not to exceed the Settlement Limit and a Net Open Position not to exceed the Net Open Position Limit, as set forth in the applicable Notice. Such Settlement Limit and Net Open Position Limit shall apply only to Counterparty Transactions entered into between Prime Broker and Dealer.

4. Accepted Transactions.

(a) Dealer acknowledges and agrees that Prime Broker shall not be liable for any Counterparty Transaction unless (i) such Counterparty Transaction is a Counterparty

Transaction as set forth in the Notice with respect to the Designated Party executing such Counterparty Transaction; (ii) giving effect to such Counterparty Transaction does not cause the Net Daily Settlement Amount to exceed or further exceed the applicable Settlement Limit or the Net Open Position to exceed or further exceed the applicable Net Open Position Limit (without the prior written consent of Prime Broker); (iii) Dealer and such Designated Party shall have committed to the Material Terms of such Counterparty Transaction; (iv) such Counterparty Transaction has been entered into by Dealer acting through a Specified Office; (v) Prime Broker has received from Dealer a Dealer Notice; and, if specified as applicable in Part 4 of the Schedule, (vi) Prime Broker has received from Designated Party a Designated Party Notice setting forth Material Terms that match those in such Dealer Notice.

- (b) Dealer shall promptly communicate the Material Terms of each Counterparty Transaction by notifying Prime Broker via Reuters or any other systems as the parties may mutually agree (or via telephonic communication in the event Reuters or any agreed alternative method is nonoperational) (“Dealer Notice”).
- (c) The trade acceptance provisions selected in Part 5 of the Schedule shall be applicable. In addition, Prime Broker shall comply with the applicable notification requirements, if any, set forth in Part 6 of the Schedule.



5. Exercise of Options.

- (a) Notwithstanding any terms of a confirmation that may be to the contrary, if Dealer has entered into an Accepted Transaction in which it is the seller of a Counterparty Option Transaction, such Counterparty Option Transaction may be exercised by delivery of a Notice of Exercise by the Designated Party that executed such Transaction to Dealer, which shall constitute exercise by Prime Broker.
- (b) Notwithstanding any terms of a confirmation or Master Agreement that may be to the contrary, if Dealer has entered into an Accepted Transaction in which it is the owner of a Counterparty Option Transaction, such Counterparty Option Transaction may only be exercised by contemporaneous delivery of a Notice of Exercise by Dealer to each of Prime Broker and the Designated Party that executed such Accepted Transaction.
- (c) Where a Counterparty Option Transaction has knock-in and/or knock-out features, if Dealer is the calculation agent with respect to such Transaction, Dealer is required to notify promptly the Designated Party and Prime Broker of a knock-in or knock-out strike event by delivery of a Notice of Barrier Event.
- (d) No provision of this Section 5 overrides any provision in the applicable Master Agreement concerning Automatic Exercise as such term is used in the Master Agreement.

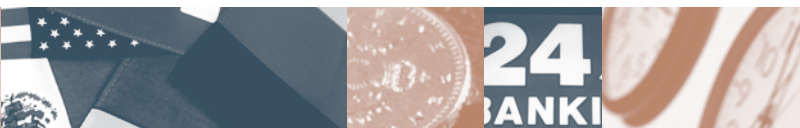
6. Representations/Warranties.

Prime Broker and Dealer each represents, warrants, and agrees as of the date of this

Agreement and as of the date of each Counterparty Transaction entered into pursuant to this Agreement that (a) it has authority to enter into this Agreement and each Counterparty Transaction; (b) the persons executing this Agreement and entering into such Counterparty Transaction have been duly authorized to do so; (c) this Agreement is binding upon it and enforceable against it in accordance with its terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium, or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law)) and does not and will not violate the terms of any agreements to which such party is bound; and (d) it will be relying on this Agreement in entering into Accepted Transactions in accordance with the instructions of the Designated Party.

7. Termination/Change.

- (a) This Agreement shall remain in effect unless and until terminated by Prime Broker or Dealer. Such termination shall be communicated in writing in accordance with Section 8 hereto. Termination of this Agreement shall have no effect upon any Counterparty Transaction executed in accordance with the provisions hereof prior to the effectiveness of such termination.
- (b) Prime Broker may amend the Notice, in whole or in part, at any time in writing in accordance with Section 8 hereto.



- (c) Any notification of termination pursuant to Section 7(a) or any notification of amendment to the Notice pursuant to Section 7(b) shall be effective one hour after receipt. Any such notification, if delivered to the recipient at a time when the recipient is not open for business, shall be effective one hour after the recipient opens for business.

8. Notices/Communications.

- (a) Unless otherwise provided in this Agreement or otherwise agreed, all notices, instructions, and other communications to be given to a party under this Agreement may be given in writing or by facsimile transmission, electronic messaging system, e-mail, or telephone and shall be given to the address, facsimile number, or telephone number and to the individual or department and during the hours specified by such party in accordance with the Schedule. Unless otherwise specified, any notice, instruction, or other communication given in accordance with this Agreement shall be effective upon receipt. Notices required hereunder to be in writing may be given by facsimile transmission or e-mail if a facsimile number or e-mail address, respectively, is specified for the intended recipient in the Schedule. A party may change its notice details by notice given to the other party pursuant to the provisions of this Section 8.
- (b) The parties agree that each party may electronically record all telephonic conversations between them relating to the subject matter of this Agreement and that any such tape recordings may be submitted in evidence in any Proceedings.

9. Miscellaneous.

- (a) In the event any one or more of the provisions contained in this Agreement is held invalid, illegal, or unenforceable in any respect under the law of any jurisdiction, the validity, legality, and enforceability of the remaining provisions under the law of such jurisdiction and the validity, legality, and enforceability of such and any other provisions under the law of any other jurisdiction shall not in any way be affected or impaired thereby.
- (b) No indulgence or concession granted by a party and no omission or delay on the part of a party in exercising any right, power, or privilege under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power, or privilege preclude any other or further exercise thereof or the exercise of any other right, power, or privilege.
- (c) No amendment, modification, or waiver of this Agreement will be effective unless in writing, executed by each of the parties. This Agreement (and each amendment, modification, and waiver in respect of it) may be executed and delivered in counterparts (including by facsimile transmission), each of which will be deemed an original.
- (d) This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York without giving effect to conflict of laws provisions. With respect to any Proceedings, each party irrevocably (i) submits to the nonexclusive jurisdiction of the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City and (ii) waives any objection that it may



have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have jurisdiction over such party. Nothing in this Agreement precludes a party from bringing Proceedings in any other jurisdiction nor will the bringing of Proceedings in any one or more jurisdictions preclude the bringing of Proceedings in any other jurisdiction.

- (e) Each party hereby irrevocably waives any and all right to trial by jury in any Proceedings.

IN WITNESS WHEREOF the parties have executed this document on the respective dates specified below with effect from the date specified on the first page of this document.

PRIME BROKER

DEALER

(Name of party): _____

(Name of party): _____

By: _____

By: _____

Name: _____

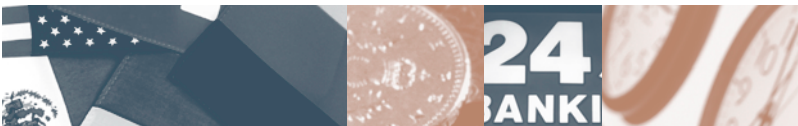
Name: _____

Title: _____

Title: _____

Date: _____

Date: _____



Master FX Give-Up Agreement

Schedule

Dated as of _____
between _____
and _____

Part 1.

Calculation of Dollar Value.

For purposes of the calculation of Dollar Value, Prime Broker shall use [choose one]:

- spot rate.
- forward rate.

Part 2.

Calculation with respect to Counterparty Option Transactions.

For purposes of the calculation of Net Open Position of Counterparty Option Transactions, the following methodology shall be used [choose one]:



- With respect to any Counterparty Option Transactions that are not Netted Options, perform the following calculations: (a) determine the delta equivalent for each such Counterparty Option Transaction and (b) multiply the delta equivalent obtained in (a) by the Dollar Value of the currency that would be received by Prime Broker under the Counterparty Option Transaction if such Counterparty Option Transaction were exercised. Determine the Dollar Value of Counterparty Option Transactions by adding the amounts obtained in (b) above. Determine the Net Open Position by adding (i) the Dollar Value amount determined pursuant to clause (B) of the definition of Net Open Position for each currency with respect to which Dealer owes a net aggregate amount to Prime Broker and (ii) the Dollar Value of Counterparty Option Transactions determined pursuant to this paragraph.

- With respect to any Counterparty Option Transactions that are not Netted Options, perform the following calculations: (a) Determine the delta equivalent of each leg of each Currency Pair with respect to each such Counterparty Option Transaction. (b) For each currency, aggregate and net the delta equivalent of amounts in such currency deliverable (assuming option exercise) to Prime Broker and payable (assuming option exercise) by Prime Broker. (c) Add the net delta equivalent for each currency to the currency amounts that may be owed to, or payable by, Prime Broker under the Counterparty FX Transactions and then determine for each currency the Dollar Value of this net amount. (d) The Dollar Values of each net currency amount owed to Prime

Broker shall be aggregated and this aggregate amount shall be the Net Open Position.

**Part 3.
Master Agreement.**

The [ISDA][IFEMA][ICOM][FEOMA][IFXCO] Master Agreement between Prime Broker and Dealer dated as of _____, as amended from time to time (as so amended, the "Master Agreement").

**Part 4.
Conditions.**

Clause 4(a)(vi) shall be [choose one]:

- applicable.
- not applicable.

**Part 5.
Trade Acceptance.**

The applicable trade acceptance methodology for purposes of Section 4(c) of the Agreement shall be [choose one]:

- Upon satisfaction of the applicable conditions specified in Section 4(a), a Counterparty Transaction shall be deemed accepted by Prime Broker (an "Accepted Transaction"). Prime Broker shall have no obligation to notify Dealer of its acceptance of a Counterparty Transaction.

- Upon satisfaction of the applicable conditions specified in Section 4(a), a Counterparty Transaction shall be deemed accepted by Prime Broker (an "Accepted Transaction"). Prime Broker shall have no obligation to notify Dealer of its acceptance of a Counterparty Transaction;



provided, however, that if Prime Broker does not notify Dealer of its acceptance or rejection of a Counterparty Transaction within a period equal to the Number of Hours of Prime Broker’s receipt of Dealer Notice, such Counterparty Transaction shall be deemed accepted by Prime Broker on the basis of the Material Terms set forth in Dealer Notice, subject to (a) the satisfactory resolution between Designated Party and Dealer of any mismatch between Dealer Notice and the Designated Party Notice and (b) the applicable conditions set forth in Section 4(a) having otherwise been met.

- ❑ Upon satisfaction of the applicable conditions specified in Section 4(a), a Counterparty Transaction shall be deemed accepted by Prime Broker (an “Accepted Transaction”). If Prime Broker does not notify Dealer of its acceptance or rejection of a Counterparty Transaction within a period equal to the Number of Hours of Prime Broker’s receipt of Dealer Notice, such Counterparty Transaction shall be deemed accepted by Prime Broker on the basis of the Material Terms set forth in Dealer Notice.

Number of Hours for purposes of Part 5:
[specify if applicable] _____

Part 6.

Notification by Prime Broker.

The provisions of this Part 6 shall be [choose one]:

- ❑ applicable.
- ❑ not applicable.

Prime Broker shall notify Dealer if (i) the Material Terms set forth in a Dealer Notice in respect of a Counterparty Transaction do not match the Material Terms set forth in the Designated Party Notice received from Designated Party with respect to such Counterparty Transaction within a period equal to the Number of Hours of Prime Broker’s receipt of the later of Dealer Notice or Designated Party Notice or (ii) Prime Broker has not received a Designated Party Notice with respect to a Dealer Notice within a period equal to the Number of Hours of Prime Broker’s receipt of Dealer Notice.

Prime Broker shall not be responsible or liable for any failure to or delay in notifying Dealer as required by this Part 6 arising out of or caused, directly or indirectly, by circumstances beyond its reasonable control.

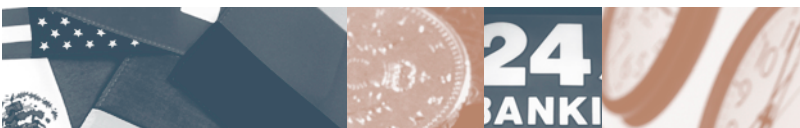
Number of Hours for purposes of Part 6:
[specify if applicable] _____

Part 7.

Notices pursuant to Section 8.

For purposes of Section 8 of the Agreement:

Address and other contact details for notices or communications to Prime Broker:



Address and other contact details for notices or communications to Dealer:

Part 8.

Notice Periods.

- ❑ A Dealer Notice will be effective if received by Prime Broker in the locations indicated in the Schedule at any time beginning at 5:00 a.m. Sydney time on a Monday in any week until 5:00 p.m. New York time on the Friday of that week.
- ❑ A Dealer Notice will be effective if received by Prime Broker in the locations indicated in the Schedule on any Monday through Friday from 9:00 a.m. to 5:00 p.m. at the location (excluding days that are not Business Days in that

location). If a Dealer Notice is received after 5:00 p.m. in such location, it will be deemed to be received at 9:00 a.m. on the immediately succeeding Business Day in that location. If a Dealer Notice is received before 9:00 a.m. in such location on a Business Day, it will be deemed to be received at 9:00 a.m. on such Business Day.

Part 9.

Electronic Trading Platforms.

Transactions may be executed through electronic trading platforms that provide for prime brokerage transactions upon the agreement of Prime Broker, Designated Party, and Dealer.

Any notices required by this Agreement may be made in accordance with the rules and agreements of such electronic platform(s) and such rules and agreements are hereby incorporated into the Agreement.



Master FX Give-Up Agreement

Notice

DEALER

Name: _____

Address: _____

Ladies and Gentlemen:

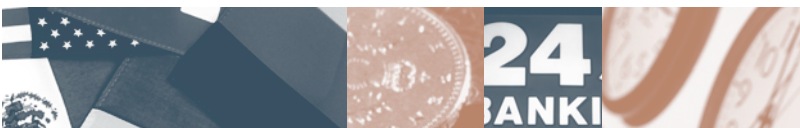
_____ (“Prime Broker”) and _____ (“Dealer”)

are parties to a Master FX Give-Up Agreement dated as of _____ (the “Agreement”). All capitalized terms used in this Notice without definition shall have the meanings given to such terms in the Agreement.

1. Designated Party: Shall mean _____.

2. Counterparty Transactions: foreign exchange:

- Spot
- Tom next
- Deliverable forwards
- Non-Deliverable forwards



Deliverable Currency Option transactions (which shall consist of Puts and Calls) of the following types:

Non-Deliverable Currency Option Transactions of the following types: _____

_____.

Other: _____,

in each case, with the maximum tenor specified in this Notice.

3. Permitted Currencies: _____.

4. Maximum Tenor: _____ from Trade Date.

5. Settlement Limit: _____.

6. Net Open Position Limit: _____.

7. Specified Offices:

For Prime Broker: _____.

For Dealer: _____.

Very truly yours,

PRIME BROKER

(Name of party): _____

By: _____

Name: _____

Title: _____

Date: _____

Agreed:

DEALER

(Name of party): _____

By: _____

Name: _____

Title: _____

Date: _____



Compensation Agreement

Published as of June 6, 2005

by the Foreign Exchange Committee



Compensation Agreement

Published as of June 6, 2005

by the Foreign Exchange Committee

COMPENSATION AGREEMENT dated as of _____
between _____ (“Dealer”)
and _____ (“Designated Party”).

WHEREAS, Dealer and _____
 (“Prime Broker”) have entered into a Master FX Give-Up Agreement dated as of
_____ (as may be amended, replaced, or
supplemented from time to time, the “Give-Up Agreement”); and

WHEREAS, pursuant to the Give-Up Agreement, Prime Broker has designated
Designated Party as such in a Designation Notice to such Give-Up Agreement (the
“Designation Notice”).

NOW, THEREFORE, in consideration of the representations and premises set forth
herein, Dealer and Designated Party hereby agree as follows:

1. Designated Party agrees that it will promptly provide notice to Prime Broker of
the Material Terms (as defined below) of any foreign exchange transaction
entered into with Dealer pursuant to a Designation Notice (a “Counterparty
Transaction”). As used herein, “Material Terms” means (i) for Counterparty FX
Transactions: Settlement Date, amounts of each currency to be delivered by
each party, and any other terms considered material in the market; and (ii) for
Counterparty Option Transactions: the amounts of each currency, the type of
Currency Option Transaction (e.g., American or European), the Strike Price,
Premium, Expiration Date, and any other terms considered material in the market.



2. [If, for any reason, any Counterparty Transaction entered into by Designated Party with Dealer fails to be accepted by Prime Broker pursuant to the Give-Up Agreement, Dealer may, at its discretion, require by notice to Designated Party that the relevant party to this Agreement shall pay compensation to the other party in an amount determined by Dealer as if Dealer and Designated Party were parties to an ISDA 2002 Master Agreement (the "ISDA Master Agreement") governed by the laws of [the State of New York] [England] under which the Termination Currency were [U.S. Dollars] [Euros], a date designated by Dealer that is no later than the second [insert Dealer's location] Banking Day immediately following the Trade Date of such Counterparty Transaction were an Early Termination Date, Designated Party were the sole Affected Party and the Counterparty Transaction were the sole Terminated Transaction (terms used in this sentence without definition shall have the respective meanings set forth in the ISDA Master Agreement). Such amount shall be payable one [insert Dealer's location] Banking Day after (i) its calculation, if it is payable by Dealer or (ii) the effective date of a notice by Dealer to Designated Party of the amount payable, if it is payable by Designated Party.]

[If, for any reason, any Counterparty Transaction entered into by Designated Party with Dealer fails to be accepted by Prime Broker in accordance with the Give-Up Agreement, Dealer may, in its discretion, require by notice to Designated Party that Designated Party shall indemnify Dealer for any loss or costs incurred by Dealer arising from or in connection with such Counterparty

Transaction, including, without limitation, loss of bargain, cost of funding, or, at the election of Dealer but without duplication, loss, or cost incurred as a result of its terminating, liquidating, obtaining, or reestablishing any hedge or related trading position. Such amount shall be payable one [insert Dealer's location] Banking Day after the effective date of a notice by Dealer to Designated Party of the amount payable.]

3. Each party represents and warrants to the other party as of the date of this Agreement and as of the date of each Counterparty Transaction entered into by Designated Party with Dealer that (i) it has authority to enter into this Agreement; (ii) the person executing this Agreement on its behalf has been duly authorized to do so; (iii) this Agreement is binding upon it and enforceable against it in accordance with its terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium, or similar laws affecting creditors' rights generally and subject, as to enforceability, to equitable principles of general application (regardless of whether enforcement is sought in a proceeding in equity or at law)) and does not and will not violate the terms of any agreements to which such party is bound; and (iv) it is relying on this Agreement in entering into such Counterparty Transaction.

4. This Agreement shall terminate upon the termination of the authority of Designated Party to enter into Counterparty Transactions under the Give-Up Agreement; provided, however, that this Agreement shall remain in effect in respect of all Counterparty Transactions entered into by Designated Party with Dealer on or before the day on which such termination



is effective. The reduction of the Settlement Limit and/or the Net Open Position Limit set forth in the Designation Notice will not constitute termination of the authority of Designated Party to enter into Counterparty Transactions under the Give-Up Agreement.

5. Unless otherwise agreed, all notices, instructions, and other communications to be given to a party under this Agreement shall be given to the address or facsimile number of such party specified on the signature page hereof, as may be changed from time to time by notice to the other party. Unless otherwise agreed, any notice, instruction, or other communication given in accordance with this Agreement shall be effective upon receipt.
6. The parties agree that each party may electronically record all telephonic conversations between them relating to the subject matter of this Agreement (including, without limitation, any Counterparty Transactions) and the Give-Up Agreement and that any such tape recordings may be submitted in evidence in any suit, action, or other proceeding relating to this Agreement or the Give-Up Agreement ("Proceedings").
7. In the event that any one or more of the provisions contained in this Agreement is held invalid, illegal, or unenforceable in any respect under the law of any jurisdiction, the validity, legality, and enforceability of the remaining provisions under the law of such jurisdiction and the validity, legality, and enforceability of such and any other provisions under the law of any other jurisdiction shall not in any way be affected or impaired thereby.
8. No indulgence or concession granted by a party and no omission or delay on the part of a party in exercising any right, power, or privilege under this Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power, or privilege preclude any other or further exercise thereof or the exercise of any other right, power, or privilege.
9. No amendment, modification, or waiver of this Agreement will be effective unless in writing, executed by each of the parties.
10. This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York without giving effect to conflict of laws provisions. With respect to any Proceedings, each party irrevocably (i) submits to the nonexclusive jurisdiction of the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City and (ii) waives any objection that it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been brought in an inconvenient forum and further waives the right to object, with respect to such Proceedings, that such court does not have jurisdiction over such party. Nothing in this Agreement precludes a party from bringing Proceedings in any other jurisdiction nor will the bringing of Proceedings in any one or more jurisdictions preclude the bringing of Proceedings in any other jurisdiction.
11. Each party hereby irrevocably waives any and all right to trial by jury in any Proceedings.



12. All capitalized terms used herein without definition shall have the meanings set forth in the Master Agreement and the 1998 FX and Currency Option Definitions (published by the International Swaps and Derivatives Association, Inc., EMTA, Inc. (formerly known as the Emerging Markets Traders Association), and the Foreign Exchange Committee).

IN WITNESS WHEREOF the parties have executed this document on the respective dates specified below with effect from the date specified on the first page of this document.

DEALER

(Name of party): _____

By: _____

Name: _____

Title: _____

Date: _____

Address: _____

Facsimile number: _____

DESIGNATED PARTY

(Name of party): _____

By: _____

Name: _____

Title: _____

Date: _____

Address: _____

Facsimile number: _____



Addendum to the User's Guide:

2004 ASIAN CURRENCY Non-Deliverable Foreign Exchange Documentation

MYR/USD Non-Deliverable FX Transaction

Effective as of July 15, 2005

Singapore Foreign Exchange Market Committee
10 Shenton Way
Singapore 079117

EMTA, Inc.
360 Madison Avenue
18th Floor
New York, NY 10017

Foreign Exchange Committee
33 Liberty Street
9th Floor
New York, NY 10045



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Addendum to the User's Guide:

2004 ASIAN CURRENCY Non-Deliverable Foreign Exchange Documentation

MYR/USD Non-Deliverable FX Transaction

Effective as of July 15, 2005

Introduction

In 2004, the Singapore Foreign Exchange Market Committee (SFEMC), EMTA, Inc. (EMTA), and the Foreign Exchange Committee (FXC), acting as cosponsors, published updated template terms for non-deliverable foreign exchange (FX) transactions for six Asian currencies (the "2004 Templates"). Since the publication of the 2004 Templates, there has been a marked increase in activity in the market for Malaysian Ringgit (MYR)/U.S. Dollar (USD) non-deliverable FX transactions. As a result, a number of market participants recommended that the SFEMC, EMTA, and the FXC develop documentation for non-deliverable MYR/USD FX transactions for the benefit of the market. Up to this time, no documentation that would reduce documentation and settlement risk, generally promote sound market practice, and contribute to overall efficiency of the non-deliverable FX marketplace has been available for market participants to agree to on a bilateral basis.

Following a period of study and consultation, a working group recommended to the cosponsors the publication of terms for non-deliverable MYR/USD FX transactions that are substantially similar to the 2004 SFEMC, EMTA & FXC Template Terms for IDR/USD Non-Deliverable FX Transaction. The SFEMC, EMTA & FXC



Template Terms for MYR/USD Non-Deliverable FX Transaction (the “MYR Template Terms”) and related documentation represent another collaborative effort of the cosponsors and are supported by the Treasury Markets Forum of Hong Kong.

The MYR Template Terms incorporate a new primary rate source for a MYR/USD rate quote, based on a survey of offshore banks performed by the Association of Banks in Singapore. This survey is modeled closely on the survey developed for the IDR/USD rate quote. The new primary rate source definition, referred to as “MYR ABS” or “MYR01,” has been added to Annex A of the *1998 FX and Currency Option Definitions* in an amendment effective as of July 15, 2005. Telerate will carry the MYR/USD rate quote on its page 50157.

Like the 2004 Templates, the sole Disruption Event in the MYR Template Terms is Price Source Disruption. The Disruption Fallbacks featured in MYR Template Terms

also follow the standard of the 2004 Templates. Specifically, the Disruption Fallbacks are Valuation Postponement, SFEMC MYR Indicative Survey Rate, Fallback Survey Valuation Postponement, and Calculation Agent Determination. A new SFEMC MYR Indicative Survey Rate Methodology, which closely resembles the methodologies for the other Asian currencies, has been published in conjunction with the MYR Template Terms. The *User’s Guide: 2004 Asian Currency Non-Deliverable Foreign Exchange Documentation* may be consulted for background information on these terms and the fallback survey methodologies.

Finally, carried over from the 2004 Templates into the MYR Template Terms are a 14-day Deferral Period for Unscheduled Holiday/ Maximum Days of Postponement for Price Source Disruption, and a settlement convention of two Business Days, observing both Kuala Lumpur and Singapore Business Days for Valuation Date purposes.



Malaysian Ringgit

2005 Template Terms Annex A Rate Source Definitions SFEMC Indicative Survey Methodology

2005 SFEMC, EMTA & FXC Template Terms for MYR/USD Non-Deliverable FX Transaction

General Terms:

Trade Date:

[Date of Annex A]¹:

Reference Currency: MYR

[Notional Amount]²:

[Forward Rate]²:

[Reference Currency
Notional Amount]²:

Reference Currency Buyer:

Reference Currency Seller:

Settlement Currency: U.S. Dollars

Settlement Date: [DATE CERTAIN], *provided, however*, that if the Scheduled Valuation Date is adjusted in accordance with the Following Business Day Convention, then the Settlement Date shall be as soon as practicable after the Valuation Date, but in no event later than two Business Days after such date.

Settlement: Non-Deliverable

Settlement Rate Option: MYR ABS (MYR01)³

Valuation Date: [DATE CERTAIN] ("Scheduled Valuation Date"), subject to adjustment in accordance with the Preceding Business Day Convention; and in the event of an Unscheduled Holiday, subject to adjustment in accordance with the Following Business Day Convention.



Disruption Events:

Price Source Disruption: Applicable

Disruption Fallbacks:

1. Valuation Postponement

2. Fallback Reference Price: SFEMC MYR Indicative Survey Rate (MYR02)^{4,5}

3. Fallback Survey Valuation Postponement

4. Calculation Agent Determination of Settlement Rate

Other Terms:

“Unscheduled Holiday”:
“Unscheduled Holiday” means that a day is not a Business Day and the market was not aware of such fact (by means of a public announcement or by reference to other publicly available information) until a time later than 9:00 a.m. local time in the Principal Financial Center(s) of the Reference Currency two Business Days prior to the Scheduled Valuation Date.

“Deferral Period” for
Unscheduled Holiday:
In the event the Scheduled Valuation Date becomes subject to the Following Business Day Convention, and if the Valuation Date has not occurred on or before the 14th consecutive day after the Scheduled Valuation Date (any such period being a “Deferral Period”), then the next day after the Deferral Period that would have been a Business Day but for the Unscheduled Holiday, shall be deemed to be the Valuation Date.

“Valuation Postponement”
for Price Source Disruption:
“Valuation Postponement” means, for purposes of obtaining a Settlement Rate, that the Spot Rate will be determined on the Business Day first succeeding the day on which the Price Source Disruption ceases to exist, unless the Price Source Disruption continues to exist (measured from the date that, but for the occurrence of the Price Source Disruption, would have been the Valuation Date) for a consecutive number of calendar days equal to the Maximum Days of Postponement. In such event, the Spot Rate will be determined on the next Business Day after the Maximum Days of Postponement in accordance with the next applicable Disruption Fallback.

“Fallback Survey
Valuation Postponement”:
“Fallback Survey Valuation Postponement” means that, in the event that the Fallback Reference Price is not available on or before the 3rd Business Day (or day that would have been a Business Day but for an Unscheduled Holiday) succeeding the end of either (i) Valuation Postponement for Price Source Disruption, (ii) Deferral Period for Unscheduled Holiday, or (iii) Cumulative Events, then the Settlement Rate will be determined in accordance with the next applicable Disruption Fallback on such day. For the avoidance of doubt, Cumulative Events, if applicable, does not preclude postponement of valuation in accordance with this provision.



Cumulative Events: Except as provided below, in no event shall the total number of consecutive calendar days during which either (i) valuation is deferred due to an Unscheduled Holiday, or (ii) a Valuation Postponement shall occur (or any combination of (i) and (ii)), exceed 14 consecutive calendar days in the aggregate. Accordingly, (x) if, upon the lapse of any such 14-day period, an Unscheduled Holiday shall have occurred or be continuing on the day following such period that otherwise would have been a Business Day, then such day shall be deemed to be a Valuation Date, and (y) if, upon the lapse of any such 14-day period, a Price Source Disruption shall have occurred or be continuing on the day following such period on which the Spot Rate otherwise would be determined, then Valuation Postponement shall not apply and the Spot Rate shall be determined in accordance with the next Disruption Fallback.

Maximum Days of Postponement: 14 calendar days

Relevant City for Business Day for Valuation Date: Kuala Lumpur and Singapore

Relevant City for Business Day for Settlement Date: New York

Calculation Agent:⁶

ENDNOTES

1. Include only if parties wish to modify the presumption that Annex A is incorporated as amended through the Trade Date.
2. Parties must specify either (a) a Notional Amount and a Reference Currency Notional Amount or (b) a Forward Rate and either a Notional Amount or a Reference Currency Notional Amount.
3. The MYR ABS (MYR01) Rate is published at approximately 11:30 a.m. Singapore time on the Valuation Date.
4. The SFEMC MYR Indicative Survey Rate is determined pursuant to the SFEMC MYR Indicative Survey Rate Methodology dated July 15, 2005.
5. A party may wish to include the following additional provision if such party is or may be a participant in the SFEMC MYR Indicative Survey:

[Quoting Dealer Disclaimer:]

The parties acknowledge that one or both parties to this 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 the SFEMC MYR Indicative Survey Rate and such quotation may affect, materially or otherwise, the settlement of the Transaction.

6. The following may be applicable for inter-dealer trades where parties agree to be Joint Calculation Agents:

Calculation Agents: Party A and Party B

If the parties are unable to agree on a determination within one Business Day, each party agrees to be bound by the determination of an independent leading dealer in Reference Currency/Settlement Currency Transactions not located in the Reference Currency jurisdiction ("independent leading dealer"), mutually selected by the parties, who shall act as the substitute Calculation Agent, with the fees and expenses of such substitute Calculation Agent (if any) to be met equally by the parties. If the parties are unable to agree on an independent leading dealer to act as substitute Calculation Agent, each party shall select an independent leading dealer and such independent dealers shall agree on an independent third party who shall be deemed to be the substitute Calculation Agent.



Malaysian Ringgit Rate Source Definitions

Effective as of July 15, 2005, Annex A of the 1998 FX and Currency Option Definitions (the “1998 Definitions”) is amended to add a new Section 4.5(a)(vi) as follows:

- (A) “MYR ABS” or “MYR01” each means that the Spot Rate for a Rate Calculation Date will be the Malaysian Ringgit/U.S. Dollar spot rate at 11:00 a.m., Singapore time, expressed as the amount of Malaysian Ringgit per one U.S. Dollar, for settlement in two Business Days, reported by the Association of Banks in Singapore, which appears on the Telerate Page 50157 to the right of the caption “Spot” under the column “MYR” at approximately 11:30 a.m., Singapore time, on that Rate Calculation Date.
- (B) “SFEMC MYR INDICATIVE SURVEY RATE” or “MYR02” each means that the Spot Rate for a Rate Calculation Date will be the Malaysian Ringgit/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Malaysian Ringgit per one U.S. Dollar, for settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m., Singapore time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC MYR Indicative Survey Methodology (which means a methodology, dated as of July 15, 2005, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in

the Malaysian Ringgit/U.S. Dollar markets for the purpose of determining the SFEMC MYR Indicative Survey Rate).

Practitioner’s Notes:

- ☺ “MYR ABS” or “MYR01” each refers to a rate reported by the Association of Banks in Singapore (“ABS”), which is derived from a poll of offshore banks based on their perception of onshore rates as of 11:00 a.m., Singapore time. Telerate displays this rate at approximately 11:30 a.m., Singapore time. The ABS polling procedures for MYR allow for corrections to be made to a reported rate up to one hour from the time it is reported. Accordingly, in the event of any correction to the displayed rate, practitioners should consult Section 4.7(a) of Annex A. Section 4.7(a) provides that a Spot Rate based on information obtained from Telerate will be subject to any corrections subsequently displayed by Telerate within one hour of the time when a rate is first displayed by Telerate.
- ☺ Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of July 15, 2005, if they desire to incorporate any or all of the new Malaysian Ringgit rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Malaysian Ringgit rate source definitions will apply to trades that incorporate the 1998 Definitions and have a trade date on or after July 15, 2005.



Singapore Foreign Exchange Market Committee (“SFEMC”) Malaysian Ringgit Indicative Survey Rate Methodology Dated as of July 15, 2005

Capitalized terms not defined below are defined in the 1998 FX and Currency Option Definitions as published by the International Swaps and Derivatives Association, EMTA, Inc., and the Foreign Exchange Committee, or in the SFEMC, EMTA & FXC Template Terms for MYR/USD Non-Deliverable FX Transaction.

I. The SFEMC MYR Indicative Survey

~ Commencing the MYR Indicative Survey:

SFEMC (itself or through a service provider SFEMC will select in its sole discretion) will conduct a survey of financial institutions for the purpose of determining the SFEMC MYR Indicative Survey Rate, beginning at 11:00 a.m. (Singapore time) or as soon thereafter as practicable on a Business Day in both Kuala Lumpur and Singapore (or a calendar day that would have been a Business Day but for an Unscheduled Holiday), following any 14-calendar-day period during which valuation is deferred or postponed (or both).

~ **Polled Banks:** For purposes of determining the MYR Indicative Survey Rate for a Valuation Date, SFEMC (itself or through a service provider) will survey financial institutions that are active participants in the MYR/U.S. Dollar market (each, a “Participating Bank”) and included in a current list of Participating Banks published on the SFEMC’s website (www.sfemc.org) (the “Publication

Site”). Only one office of each financial institution will be included as a Participating Bank in each MYR Indicative Survey.

~ **Survey Question:** Each Participating Bank will be asked to provide its reasonable judgment of what is (or, in the case of an Unscheduled Holiday, would be) the current prevailing free market MYR spot rate (bid-offer pair) for a standard size MYR/U.S. Dollar wholesale financial transaction for same-day settlement in the Kuala Lumpur marketplace on the Valuation Date. In arriving at this indicative quotation, each Participating Bank will be directed to take such factors into consideration as it deems appropriate, which factors may (but need not) include any or all of the following: the spot rate(s) implied in the offshore non-deliverable foreign exchange market for MYR/U.S. Dollar transactions; the spot rate implied by any other financial market transactions (to the extent that such other financial markets are open for business); the spot rate used in connection with any commercial transactions for goods or services from offshore suppliers or providers; any existing rate for trade finance transactions; and any other existing unofficial rate for MYR/U.S. Dollar transactions (commercial or otherwise).



II. Use of Survey Results

- ≈ SFEMC (itself or through a service provider) will determine the mid-point of each bid-offer pair. The arithmetic mean of the mid-points will be used to determine the MYR Indicative Survey Rate, rounded to the fourth decimal point as described below.
- ≈ If the MYR Indicative Survey results in 21 or more responses, then the 4 highest and 4 lowest mid-points will be eliminated, and the arithmetic mean of the remaining mid-points will be computed and will constitute the MYR Indicative Survey Rate for such Valuation Date. For purposes of eliminating the 4 highest and 4 lowest mid-points, if more than 4 mid-points have the same highest value or lowest value, then only 4 such mid-points will be eliminated.
- ≈ If the MYR Indicative Survey results in less than 21 but 11 or more responses, then the 2 highest and 2 lowest mid-points will be eliminated, and the arithmetic mean of the remaining mid-points will be computed and will constitute the MYR Indicative Survey Rate for such Valuation Date. For purposes of eliminating the 2 highest and 2 lowest mid-points, if more than 2 mid-points have the same highest value or lowest value, then only 2 such mid-points will be eliminated.
- ≈ If the MYR Indicative Survey results in less than 11 but 8 or more responses, then the highest and the lowest mid-points will be eliminated and the arithmetic mean of the remaining mid-points will be computed and will constitute the MYR Indicative Survey Rate for such Valuation Date. For purposes of eliminating the highest and lowest mid-points, if more than 1 mid-point has the same highest value or lowest

value, then only 1 such mid-point will be eliminated.

- ≈ If the MYR Indicative Survey results in less than 8 but 5 or more responses, then no mid-points will be eliminated and the arithmetic mean of all mid-points will be computed and will constitute the MYR Indicative Survey Rate for such Valuation Date.
- ≈ Quotes will be provided to the fourth decimal point (*e.g.*, 1.0000).

III. Insufficient Responses

- ≈ If the MYR Indicative Survey results in less than 5 responses from Participating Banks (“Insufficient Responses”), no MYR Indicative Survey Rate will be available for the relevant Valuation Date. The next MYR Indicative Survey will take place on the next succeeding Business Day in both Kuala Lumpur and Singapore (or calendar day that would have been a Business Day but for an Unscheduled Holiday), subject to Section V below.

IV. MYR Indicative Survey Rate Publication

- ≈ The MYR Indicative Survey Rate will be published on the Publication Site at 3:30 p.m. (Singapore time), or as soon thereafter as practicable.
- ≈ As soon as it is determined that the MYR Indicative Survey will result in Insufficient Responses, a notice that no MYR Indicative Survey Rate is available for the Valuation Date will be published on the Publication Site.
- ≈ The response of each Participating Bank to the Indicative Survey (bid-offer pair)



will be available on the Publication Site at 9:00 a.m. (Singapore time) on the first Business Day in both Kuala Lumpur and Singapore (or calendar day that would have been a Business Day but for an Unscheduled Holiday) following the Business Day on which the relevant MYR Indicative Survey Rate is published, or as soon thereafter as practicable.

V. Discontinuing the MYR Indicative Survey

- ⌘ The MYR Indicative Survey will be discontinued (i) on the calendar day first following the Business Day in both Kuala Lumpur and Singapore on which the MYR ABS (MYR01) is available for the determination of a Settlement Rate, or (ii) on the calendar day first following polling for the MYR Indicative Survey that results in Insufficient Responses for three consecutive polling days. Notwithstanding the foregoing, nothing herein will be construed to prevent SFEMC from continuing or re-initiating the MYR Indicative Survey at an appropriate time.
- ⌘ A notice that the MYR Indicative Survey has been discontinued will be published on the Publication Site.

VI. Amendments to the Methodology

- ⌘ SFEMC may, in its discretion, from time to time, make such administrative, procedural, or other modifications to this Methodology as are appropriate to ensure the continued operation and integrity of the MYR Indicative Survey.

VII. Disclaimer

- ⌘ SFEMC (and any service provider SFEMC may select) disclaim liability for the MYR Indicative Survey Rate, and no representation or warranty, express or implied, is made concerning the MYR Indicative Survey Rate (including, without limitation, the methodology for determining the MYR Indicative Survey Rate and its suitability for any particular use).



IFXCO

International Foreign Exchange and Currency Option Master Agreement

Published as of June 1, 2005

by the Foreign Exchange Committee

**in association with the British Bankers' Association,
the Canadian Foreign Exchange Committee, and the
Japanese Bankers Association**



IFXCO

International Foreign Exchange and Currency Option Master Agreement

Terms

Parties may adhere to these IFXCO Terms (the “Terms”) and be bound by their terms by completing and exchanging with each other an agreement that these Terms shall govern FX Transactions and Currency Option Transactions between them substantially in the form of the IFXCO Adherence Agreement published with these Terms (the “Adherence Agreement”).

Capitalized terms used herein have the meanings given to them in the *1998 FX and Currency Option Definitions*, published by the International Swaps and Derivatives Association, Inc., EMTA, Inc., and the Foreign Exchange Committee, as amended as of the date of the Adherence Agreement (the “Definitions”), unless another meaning has been given in Annex 1. References herein to Sections, Annexes, and the like are references to Sections, Annexes, and the like of these Terms unless otherwise provided.

Section 1.

FX Transactions and Currency Option Transactions

1.1. Scope of the Agreement; Offices.

- (a) The Parties may enter into (i) FX Transactions for such quantities of such Currencies as may be agreed upon subject to the terms of the Agreement; and (ii) Currency Option Transactions for such Premiums, with such Expiration Dates, at such Strike Prices, and for the purchase or sale of such quantities of such Currencies as may be agreed upon subject to the terms of the Agreement; provided that neither Party shall be required to enter into any FX Transaction or Currency Option Transaction with the other Party (other than in connection with an exercised Currency Option Transaction). Unless otherwise agreed to in writing by the Parties, each FX



Transaction and Currency Option Transaction entered into between Offices (as defined below) of the Parties on or after the Effective Date shall be governed by the Agreement. Each FX Transaction and Currency Option Transaction between any two Offices of the Parties outstanding on the Effective Date shall also be governed by the Agreement unless otherwise specified in Part I of the Adherence Agreement.

- (b) The office through which a Party enters into an FX Transaction or Currency Option Transaction (an "Office") shall be one of the Offices for that Party in Part II of the Adherence Agreement, as specified for a particular transaction in the relevant Confirmation or as otherwise agreed to by the Parties in writing, and, if an Office for that Party is not specified in the Confirmation or otherwise agreed to by the Parties in writing (and regardless of such specification in such Part II), its head or home office. Each Party that enters into an FX Transaction or Currency Option Transaction through an Office other than its head or home office represents to and agrees with the other Party that, notwithstanding the place of booking or its jurisdiction of incorporation or organization, its obligations are the same in terms of recourse against it as if it had entered into the FX Transaction or Currency Option Transaction through its head or home office, except that a Party shall not have recourse to the head or home office of the other Party in respect of any payment or delivery deferred pursuant to Section 7.3 for so long as the payment or delivery is so deferred. This representation and agreement shall be deemed to be repeated by each Party on each date on which the Parties enter into an FX Transaction or Currency Option Transaction.

1.2. Single Agreement.

These Terms, as adopted through and in the Adherence Agreement (the Terms and the Adherence Agreement being the "Master Agreement"), the terms agreed to between the Parties with respect to each FX Transaction and Currency Option Transaction (and, to the extent recorded in a Confirmation, each such Confirmation), and all amendments to any of such items shall together form the agreement between the Parties (the "Agreement") and shall together constitute a single agreement between the Parties. The Parties acknowledge that all FX Transactions and Currency Option Transactions are entered into in reliance upon such fact, it being understood that the Parties would not otherwise enter into any FX Transaction or Currency Option Transaction.

1.3. Confirmations.

FX Transactions and Currency Option Transactions shall be promptly confirmed by the Parties by Confirmations exchanged by mail, telex, facsimile, or other electronic means from which it is possible to produce a hard copy. The failure by a Party to issue a Confirmation shall not prejudice or invalidate the terms of any FX Transaction or Currency Option Transaction. For avoidance of doubt, if the Parties send instructions for the settlement of a Transaction through CLS Bank, or for execution of a Transaction through any electronic trading platform, and either Party does not send its own Confirmation of such Transaction to the other Party ("nonsending Party"), the CLS or electronic trading platform matching notification shall constitute a Confirmation of such Transaction by any such nonsending Party.



1.4. Inconsistencies.

In the event of any inconsistency between the provisions of the Adherence Agreement and the provisions of the Terms, the Adherence Agreement shall prevail. In the event of any inconsistency between the terms of a Confirmation and the provisions of the Master Agreement, (a) in the case of an FX Transaction, the provisions of the Master Agreement shall prevail, and the Confirmation shall not modify the provisions of the Master Agreement; and (b) in the case of a Currency Option Transaction, the agreed upon terms of the Confirmation shall prevail as to such Currency Option Transaction, and the other terms of the Master Agreement shall be deemed modified with respect to such Currency Option Transaction, except for the manner of confirmation under Section 1.3. A Confirmation amending the terms of a Transaction according to Section 9.11 shall be deemed consistent with the provisions of the Master Agreement.

Section 2.

Exercise of Currency Option Transactions

Currency Option Transactions shall be exercised as provided in the Definitions, provided that Notice of Exercise may not be given by facsimile transmission.

Section 3.

Settlement and Netting of Transactions

3.1. Settlement of Transactions.

(a) Each Transaction shall be settled as provided in the Definitions and the Confirmation related to such Transaction. For avoidance

of doubt, settlement by submission of instructions with respect to any Transaction through the Continuous Linked Settlement System of CLS Bank shall constitute settlement of such Transaction when the settlement thereunder is final and, in the case of partial settlement, to the extent thereof.

(b) In the event a Party shall not make delivery of a Currency under a Transaction when due, it shall compensate the other Party for each day overdue at a rate per annum equal to such other Party's cost of funds as reasonably determined by such other Party.

3.2. Settlement Netting.

(a) Notwithstanding the foregoing, if the Parties agree in Part III of the Adherence Agreement that this Section 3.2 is applicable, and if, on any date, more than one delivery of a particular Currency under Currency Obligations is to be made between a pair of Offices, then each Party shall aggregate the amounts of such Currency deliverable by it and only the difference between these aggregate amounts shall be delivered by the Party owing the larger aggregate amount to the other Party, and, if the aggregate amounts are equal, no delivery of the Currency shall be made.

(b) The provisions of this Section 3.2 shall not apply if a Closeout Date has occurred, or a voluntary or involuntary Insolvency Proceeding or action of the kind described in Section 5(b), (c), or (d) has occurred, without being dismissed in relation to either Party.

(c) The provisions of this Section 3.2 shall apply notwithstanding that either Party may fail to record the new Currency Obligation in its books.



- (d) The provisions of this Section 3.2 are subject to any cutoff date and cutoff time agreed upon between the applicable Offices of the Parties.

Section 4.

Representations, Warranties, and Covenants

4.1. Representations and Warranties.

Each Party represents and warrants to the other Party as of the Effective Date and as of the date of each FX Transaction and each Currency Option Transaction that: (a) it has authority to enter into the Agreement (including such FX Transaction or Currency Option Transaction, as the case may be); (b) the persons entering into the Agreement (including such FX Transaction or Currency Option Transaction, as the case may be) on its behalf have been duly authorized to do so; (c) the Agreement (including such FX Transaction or Currency Option Transaction, as the case may be) is binding upon it and enforceable against it in accordance with its terms (subject to applicable bankruptcy, reorganization, insolvency, moratorium, or similar laws affecting creditors' rights generally and applicable principles of equity) and does not and shall not violate the terms of any agreements to which such Party is bound; (d) no Event of Default, or event which, with notice or lapse of time or both, would constitute an Event of Default, has occurred and is continuing with respect to it; (e) it acts as principal in entering into each FX Transaction and Currency Option Transaction and exercising each and every Currency Option Transaction; and (f) if the Parties have so specified in Part IV of the Adherence Agreement, it makes the representations and warranties set forth in such Part IV.

4.2. Covenants.

Each Party covenants to the other Party that: (a) it shall at all times obtain and comply with the terms of, and do all that is necessary to maintain in full force and effect all authorizations, approvals, licenses, and consents required to enable it lawfully to perform its obligations under, the Agreement; (b) it shall promptly notify the other Party of the occurrence of any Event of Default with respect to itself or any Credit Support Provider in relation to it; and (c) if the Parties have set forth additional undertakings or covenants in Part IV or Part V of the Adherence Agreement, it makes the undertakings or covenants set forth in such Parts.

Section 5.

Events of Default

"Event of Default" means the occurrence of any of the following with respect to a Party (the "Defaulting Party," the other Party being the "Nondefaulting Party"):

- (a) the Defaulting Party (i) defaults in any payment when due under the Agreement (including, but not limited to, a Premium payment) to the Nondefaulting Party, with respect to any Currency Obligation or Currency Option Transaction, and such failure continues for one (1) Business Day after the Nondefaulting Party has given the Defaulting Party written notice of nonpayment; or (ii) fails to perform or comply with any other obligation assumed by it under the Agreement and such failure is continuing thirty (30) days after the Nondefaulting Party has given the Defaulting Party written notice thereof;



- (b) the Defaulting Party commences a voluntary Insolvency Proceeding or takes any corporate action to authorize any such Insolvency Proceeding;
- (c) a governmental authority or self-regulatory organization having jurisdiction over either the Defaulting Party or its assets in the country of its organization or principal office (i) commences an Insolvency Proceeding with respect to the Defaulting Party or its assets, or (ii) takes any action under any bankruptcy, insolvency, or other similar law or any banking, insurance, or similar law or regulation governing the operation of the Defaulting Party that may prevent the Defaulting Party from performing its obligations under the Agreement as and when due;
- (d) an involuntary Insolvency Proceeding is commenced with respect to the Defaulting Party or its assets by a person other than a governmental authority or self-regulatory organization having jurisdiction over either the Defaulting Party or its assets in the country of its organization or principal office and such Insolvency Proceeding (i) results in the appointment of a Custodian, or a judgment of insolvency or bankruptcy, or the entry of an order for winding-up, liquidation, reorganization, or other similar relief; or (ii) is not dismissed within fifteen (15) days of its institution or presentation;
- (e) the Defaulting Party is bankrupt or insolvent, as defined under any bankruptcy or insolvency law applicable to it;
- (f) the Defaulting Party fails, or otherwise is unable or admits in writing that it is unable, to pay its debts as they become due;
- (g) the Defaulting Party or any Custodian acting on behalf of the Defaulting Party disaffirms, disclaims, or repudiates any Currency Obligation or Currency Option Transaction;
- (h) any representation or warranty made or given or deemed made or given by the Defaulting Party pursuant to the Agreement or any Credit Support Document proves to have been false or misleading in any material respect as at the time it was made or given or deemed made or given;
- (i) the Defaulting Party consolidates, or amalgamates with, or merges into, or transfers all or substantially all its assets to another entity and (i) the creditworthiness of the resulting, surviving, or transferee entity is materially weaker than that of the Defaulting Party prior to such action; or (ii) at the time of such consolidation, amalgamation, merger, or transfer the resulting, surviving, or transferee entity fails to assume all the obligations of the Defaulting Party under the Agreement by operation of law or pursuant to an agreement satisfactory to the Nondefaulting Party;
- (j) (i) a default, event of default, or other similar condition or event (however described), in respect of such Party or any Credit Support Provider of such Party under one or more agreements or instruments relating to Specified Indebtedness of either of them (individually or collectively), where the aggregate principal amount of such agreements or instruments, either alone or together with the amount, if any, referred to in clause (j)(ii) below, is not less than the applicable Threshold Amount (as specified



in Part VI of the Adherence Agreement) that has resulted in such Specified Indebtedness becoming, or becoming capable at such time of being declared, due, and payable under such agreements or instruments before it would otherwise have been due and payable; or (ii) a default by such Party or such Credit Support Provider (individually or collectively) in making one or more payments under such agreements or instruments on the due date for payment (after giving effect to any applicable notice requirement or grace period) in an aggregate amount, either alone or together with the amount, if any, referred to in clause (j)(i) above, of not less than the applicable Threshold Amount;

- (k) the Defaulting Party is in breach of or default under any Specified Transaction and any applicable grace period has elapsed, and there occurs any liquidation or early termination of, or acceleration of obligations under, that Specified Transaction, or the Defaulting Party (or any Custodian on its behalf) disaffirms, disclaims, or repudiates the whole or any part of a Specified Transaction;
- (l) (i) any Credit Support Provider of the Defaulting Party or the Defaulting Party itself fails to comply with or perform any agreement or obligation to be complied with or performed by it in accordance with the applicable Credit Support Document and such failure is continuing after any applicable grace period has elapsed; (ii) any Credit Support Document relating to the Defaulting Party expires or ceases to be in full force and effect prior to the satisfaction of all obligations of the Defaulting Party under the Agreement, unless otherwise agreed to in writing by the Nondefaulting Party; (iii) the Defaulting Party or any Credit

Support Provider of the Defaulting Party (or, in either case, any Custodian acting on its behalf) disaffirms, disclaims, or repudiates, in whole or in part, or challenges the validity of any Credit Support Document; (iv) any representation or warranty made or given or deemed made or given by any Credit Support Provider of the Defaulting Party pursuant to any Credit Support Document proves to have been false or misleading in any material respect as at the time it was made or given or deemed made or given; or (v) any event set out in subparagraphs (b) to (g) or subparagraphs (i) to (k) above occurs in respect of any Credit Support Provider of the Defaulting Party; or

- (m) any other condition or event specified in Part VII of the Adherence Agreement.

Section 6.

Closeout and Liquidation

6.1. Manner of Closeout and Liquidation.

- (a) Closeout. If an Event of Default has occurred and is continuing, then the Nondefaulting Party shall have the right to close out all, but not less than all, outstanding Currency Obligations (including any Currency Obligation that has not been performed and in respect of which the Settlement Date is on or precedes the Closeout Date) and Currency Option Transactions, except to the extent that in the good faith opinion of the Nondefaulting Party certain of such Currency Obligations or Currency Option Transactions may not be closed out under applicable law. Such closeout shall be effective upon receipt by the Defaulting Party of notice that the Nondefaulting Party is terminating such Currency Obligations and Currency Option



Transactions. Notwithstanding the foregoing, unless otherwise agreed to by the Parties in Part VIII of the Adherence Agreement, in the case of an Event of Default in Section 5 (b), (c), or (d) with respect to a Party and, if agreed to by the Parties in Part VII of the Adherence Agreement, in the case of any other Event of Default specified and so agreed to in Part VII with respect to a Party, closeout shall be automatic as to all outstanding Currency Obligations and Currency Option Transactions, as of the time immediately preceding the institution of the relevant Insolvency Proceeding or action. The Nondefaulting Party shall have the right to liquidate such closed-out Currency Obligations and Currency Option Transactions, as provided below.

(b) Liquidation of Currency Obligations. Liquidation of Currency Obligations terminated by closeout shall be effected as follows:

(i) Calculating Closing Gain or Loss. The Nondefaulting Party shall calculate in good faith, with respect to each such terminated Currency Obligation, except to the extent that in the good faith opinion of the Nondefaulting Party certain of such Currency Obligations may not be liquidated as provided herein under applicable law, as of the Closeout Date or as soon thereafter as reasonably practicable, the Closing Gain, or, as appropriate, the Closing Loss, as follows:

(A) for each Currency Obligation calculate a "Closeout Amount" as follows:

- (1) in the case of a Currency Obligation whose Settlement Date is the same as or is later than the Closeout Date, the amount of such Currency Obligation; or
- (2) in the case of a Currency Obligation whose Settlement Date precedes the Closeout Date, the amount of such Currency Obligation increased, to the extent permitted by applicable law, by adding interest thereto from and including the Settlement Date to but excluding the Closeout Date at overnight LIBOR; and
- (3) for each such amount in a Currency other than the Nondefaulting Party's Termination Currency, convert such amount into the Nondefaulting Party's Termination Currency at the rate of exchange at which, at the time of the calculation, the Nondefaulting Party can buy such Termination Currency with or against the Currency of the relevant Currency Obligation for delivery (x) if the Settlement Date of such Currency Obligation is on or after the Spot Date as of such time of calculation for the Termination Currency, on the Settlement Date of that Currency Obligation; or (y) if such Settlement Date precedes such Spot Date, for delivery on such Spot Date (or, in either case, if such rate of exchange is not available,

conversion shall be accomplished by the Nondefaulting Party using any commercially reasonable method); and

- (B) determine in relation to each Settlement Date: (1) the sum of all Closeout Amounts relating to Currency Obligations under which the Nondefaulting Party would otherwise have been entitled to receive the relevant amount on that Settlement Date; and (2) the sum of all Closeout Amounts relating to Currency Obligations under which the Nondefaulting Party would otherwise have been obliged to deliver the relevant amount to the Defaulting Party on that Settlement Date; and
 - (C) if the sum determined under (B)(1) is greater than the sum determined under (B)(2), the difference shall be the Closing Gain for such Settlement Date; if the sum determined under (B)(1) is less than the sum determined under (B)(2), the difference shall be the Closing Loss for such Settlement Date.
- (ii) Determining Present Value. To the extent permitted by applicable law, the Nondefaulting Party shall adjust the Closing Gain or Closing Loss for each Settlement Date falling after the Closeout Date to present value by discounting the Closing Gain or Closing Loss from and including the Settlement Date to but excluding the Closeout Date, at LIBOR, with respect to the Nondefaulting Party's Termination Currency as at the Closeout Date

or at such other rate as may be prescribed by applicable law.

- (iii) Netting. The Nondefaulting Party shall aggregate the following amounts so that all such amounts are netted into a single liquidated amount payable to or by the Nondefaulting Party: (A) the sum of the Closing Gains for all Settlement Dates (discounted to present value, where appropriate, in accordance with the provisions of Section 6.1(b)(ii)) (which for the purposes of the aggregation shall be a positive figure); and (B) the sum of the Closing Losses for all Settlement Dates (discounted to present value, where appropriate, in accordance with the provisions of Section 6.1(b)(ii)) (which for the purposes of the aggregation shall be a negative figure).

- (c) Liquidation of Currency Option Transactions. To liquidate unexercised Currency Option Transactions and exercised Currency Option Transactions to be settled at their In-the-Money Amounts that have been terminated by closeout, the Nondefaulting Party shall:

- (i) Calculating Settlement Amount. Calculate in good faith with respect to each such terminated Currency Option Transaction, except to the extent that in the good faith opinion of the Nondefaulting Party certain of such Currency Option Transactions may not be liquidated as provided herein under applicable law, as of the Closeout Date or as soon as reasonably practicable thereafter, a settlement amount for each Party equal to the aggregate of:



- (A) with respect to each Currency Option Transaction purchased by such Party, the current market premium for such Currency Option Transaction;
 - (B) with respect to each Currency Option Transaction sold by such Party, any unpaid Premium, provided that, if the Closeout Date occurs before the Premium Payment Date, such amount shall be discounted from and including the Premium Payment Date to but excluding the Closeout Date at a rate equal to LIBOR on the Closeout Date and, if the Closeout Date occurs after the Premium Payment Date, to the extent permitted by applicable law, the settlement amount shall include interest on any unpaid Premium from and including the Premium Payment Date to but excluding the Closeout Date in the same Currency as such Premium at overnight LIBOR;
 - (C) with respect to any exercised Currency Option Transaction to be settled at its In-the-Money Amount (whether or not the Closeout Date occurs before the Settlement Date for such Currency Option Transaction), any unpaid amount due to such Party in settlement of such Currency Option Transaction and, if the Closeout Date occurs after the Settlement Date for such Currency Option Transaction, to the extent permitted by applicable law, interest thereon from and including the applicable Settlement Date to but excluding the Closeout Date at overnight LIBOR; and
 - (D) without duplication, the amount that the Nondefaulting Party reasonably determines in good faith, as of the Closeout Date or as of the earliest date thereafter that is reasonably practicable, to be its additional losses, costs, and expenses in connection with such terminated Currency Option Transaction, for the loss of its bargain, its cost of funding, or the loss incurred as a result of terminating, liquidating, obtaining, or reestablishing a delta hedge or related trading position with respect to such Currency Option Transaction;
- (ii) Converting to Termination Currency. Convert any settlement amount calculated in accordance with clause (i) above in a Currency other than the Nondefaulting Party's Termination Currency into such Termination Currency at the Spot Rate determined by the Nondefaulting Party at which, at the time of the calculation, the Nondefaulting Party could enter into a contract in the foreign exchange market to buy the Nondefaulting Party's Termination Currency in exchange for such Currency (or, if such Spot Rate is not available, conversion shall be accomplished by the Nondefaulting Party using any commercially reasonable method); and
 - (iii) Netting. Net such settlement amounts with respect to each Party so that all such amounts are netted to a single

liquidated amount payable by one Party to the other Party.

- (d) Final Netting. The Nondefaulting Party shall net (or, if both liquidated amounts are payable by one Party, add) the liquidated amounts payable under Sections 6.1(b) and 6.1(c) with respect to each Party so that such amounts are netted (or added) to a single liquidated amount payable by one Party to the other Party as a settlement payment.

6.2. Setoff Against Credit Support.

Where closeout and liquidation occur in accordance with Section 6.1, the Nondefaulting Party shall also be entitled (a) to set off the net payment calculated in accordance with Section 6.1(d), which the Nondefaulting Party owes to the Defaulting Party, if any, against any credit support or other collateral (“Credit Support”) held by the Defaulting Party pursuant to a Credit Support Document or otherwise (including the liquidated value of any noncash Credit Support), in respect of the Nondefaulting Party’s obligations under the Agreement; or (b) to set off the net payment calculated in accordance with Section 6.1(d), which the Defaulting Party owes to the Nondefaulting Party, if any, against any Credit Support held by the Nondefaulting Party (including the liquidated value of any noncash Credit Support), in respect of the Defaulting Party’s obligations under the Agreement; provided that, for purposes of either such setoff, any Credit Support denominated in a Currency other than the Nondefaulting Party’s Termination Currency shall be converted into such Termination Currency at the rate specified in Section 6.1(c)(ii).

6.3. Other Transactions.

Where closeout and liquidation occur in accordance with Section 6.1, the Nondefaulting Party shall also be entitled to close out and liquidate, to the extent permitted by applicable law, any other foreign exchange transaction or currency option transaction entered into between the Parties, which is then outstanding in accordance with the provisions of Section 6.1, with each obligation of a Party to deliver a Currency under such a foreign exchange transaction being treated as if it were a Currency Obligation (including exercised currency option transactions, provided that cash-settled currency option transactions shall be treated analogously to currency option transactions to be settled at their In-the-Money Amount) and each unexercised currency option transaction being treated as if it were a Currency Option Transaction under the Agreement.

6.4. Payment and Late Interest.

The net amount payable by one Party to the other Party, pursuant to the provisions of Sections 6.1 and 6.3 above, shall be paid by the close of business on the Business Day following the receipt by the Defaulting Party of notice of the Nondefaulting Party’s settlement calculation, with interest at overnight LIBOR from and including the Closeout Date to but excluding such Business Day (and converted as required by applicable law into any other Currency, any costs of conversion to be borne by, and deducted from any payment to, the Defaulting Party). To the extent permitted by applicable law, any amounts owed but not paid when due under this Section 6 shall bear interest at overnight LIBOR (or, if conversion is



required by applicable law into some other Currency, either overnight LIBOR, with respect to such other Currency or such other rate as may be prescribed by such applicable law) for each day for which such amount remains unpaid. Any addition of interest or discounting required under this Section 6 shall be calculated on the basis of a year of such number of days as is customary for transactions involving the relevant Currency in the relevant foreign exchange market.

6.5. Suspension of Obligations.

Without prejudice to the foregoing, so long as a Party shall be in default in payment or performance to the other Party under the Agreement and the other Party has not exercised its rights under this Section 6, the other Party may, at its election and without penalty, suspend its obligation to perform under the Agreement.

6.6. Expenses.

The Defaulting Party shall reimburse the Nondefaulting Party in respect of all out-of-pocket expenses incurred by the Nondefaulting Party (including fees and disbursements of counsel, including attorneys who may be employees of the Nondefaulting Party) in connection with any reasonable collection or other enforcement proceedings related to the payments required under the Agreement.

6.7. Reasonable Pre-estimate.

The Parties agree that the amounts recoverable under this Section 6 are a reasonable pre-estimate of loss and not a penalty. Such amounts are payable for the loss of bargain

and the loss of protection against future risks and, except as otherwise provided in the Agreement, neither Party shall be entitled to recover any additional damages as a consequence of such losses.

6.8. No Limitation of Other Rights; Setoff.

The Nondefaulting Party's rights under this Section 6 shall be in addition to, and not in limitation or exclusion of, any other rights that the Nondefaulting Party may have (whether by agreement, operation of law, or otherwise), and, to the extent not prohibited by law, the Nondefaulting Party shall have a general right of setoff with respect to all amounts owed by each Party to the other Party, whether due and payable or not due and payable (provided that any amount not due and payable at the time of such setoff shall, if appropriate, be discounted to present value in a commercially reasonable manner by the Nondefaulting Party). The Nondefaulting Party's rights under this Section 6.8 are subject to Section 6.7.

Section 7.

Force Majeure, Act of State, and Illegality

7.1. Definitions.

- (a) "Force Majeure Event," on any day determined as if such day were a Settlement Date of an FX Transaction or the Settlement Date of a Currency Option Transaction (even if it is not), after giving effect to any applicable provision, disruption fallback, or remedy specified in, or pursuant to, the relevant Confirmation, means:



- (i) it is unlawful for (A) the Office through which a Party (which shall be the “Affected Party”) is acting to deliver or receive a payment of any Currency in respect of a Currency Obligation or Currency Option Transaction; or (B) a Party or a Credit Support Provider with respect to the obligations of such Party (which shall be the “Affected Party”) to perform any absolute or contingent obligation to make payment or delivery, which such Party or Credit Support Provider has under a Credit Support Document relating to such FX Transaction or Currency Option Transaction, to receive a payment or delivery under such Credit Support Document, or to comply with any other material provision of such Credit Support Document; or
- (ii) by reason of force majeure or act of state, (A) the Office through which a Party (which shall be the “Affected Party”) is acting is prevented from, or hindered, or delayed in delivering or receiving, or it is impossible or impracticable to deliver or receive, any Currency in respect of a Currency Obligation or Currency Option Transaction, and which event is beyond the control of such Party and which such Party, with reasonable diligence, cannot overcome; or (B) a Party or a Credit Support Provider of such Party (which shall be the “Affected Party”) is prevented from performing any absolute or contingent obligation to make payment or delivery, which such Party or Credit Support Provider has under any Credit Support Document relating to such FX Transaction or Currency Option Transaction, from

receiving a payment or delivery under such Credit Support Document, or from complying with any other material provision of such Credit Support Document (or would be so prevented if such payment, delivery, or compliance were required on that day), or it becomes impossible or impracticable for such Party or Credit Support Provider so to perform, receive, or comply (or it would be impossible or impracticable for such Party or Credit Support Provider so to perform, receive, or comply if such payment, delivery, or compliance were required on that day).

An FX Transaction or Currency Option Transaction (1) under which performance has been made unlawful, impossible, or impracticable, or would be so prevented, hindered, or delayed; or (2) in respect of which the performance of such Party or the Credit Support Provider of such Party under a Credit Support Document is made unlawful, impossible, or impracticable, or is so prevented, is an “Affected Transaction.”

- (b) “Waiting Period” means, in respect of a Force Majeure Event as defined in Section 7.1(a)(i), the first three (3) days after such event occurs that are Business Days or that, but for such event, would have been Business Days, and, in respect of a Force Majeure Event as defined in Section 7.1(a)(ii), the first eight (8) days after such event occurs that are Business Days or that, but for such event, would have been Business Days.

7.2. Liquidation Rights.

If a Force Majeure Event occurs and is still in effect, then (but subject to Section 7.3) either



Party may, by notice to the other Party on any day or days after the Waiting Period expires, require the closeout and liquidation of the Currency Obligations under any or all of the Affected Transactions in accordance with the provisions of Section 6.1 and, for such purposes, the Party unaffected by such Force Majeure Event shall perform the calculation required under Section 6.1 as if it were the Non-defaulting Party (or, if both Parties are Affected Parties, both Parties shall so calculate in respect of all Affected Transactions, which either Party determines to liquidate, and the average of the amounts so determined shall be the relevant amount in respect of each Affected Transaction, except that if a Party fails so to determine an amount, the amount determined by the other Party shall govern). If a Party elects so to liquidate less than all Affected Transactions, it may liquidate additional Affected Transactions on a later day or days if the relevant Force Majeure Event is still in effect.

7.3. Waiting Period.

If the Settlement Date of an FX Transaction or a Currency Option Transaction, which is an Affected Transaction under Section 7.2, falls during the Waiting Period of the relevant Force Majeure Event, then such Settlement Date or Settlement Dates (as applicable) shall be deferred to the first Business Day (or the first day that, but for such event, would have been a Business Day) after the end of that Waiting Period. Compensation for this deferral shall be at then current market rates as determined in a commercially reasonable manner by the calculating Party or Parties under Section 6.

7.4. Notice by Affected Party.

If a Force Majeure Event has occurred, an Affected Party shall promptly give notice thereof to the other Party.

7.5. Force Majeure Event and Event of Default.

Nothing in this Section 7 shall be taken as indicating that the Party treated as the Defaulting Party for the purpose of calculations required by Section 7.1 has committed any breach or default. If an event occurs that would otherwise constitute both a Force Majeure Event and an Event of Default, that event shall be treated as a Force Majeure Event and shall not constitute an Event of Default.

7.6. Inability of Head or Home Office to Perform Obligations of Branch.

If (a) a Force Majeure Event occurs and the relevant Office is not the Affected Party's head or home office, (b) the other Party seeks performance of the relevant obligation or compliance with the relevant provision by the Affected Party's head or home office, and (c) the Affected Party's head or home office fails so to perform or comply due to the occurrence of an event or circumstance that would, if that head or home office were the Office through which the Affected Party makes and receives payments and deliveries with respect to the relevant FX Transaction or Currency Option Transaction, constitute or give rise to a Force Majeure Event, and such failure would otherwise constitute an Event of Default under Section 6.1 with respect to such

Party, then, for so long as the relevant event or circumstance continues to exist with respect to both such Office and the Affected Party's head or home office, such failure shall not constitute an Event of Default under Section 6.1.

Section 8.

Parties to Rely on Their Own Expertise

Each Party shall be deemed to represent to the other Party on the date on which it enters into an FX Transaction or Currency Option Transaction that (absent a written agreement between the Parties that expressly imposes affirmative obligations to the contrary for that FX Transaction or Currency Option Transaction): (a)(i) it is acting for its own account, and it has made its own independent decisions to enter into that FX Transaction or Currency Option Transaction and as to whether that FX Transaction or Currency Option Transaction is appropriate or proper for it based upon its own judgment and upon advice from such advisors as it has deemed necessary; (ii) it is not relying on any communication (written or oral) of the other Party as investment advice or as a recommendation to enter into that FX Transaction or Currency Option Transaction, it being understood that information and explanations related to the terms and conditions of an FX Transaction or Currency Option Transaction shall not be considered investment advice or a recommendation to enter into that FX Transaction or Currency Option Transaction; and (iii) it has not received from the other Party any assurance or guarantee as to the expected results of that FX Transaction or Currency Option Transaction; (b) it is capable of evaluating and understand-

ing (on its own behalf or through independent professional advice), and understands and accepts the terms, conditions, and risks of that FX Transaction or Currency Option Transaction; and (c) the other Party is not acting as a fiduciary or an advisor for it in respect of that FX Transaction or Currency Option Transaction.

Section 9.

Miscellaneous

9.1. Currency Indemnity.

The receipt or recovery by either Party (the "first Party") of any amount in respect of an obligation of the other Party (the "second Party") in a Currency other than that in which such amount was due, whether pursuant to a judgment of any court or pursuant to Section 6 or 7, shall discharge such obligation only to the extent that, on the first day on which the first Party is open for business immediately following such receipt or recovery, the first Party shall be able, in accordance with normal banking practice, to purchase the Currency in which such amount was due with the Currency received or recovered. If the amount so purchasable shall be less than the original amount of the Currency in which such amount was due, the second Party shall, as a separate obligation and notwithstanding any judgment of any court, indemnify the first Party against any loss sustained by it. The second Party shall in any event indemnify the first Party against any costs incurred by it in making any such purchase of the Currency.

9.2. Assignment.

Neither Party may assign, transfer, or charge or purport to assign, transfer, or charge its



rights or obligations under the Agreement to a third party without the prior written consent of the other Party and any purported assignment, transfer, or charge in violation of this Section 9.2 shall be void.

9.3. Telephonic Recording.

The Parties agree that each may electronically record all telephonic conversations between them and that any such recordings may be submitted in evidence to any court or in any Proceedings for the purpose of establishing any matters pertinent to the Agreement.

9.4. Notices.

(a) Any notice or other communication in respect of this Agreement may be given in any manner described below (except that a notice or other communication under Section 5, 6, or 7 may not be given by electronic messaging system or e-mail) to the address or number or in accordance with the electronic messaging system or e-mail details provided in Part IX of the Adherence Agreement and shall be deemed effective as indicated: (i) if in writing and delivered in person or by courier, on the date it is delivered; (ii) if sent by telex, on the date the recipient's answer-back is received; (iii) if sent by facsimile transmission, on the date it is received by a responsible employee of the recipient in legible form (it being agreed that the burden of proving receipt shall be on the sender and shall not be met by a transmission report generated by the sender's facsimile machine); (iv) if sent by certified or registered mail (airmail, if overseas) or the equivalent (return receipt requested), on the date it is delivered or its delivery is

attempted; (v) if sent by electronic messaging system, on the date it is received; or (vi) if sent by e-mail, on the date it is delivered; unless the date of that delivery (or attempted delivery) or that receipt, as applicable, is not a Business Day or that communication is delivered (or attempted) or received, as applicable, after the close of business on a Business Day, in which case that communication shall be deemed given and effective on the first following day that is a Local Banking Day.

(b) Either Party may by notice to the other change the address, telex or facsimile number, or electronic messaging system or e-mail details at which notices or other communications are to be given to it.

9.5. Termination.

Each of the Parties may terminate the Agreement at any time by seven (7) days' prior written notice to the other Party delivered as prescribed in Section 9.4, and termination shall be effective at the end of such seventh day; provided, however, that any such termination shall not affect any outstanding Currency Obligations or Currency Option Transactions, and the provisions of the Agreement shall continue to apply until all the obligations of each Party to the other under the Agreement have been fully performed.

9.6. Severability.

In the event any one or more of the provisions contained in the Agreement should be held invalid, illegal, or unenforceable in any respect under the law of any jurisdiction, the validity, legality, and enforceability of the remaining pro-

visions contained in the Agreement under the law of such jurisdiction, and the validity, legality, and enforceability of such and any other provisions under the law of any other jurisdiction shall not in any way be affected or impaired thereby. The Parties shall endeavor in good faith negotiations to replace the invalid, illegal, or unenforceable provisions with valid provisions the economic effect of which comes as close as possible to that of the invalid, illegal, or unenforceable provisions.

9.7. No Waiver.

No indulgence or concession granted by a Party and no omission or delay on the part of a Party in exercising any right, power, or privilege under the Agreement shall operate as a waiver thereof, nor shall any single or partial exercise of any such right, power, or privilege preclude any other or further exercise thereof or the exercise of any other right, power, or privilege.

9.8. Time of Essence, Times.

Time shall be of the essence in the Agreement. Unless otherwise agreed, the times referred to in the Agreement with respect to Currency Option Transactions shall in each case refer to the local time of the relevant Office of the Seller of the relevant Currency Option Transaction.

9.9. Headings.

Headings in the Agreement are for ease of reference only.

9.10. Payments Generally.

All payments to be made under the Agreement shall be made in same day (or immediately available) and freely transferable funds and, unless otherwise specified, shall be delivered to such office of such bank, and in favor of such account as shall be specified by the Party entitled to receive such payment in Part X of the Adherence Agreement or in a notice given in accordance with Section 9.4.

9.11. Amendments.

No amendment, modification, or waiver of the Agreement shall be effective unless in writing executed by each of the Parties, provided that the Parties may agree in a Confirmation that complies with Section 1.3 to amend the Agreement solely with respect to a Non-Deliverable FX Transaction or a Currency Option Transaction that is the subject of the Confirmation; and provided, further, the Parties may agree in a Confirmation that complies with Section 1.3 to amend the Agreement solely with respect to a Deliverable FX Transaction that is the subject of the Confirmation if either the Confirmation explicitly states that it shall so prevail and has been signed by both Parties or Confirmations so stating have been exchanged as provided in Section 1.3.

9.12. Credit Support.

A Credit Support Document between the Parties may apply to obligations governed by the Agreement, including but not limited to



any Credit Support Document specified in Part XI of the Adherence Agreement. If the Parties have executed a Credit Support Document, such Credit Support Document shall be subject to the terms of the Agreement and is hereby incorporated by reference in the Agreement. In the event of any conflict between a Credit Support Document and the Agreement, the Agreement shall prevail, except for any provision in such Credit Support Document in respect of governing law.

9.13. Counterparts.

The Agreement (and each amendment, modification, and waiver in respect of it) may be executed and delivered in counterparts (including by facsimile and by electronic messaging system), each of which shall be deemed an original.

Section 10.

Law and Jurisdiction

10.1. Governing Law.

The Agreement shall be governed by, and construed in accordance with, the laws of the jurisdiction set forth in Part XII of the Adherence Agreement, without giving effect to conflict of laws principles.

10.2. Consent to Jurisdiction.

(a) With respect to any Proceedings, each Party irrevocably (i) submits to the nonexclusive jurisdiction of the courts of the jurisdiction set forth in Part XIII of the Adherence Agreement, and (ii) waives any objection that it may have at any time to the laying of venue of any Proceedings brought in any such court, waives any claim that such Proceedings have been

brought in an inconvenient forum, and further waives the right to object, with respect to such Proceedings, that such court does not have jurisdiction over such Party. Nothing in the Agreement precludes either Party from bringing Proceedings in any other jurisdiction; nor shall the bringing of Proceedings in any one or more jurisdictions preclude the bringing of Proceedings in any other jurisdiction.

(b) Each Party irrevocably appoints the agent for service of process (if any) specified with respect to it in Part XIV of the Adherence Agreement. If for any reason any Party's process agent is unable to act as such, such Party shall promptly notify the other Party and within thirty (30) days shall appoint a substitute process agent acceptable to the other Party.

10.3. Waiver of Jury Trial.

Each Party irrevocably waives any and all right to trial by jury in any Proceedings.

10.4. Waiver of Immunities.

Each Party irrevocably waives, to the fullest extent permitted by applicable law, with respect to itself and its revenues and assets (irrespective of their use or intended use), all immunity on the grounds of sovereignty or other similar grounds from (a) suit; (b) jurisdiction of any court; (c) relief by way of injunction, order for specific performance or for recovery of property; (d) attachment of its assets (whether before or after judgment); and (e) execution or enforcement of any judgment to which it or its revenues or assets might otherwise be entitled in any Proceedings in the courts of any jurisdiction and irrevocably agrees, to the extent permitted by applicable law, that it shall not claim any such immunity in any Proceedings.



Annex I

Definitions

“Adherence Agreement” has the meaning given to it in the preamble to these Terms.

“Affected Party” has the meaning given to it in Section 7.1.

“Affected Transaction” has the meaning given to it in Section 7.1.

“Agreement” has the meaning given to it in Section 1.2.

“Business Day” means for purposes of: (a) any matter specified in the Definitions, as defined therein; (b) Section 5(a), a day on which settlement systems necessary to accomplish the relevant payment are generally open for business so that the payment is capable of being accomplished in accordance with customary market practice, in the place specified in the relevant Confirmation, or if not so specified, in a location as determined in accordance with customary market practice for the relevant delivery; and (c) any other provision of the Agreement, a day that is a Local Banking Day for the applicable Offices of both Parties; provided, however, that neither Saturday nor Sunday shall be considered a Business Day for any purpose.

“Closeout Amount” has the meaning given to it in Section 6.1.

“Closeout Date” means a day on which, pursuant to the provisions of Section 6.1, the Nondefaulting Party closes out Currency

Obligations and/or Currency Option Transactions or such closeout occurs automatically.

“Closing Gain,” as to the Nondefaulting Party, means the difference described as such in relation to a particular Settlement Date under the provisions of Section 6.1.

“Closing Loss,” as to the Nondefaulting Party, means the difference described as such in relation to a particular Settlement Date under the provisions of Section 6.1.

“Credit Support” has the meaning given to it in Section 6.2.

“Credit Support Document,” as to a Party (the “first Party”), means a guaranty, hypothecation agreement, margin or security agreement or document, or any other document containing an obligation of a third party (“Credit Support Provider”) or of the first Party in favor of the other Party supporting any obligations of the first Party under the Agreement, and in any event includes any document specified as such in Part XI of the Adherence Agreement.

“Credit Support Provider” has the meaning given to it in the definition of Credit Support Document.

“Currency” means money denominated in the lawful currency of any country.

“Currency Obligation” means any obligation of a Party to deliver a Currency pursuant to an FX Transaction (including a Non-Deliverable FX Transaction for which the Settlement Currency Amount has been fixed), or an exercised Currency Option Transaction. For the purposes of Section 6.1 only: (a) the amount of the



Currency Obligation of a Non-Deliverable FX Transaction for which the Settlement Currency Amount has not been fixed on or prior to the Closeout Date shall be as determined by the Nondefaulting Party in good faith and in a commercially reasonable manner; and (b) the term “Currency Obligation” shall not include a Currency Option Transaction that is to be settled at its In-the-Money Amount.

“*Custodian*” has the meaning given to it in the definition of Insolvency Proceeding.

“*Defaulting Party*” has the meaning given to it in Section 5.

“*Definitions*” has the meaning given to it in the preamble to these Terms.

“*Effective Date*” means the date specified as such in the Adherence Agreement, provided that if no such date is specified it shall be the date of the Adherence Agreement.

“*Event of Default*” has the meaning given to it in Section 5.

“*Force Majeure Event*” has the meaning given to it in Section 7.1.

“*Insolvency Proceeding*” means (a) a case or proceeding seeking a judgment of or arrangement for insolvency, bankruptcy, composition, rehabilitation, reorganization, administration, winding-up, liquidation, or other similar relief with respect to the Defaulting Party or its debts or assets, or seeking the appointment of a trustee, receiver, liquidator, conservator, administrator, custodian, or other similar official

(each, a “Custodian”) of the Defaulting Party or any substantial part of its assets, under any bankruptcy, insolvency, or other similar law or any banking, insurance, or similar law governing the operation of the Defaulting Party; or (b) the Defaulting Party causes or is subject to any event with respect to it that, under the applicable laws of any jurisdiction, has an analogous effect to any of the events specified in this paragraph.

“*LIBOR*,” with respect to any Currency and date, means the average rate at which deposits in the Currency for the relevant amount and time period are offered by major banks in the London interbank market as of 11:00 a.m. London time on such date, or, if major banks do not offer deposits in such Currency in the London interbank market on such date, the average rate at which deposits in the Currency for the relevant amount and time period are offered by major banks in the relevant foreign exchange market at such time on such date as may be determined by the Party making the determination.

“*Local Banking Day*” means (a) for any Currency, a day on which commercial banks effect deliveries of that Currency in accordance with the market practice of the relevant foreign exchange market; and (b) for any Party, a day in the location of the applicable Office of such Party on which commercial banks in that location are not authorized or required by law to close.

“*Master Agreement*” has the meaning given to it in Section 1.2.



“Nondefaulting Party” has the meaning given to it in Section 5.

“Office(s),” as to a Party, has the meaning given to it in Section 1.1.

“Parties” means the parties to the Agreement as set forth in the Adherence Agreement, including their successors and permitted assigns (but without prejudice to the application of Section 5(i)); and the term *“Party”* shall mean whichever of the Parties is appropriate in the context in which such expression may be used.

“Proceedings” means any suit, action, or other proceedings relating to the Agreement, any FX Transaction, or any Currency Option Transaction.

“Specified Indebtedness” means any obligation (whether present or future, contingent or otherwise, as principal, or surety, or otherwise) in respect of borrowed money, other than in respect of deposits received.

“Specified Transaction” means (a) any transaction (including an agreement with respect to any such transaction) now existing or hereafter entered into between one Party to this Agreement (or any Credit Support Provider of such Party) and the other Party to this Agreement (or any Credit Support Provider of such other Party) that is not a Transaction under this Agreement but (i) that is a rate swap transaction, swap option, basis swap, forward rate transaction, commodity swap, commodity option, equity or equity index swap, equity or equity index option, bond option, interest rate option, foreign exchange transaction, cap

transaction, floor transaction, collar transaction, currency swap transaction, cross-currency rate swap transaction, currency option, credit protection transaction, credit swap, credit default swap, credit default option, total return swap, credit spread transaction, repurchase transaction, reverse repurchase transaction, buy/sell-back transaction, securities lending transaction, weather index transaction, or forward purchase or sale of a security, commodity, or other financial instrument or interest (including any option with respect to any of these transactions); or (ii) that is a type of transaction that is similar to any transaction referred to in clause (i) above that is currently, or in the future becomes, recurrently entered into in the financial markets (including terms and conditions incorporated by reference in such agreement) and which is a forward, swap, future, option, or other derivative on one or more rates, currencies, commodities, equity securities or other equity instruments, debt securities or other debt instruments, economic indices or measures of economic risk or value, or other benchmarks against which payments or deliveries are to be made; (b) any combination of these transactions; and (c) any other transaction identified as a Specified Transaction in this Agreement or the relevant Confirmation.

“Spot Date” means the spot delivery day for the relevant Currency Pair as generally used by the relevant foreign exchange market.

“Spot Rate” has the meaning given to it in the Definitions, provided that the *“Settlement Rate Option”* referred to therein shall be deemed to be unspecified and the reference therein to



“Calculation Agent” shall be deemed a reference to the Nondefaulting Party.

“Termination Currency,” as to a Party, means the Currency of the country in which such Party’s home or head office is located, or if another Currency is specified in the Adherence Agreement as to a Party, that Currency.

“Threshold Amount” means zero (\$0), unless the Parties otherwise specify as such for each Party in Part VI of the Adherence Agreement.

“Waiting Period” has the meaning given to it in Section 7.1.



Annex 2A

U.S. Regulatory Representations

A. The following FDICIA representation shall apply if the Parties have so elected in the Adherence Agreement:

1. Each Party represents and warrants that it qualifies as a “financial institution” within the meaning of the Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) by virtue of being either a:

- (a) broker or dealer within the meaning of FDICIA,
- (b) depository institution within the meaning of FDICIA,
- (c) futures commission merchant within the meaning of FDICIA, or
- (d) “financial institution” within the meaning of Regulation EE (see below).

2. A Party representing that it is a “financial institution,” as that term is defined in 12 C.F.R. Section 231.3 of Regulation EE issued by the Board of Governors of the Federal Reserve System (“Regulation EE”), represents that:

- (a) it is willing to enter into “financial contracts” as a counterparty on both sides of one or more “financial markets,” as those terms are used in Section 231.2 of Regulation EE; and
- (b) during the fifteen (15)-month period immediately preceding the date it

makes or is deemed to make this representation, it has had on at least one (1) day during such period, with counterparties that are not its affiliates (as defined in Section 231.2(b) of Regulation EE) either:

- (i) one or more financial contracts of a total gross notional principal amount of \$1 billion outstanding, or
- (ii) total gross mark-to-market positions (aggregated across counterparties) of \$100 million; and
- (c) agrees that it shall notify the other Party if it no longer meets the requirements for status as a financial institution under Regulation EE.

3. If both Parties are financial institutions in accordance with the above, the Parties agree that the Agreement shall be a netting contract, as defined in 12 U.S.C. Section 4402(14), and each receipt or payment or delivery obligation under the Agreement shall be a covered contractual payment entitlement or covered contractual payment obligation, respectively, as defined in FDICIA.

B. The following ERISA representation shall apply if the Parties have so elected in the Adherence Agreement:

Each Party represents and warrants that it is neither (1) an “employee benefit plan,” as defined in Section 3(3) of the Employee Retirement Income Security Act of 1974,



which is subject to Part 4 of Subtitle B of Title I of such Act; (2) a “plan” as defined in Section 4975(e)(1) of the Internal Revenue Code of 1986; nor (3) an entity the assets of which are deemed to be assets of any such “employee benefit plan” or “plan” by reason of the U.S. Department of Labor’s plan asset regulation, 29 C.F.R. Section 2510.3-101.

- C. The following CFTC trade option representation shall apply if the Parties have so elected in the Adherence Agreement:

Each Party represents and warrants that it is a commercial user of or a merchant handling the Currencies subject to each Currency Option Transaction and was offered or entered into each Currency Option Transaction solely for purposes related to its business as such.

- D. The following Commodities Exchange Act representation shall apply if the Parties have so elected in the Adherence Agreement:

Each Party represents and warrants that (1) it is an “eligible contract participant” within the meaning of Section 1a(12) of the Commodity Exchange Act, as amended; (2) this Agreement and each Transaction is subject to individual negotiation by such Party; and (3) neither this Agreement nor any Transaction will be executed or traded on a “trading facility” within the meaning of Section 1a(33) of the Commodity Exchange Act, as amended.

- E. The following Master Agreement representation shall apply if the Parties have so elected in the Adherence Agreement:

The Parties intend that the Agreement shall be a “master agreement” and a “master netting agreement,” as referred to in Chapter 1 of the Bankruptcy Code, and a “master agreement,” as referred to in Chapter 16 of the Federal Deposit Insurance Act, or any successor provisions.



Annex 2B

Canadian Regulatory Representations and Local Law Provisions

- A. The following disclosure provision shall apply if the Parties have so elected in the Adherence Agreement:

Equivalency Clause. For the purpose of disclosure pursuant to the Interest Act (Canada), the yearly rate of interest to which any rate of interest payable under the Agreement that is calculated on any basis other than a full calendar year is equivalent may be determined by multiplying such rate by a fraction the numerator of which is the actual number of days in the calendar year in which such yearly rate of interest is to be ascertained and the denominator of which is the number of days comprising such other basis.

- B. The following representation shall apply if the Parties have so elected in the Adherence Agreement:

Qualified Party Representation. This representation applies to the extent that any securities act, rule, decree, or regulation applies to a Transaction or any act in furtherance of a Transaction. Each Party represents to the other Party that it meets the eligibility criteria that would render the Transaction, act, or other Party exempt from any registration, offering document, or other requirement to the extent the securities act, rule, decree, or regulations provide such an exemption. Each Party is deemed to repeat this representation on each date on which a Transaction is entered into. Each Party may rely on this

representation from the other Party in making this representation.

- C. The following acknowledgement shall apply if the Parties have so elected in the Adherence Agreement:

English Language. The Parties hereto acknowledge that it is their express wish that this Agreement be drawn in the English language only. Les Parties reconnaissent qu'il est de leur volonté que la présente entente soit rédigée en langue anglaise seulement.

- D. The following amendment shall apply if the Parties have so elected in the Adherence Agreement:

Section 7.1(a)(ii) shall be amended (1) to delete in the first line, the words "force majeure or act of state" and to insert in lieu thereof "any event or circumstance, including without limitation, any natural, technological, political, or governmental (which for greater certainty includes an act of state), or similar event or circumstance"; and (2) in subsection (A) thereof, to insert the words "or circumstance" after "and which event."



Annex 3

Provisions Applicable When a Party Is Represented by a Third Party Intermediary

- A. The following provisions shall apply when a Party is represented by a third party intermediary, such as an investment adviser, investment manager, or similar person (an "Intermediary," the Party represented being, for the purpose of this Annex 3, a "Client," the other Party being the "Counterparty") and if the Parties have so elected (including through such Intermediary) in the Adherence Agreement:
1. The Intermediary shall provide the Counterparty with a list of the Clients. The Intermediary shall, upon request of the Counterparty from time to time, provide the Counterparty with the approximate market value of assets under management for each such Client.
 2. The rights and obligations of the Party under this Agreement shall accrue to each Client, unless the context clearly requires otherwise. This Agreement shall be deemed a separate agreement between the Counterparty and each such Client (provided that the Intermediary shall be liable to the extent that any representation or warranty made by it as to itself or on behalf of a Client shall prove to have been false or misleading in any material respect as at the time it was made or given or deemed made or given).
 3. The Intermediary hereby represents and warrants to the Counterparty that
 - (a) the Intermediary is conducting its business in compliance with all applicable laws and regulations, including applicable anti-money-laundering laws and regulations;
 - (b) each Client has granted the Intermediary, in writing, investment management discretion (or the Intermediary's employees are authorized to act on behalf of such Client as employees of such Client) with respect to a portfolio of assets having an approximate market value as set forth on such list, including full discretionary authority to enter into Transactions for such Client's account and risk and to enter into the Agreement on such Client's behalf, and the right to use such Client's funds to satisfy obligations incurred by the Intermediary on such Client's behalf and sell such Client's securities to raise the funds necessary to satisfy such obligations; and (c) after reasonable inquiry into the financial condition, investment experience, investment objectives of each Client, and other relevant information concerning each Client, the Intermediary has determined that each Client shall be able to meet all of its financial and contractual commitments, which may arise from or with respect to Transactions and that Transactions are appropriate for each Client and within such Client's legal capacity.
- B. The Intermediary agrees to indemnify and hold harmless the Counterparty for any breach of the representations and warranties in this Annex.

IFXCO

International Foreign Exchange and Currency Option Master Agreement

Adherence Agreement

This is to confirm the agreement of _____ (“Party A”)
and _____ (“Party B”)

(collectively, the “Parties”), as of [Insert Date], to the IFXCO Master Agreement Terms, published in June 2005 by the Foreign Exchange Committee in association with the British Bankers’ Association, the Canadian Foreign Exchange Committee, and the Japanese Bankers Association, as amended as of the date of this agreement (the “Terms”). This agreement constitutes an Adherence Agreement, as referred to in the Terms.

The definitions and provisions contained in the Terms are hereby incorporated into this Adherence Agreement.

Part I.

Scope of the Agreement as to Outstanding Transactions

Date of this Adherence Agreement: _____

The Terms shall apply to all FX Transactions outstanding between any two Offices of the Parties on the Effective Date unless otherwise specified in this Part I.

The Terms shall apply to all Currency Option Transactions outstanding between any two Offices of the Parties on the Effective Date unless otherwise specified in this Part I.

The Effective Date shall be the date of this Adherence Agreement unless otherwise specified in this Part I.



Part II.
Offices

Each office of Party A and Party B shall be an Office unless otherwise specified in this Part II.

Part III.
Settlement Netting

The settlement netting provisions of Section 3.2 of the Terms shall not be effective unless otherwise specified in this Part III.

[If such provisions are effective, the following Offices shall form the relevant branch pairs for the purposes thereof:

Party A: _____

Party B: _____

And such provisions shall be effective as of [the Effective Date].]

Part IV.
Certain Regulatory Representations and/or Local Law Provisions

[The representations, warranties, and undertakings in Annex 2A to the Terms shall apply.]

[The representations, warranties, and undertakings in Annex 2B to the Terms shall apply.]

[The representations, warranties, and undertakings in Annex 3 to the Terms shall apply.]

Part V.
Additional Covenants

The following covenant(s) shall apply:

Promptly upon execution of the Adherence Agreement, each Party shall deliver to the other documents certifying (a) the authority of its signatory, including a resolution of its board of directors or governing body, if applicable; and (b) incumbency and signature.

From time to time, each Party shall deliver financial statements or other documentation reasonably requested by the other Party (unless already in possession of the requesting Party).

Part VI.
Threshold Amount

For purposes of Section 5(j) of the Terms:

Party A's Threshold Amount is zero (\$0) unless otherwise specified in this Part VI.

Party B's Threshold Amount is zero (\$0) unless otherwise specified in this Part VI.

Part VII.
Additional Events of Default

The following provisions, which are checked, shall constitute additional Events of Default:

- (a) the failure by a Party to give adequate assurances of its ability to perform any of its obligations under the Agreement within two (2) Business Days of a written request to do so when the other Party has reasonable grounds for insecurity.
- (b) occurrence of garnishment or provisional garnishment against a claim against the Nondefaulting Party acquired by the Defaulting Party. The automatic termination provision of Section 6.1 [shall][shall not] apply to either Party that is a Defaulting Party in respect of this Event of Default.
- (c) suspension of payment by the Defaulting Party or any Credit Support Provider in accordance with the Bankruptcy Law or the Corporate Reorganization Law in Japan. The automatic termination provision of Section 6.1 [shall][shall not] apply to either Party that is a Defaulting Party in respect of this Event of Default.
- (d) disqualification of the Defaulting Party or any Credit Support Provider by any relevant bill clearing house located in Japan. The automatic



termination provision of Section 6.1 [shall][shall not] apply to either Party that is a Defaulting Party in respect of this Event of Default.

Part VIII.

Automatic Termination

The automatic termination provision of Section 6.1 of the Terms [shall][shall not] apply to Party A as Defaulting Party in respect of clause (b), (c), or (d) of the definition of Event of Default.

The automatic termination provision of Section 6.1 of the Terms [shall][shall not] apply to Party B as Defaulting Party in respect of clause (b), (c), or (d) of the definition of Event of Default.

Part IX.

Notices

If sent to Party A:

Address: _____

Telephone number: _____

Telex number: _____

Facsimile number: _____

Name of individual or department to whom notices are to be sent: _____

If sent to Party B:

Address: _____

Telephone number: _____

Telex number: _____

Facsimile number: _____

Name of individual or department to whom notices are to be sent: _____

Part X.

Payment Instructions

With respect to each Party, as may be set forth in such Standard Settlement Instructions as may be specified by such Party, or as may be otherwise specified by such Party, in a notice given in accordance with Section 9.4 of the Terms.

Part XI.

Credit Support

For avoidance of doubt, a Credit Support Document shall include any agreement or document of the type mentioned in the definition of such term whether or not specifically mentioned in this Part or elsewhere, and a Credit Support Provider includes any third party of the type mentioned in the definition of such latter term whether or not specifically mentioned in this Part or elsewhere.

[In accordance with Section 9.13 of the Terms and without limitation of the definition of Credit Support Document in Annex 1 of the Terms, the following shall be a Credit Support Document:

The *1999 Collateral Annex* (the “Collateral Annex”) as published by the Foreign Exchange Committee, the terms of which are hereby incorporated herein, with the following variables having the following meanings:

Pledgor: _____

Secured Party: _____

Date of Collateral Annex: _____

Master Agreement: the Master Agreement (the Terms and this Adherence Agreement)

Collateral Percentages of Eligible Collateral: _____

Transfer of Other Eligible Collateral: _____

Securities Intermediary: _____

Independent Amount: _____



Threshold Amount: _____

Collateral Annex Events of Default: _____

Cutoff Time: _____

Minimum Delivery/Return Amounts: _____

Rounding Convention: _____

Substitutions/Use of Collateral: _____

Section 5.1 of the Collateral Annex
[shall][shall not] apply.

Section 5.2 of the Collateral Annex
[shall][shall not] apply.

U.S. Dollar Collateral: _____

Collateral Management Offices: _____

Net Exposure: _____

Other Provisions: _____]

Part XII.

Governing Law

In accordance with Section 10.1 of the Terms, the Agreement shall be governed by the laws of:

- the State of New York; and provided that the exclusion of conflict of laws principles in Section 10.1 of the Terms shall exclude only those principles or rules that would result in the application of the laws of another jurisdiction.
- England and Wales.
- Japan.

Part XIII.

Consent to Jurisdiction

In accordance with Section 10.2 of the Terms, each Party irrevocably submits to the nonexclusive jurisdiction of:

- the courts of the State of New York and the United States District Court located in the Borough of Manhattan in New York City.
- the courts of England.
- the Tokyo District Court.

Part XIV.

Agent for Service of Process

[Not applicable.]

[Party A appoints the following as its agent for service of process in any Proceedings in [the State of New York][England and Wales] [Japan]:

_____.]

[Party B appoints the following as its agent for service of process in any Proceedings in [the State of New York][England and Wales] [Japan]:

_____.]

BY EXECUTING THIS ADHERENCE AGREEMENT, EACH PARTY REPRESENTS AND WARRANTS THAT IT HAS RECEIVED A COPY OF, AND UNDERSTANDS AND CONSENTS TO, THE TERMS AND PROVISIONS OF THE TERMS REFERENCED IN THE HEADING OF THIS ADHERENCE AGREEMENT.¹

ACCEPTED AND AGREED:

PARTY A: _____

By _____

Name: _____

Title: _____

PARTY B: _____

By _____

Name: _____

Title: _____

¹Although not required, some parties may prefer to attach and/or execute a copy of the Terms.



IFXCO

International Foreign Exchange and Currency Option Master Agreement

Guide to Changes to the FXC Master Agreements

Disclaimer

This Guide and the related forms of documentation do not necessarily reflect the views of the Federal Reserve Bank of New York or any other component of the Federal Reserve System, or of the Foreign Exchange Committee, the Financial Markets Lawyers Group, or any of their members. This Guide and such documentation do not purport to be legal advice with respect to a particular transaction or situation. If legal advice or other expert assistance is required, the services of a qualified professional should be obtained.



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I. Introduction

The publication of IFXCO by the Foreign Exchange Committee (FX Committee)¹ and other sponsoring industry groups in the United Kingdom, Canada, and Japan is the result of a project undertaken by the Financial Markets Lawyers Group (FMLG).² In 2003, the FMLG commenced a study to determine whether the existing master agreements published by the FX Committee (individually, the International Foreign Exchange Master Agreement (IFEMA), the International Currency Options Market Master Agreement (ICOM Master Agreement), and the International Foreign Exchange and Options Master Agreement (FEOMA), and collectively, the “FXC Master Agreements”) should be updated in light of developments since their last publication in 1997.

One such development occurred in 1999, when in response to several disruptions in the foreign exchange markets (notably in Asia), the FX Committee published new force majeure provisions that could be adopted by parties as an amendment or supplement to the FXC Master Agreements. Another occurred in 2002, when the International Swaps and Derivatives Association, Inc. (ISDA) published a new ISDA Master Agreement that included extensive revisions to the 1992 ISDA Master Agreement. Thus in 2003, the FMLG undertook a project to update the FXC Master Agreements.

At that time, the continued viability of the FXC Master Agreements came into

consideration. Since the FXC Master Agreements were first published, the vast majority of master agreements involving foreign exchange and currency option transactions have been documented under the ISDA Master Agreement, a process that was accelerated by the joint publication of the *1998 FX and Currency Option Definitions* by ISDA, EMTA, Inc., and the FX Committee (the “1998 Definitions”). However, a survey revealed that the FXC Master Agreements, in particular IFEMA and FEOMA, are still in use, either because they had been executed some time ago and have not been replaced, or because counterparties, such as hedge funds, that intend only to enter into foreign exchange transactions or currency options, or both, are using the FXC Master Agreements because they prefer a simpler master agreement for these transactions. Accordingly, the decision was made to update the FXC Master Agreements with the objective of simplifying them for use by these counterparties.

Concurrently, the Global Documentation Steering Committee (GDSC) issued recommendations to improve all types of master agreements for derivative transactions. The GDSC considered such improvements primarily in response to the Long-Term Capital Management (LTCM) insolvency in 1998, in which differences among master agreements for different products created difficulties for market participants that desired to terminate, close out, and liquidate transactions with

¹The Foreign Exchange Committee is an advisory committee sponsored by, but independent of, the Federal Reserve Bank of New York. The FX Committee includes representatives of major financial institutions engaged in foreign currency trading in the United States.

²The FMLG is a key legal and policy advisory group for the Foreign Exchange Committee.



LTCM at that time. The GDSC has published a number of specific recommendations on its website,³ which were explicitly considered and adopted, with certain modifications, in the 2002 ISDA Master Agreement. The FMLG decided to include the GDSC recommendations, as adapted by the 2002 ISDA Master Agreement, in the update of the FXC Master Agreements.

Finally, it was noted that the 1998 Definitions had been published after the last publication of the FXC Master Agreements in 1997. It was decided that the FXC Master Agreements could be enhanced and shortened by incorporating the Definitions.

The International Foreign Exchange and Currency Option (IFXCO⁴) Master Agreement is the result of the work done by the FMLG to achieve these goals. The IFXCO Master Agreement, or IFXCO, includes: (a) updated force majeure provisions, (b) provisions recommended by the GDSC, and (c) terminology coordinated with the *1998 FX and Currency Option Definitions*. In addition, certain other changes (noted below) have been made. The core provisions concerning contract execution, confirmations, payment netting, and closeout netting, however, are virtually the same as those in the other FXC Master Agreements.

Most notably, the IFXCO Master Agreement has been published in two parts—the “Terms,” which constitute the core “boilerplate” provisions, and the “Adherence Agreement,” which takes the place of the

Schedule to the FXC Master Agreements and provides for the selection of variables that must be specifically agreed upon by the parties. The separation of the two documents is a major step to enhance ease of execution because the Adherence Agreement, a document of five pages (not including the cover page) that incorporates the Terms by reference, can be executed on a stand-alone basis. The Terms are published on the websites of the FX Committee, the FMLG, and the other sponsoring organizations.

Thus, as market participants become familiar with IFXCO, it is hoped that the simplicity of the Adherence Agreement will enhance the speed and efficiency of the negotiation process. The FMLG and the FX Committee have received opinions from counsel in more than thirty jurisdictions to the effect that this procedure is enforceable. Of course, if parties wish to attach the Terms to an Adherence Agreement, they are free to do so.

This Guide in no way constitutes part of, or should be interpreted as modifying, any contractual term contained in the IFXCO Master Agreement. Nevertheless, although IFXCO does, and is intended to, stand on its own as a legal document, the Guide provides important commentary on current market practice and IFXCO. The following sections of this Guide explain the various changes to the FXC Master Agreements represented in IFXCO. Capitalized terms used in this Summary have the meanings given to them in IFXCO, unless otherwise provided herein.

³www.newyorkfed.org/globaldoc

⁴IFXCO is pronounced “EYE-FEX-COH.”



II. Changes to the FXC Master Agreements

A. Coordination with the 1998 FX and Currency Option Definitions

The 1998 Definitions use the terms “FX Transaction” and “Currency Option Transaction,” whereas the FXC Master Agreements use “FX Transaction” and “Currency Option.” IFXCO uses the terms of the 1998 Definitions.

The 1998 Definitions use the term “Settlement Date” for both FX Transactions and Currency Option Transactions, whereas the FXC Master Agreements use the traditional term “Value Date” for FX Transactions. IFXCO follows the 1998 Definitions in using the term “Settlement Date” for both.

Note that, in general, any term used in the 1998 Definitions that is not otherwise defined in IFXCO has the meaning given to it in the 1998 Definitions. Accordingly, the following terms are no longer separately defined in IFXCO, as they (or their analogs) are already defined in the 1998 Definitions: “American Style Option,” “Buyer,” “Call,” “Call Currency,” “Confirmation,” “Currency Pair,” “European Style Option,” “Exercise Date,” “Expiration Date,” “Expiration Time,” “In-the-Money Amount,” “Notice of Exercise,” “Premium,” “Premium Payment Date,” “Put,” “Put Currency,” “Seller,” “Spot Price,” and “Strike Price.” The definition of “Business Day” has been revised to conform to that of the 1998 Definitions, although it also includes special provisions for two situations that arise under IFXCO (see Annex 1).

Furthermore, numerous provisions of the FXC Master Agreements were deemed unnecessary for IFXCO because their analogs are included in the 1998 Definitions and incorporated by reference in IFXCO. These include the provisions for payment of the Premium on a Currency Option Transaction, exercise and settlement of Currency Option Transactions, and settlement of FX Transactions.

B. Recommendations of the Global Documentation Steering Committee

As noted above, a primary objective was to update the FXC Master Agreements in light of the GDSC recommendations. These changes are outlined below.

1. Cross-Default

In a document dated November 29, 2000, the GDSC recommended a specific cross-default provision covering defaults under (a) indebtedness and (b) trading transactions. The FXC Master Agreements define the former to be “indebtedness for borrowed money,” so it does not ordinarily include trading transactions, which are usually off-balance-sheet transactions. Thus, if a party to an FXC Master Agreement defaulted in trading transactions with a third party (as opposed to the other party to the Master Agreement), there would be no default under the FXC Master Agreements. The situation is similar in the 1992 ISDA Master Agreement.

This recommendation was carefully considered in the drafting of the 2002 ISDA Master Agreement; after extensive discussions, it was not adopted. Weighing



against legitimate credit concerns about a counterparty defaulting on trading transactions with third parties was the concern that such a provision might be used against a party unfairly—for example, defaults in trading transactions can occur for operational or administrative reasons and might lead to the termination and closeout of an agreement against the defaulting party by numerous counterparties, causing a liquidity crisis for the defaulter. Given the careful consideration of this issue by the ISDA drafters, it was determined that IFXCO would adopt a similar approach.

2. **Involuntary Bankruptcy Default**

Another document of the GDSC, also dated November 29, 2000, recommended that the grace period before an involuntary bankruptcy becomes an Event of Default be shortened to five (5) business days. The FXC Master Agreements already have this provision. The 2002 ISDA Master Agreement shortened its grace period for this provision from thirty (30) days to fifteen (15) days, however, because some participants were concerned that five (5) days is not enough time to achieve the dismissal of a frivolous filing. Accordingly, for the sake of consistency across master agreements, IFXCO has adopted a fifteen (15)-day grace period for its own involuntary bankruptcy Event of Default.

3. **Adequate Assurances**

In a document dated June 12, 2001, the GDSC recommended that master agreements provide for an optional adequate assurances Event of Default. The FXC Master Agreements already have this provision. IFXCO gives the parties the option

of adopting this provision as an additional Event of Default in the Adherence Agreement.

4. **Force Majeure**

As noted above, a major reason for revising the FXC Master Agreements was to update its force majeure provisions. Since the publication of FEOMA in 1997, the crises in the currency markets noted above have led participants to believe that provisions in the master agreements at that time might not provide the best outcome for all parties.

The GDSC recommendation of June 12, 2001, states that there should be a uniform definition of force majeure and that force majeure should not result in a global closeout of a party's transactions following an event of default. We believe that this issue arose in response to the fact that the 1992 ISDA Master Agreement had provisions dealing with illegality but not impossibility. Impossibility is now covered in the FXC Master Agreements, the 2002 ISDA Master Agreement, and, of course, IFXCO. The FXC Master Agreements have always specified that a force majeure event is not the basis for nonperformance, while at the same time recognizing that it is not the fault of either party, restricting termination and closeout to transactions affected by the force majeure event.

The more pressing need was to update the FXC Master Agreements in light of the 1999 force majeure provisions published by the FX Committee and the subsequent learning brought about in drafting new force majeure provisions in the 2002 ISDA Master Agreement. The GDSC announced on October 29, 2003, its support of the approach that ISDA adopted in drafting its 2002 Master Agreement.



Developing an improved approach to force majeure became a question of adopting the proper balance in a grace period before transactions could be closed out. It was recognized that a thirty (30)-day grace period (which was then market standard) was too long of a grace period and that a requirement to transfer affected transactions before termination was undesirable. At the same time, it was believed that the grace period warranted for events based on illegality should differ from the grace period for events based on impossibility. For this reason, Section 7.1 of the IFXCO Terms adopts a three (3)-day grace period for illegality and an eight (8)-day grace period for impossibility, as was done for the 2002 ISDA Master Agreement. This concept appears in the definition “Waiting Period” in Section 7.1.(b) of the Terms.

Parties should also take note of Section 7.6 of the Terms. This provision is similar to a provision in the 2002 ISDA Master Agreement that states the circumstances under which the head office of a party may be expected to perform when a branch cannot perform because of a force majeure event. This provision should be read together with new Section 1.1(b) of the Terms, which specifies that the head office of a party is responsible for the obligations of its branch, subject to the exceptions provided in Section 7 relating to force majeure.

5. Notice Provisions

The GDSC document of August 6, 2002, recommended standard notice provisions dealing with (a) effectiveness given modern forms of communication, (b) special default certifications when the existence

of an event of default depends on giving notice but notice cannot be given, and (c) changes of address. The notice provisions in Section 9.4 of the Terms have been drafted to conform to this recommendation.

6. Default Notices

This GDSC recommendation of January 24, 2003, stated that parties should endeavor to adopt standard notices to be sent to a counterparty if that counterparty is a defaulting party. The FMLG and the FX Committee support this recommendation; however, it is not a part of IFXCO itself. Recommended templates for such notices, which can be adapted for use with the FXC Master Agreements and IFXCO, are published on the GDSC website.

7. Bankruptcy Events of Default Generally

This GDSC recommendation of August 21, 2003, encouraged adoption of a “catchall” provision that covers any form of bankruptcy not already covered in the enumeration of bankruptcy/insolvency events. The definition of Insolvency Proceeding in Annex 1 of the Terms has been amended through the addition of clause (b) to include such a provision.

8. Harmonization of Time Frames

The GDSC recommended that the non-defaulting party should have the right to declare an event of default no later than one (1) local business day after notice of any nonpayment. The FXC Master Agreements already have this provision. Section 5(a) of the IFXCO Terms does as well.



C. Miscellaneous Changes

1. Terms

Given the structure of the Terms and the Adherence Agreement, some provisions from the FXC Master Agreements that were retained for IFXCO appear in different positions. The definitions have been placed in Annex 1 at the end of the Terms. With this long list of terms, which are meaningless out of context, moved to the Annex, the reader will not be distracted from the core purpose of the Terms, which is to evidence procedures for entering into, confirming, and settling FX Transactions and Currency Option Transactions, and for closing them out after default.

Similarly, the Events of Default have been listed in a section immediately before the provisions dealing with termination and closeout after default, instead of in the definitions.

A sentence has been added to Section 1.3 of the Terms to make it clear that the Parties may eliminate any MT-300 or other messages between them and rely on reports provided by CLS Bank or any electronic trading platform as Confirmations.

Provisions dealing with certain regulatory issues that may arise under U.S. law (Federal Deposit Insurance Corporation Improvement Act of 1991 (FDICIA) status of parties, Employee Retirement Income Security Act of 1974 (ERISA) representations, Commodity Futures Trading Commission (CFTC) representations, and Master Agreement representations) are presented in Annex 2A of the Terms rather than in the Adherence Agreement. This permits the Adherence Agreement, in which the parties decide whether these

regulatory provisions do or do not apply, to be shorter. A similar Annex 2B covers Canadian counterparties. If, in the future, regulatory issues surface for other jurisdictions, consideration will be given to whether analogous Annexes for those jurisdictions should be added.

Annex 3 of the Terms is a new provision dealing with some basic issues that arise when transactions are entered into through investment advisers or other intermediaries. The FXC Master Agreements did not have such provisions, and it is believed that their addition through the IFXCO Terms will greatly assist counterparties wishing to enter into master agreements with parties represented by such intermediaries.

2. Adherence Agreement

As noted above, the Adherence Agreement is analogous to the Schedule of the FXC Master Agreements, which allows parties to agree that the Terms shall apply to them as a master agreement and to select or vary the provisions of the Terms. The Adherence Agreement is much the same as the previous Schedule. The Adherence Agreement contains parts that allow the parties to specify scope, offices, and whether or not settlement netting shall apply.

As for other forms of netting, note that the “novation” netting provisions of the FXC Master Agreements have been eliminated from the Terms because closeout settlement netting is sufficient to accomplish the goals of parties wishing to reduce credit and settlement exposure. However, some market participants continue to receive requests from counterparties to enter into such arrangements, related to a



desire not only to settle transactions on a net basis, but also to cancel (novate) transactions at the time they enter into an offsetting transaction. For this reason, Appendix A provides standard language to accomplish this novation netting, both for FX Transactions and for Currency Option Transactions. This language, which may be added to the Adherence Agreement as Parts XV and XVI, is the same as that in the FXC Master Agreements, updated to take the 1998 Definitions into account.

Other parts in the Adherence Agreement allow the parties to specify whether the regulatory representations and local law provisions of Annexes 2A or 2B shall apply, as well as any additional covenants and (for the purposes of the cross-default Event of Default) the Threshold Amount. Unlike the FXC Master Agreements, however, the Adherence Agreement stipulates that if the parties do not specify a different Threshold Amount, that amount is deemed to be zero (\$0).

As in the case of the Schedules to the FXC Master Agreements, there are parts of the Adherence Agreement that allow the parties to specify whether or not Automatic Termination shall apply and to agree upon details for notices, payment instructions, and provisions relating to governing law and jurisdiction.

In addition, Part XI of the Adherence Agreement allows the parties to specify any Credit Support Documents that apply. Unlike the FXC Master Agreements, however, Part XI has provisions allowing the parties to agree (or stipulate) that the terms of the *1999 Collateral Annex* published by the FX Committee shall apply. These provisions are felt to be an important

improvement because increasingly, transactions are collateralized in the effort to reduce credit risk.

Also notable are the provisions of the FXC Master Agreements that have not been continued under IFXCO. These include the novation netting provisions mentioned above, the provisions for discharge and termination of offsetting Currency Option Transactions, and the provision relating to nonpayment of Premiums that allows a party, upon nonpayment of a Premium for a Currency Option Transaction, to effectively “void” only that transaction without closing out all transactions under the Master Agreement. It was felt that this last provision is often negotiated out of the FXC Master Agreements; further, it does not appear in the 2002 ISDA Master Agreement. Parties may, of course, include this as an additional provision in the Adherence Agreement.

III. Ideas for the Future

If anything is clear from the past fifteen years in the effort to adopt industry-standard master agreements, it is that the agreements must be sufficiently flexible to adapt to new situations and learning. As the market learns from court cases, changes in law, market disruptions, changes in technology, and evolving practices, it becomes desirable from time to time to adapt master agreements for the changing times. We believe that the structure of IFXCO is uniquely positioned to allow for this.

Because IFXCO is published in the form of Terms, the FX Committee can more easily publish enhancements, amendments, or



supplements that take market developments into account. Such changes would be prospective in operation, so that existing Adherence Agreements would not be affected. If parties wished to incorporate a change, they could do so by exchanging a simple amendment to the Adherence Agreement.

Some of the possible supplements have already been noted—there may be particular representations or covenants that are desirable in particular jurisdictions from a regulatory point of view. Alternatively, new types of transactions may come to be recognized. A new Annex could be published to apply to the dealings in such transactions.

Thought will soon be given to whether a form of standard default notice or an update to the *1999 Collateral Annex* is desirable.

One particular question concerns what relationship IFXCO will have to changes to the 1998 Definitions. Although there have been few, if any, changes to the main body of the 1998 Definitions, there have been several updates to the rate source definitions in Annex A to the 1998 Definitions. The Terms provide that the 1998 Definitions, as amended up to the date of the Adherence Agreement, shall be incorporated into the Terms. This provision would address changes to Annex A that take place after publication of the Terms, but would preclude revisions to the 1998 Definitions from automatically governing the relationship between the parties after the date they executed the Adherence Agreement. This approach is consistent with that

taken to amendments to Annex A, which are applied as of their date of publication but not retroactively to outstanding trades (unless the parties otherwise agree). It is anticipated that, if the 1998 Definitions are updated in the future in a more substantive way, the Terms will be reviewed in light of these changes. It should also be noted that Section 9.1 of the Terms allows the parties to adopt amendments to the Terms that would apply to individual transactions. Accordingly, changes to the 1998 Definitions could be applied to individual transactions by amending the relevant confirmations. (In the case of Deliverable FX Transactions that are produced by straight-through processing, the confirmation must be signed by both parties.)

Attached as Appendix B is a chart summarizing the architecture of the IFXCO documentation.

Appendix A

Suggested Novation Netting Provisions

Part XV.

Novation Netting of FX Transactions

(a) By Currency.

If the Parties enter into an FX Transaction through a pair of Novation Netting Offices (specified below), giving rise to a Currency Obligation for the same Settlement Date and in the same Currency as a then-existing Currency Obligation between the same pair of Novation Netting Offices, then immediately upon entering into such FX Transaction, each such Currency Obligation



shall automatically and without further action be individually canceled and simultaneously replaced by a new Currency Obligation for such Settlement Date determined as follows: the amounts of such Currency that would otherwise have been deliverable by each Party on such Settlement Date shall be aggregated, and the Party with the larger aggregate amount shall have a new Currency Obligation to deliver to the other Party the amount of such Currency by which its aggregate amount exceeds the other Party's aggregate amount, provided that if the aggregate amounts are equal, no new Currency Obligation shall arise. This Part XV(a) shall not affect any other Currency Obligation of a Party to deliver any different Currency on the same Settlement Date.

Novation Netting Office(s) of Party A:

Novation Netting Office(s) of Party B:

(b) By Matched Pair.

If the Parties enter into an FX Transaction between a pair of Matched Pair Novation Netting Offices (specified below) then the provisions of Part XV(a) shall apply only in respect of Currency Obligations arising by virtue of FX Transactions entered into between such pair of Matched Pair Novation Netting Offices and involving the same pair of Currencies and the same Settlement Date.

Matched Pair Novation Netting Offices of Party A:

Matched Pair Novation Netting Offices of Party B:

(c) Inapplicability of Parts XV(a) and (b).

The provisions of Parts XV(a) and (b) shall not apply if a Closeout Date has occurred or a voluntary or involuntary Insolvency Proceeding or action of the kind described in Section (b), (c), or (d) of Section 5 of the Terms has occurred without being dismissed in relation to either Party.

(d) Failure to Record.

The provisions of Parts XV(a) and (b) shall apply notwithstanding that either Party may fail to record the new Currency Obligation in its books.

(e) Cutoff Date and Time.

The provisions of Parts XV(a) and (b) are subject to any cutoff date and cutoff time agreed upon by the applicable Novation Netting Offices and Matched Pair Novation Netting Offices of the Parties.



Part XVI.

**Discharge and Termination of
Currency Option Transactions;
Netting of Premiums**

(a) Discharge and Termination.

Any Call or any Put written by a Party shall automatically be discharged and terminated, in whole or in part, as applicable, against a Call or a Put, respectively, written by the other Party, such discharge and termination to occur automatically upon the payment in full of the last Premium payable in respect of such Currency Option Transactions; provided that such discharge and termination may only occur in respect of Currency Option Transactions:

- (i) each being with respect to the same Put Currency and the same Call Currency;
- (ii) each having the same Expiration Date and Expiration Time;
- (iii) each being of the same style, that is, both being American or both being European;
- (iv) each having the same Strike Price;
- (v) each being transacted by the same pair of Offices of Buyer and Seller;
- (vi) neither of which shall have been exercised by delivery of a Notice of Exercise; and
- (vii) any other fundamental features are the same (for example, both are "vanilla" or both are "barriers," both are "binaries," and so forth);

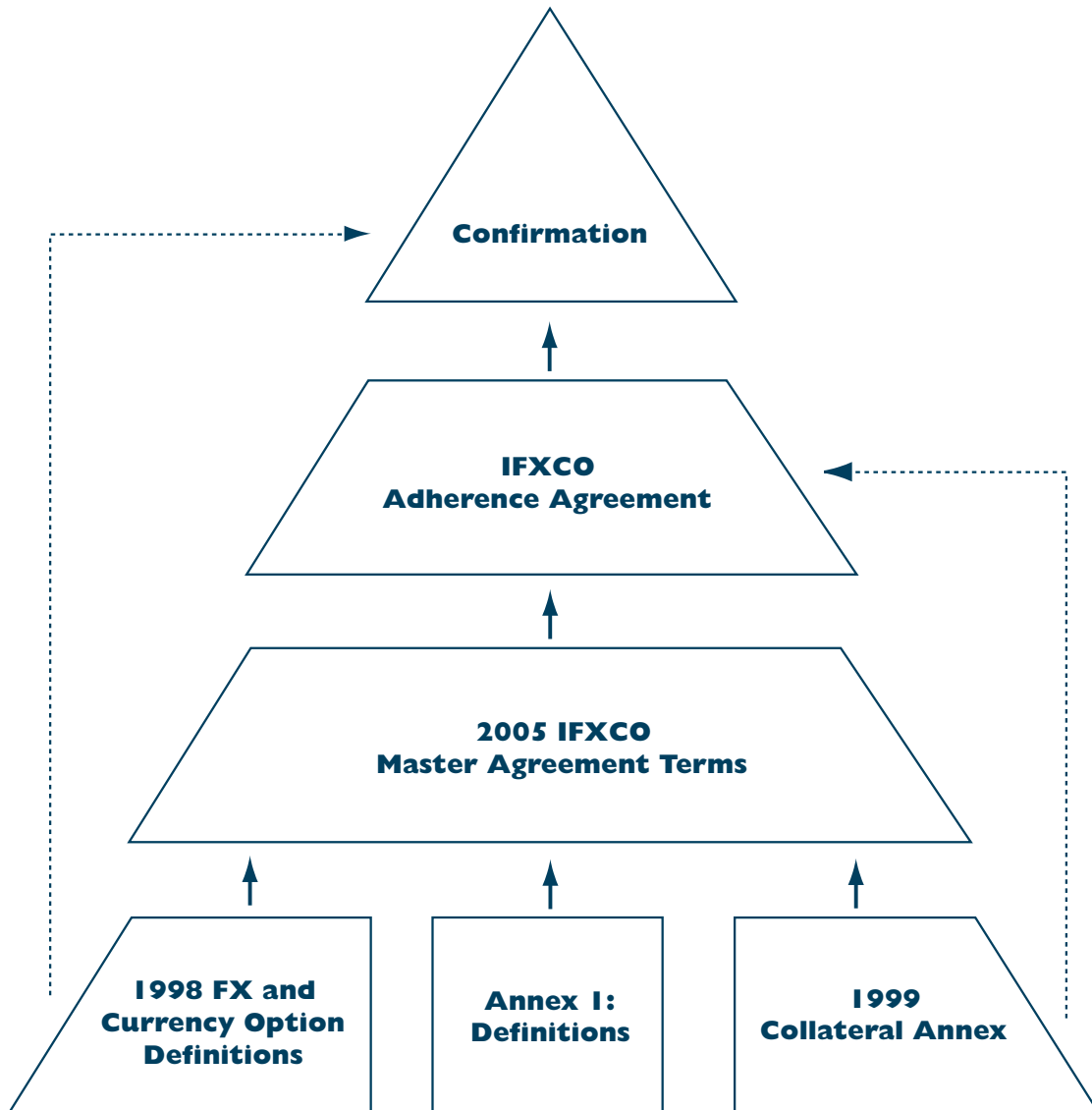
and, upon the occurrence of such discharge and termination, neither Party shall have any further obligation to the other Party in respect of the relevant Currency Option Transactions or, as the case may be, parts thereof so discharged and terminated. Such discharge and termination shall be effective notwithstanding that either Party may fail to record such discharge and termination in its books. In the case of a partial discharge and termination (that is, where the relevant Currency Option Transactions are for different amounts of the Currency Pair), the remaining portion of the Currency Option Transaction, which is partially discharged and terminated, shall continue to be a Currency Option Transaction for all purposes of the Agreement, including this Part XVI(a).

(b) Netting of Option Premiums.

If, on any date, Premiums would otherwise be payable under the Agreement in the same Currency between the same respective Offices of the Parties, then, on such date, each Party's obligation to make payment of any such Premium shall be automatically satisfied and discharged and, if the aggregate Premium(s) that would otherwise have been payable by such Office of one Party exceeds the aggregate Premium(s) that would otherwise have been payable by such Office of the other Party, replaced by an obligation upon the Party by whom the larger aggregate Premium(s) would have been payable to pay the other Party the excess of the larger aggregate Premium(s) over the smaller aggregate Premium(s) and, if the aggregate Premiums are equal, no payment shall be made.



Appendix B The Architecture of IFXCO



↑ indicates the basis or foundation for the agreements in the upper tier.



IFXCO

International Foreign Exchange and Currency Option Master Agreement

List of Opinions Concluding That the IFXCO Master Agreement Is Enforceable

Copies of these opinions are available to FX Committee/FMLG members upon request.

Australia	Germany	Scotland
Austria	Hong Kong	Singapore
Bahamas	Ireland	South Africa
Belgium	Japan	South Korea
Bermuda	Luxembourg	Spain
British Virgin Islands	Malaysia	Sweden
Canada	Netherlands	Switzerland
Cayman Islands	Netherlands Antilles	Taiwan
Denmark	New Zealand	Thailand
England	Norway	United States
Finland	Philippines	
France	Portugal	



2005 **BARRIER OPTION** **SUPPLEMENT** to the 1998 FX and Currency Option Definitions*

International Swaps and Derivatives Association, Inc. (ISDA)
360 Madison Avenue
16th Floor
New York, NY 10017

EMTA, Inc.
360 Madison Avenue
18th Floor
New York, NY 10017

Foreign Exchange Committee
33 Liberty Street
9th Floor
New York, NY 10045

*This Supplement amends and is to be read in conjunction with the *1998 FX and Currency Option Definitions* published by ISDA, EMTA, and the Foreign Exchange Committee.



ANNOUNCEMENT

The New 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

December 6, 2005

The Foreign Exchange Committee, the International Swaps and Derivatives Association, Inc., and EMTA, Inc. jointly announce the publication of the *2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions* (2005 Supplement). The 2005 Supplement will enable market participants to readily document a variety of barrier and binary options under the framework of the *1998 FX and Currency Option Definitions*. The 2005 Supplement sets forth common reference terms for a growing sector of the foreign exchange marketplace and should offer the benefits of efficient documentation processes and enhanced legal certainty to market participants.

Exhibits to the 2005 Supplement illustrate how barrier and binary options may be confirmed under its terms, and accompanying Practice Notes explain its provisions. Matrices with best practice recommendations for specifying certain confirmation terms under the 2005 Supplement also are being published and will be updated periodically by the cosponsors.



2005 **BARRIER OPTION** **SUPPLEMENT** to the 1998 FX and Currency Option Definitions

Article 3 **General Terms Relating to Currency Option Transactions**

Section 1.6.

Currency Pair.

“Currency Pair” means (a) in respect of a Deliverable FX Transaction, the currencies specified as being deliverable for a Transaction in the related Confirmation; (b) in respect of a Non-Deliverable FX Transaction, the Reference Currency and the Settlement Currency; (c) in respect of a Currency Option Transaction that is not a Binary, the Call Currency and the Put Currency; and (d) in respect of a Binary Currency Option Transaction, the currencies specified as applicable to the Barrier Level in the related Confirmation.

Section 1.16.

Certain Definitions Relating to Non-Deliverable FX Transactions, Non-Deliverable Currency Option Transactions, and Deliverable Barrier Currency Option Transactions.

When used in relation to a Non-Deliverable FX Transaction, a Non-Deliverable Currency Option Transaction, or a Deliverable Barrier Currency Option Transaction, the following terms have the indicated meanings:

- (a) *Rate Calculation Date.* “Rate Calculation Date” means the Valuation Date, Averaging Date, or Barrier Event Determination Date, as appropriate.



Section 3.1.

Certain Definitions and Provisions Relating to Currency Option Transactions.

....

(h) *Barrier Determination Agent.* "Barrier Determination Agent" means the party who determines whether or not a Barrier Event has occurred and provides notice if it determines that a Barrier Event has occurred, in accordance with Section 3.9(l) of these Definitions. The Barrier Determination Agent shall be the Calculation Agent, unless otherwise specified in the Confirmation.

Section 3.3.

Option Type.

....

(c) *Barrier.* "Barrier" means a type of Currency Option Transaction that, subject to any applicable condition precedent and any applicable provision of Article 5 of the Definitions, would change the terms of the Currency Option Transaction upon the occurrence or non-occurrence of a Barrier Event, as the case may be, in the manner defined in the Event Type specified in the related Confirmation.

(d) *Binary.* "Binary" means a type of Barrier Currency Option Transaction that, subject to any applicable condition precedent and any applicable provision of Article 5 of the Definitions, would entitle the Buyer to receive from the Seller a Settlement Amount upon the occurrence or non-occurrence of a Barrier Event, as the case may be, in the manner defined in the Event Type specified in the related Confirmation.

Section 3.4.

Terms Relating to Premium.

....

(c) *Premium Payment Refund.* In no event shall all or any portion of the Premium be refundable or rebatable, unless otherwise specified in the related Confirmation.

Section 3.7.

Terms Relating to Settlement.

....

(c) *In-the-Money-Amount.*

....

(ii) (B) . . . ; or

(iii) if a Settlement Amount is specified, the amount so specified in the related Confirmation.

Section 3.9.

Terms Relating to Barrier Events.

(a) *Automatic Termination.* "Automatic Termination" means that the Transaction shall terminate and be deemed canceled, in whole and not in part, effective on the date specified for such termination in the related Confirmation and, if not so specified, in accordance with this Section 3.9 as it relates to the occurrence or non-occurrence of a Barrier Event, as the case may be, without payment of any settlement amount, breakage costs, or other amounts representing the future value of the Transaction.

(b) *Barrier Event.* "Barrier Event" means an event that, if specified as applicable to a Transaction in the related Confirmation, would give rise to a change to the terms of the Transaction in the manner defined in the Event Type specified in the related Confirmation. The occurrence of a Barrier Event shall be determined in good faith and in a commercially reasonable manner by the Barrier Determination Agent.



- (c) *Barrier Event Determination Date*. “Barrier Event Determination Date” means (i) if a Barrier Event Rate Source is specified in the related Confirmation, any day in the Event Period on which the Barrier Event Rate Source should be and is available; or (ii) if a Barrier Event Rate Source is not specified in the related Confirmation, or if the Barrier Event Rate Source specified in the related Confirmation is not available on a day that otherwise would have been a Barrier Event Determination Date, any day in the Event Period in respect of which a Spot Rate may be determined pursuant to Section 3.9(n)(ii) below for purposes of determining the occurrence of a Barrier Event; provided, however, that a Barrier Event Determination Date shall be limited to any particular day or days during the Event Period specified as a Barrier Event Determination Date in the related Confirmation. Unless otherwise specified in the related Confirmation, a Barrier Event Determination Date shall not be subject to adjustment in accordance with any Business Day Convention.
- (d) *Barrier Event Rate Source*. “Barrier Event Rate Source” means, in respect of the determination of a Barrier Event, the Settlement Rate Option or any other rate source specified as such in the related Confirmation.
- (e) *Barrier Level*. “Barrier Level” means the currency exchange rate specified as such in the related Confirmation, which is the currency exchange rate at which the occurrence of a Barrier Event is determined.
- (f) *Event Type*. “Event Type” means a Barrier Event specified in the related Confirmation as applicable to a Transaction. When specified in the related Confirmation as applicable to a Transaction as a Barrier Event, the following Event Types have the indicated meanings:
- (i) “Knock-Out” means that if the Spot Exchange Rate on a Barrier Event Determination Date, based on the Spot Exchange Rate Direction,
 - (ii) “Knock-In” means that if the Spot Exchange Rate on a Barrier Event Determination Date, based on the Spot Exchange Rate Direction, is equal to or beyond the Barrier Level, then Automatic Termination shall apply to the Transaction upon such occurrence; otherwise, in the absence of such Barrier Event, the Transaction shall settle in accordance with Section 3.7 of the Definitions.
 - (iii) “Double Knock-Out” means that if the Spot Exchange Rate on a Barrier Event Determination Date is either (a) greater than or equal to the Upper Barrier Level or (b) less than or equal to the Lower Barrier Level, then Automatic Termination shall apply to the Transaction upon such occurrence; otherwise, in the absence of such Barrier Event, the Transaction shall settle in accordance with Section 3.7 of the Definitions.
 - (iv) “Double Knock-In” means that if the Spot Exchange Rate on a Barrier Event Determination Date is either (a) greater than or equal to the Upper Barrier Level or (b) less than or equal to the Lower Barrier Level, then the Transaction shall settle in accordance with Section 3.7 of the Definitions; otherwise, in the absence of such Barrier Event, Automatic Termination shall apply to the Transaction at the Event Period End Date and Time.
 - (v) “No-Touch Binary” means that if the Spot Exchange Rate on a Barrier Event Determination Date, based on the Spot



Exchange Rate Direction, is equal to or beyond the Barrier Level, then Automatic Termination shall apply to the Transaction upon such occurrence; otherwise, in the absence of such Barrier Event, the Transaction shall settle on the Settlement Date by the payment by the Seller to the Buyer of the Settlement Amount, notwithstanding Section 3.7 of the Definitions.

- (vi) "One-Touch Binary" means that if the Spot Exchange Rate on a Barrier Event Determination Date, based on the Spot Exchange Rate Direction, is equal to or beyond the Barrier Level, then the Transaction shall settle on the Settlement Date by the payment by the Seller to the Buyer of the Settlement Amount, notwithstanding Section 3.7 of the Definitions; otherwise, in the absence of such Barrier Event, Automatic Termination shall apply to the Transaction at the Event Period End Date and Time.
- (vii) "Double No-Touch Binary" means that if the Spot Exchange Rate on a Barrier Event Determination Date is either (a) greater than or equal to the Upper Barrier Level or (b) less than or equal to the Lower Barrier Level, then Automatic Termination shall apply to the Transaction upon such occurrence; otherwise, in the absence of such Barrier Event, the Transaction shall settle on the Settlement Date by the payment by the Seller to the Buyer of the Settlement Amount, notwithstanding Section 3.7 of the Definitions.
- (viii) "Double One-Touch Binary" means that if the Spot Exchange Rate on a Barrier Event Determination Date is either (a) greater than or equal to the Upper Barrier Level or (b) less than or equal to the Lower Barrier Level, then the Transaction shall settle on the Settlement Date by the payment by the Seller to the Buyer of the Settlement Amount, notwithstanding Section 3.7 of the Definitions;

otherwise, in the absence of such Barrier Event, Automatic Termination shall apply to the Transaction at the Event Period End Date and Time.

An Event Type may be specified by reference to any Event Type defined in subparagraph (f) above or, if not defined above, by defining the Event Type in the related Confirmation.

- (g) *Event Period.* "Event Period" means the period commencing on and including the Event Period Start Date and Time, and ending on and including the Event Period End Date and Time; provided, however, that if the Event Period Start Date and Time and the Event Period End Date and Time are the same, the Event Period shall be deemed to occur at such time on such date.
- (h) *Event Period End Date and Time.* "Event Period End Date and Time" means the date and time specified as such in the related Confirmation. If such date and time are not so specified, the Event Period End Date and Time shall be deemed to be the Expiration Date at the Expiration Time.
- (i) *Event Period Start Date and Time.* "Event Period Start Date and Time" means the date and time specified as such in the related Confirmation. If such date and time are not so specified, the Event Period Start Date and Time shall be deemed to be the Trade Date at the time the Transaction was entered into.
- (j) *Exercise.* Notwithstanding Section 3.6 of the Definitions, Currency Option Transactions subject to this Section 3.9 may be exercised or deemed exercised only if (i) in the case of any Knock-Out Event Type (including that defined in Section 3.9(f)(i) and (f)(iii)), such Knock-Out Barrier Event has not occurred on a Barrier Event Determination Date; or (ii) in the case of any Knock-In Event Type (including that defined in Section 3.9(f)(ii) and (f)(iv)), such Knock-In Barrier Event has occurred on a Barrier Event Determination Date.



- (k) *Lower Barrier Level.* “Lower Barrier Level” means, with respect to a Barrier Event involving two Barrier Levels, the currency exchange rate specified as such in the related Confirmation.
- (l) *Notification of Barrier Event.* The Barrier Determination Agent shall promptly notify the other party to the Transaction (or both parties to the Transaction, if the Barrier Determination Agent is not a party to the Transaction) of the occurrence of a Barrier Event relating to the Transaction with a notice provided by telex, telephone, facsimile transmission that is acknowledged by the receiving party, or other electronic notification. A failure to give such notice shall not prejudice or invalidate the occurrence or effect of such event.
- (m) *Settlement Amount.* “Settlement Amount” means the currency and amount specified as such in the related Confirmation, which for the purposes of Section 3.7(b) of the Definitions, shall be deemed the In-the-Money Amount and such amount shall always be positive.
- (n) *Spot Exchange Rate.* “Spot Exchange Rate,” when used in conjunction with the term “Barrier Event,” means (i) if a Barrier Event Rate Source is specified in the related Confirmation, a Spot Rate that is based on the price for a foreign exchange transaction involving the Currency Pair (or cross-rates constituting such Currency Pair) as determined on each Barrier Event Determination Date in accordance with the Barrier Event Rate Source; or (ii) if a Barrier Event Rate Source is not specified in the related Confirmation or is not available on a Barrier Event Determination Date pursuant to Section 3.9(c) above, a Spot Rate that is based on the price for one or more actual foreign exchange transactions in the Spot Market involving the Currency Pair (or cross-rates constituting such Currency Pair) for settlement in accordance with the convention for the Currency Pair, as determined on each Barrier Event Determination Date in good faith and in a commercially reasonable manner by the Barrier Determination Agent. If not specified for the Barrier Event Rate Source or otherwise in the related Confirmation, Spot Exchange Rate of the Currency Pair shall be expressed as a fraction in terms of the amount of numerator currency that can be exchanged for one unit of denominator currency.
- (o) *Spot Exchange Rate Direction.* “Spot Exchange Rate Direction” means the direction at which the Spot Exchange Rate must touch or cross the Barrier Level in order to initiate a Barrier Event, which shall be as specified in the related Confirmation as either (i) “Greater than or equal to the Barrier Level” or (ii) “Less than or equal to the Barrier Level.” Parties may specify an Initial Spot Price in the related Confirmation for purposes of determining the direction from which the Spot Exchange Rate has crossed the Barrier Level.
- (p) *Spot Market.* “Spot Market” means the global spot foreign exchange market, open continuously from 5:00 a.m. Sydney time on a Monday in any week to 5:00 p.m. New York time on the Friday of that week.
- (q) *Upper Barrier Level.* “Upper Barrier Level” means, with respect to a Barrier Event involving two Barrier Levels, the currency exchange rate specified as such in the related Confirmation.



Exhibit I

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

Provisions for a Letter Agreement Confirming a Barrier Currency Option Transaction (Non-Binary) that is subject to this Supplement

[This Exhibit I includes terms from Exhibits I and II-C of the Definitions applicable to a Deliverable Barrier Option and from II-D of the Definitions applicable to a Non-Deliverable Barrier Option, as the case may be. See Exhibit II-E of the Definitions for terms relating to Article 5.]

Heading for Letter

[Letterhead of Party A]

[Date]

Transaction

[Name and Address of Party B]

Dear [_____]:

The purpose of this letter agreement (this “Confirmation”) is to confirm the terms and conditions of the Transaction entered into between us on the Trade Date specified below (the “Transaction”). [This Confirmation constitutes a “Confirmation” as referred to in the Agreement specified below.]¹

The definitions and provisions contained in the *1998 FX and Currency Option Definitions* (as published by the International Swaps and Derivatives Association, Inc.; EMTA, Inc.; and the Foreign Exchange Committee) are incorporated into this Confirmation. In the event of any inconsistency between those definitions and provisions and this Confirmation, this Confirmation will govern.²

1. This Confirmation supplements, forms a part of, and is subject to, [describe master agreement] dated as of [date], as amended and supplemented from time to time (the “Agreement”), between [Name of Party A] (“Party A”) and [Name of Party B] (“Party B”). All provisions contained in the Agreement govern this Confirmation except as expressly modified below.³
2. The terms of the particular Transaction to which this Confirmation relates are as follows:



(a) General Terms:

Trade Date:

[Date of Annex A:]⁴

[Commencement Date:]⁵

Buyer: [Party A][Party B]

Seller: [Party A][Party B]

Currency Option Style: [European]⁶

Currency Option Type: [Put/ Call]⁷

[Call Currency and Call Currency Amount:]⁸

[Put Currency and Put Currency Amount:]⁸

[Strike Price:]⁸

[Reference Currency:]⁹

[Settlement Currency:]⁹

[Settlement Rate:] [Settlement Rate Option:]¹⁰

Expiration Date:

Expiration Time: [] [a.m./p.m.] (local time in [])

[Latest Exercise Time: [] [a.m./p.m.] (local time in [])]¹¹

[Automatic Exercise: Inapplicable]¹²

[Settlement: Non-Deliverable]¹³

Settlement Date: [Date] / [[] Business Days following the occurrence of a Barrier Event] ¹⁴

[Valuation Date:]¹⁵

[Exercise Period:]¹⁶

[Specified Exercise Dates:]¹⁷

Premium:

Premium Payment Date:

(b) Other Terms and Conditions:

[Barrier Event: Applicable]¹⁸

Event Type: [Knock-Out/Knock-In/Double Knock-Out/Double Knock-In]

[Spot Exchange Rate Direction: [Greater than or equal to][Less than or equal to] the Barrier Level]¹⁹

[Barrier Event Rate Source:]²⁰

[Initial Spot Price:]²¹

[Barrier Level:]²²

Event Period Start Date and Time: [] at [] [a.m./p.m.] (local time in [])²³

Event Period End Date and Time: [] at [] [a.m./p.m.] (local time in [])²⁴²⁵



[Barrier Event Determination Date:]²⁶

[Barrier Determination Agent:]²⁷

[3.] [For a Non-Deliverable Barrier Option Type, see Exhibit II-E of the Definitions for terms relating to Article 5.]

[4.] [For a Non-Deliverable Barrier Option Type, see Exhibit II-E of the Definitions for terms relating to Article 5.]

[3][5]. Calculation Agent:

[[4][6]. Account Details:]

[Account for payments to Party A:]

[Account for payments to Party B:]²⁸

[5][7]. Offices:

(a) The Office[s] of Party A for the Transaction is [are] _____ ; and

(b) The Office[s] of Party B for the Transaction is [are] _____

[6][8]. [Broker/Arranger:]

[[7][9]. Governing Law: [English Law] [the laws of the State of New York (without reference to choice of law doctrine)]²⁹

[8][10]. [Business Day:]

[9][11]. [Business Day Convention:]

This Confirmation supersedes and replaces any other confirmation (including a SWIFT MT300 or phone confirmation), if any, sent in connection with this Transaction on or prior to the date hereof.

Please confirm that the foregoing correctly sets forth the terms of our agreement by executing the copy of this Confirmation enclosed for that purpose and returning it to us or by sending to us a letter substantially similar to this letter, which letter sets forth the material terms of the Transaction to which this Confirmation relates and indicates your agreement to those terms.

Yours sincerely,
[PARTY A]

Name: _____

Title: _____

Confirmed as of the date first above written:
[PARTY B]

Name: _____

Title: _____



ENDNOTES

1. This statement should be included, if applicable.
2. If the parties also wish to incorporate the 2000 ISDA Definitions, this paragraph should be replaced with the following: "The definitions and provisions contained in the 2000 ISDA Definitions as published by the International Swaps and Derivatives Association, Inc. (the "Swap Definitions") and in the *1998 FX and Currency Option Definitions*, as published by the International Swaps and Derivatives Association, Inc.; EMTA, Inc.; and the Foreign Exchange Committee (the "1998 Definitions", and together with the Swap Definitions, the "Definitions") are incorporated into this Confirmation. In the event of any inconsistency between the Swap Definitions and the 1998 Definitions, the 1998 Definitions will govern. In the event of any inconsistency between either set of Definitions and this Confirmation, this Confirmation will govern."
3. If the parties have not yet executed, but intend to execute, an Agreement, include instead of the above paragraph the following: "This Confirmation evidences a complete and binding agreement between you and us as to the terms of the Transaction to which this Confirmation relates. In addition, you and we agree to use all reasonable efforts promptly to negotiate, execute, and deliver an agreement in the form of [specify master agreement] (the "Master Form"), with such modifications as you and we will in good faith agree. Upon the execution by you and us of such an agreement, this Confirmation will supplement, form part of, and be subject to that agreement. All provisions contained in or incorporated by reference in that agreement upon its execution will govern this Confirmation except as expressly modified below. Until we execute and deliver that agreement, this Confirmation, together with all other documents referring to the Master Form (each a "Confirmation") confirming transactions (each a "Transaction") entered into between us (notwithstanding anything to the contrary in a Confirmation), shall supplement, form a part of, and be subject to an agreement in the form of the Master Form as if we had executed an agreement in such form [(but without any Schedule except for the election of [English Law][the laws of the State of New York] as the governing law and [specify currency] as the Termination Currency)] on the Trade Date of the first such Transaction between us. In the event of any inconsistency between the provisions of that agreement and this Confirmation, this Confirmation will prevail for the purpose of this Transaction."
4. Parties should include this date for a Non-Deliverable Barrier Option Type, as well as for a "discrete" Deliverable Barrier Option Type that uses a Settlement Rate Option from Annex A as a Barrier Event Rate Source, if they wish to modify the presumption set forth in Section 4.2 that Annex A is incorporated as amended through the Trade Date of the relevant Currency Option Transaction.
5. Parties should specify a Commencement Date if they wish to modify the presumption in Section 3.5(a) of the Definitions that the Commencement Date will be the Trade Date.
6. "European" is the most common Option Style for a Barrier Option Type, but "American" and "Bermuda" also may be specified, as applicable.
7. Parties should specify the appropriate currency, which will be the same currency as the Put Currency and the Call Currency, respectively.
8. For a Deliverable Barrier Option Type, parties should specify either (i) a Call Currency Amount and a Put Currency Amount or (ii) a Strike Price and either a Call Currency Amount or a Put Currency Amount. For a Non-Deliverable Barrier Option Type, parties should specify either a Call Currency Amount or a Put Currency Amount and a Strike Price. A currency pair should be specified for a Strike Price, if the Strike Price is included.
9. Parties should include the Reference Currency and the Settlement Currency for a Non-Deliverable Barrier Option Type if they wish the In-the-Money Amount to be calculated in accordance with the provisions of Section 3.7(c)(i), and if they wish the provisions of Article 5 to apply to the relevant Currency Option Transaction.
10. For a Non-Deliverable Barrier Option Type, Parties should specify this information if they wish to modify the presumption in Section 1.16(e) of the Definitions that the Calculation Agent will determine the Spot Rate for the relevant Valuation Date.
11. Parties should specify the Latest Exercise Time if they wish to modify the presumption in Section 3.5(f) of the Definitions that the Latest Exercise Time will be the Expiration Time.
12. Parties should specify that Automatic Exercise is Inapplicable if they wish to modify the presumption in Section 3.6(c) of the Definitions that Automatic Exercise applies to a Currency Option Transaction.
13. Parties should specify that Settlement is Non-Deliverable if they wish to modify the presumption in Section 1.7(b) of the Definitions that Deliverable Settlement applies to a Currency Option Transaction.
14. Parties should include a specific Settlement Date or a procedure for determining the Settlement Date. If a specific Settlement Date is included,



- parties should also specify an applicable Business Day Convention.
15. For a Non-Deliverable Barrier Option Type, Parties should include a Valuation Date if they wish to modify the presumption in Section 1.16(f) of the Definitions that the Valuation Date will be the Exercise Date.
 16. Parties should specify an Exercise Period if the Currency Option Transaction is American style, and they wish to modify the Exercise Period presumed for an American style Currency Option Transaction in Section 3.2(a) of the Definitions.
 17. Parties should include specified Exercise Dates for a Bermuda style Currency Option Transaction.
 18. Parties should exclude this bracketed term when a Barrier Event does not apply to the Transaction.
 19. Parties should exclude a Spot Exchange Rate Direction if a "Double" level Barrier Event Type applies to the Transaction.
 20. Parties may specify as the Barrier Event Rate Source a Settlement Rate Option from Annex A of the Definitions or another reference rate source, in particular for a "discrete" Barrier Option Type. If the Transaction is a "spot market" Barrier Option Type, a Barrier Event Rate Source should not be specified.
 21. The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.
 22. If a "Double" level Barrier Event Type applies to the Transaction, change the term Barrier Level to Upper Barrier Level and add a line to specify a Lower Barrier Level.
 23. Because the Trade Date is the most common Event Period Start Date for a Barrier Option Type, Section 3.9(i) of this Supplement contains a presumption that, unless otherwise specified, the Event Period Start Date and Time is the Trade Date at the time the Transaction was entered into. Parties should specify the Event Period Start Date and Time if they wish to modify this presumption.
 24. Parties should include Event Period End Date and Time if they wish to modify the presumption in Section 3.9(h) of this Supplement that the Event Period End Date and Time are the Expiration Date at the Expiration Time. Nonetheless, for an at-expiration Currency Option Transaction, parties may wish to specify that the Event Period End Date and Time are the Expiration Time on the Expiration Date.
 25. Event Period Start Date and Time and Event Period End Date and Time may be specified for any Barrier Option Type but are more commonly used to define "Window" Event Periods.
 26. Parties should include this term to specify that only particular days during the Event Period can be a Barrier Event Determination Date (e.g., every Wednesday during the Event Period).
 27. Parties should specify a Barrier Determination Agent if they wish to modify the presumption in Section 3.1(h) of this Supplement that the Barrier Determination Agent is the Calculation Agent.
 28. Account details are not required terms for cash-settled trades. See ISDA Statement on Account Details in Confirmations.
 29. This item should be deleted if this Confirmation is part of a master agreement.



Exhibit II

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

Provisions of a Letter Agreement Confirming a Binary Currency Option Transaction that is subject to this Supplement

[This Exhibit includes terms from Exhibits I and II-D of the Definitions. See Exhibit II-E of the Definitions for terms relating to Article 5.]

Heading for Letter

[Letterhead of Party A]

[Date]

Transaction

[Name and Address of Party B]

Dear [_____]:

The purpose of this letter agreement (this “Confirmation”) is to confirm the terms and conditions of the Transaction entered into between us on the Trade Date specified below (the “Transaction”). [This Confirmation constitutes a “Confirmation” as referred to in the Agreement specified below.]¹

The definitions and provisions contained in the *1998 FX and Currency Option Definitions* (as published by the International Swaps and Derivatives Association, Inc.; EMTA, Inc.; and the Foreign Exchange Committee) are incorporated into this Confirmation. In the event of any inconsistency between those definitions and provisions and this Confirmation, this Confirmation will govern.²

1. This Confirmation supplements, forms a part of, and is subject to, [describe master agreement] dated as of [date], as amended and supplemented from time to time (the “Agreement”), between [Name of Party A] (“Party A”) and [Name of Party B] (“Party B”). All provisions contained in the Agreement govern this Confirmation except as expressly modified below.³
2. The terms of the particular Transaction to which this Confirmation relates are as follows:



(a) General Terms:

Trade Date:	
[Date of Annex A:] ⁴	
[Commencement Date:] ⁵	
Buyer:	[Party A][Party B]
Seller:	[Party A][Party B]
Currency Option Type:	Binary
[Call Currency and Call Currency Amount:] ⁶	
[Put Currency and Put Currency Amount:] ⁶	
[Strike Price:] ⁶	
Expiration Date:	
Expiration Time:	[] [a.m./p.m.] (local time in [])
[Latest Exercise Time:	[] [a.m./p.m.] (local time in [])] ⁷
[Automatic Exercise:	Inapplicable] ⁸
Settlement:	Non-Deliverable
Settlement Amount: ⁹	
Settlement Date:	[Date] / [[] Business Days following the occurrence of a Barrier Event] ¹⁰
Premium:	
Premium Payment Date:	

(b) Other Terms and Conditions:

[Barrier Event:	Applicable] ¹¹
Event Type:	[No-Touch Binary/One-Touch Binary/Double No-Touch Binary/Double One-Touch Binary]
[Spot Exchange Rate Direction:	[Greater than or equal to][Less than or equal to] the Barrier Level] ¹²
[Barrier Event Rate Source:] ¹³	
[Initial Spot Price:] ¹⁴	
[Barrier Level:] ¹⁵	
[Event Period Start Date and Time:	[] at [] [a.m./p.m.] (local time in [])] ¹⁶
Event Period End Date and Time:	[] at [] [a.m./p.m.] (local time in [])] ¹⁷ ¹⁸
[Barrier Event Determination Date:] ¹⁹	
[Barrier Determination Agent:] ²⁰	
[3][5]. Calculation Agent:	
[4][6]. Account Details:	
	[Account for payments to Party A:]
	[Account for payments to Party B:] ²¹



[5][7]. Offices:

(a) The Office[s] of Party A for the Transaction is [are] _____ ; and

(b) The Office[s] of Party B for the Transaction is [are] _____

[6][8]. [Broker/Arranger:] _____

[[7][9]. Governing Law: [English Law] [the laws of the State of New York (without reference to choice of law doctrine)]²²

[8][10]. [Business Day:] _____

[9][11]. [Business Day Convention:] _____

This Confirmation supersedes and replaces any other confirmation (including a SWIFT MT300 or phone confirmation), if any, sent in connection with this Transaction on or prior to the date hereof.

Please confirm that the foregoing correctly sets forth the terms of our agreement by executing the copy of this Confirmation enclosed for that purpose and returning it to us or by sending to us a letter substantially similar to this letter, which letter sets forth the material terms of the Transaction to which this Confirmation relates and indicates your agreement to those terms.

Yours sincerely,
[PARTY A]

Name: _____

Title: _____

Confirmed as of the date first above written:
[PARTY B]

Name: _____

Title: _____



ENDNOTES

1. This statement should be included, if applicable.
2. If the parties also wish to incorporate the 2000 ISDA Definitions, this paragraph should be replaced with the following: "The definitions and provisions contained in the 2000 ISDA Definitions as published by the International Swaps and Derivatives Association, Inc. (the "Swap Definitions") and in the 1998 FX and Currency Option Definitions, as published by the International Swaps and Derivatives Association, Inc.; EMTA, Inc.; and the Foreign Exchange Committee (the "1998 Definitions", and together with the Swap Definitions, the "Definitions") are incorporated into this Confirmation. In the event of any inconsistency between the Swap Definitions and the 1998 Definitions, the 1998 Definitions will govern. In the event of any inconsistency between either set of Definitions and this Confirmation, this Confirmation will govern."
3. If the parties have not yet executed, but intend to execute, an Agreement, include instead of the above paragraph the following: "This Confirmation evidences a complete and binding agreement between you and us as to the terms of the Transaction to which this Confirmation relates. In addition, you and we agree to use all reasonable efforts promptly to negotiate, execute, and deliver an agreement in the form of [specify master agreement] (the "Master Form"), with such modifications as you and we will in good faith agree. Upon the execution by you and us of such an agreement, this Confirmation will supplement, form part of, and be subject to that agreement. All provisions contained in or incorporated by reference in that agreement upon its execution will govern this Confirmation except as expressly modified below. Until we execute and deliver that agreement, this Confirmation, together with all other documents referring to the Master Form (each a "Confirmation") confirming transactions (each a "Transaction") entered into between us (notwithstanding anything to the contrary in a Confirmation), shall supplement, form a part of, and be subject to an agreement in the form of the Master Form as if we had executed an agreement in such form [(but without any Schedule except for the election of [English Law][the laws of the State of New York] as the governing law and [specify currency] as the Termination Currency)] on the Trade Date of the first such Transaction between us. In the event of any inconsistency between the provisions of that agreement and this Confirmation, this Confirmation will prevail for the purpose of this Transaction."
4. Parties should include this date for a "discrete" Binary Option Type that uses a Settlement Rate Option from Annex A as a Barrier Event Rate Source, if they wish to modify the presumption set forth in Section 4.2 that Annex A is incorporated as amended through the Trade Date of the relevant Currency Option Transaction.
5. Parties should specify a Commencement Date if they wish to modify the presumption in Section 3.5(a) of the Definitions that the Commencement Date will be the Trade Date.
6. Parties generally should exclude a Call Currency and Call Currency Amount, a Put Currency and Put Currency Amount, and a Strike Price for a Binary Option Type, although in certain cases (e.g., Binary Double Knock-Out Currency Option Transaction), parties may decide to specify these terms. A currency pair should be specified for the Strike Price, if the Strike Price is included.
7. Parties should specify the Latest Exercise Time if they wish to modify the presumption in Section 3.5(f) of the Definitions that the Latest Exercise Time will be the Expiration Time.
8. Parties should specify that Automatic Exercise is Inapplicable if they wish to modify the presumption in Section 3.6(c) of the Definitions that Automatic Exercise applies to a Currency Option Transaction.
9. Parties should specify a Settlement Amount (and the Settlement Currency) for a Binary Option Type. See Section 3.9(m) of this Supplement.
10. Parties should include a specific Settlement Date (e.g., for an at-expiration Binary Option Type) or a procedure for determining the Settlement Date. If a specific Settlement Date is included, parties should also specify an applicable Business Day Convention.
11. Parties should exclude this bracketed term when a Barrier Event does not apply to the Transaction.
12. Parties should exclude a Spot Exchange Rate Direction if a "Double" level Barrier Event Type applies to the Transaction.
13. Parties may specify as the Barrier Event Rate Source a Settlement Rate Option from Annex A of the Definitions or another reference rate source, in particular for a "discrete" Binary Option Type. If the Transaction is a "spot market" Binary Option Type, a Barrier Event Rate Source should not be specified.
14. The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If



specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.

15. If a "Double" level Barrier Event Type applies to the Transaction, change the term Barrier Level to Upper Barrier Level and add a line to specify a Lower Barrier Level. With respect to a Binary Option Type, the currency pair specified as applicable to the Barrier Level (or Upper/Lower Barrier Levels) is the Currency Pair. See Section 1.6 of this Supplement.
16. Because the Trade Date is the most common Event Period Start Date for a Binary Option Type, Section 3.9(i) of this Supplement contains a presumption that, unless otherwise specified, the Event Period Start Date and Time is the Trade Date at the time that the Transaction was entered into. Parties should specify the Event Period Start Date and Time if they wish to modify this presumption.
17. Parties should include Event Period End Date and Time if they wish to modify the presumption in Section 3.9(h) of this Supplement that the Event Period End Date and Time are the Expiration Date at the Expiration Time. Nonetheless, for an

at-expiration Binary Option Type, parties may wish to specify that the Event Period End Date and Time are the Expiration Time on the Expiration Date.

18. Event Period Start Date and Time and Event Period End Date and Time may be specified for any Binary Option Type, but they are more commonly used to define "Window Event Periods."
19. Parties should include this term to specify that only particular days during the Event Period can be a Barrier Event Determination Date (e.g., every Wednesday during the Event Period).
20. Parties should specify a Barrier Determination Agent if they wish to modify the presumption in Section 3.1(h) of this Supplement that the Barrier Determination Agent is the Calculation Agent.
21. Account details are not required terms in cash-settled trades. See ISDA Statement on Account Details in Confirmations.
22. This item should be deleted if this Confirmation is part of a master agreement.



Exhibit III

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Deliverable At-Expiry Knock-Out Option

(Stream-Line Approach, which maximizes the ISDA presumptions)

[See Exhibit I of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Style:	European
Currency Option Type:	USD Put/JPY Call
Put Currency and Put Currency Amount:	USD 10,000,000
Strike Price:	107.00 JPY/USD
Expiration Date:	04 April 2005
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Deliverable
Settlement Date:	08 April 2005
Premium:	USD 100,000
Premium Payment Date:	06 March 2005

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Knock-Out
Spot Exchange Rate Direction:	Less than or equal to the Barrier Level
[Initial Spot Price:	103.00 JPY/USD] ¹
Barrier Level:	102.00 JPY/USD
Event Period Start Date and Time:	Expiration Date at the Expiration Time

¹ The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit IV

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Deliverable At-Expiry Knock-Out Option

(Full-Detail Approach, which is redundant of the ISDA presumptions)

[See Exhibit I of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Style:	European
Currency Option Type:	USD Put/JPY Call
Call Currency and Call Currency Amount:	JPY 1,070,000,000
Put Currency and Put Currency Amount:	USD 10,000,000
Strike Price:	107.00 JPY/USD
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Deliverable
Settlement Date:	08 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Knock-Out
Spot Exchange Rate Direction:	Less than or equal to the Barrier Level
[Initial Spot Price:	103.00 JPY/USD] ¹
Barrier Level:	102.00 JPY/USD
Event Period Start Date and Time:	Expiration Date at the Expiration Time
Event Period End Date and Time:	Expiration Date at the Expiration Time

¹ The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit V

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Deliverable Window Double Knock-In Option (Full-Detail Approach)

[See Exhibit I of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Style:	European
Currency Option Type:	USD Put/JPY Call
Call Currency and Call Currency Amount:	JPY 1,070,000,000
Put Currency and Put Currency Amount:	USD 10,000,000
Strike Price:	107.00 JPY/USD
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Deliverable
Settlement Date:	08 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Double Knock-In
[Initial Spot Price:	106.00 JPY/USD] ¹
Upper Barrier Level:	110.00 JPY/USD
Lower Barrier Level:	104.00 JPY/USD
Event Period Start Date and Time:	15 March 2005 at 10:00 a.m. (local time in New York City)
Event Period End Date and Time:	22 March 2005 at 10:00 a.m. (local time in New York City)

¹ The Initial Spot Price is an optional provision. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit VI

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Deliverable Full-Term Knock-Out Option (Full-Detail Approach)

[See Exhibit I of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Style:	European
Currency Option Type:	USD Call/JPY Put
Call Currency and Call Currency Amount:	JPY 1,070,000,000
Put Currency and Put Currency Amount:	USD 10,000,000
Strike Price:	107.00 JPY/USD
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Deliverable
Settlement Date:	08 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Knock-Out
Spot Exchange Rate Direction:	Greater than or equal to the Barrier Level
[Initial Spot Price:	109.00 JPY/USD] ¹
Barrier Level:	110.00 JPY/USD
Event Period Start Date and Time:	Trade Date at the time of execution hereof
Event Period End Date and Time:	Expiration Date at the Expiration Time

¹ The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit VII

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Double One-Touch Option (with immediate settlement) (Stream-Line Approach, which maximizes the ISDA presumptions)

[See Exhibit II of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Type:	Binary
Expiration Date:	04 April 2005
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Non-Deliverable
Settlement Amount:	USD 1,000,000
Settlement Date:	Two Business Days following the occurrence of a Barrier Event
Premium:	USD 100,000
Premium Payment Date:	06 March 2005

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Double One-Touch Binary
[Initial Spot Price:	106.00 JPY/USD] ¹
Upper Barrier Level:	108.00 JPY/USD
Lower Barrier Level:	102.00 JPY/USD

¹ The Initial Spot Price is an optional provision. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit VIII

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Full-Term Double One-Touch Option (with immediate settlement)

(Full-Detail Approach, which is redundant of the ISDA presumptions)

[See Exhibit II of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Type:	Binary
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Non-Deliverable
Settlement Amount:	USD 1,000,000
Settlement Date:	Two Business Days following the occurrence of a Barrier Event
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Double One-Touch Binary
[Initial Spot Price:	106.00 JPY/USD] ¹
Upper Barrier Level:	108.00 JPY/USD
Lower Barrier Level:	102.00 JPY/USD
Event Period Start Date and Time:	Trade Date at the time of execution hereof
Event Period End Date and Time:	Expiration Date at the Expiration Time

¹ The Initial Spot Price is an optional provision. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit IX

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Binary Option (as an At-Expiry One-Touch Binary) (Full-Detail Approach)

[See Exhibit II of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Type:	Binary
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Non-Deliverable
Settlement Amount:	USD 1,000,000
Settlement Date:	08 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	One-Touch Binary
Spot Exchange Rate Direction:	Greater than or equal to the Barrier Level
[Initial Spot Price:	106.00 JPY/USD] ¹
Barrier Level:	107.00 JPY/USD
Event Period Start Date and Time:	Expiration Date at the Expiration Time
Event Period End Date and Time:	Expiration Date at the Expiration Time

¹ The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit X

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Window Double No-Touch Option (with delayed settlement) (Full-Detail Approach)

[See Exhibit II of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Type:	Binary
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Non-Deliverable
Settlement Amount:	USD 1,000,000
Settlement Date:	08 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Double No-Touch Binary
[Initial Spot Price:	106.00 JPY/USD] ¹
Upper Barrier Level:	108.00 JPY/USD
Lower Barrier Level:	102.00 JPY/USD
Event Period Start Date and Time:	15 March 2005 at 10:00 a.m. (local time in New York City)
Event Period End Date and Time:	22 March 2005 at 10:00 a.m. (local time in New York City)

¹ The Initial Spot Price is an optional provision. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit XI

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Full-Term No-Touch Binary Option (discrete setting; non-standard settlement) (Full-Detail Approach)

[See Exhibit II of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement and Exhibit II-E of the Definitions for terms relating to Article 5.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Type:	Binary
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Non-Deliverable
Settlement Amount:	USD 1,000,000
Settlement Date:	One Business Day following the occurrence of a Barrier Event
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention

(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	No-Touch Binary
Spot Exchange Rate Direction:	Less than or equal to the Barrier Level
[Initial Spot Price:	108.00 JPY/USD] ¹
Barrier Level:	107.00 JPY/USD
Barrier Event Rate Source:	CURRENCY-FED 10AM RATE
Event Period Start Date and Time:	Trade Date at the time of execution hereof
Event Period End Date and Time:	Expiration Date at the Expiration Time

¹ The Initial Spot Price is an optional provision. Parties can include an Initial Spot Price for purposes of determining the direction at which the Spot Exchange Rate has crossed the Barrier Level. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



Exhibit XII

to the 2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions

EXAMPLE CONFIRMATION: Non-Deliverable Window Double Knock-In Option (discrete setting) (Full-Detail Approach)

[See Exhibit I of this Supplement for the introduction, standard paragraphs, and closing for the letter agreement.]

2. The terms of the particular Transaction to which this Confirmation relates are as follows:

(a) General Terms:

Trade Date:	04 March 2005
Buyer:	Party A
Seller:	Party B
Currency Option Style:	European
Currency Option Type:	USD Put/KRW Call
Call Currency and Call Currency Amount:	KRW 10,277,000,000
Put Currency and Put Currency Amount:	USD 10,000,000
Strike Price:	1027.70 KRW/USD
Reference Currency:	KRW
Settlement Currency:	USD
Settlement Rate Option:	KRW KFTC18 (KRW 02)
Expiration Date:	04 April 2005, subject to adjustment in accordance with the Following Business Day Convention [Optional provision may be added to link Expiration Date to Valuation Date.]
Expiration Time:	10:00 a.m. (local time in New York City)
Settlement:	Non-Deliverable
Settlement Date:	08 April 2005, provided, however, that if the Scheduled Valuation Date is adjusted in accordance with the Following Business Day Convention, then the Settlement Date shall be as soon as practicable after the Valuation Date, but in no event later than two Business Days after such date.
Valuation Date:	04 April 2005, subject to adjustment in accordance with the Preceding Business Day Convention; and in the event of an Unscheduled Holiday, subject to adjustment in accordance with the Following Business Day Convention
Premium:	USD 100,000
Premium Payment Date:	06 March 2005, subject to adjustment in accordance with the Following Business Day Convention



(b) Other Terms and Conditions:

Barrier Event:	Applicable
Event Type:	Double Knock-In
Barrier Event Rate Source:	KRW KFTC18 (KRW 02)
[Initial Spot Price:	1026.70 KRW/USD] ¹
Upper Barrier Level:	1030.70 KRW/USD
Lower Barrier Level:	1024.70 KRW/USD
Event Period Start Date and Time:	15 March 2005 at 10:00 a.m. (local time in New York City)
Event Period End Date and Time:	22 March 2005 at 10:00 a.m. (local time in New York City)

3. The Disruption Events and Fallbacks applicable to the particular Transaction to which this Confirmation relates are as follows:

(a) Price Source Disruption: **Applicable**

(b) Disruption Fallbacks:

1. Valuation Postponement	
2. Fallback Reference Price:	SFEMC KRW Indicative Survey Rate (KRW04)
3. Fallback Survey Valuation Postponement	
4. Calculation Agent Determination of Settlement Rate	
4. Other Terms:	
“Unscheduled Holiday”:	“Unscheduled Holiday” means that a day is not a Business Day and the market was not aware of such fact (by means of a public announcement or by reference to other publicly available information) until a time later than 9:00 a.m. local time in the Principal Financial Center(s) of the Reference Currency two Business Days prior to the Scheduled Valuation Date.
“Deferral Period” for Unscheduled Holiday:	In the event the Scheduled Valuation Date becomes subject to the Following Business Day Convention, and if the Valuation Date has not occurred on or before the 14th consecutive day after the Scheduled Valuation Date (any such period being a “Deferral Period”), then the next day after the Deferral Period that would have been a Business Day but for the Unscheduled Holiday, shall be deemed to be the Valuation Date.
“Valuation Postponement” for Price Source Disruption:	“Valuation Postponement” means, for purposes of obtaining a Settlement Rate, that the Spot Rate will be determined on the Business Day first succeeding the day on which the Price Source Disruption ceases to exist, unless the Price Source Disruption continues to exist (measured from the date that, but for the occurrence of the Price Source Disruption, would have been the Valuation Date) for a consecutive number of calendar days equal to the Maximum Days of Postponement. In such event, the Spot Rate will be determined on the next Business Day after the Maximum Days of Postponement in accordance with the next applicable Disruption Fallback.

¹ The Initial Spot Price is an optional provision. If specified, the convention used to state the currency pair for the Initial Spot Price should be the same as that used to state the currency pair applicable to the Barrier Level.



“Fallback Survey
Valuation Postponement”:

“Fallback Survey Valuation Postponement” means that, in the event that the Fallback Reference Price is not available on or before the 3rd Business Day (or day that would have been a Business Day but for an Unscheduled Holiday) succeeding the end of either (i) Valuation Postponement for Price Source Disruption, (ii) Deferral Period for Unscheduled Holiday, or (iii) Cumulative Events, then the Settlement Rate will be determined in accordance with the next applicable Disruption Fallback on such day. For the avoidance of doubt, Cumulative Events, if applicable, does not preclude postponement of valuation in accordance with this provision.

Cumulative Events:

Except as provided below, in no event shall the total number of consecutive calendar days during which either (i) valuation is deferred due to an Unscheduled Holiday, or (ii) a Valuation Postponement shall occur (or any combination of (i) and (ii)), exceed 14 consecutive calendar days in the aggregate. Accordingly, (x) if, upon the lapse of any such 14-day period, an Unscheduled Holiday shall have occurred or be continuing on the day following such period that otherwise would have been a Business Day, then such day shall be deemed to be a Valuation Date, and (y) if, upon the lapse of any such 14-day period, a Price Source Disruption shall have occurred or be continuing on the day following such period on which the Spot Rate otherwise would be determined, then Valuation Postponement shall not apply and the Spot Rate shall be determined in accordance with the next Disruption Fallback.

Maximum Days of Postponement:

14 calendar days

Relevant City for Business Day
For Valuation Date:

Seoul

Relevant City for Business Day
for Settlement Date:

New York



Practice Notes to the
2005 **BARRIER OPTION**
SUPPLEMENT to the
1998 FX and Currency
Option Definitions

The *2005 Barrier Option Supplement to the 1998 FX and Currency Option Definitions* (“Supplement”) is being published by the Foreign Exchange Committee (FXC) with the support of the Financial Markets Lawyers Group (FMLG) and the Supplement’s cosponsors, the International Swaps and Derivatives Association, Inc. (ISDA) and EMTA, Inc. (EMTA). The FXC published confirmation templates in September 2000 that can be used to document knock-in/knock-out barrier options and binary options under the *1998 FX and Currency Option Definitions* published by ISDA, EMTA, and the FXC (“1998 Definitions”). The Supplement is intended to supersede and update these confirmations by amending the 1998 Definitions to provide terms for various types of Barrier and Binary Currency Option Transactions (hereinafter, “Barrier Options” and “Binary Options,” respectively). Specifically, the Supplement contains terms that can be used to confirm single and double knock-in and knock-out Barrier Options (deliverable or non-deliverable) and single and double no-touch and one-touch Binary Options. The Exhibits to the Supplement illustrate how these Barrier and Binary Options may be confirmed under the terms of the Supplement and the 1998 Definitions. Nonetheless, the Supplement’s terms are flexible and allow for the confirmation of other types of Barrier and Binary Options.

These practice notes provide an explanation of terms in the Supplement. All capitalized words in these practice notes have the meanings given to them in the 1998 Definitions or Supplement, unless otherwise specified herein.



Section 1.6(d):

Currency Pair

The definition of Currency Pair in the 1998 Definitions covers Deliverable FX Transactions (Section 1.6(a)), Non-Deliverable FX Transactions with a Reference Currency and Settlement Currency (Section 1.6(b)), and Currency Option Transactions with a Put Currency and a Call Currency (Section 1.6(c)). While Section 1.6(c) specifies the Currency Pair for a Barrier Option, none of these definitions applies to a Binary Option. The Supplement adds Section 1.6(d), which provides that the Currency Pair for a Binary Option means the currencies specified as applicable to the Barrier Level in the related Confirmation.

Section 1.16(a):

Rate Calculation Date

The definition of Rate Calculation Date in Section 1.16(a) of the 1998 Definitions is revised to include a Barrier Event Determination Date. This amendment is intended to facilitate the use of a Settlement Rate Option from Annex A of the 1998 Definitions for purposes of defining a Barrier Event Rate Source used to determine whether a Barrier Event has occurred. That is, each Settlement Rate Option in Annex A provides the Spot Rate for a Rate Calculation Date for purposes of valuing a Non-Deliverable Transaction. By specifying that the Rate Calculation Date also includes a Barrier Event Determination Date, the Spot Rate also can be used for purposes of determining whether a Barrier Event has occurred. For further discussion of discrete Barrier Options and Binary Options, see Section 3.9(d) below.

Section 3.1(h):

Barrier Determination Agent

Section 3.9(l):

Notification of Barrier Event

Barrier Determination Agent is a new term. Presumptively, the Barrier Determination Agent is the Calculation Agent, unless the parties specify otherwise in the related Confirmation. The parties may agree that a third party will serve as Barrier Determination Agent. A Barrier Determination Agent determines whether a Barrier Event has occurred in good faith and in a commercially reasonable manner (see Section 3.9(b)). A Barrier Determination Agent's notice that a Barrier Event has occurred is to be provided pursuant to Section 3.9(l), which addresses the methods by which notice may be provided. Although master agreements have provisions that specify how notices may be sent as a general matter, Section 3.9(l) contains at least one limitation, that facsimile transmissions should be acknowledged by the receiving party. This limitation is intended to ensure that the receiving party is aware of the fact that the Barrier Determination Agent has sent a notice that a Barrier Event has occurred.

Section 3.3:

Option Type

Sections 3.3(c) and 3.3(d) provide definitions of the Barrier Option and Binary Option types of Currency Option Transactions. A Barrier Currency Option Transaction changes terms upon the occurrence or non-occurrence of a Barrier Event, as the case may be, in the manner defined in the Event Type specified in the related Confirmation (subject to any applicable condition precedent or provision of Article 5



of the 1998 Definitions). A Binary Option is a type of Barrier Currency Option Transaction that changes its terms in a specific way upon the occurrence or non-occurrence of a Barrier Event—the Buyer would become entitled to receive from the Seller a Settlement Amount in the manner defined in the Event Type specified in the related Confirmation (subject to any applicable condition precedent or provision of Article 5 of the Definitions).

Section 3.4(c):

Premium Payment Refund

Section 3.4(a) of the 1998 Definitions provides that a Buyer is obligated to pay the Seller a Premium on the Premium Payment Date. Section 3.4(c) is added to make clear that a Premium is not refundable or rebatable. This presumption applies unless the parties specify otherwise in the related Confirmation; for example, parties may wish to document certain reverse knock-out options in which the premium is rebated.

Section 3.7(c):

In-the-Money Amount

Section 3.7(c)(iii) provides that the In-the-Money Amount of a Binary Option will be the Settlement Amount specified in the related Confirmation.

Section 3.9(a):

Automatic Termination

Section 3.9(a) defines Automatic Termination for purposes of specifying that, when a Barrier Event in accordance with the Event Type applicable to a Barrier Option occurs or fails to occur, as the case may be (see the Event

Types in Section 3.9(f)(i)-(viii)), the Barrier Option will terminate and be deemed canceled effective on the date specified for such termination in the related Confirmation, or otherwise in accordance with the Event Type, without payment of any settlement amount, breakage costs, or other amounts representing the future value of the Transaction.

Section 3.9(b):

Barrier Event

The definition of Barrier Event in Section 3.9(b) recognizes that the Event Types specified in Section 3.9(f) are not exclusive, and the parties may agree to other Event Types in the related Confirmation. This definition provides flexibility to confirm different Barrier and Binary Option products under the terms of the Supplement and the 1998 Definitions.

Section 3.9(c):

Barrier Event Determination Date

Section 3.9(d):

Barrier Event Rate Source

Section 3.9(n):

Spot Exchange Rate

Section 3.9(p):

“Spot Market”

The two parts of the definition of Barrier Event Determination Date in Section 3.9(c) and of the definition of Spot Exchange Rate in Section 3.9(n) correspond to two types of Barrier or Binary Options—discrete or non-discrete—that may be documented.

A discrete option uses a specific rate source for purposes of determining whether a Barrier Event has occurred. Section 3.9(d) provides that such a rate source specified in the



related Confirmation is the Barrier Event Rate Source. For example, for a discrete Barrier Option, the parties may specify a reference rate for a major G-10 currency (which would need to be defined in the related Confirmation). For a discrete Barrier Option in an emerging market currency, the parties may specify that a Settlement Rate Option from Annex A of the 1998 Definitions (which ordinarily is used for purposes of determining the value of a Non-Deliverable Transaction) is the Barrier Event Rate Source. Section 3.9(c)(i) provides that a Barrier Event Determination Date for a discrete option is “any day in the Event Period on which the Barrier Event Rate Source should be and is available.” Section 3.9(n)(i) provides that, for a discrete option, the Spot Exchange Rate used for purposes of determining whether a Barrier Event has occurred is the Spot Rate based on the price for a foreign exchange transaction involving the Currency Pair (or cross-rates constituting such Currency Pair) as determined on each Barrier Event Determination Date in accordance with the Barrier Event Rate Source.

A Barrier Event Rate Source should not be available on a day that is not a local business day where the Settlement Rate Option for the particular currency is published; for example, a day that is a Saturday, Sunday, or scheduled holiday in a local market as of the Trade Date. Accordingly, such a day would not be a Barrier Event Determination Date. However, there is a risk that, because of an unscheduled holiday or other unforeseen circumstances as of the Trade Date, a Barrier Event Rate Source may not be available on a particular day during an Event Period when it otherwise should have been available. In such an event, the market practice has been to continue to treat that day as a

Barrier Event Determination Date and seek a rate in the Spot Market where there is sufficient liquidity. Section 3.9(c)(ii) takes this approach by providing that, in the event the Barrier Event Rate Source is not available on a day that otherwise would have been a Barrier Event Determination Date, that day still will be a Barrier Event Determination Date if a Spot Exchange Rate may be determined pursuant to Section 3.9(n)(ii). The fallback on any day(s) during the Event Period that present such circumstances will be the Spot Exchange Rate determined pursuant to Section 3.9(n)(ii).

On the other hand, a non-discrete or “spot market” Barrier Option does not have Barrier Events that are determined by reference to a specific rate source. Accordingly, the existence of a Barrier Event Determination Date in Section 3.9(c)(ii) of the Supplement is not conditioned on the availability of a particular Barrier Event Rate Source. Section 3.9(n)(ii) specifies that the Spot Exchange Rate for purposes of determining whether a Barrier Event has occurred will be the Spot Rate that is based on the price for one or more actual foreign exchange transactions in the Spot Market involving the Currency Pair (or cross-rates constituting such Currency Pair) for settlement in accordance with the convention for the Currency Pair, as determined on each Barrier Event Determination Date in good faith and in a commercially reasonable manner by the Barrier Determination Agent. Section 3.9(c)(ii), together with Section 3.9(n)(ii) and Section 3.9(p), which defines Spot Market, provide that a non-discrete Barrier Option’s Barrier Event Determination Date can occur on any day in the Event Period during which the global spot foreign exchange market is open continuously



from 5:00 a.m. Sydney time on a Monday in any week to 5:00 p.m. New York time on the Friday of that week.

In the case of either a discrete or non-discrete option, parties may decide to provide in the related Confirmation that the Barrier Event Determination Date will take place on certain days within the Event Period; for example, on Wednesday of each week during the Event Period. Section 3.9(c) allows for such limitations. If no such limitations are specified, a Barrier Event Determination Date can be any day in the Event Period that meets the applicable requirements of Section 3.9(c).

Section 3.9(e):
Barrier Level

Section 3.9(f):
Event Type

Section 3.9(k):
Lower Barrier Level

Section 3.9(o):
Spot Exchange Rate Direction

Section 3.9(q):
Upper Barrier Level

Section 3.9(f) sets out each Event Type that constitutes a Barrier Event applicable to a Transaction when the relevant Event Type is specified in the related Confirmation. The Event Types in Section 3.9(f) may be used to confirm single and double knock-out and knock-in Barrier Options, as well as single and double no-touch and one-touch Binary Options. In addition, an Event Type that does not appear in Section 3.9(f) may be defined in the related Confirmation for a Barrier or Binary Option that does not fall within this set of products.

The Event Types use the terms Barrier Level defined in Section 3.9(e), Upper and Lower Barrier Level defined in Sections 3.9(q) and 3.9(k), and Spot Exchange Rate Direction defined in Section 3.9(o). The Spot Exchange Rate Direction specified in the related Confirmation is used to determine whether a Barrier Event has occurred by requiring that the Spot Exchange Rate must touch or cross the Barrier Level from a certain direction. If the Confirmation specifies that the Spot Exchange Rate Direction is “Greater than or equal to the Barrier Level,” the Spot Exchange rate must start lower than and then reach or exceed the Barrier Level. Conversely, if the Confirmation specifies that the Spot Exchange Rate Direction is “Less than or equal to the Barrier Level,” the Spot Exchange Rate must start greater than and then reach or fall below the Barrier Level. An Initial Spot Price may be specified in the related Confirmation for purposes of determining the direction from which the Spot Exchange Rate has crossed the Barrier Level, although an Initial Spot Price is an optional provision.

The following example illustrates how Spot Exchange Rate Direction works. If a Transaction provides for (1) the occurrence of a Barrier Event upon the Spot Exchange Rate reaching 102.00 JPY/USD, (2) an Event Period which commences on the Trade Date and ends on the Expiration Date, and (3) a Spot Exchange Rate Direction of “Greater than or equal to the Barrier Level,” the Spot Exchange Rate would have to have been at a number less than 102.00 JPY/USD (i.e., 101.999999 JPY/USD or lower) prior to breaching the Barrier Level and reach a number equal to or greater than 102.00 JPY/USD in order for a



Barrier Event to be deemed to have occurred. In this example, if the Spot Exchange Rate never reaches a number equal to or greater than 102.00 JPY/USD (i.e., remains less than 102.00 JPY/USD), a Barrier Event would be deemed not to have occurred. However, if the Spot Exchange Rate in this example began and remained at a number greater than or equal to 102.00 JPY/USD, a Barrier Event would be deemed not to have occurred upon the rate touching 102.00 JPY/USD. In this latter case, the Spot Exchange Rate would first have to descend below, and then ascend to or exceed, the Barrier Level in order for a Barrier Event to be deemed to have occurred.

When specifying the exchange rates relating to the Barrier Level(s) and the Initial Spot Price (if included) in the related Confirmation, it is important to use a consistent convention for the relevant Currency Pair. Use of a consistent convention will make it possible to compare the Spot Exchange Rate to the Barrier Level(s) and determine whether the Spot Exchange Rate has reached or crossed the Barrier Level(s) based on the Spot Exchange Rate Direction. The “Currency Pair Matrix” in Attachment 1 to these Practice Notes has been provided as a best practice to facilitate the development and use of a standard market convention for specifying these terms in the related Confirmation. Updates to the Currency Pair Matrix will be published on the websites of the cosponsors from time to time.

Section 3.9(g):

Event Period

Section 3.9(h):

Event Period End Date and Time

Section 3.9(i):

Event Period Start Date and Time

A Barrier Event Determination Date may fall on any day in the Event Period (provided other conditions specified in Section 3.9(c) are met). Section 3.9(g) specifies that the Event Period starts on the Event Period Start Date and Time (presumptively the Trade Date at the time the Transaction was entered into) and ends on the Event Period End Date and Time (presumptively the Expiration Date at the Expiration Time). Section 3.9(g) also clarifies that, for at-expiry options, the Event Period starts and ends on the Expiration Date at the Expiration Time.

Section 3.9(j):

Exercise

Section 3.6(c) of the 1998 Definitions provides that Automatic Exercise is deemed to apply to a Currency Option Transaction. Section 3.9(j) specifies that the occurrence (or non-occurrence) of a Barrier Event will effect whether this presumption will apply to a Barrier Option.

Section 3.9(m):

Settlement Amount

Section 3.9(m) provides a definition of Settlement Amount that may be used in a Confirmation related to a Binary Option. It is important to note that, even if a Barrier Event



occurs more than one time during the Event Period, the Settlement Amount is paid only once on the Settlement Date, unless otherwise specified in the related Confirmation. This result is made clear in Section 3.7(b) of the 1998 Definitions and in each of the Event Types relating to Binary Options in Section 3.9(f)(v)-(viii).

Attachment I: Currency Pair Matrix

This Currency Pair Matrix dated December 6, 2005, is provided as a best practice to facilitate the development and use of a standard market convention for 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*, published by ISDA, Inc., EMTA, Inc., and the Foreign Exchange Committee (the “2005 Supplement”). 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 FX and Currency Option Definitions*. All Currency Pairs in the Matrix are presented in the form of a fraction (“Currency Pair Fraction”). The numerator of the Currency Pair Fraction is defined as the “Numerator Currency,” and the denominator of the Currency Pair 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.



Section 4.3. Currencies
Currency Pair Matrix

Currency Code	ARS	AUD	BRL	CAD	CHF	CLP	CNY	COP	CZK	DKK	EGP	EUR	GBP	HKD	HUF	IDR	ILS	INR	JPY	KRW	LBP	MAD	MXN	MYR	NOK	NZD	PEN	PHP	PKR	PLN	RON	RUB	SEK	SGD	SKK	THB	TRY	TWD	UAH	USD	VEB	ZAR	
(a) Argentine Peso	ARS	—	ARS/AUD	ARS/BRL	ARS/CAD	ARS/CHF	CLP/ARS	CNY/ARS	COP/ARS	CZK/ARS	DKK/ARS	EGP/ARS	ARS/EUR	ARS/GBP	HKD/ARS	HUF/ARS	IDR/ARS	ILS/ARS	INR/ARS	JPY/ARS	KRW/ARS	LBP/ARS	MAD/ARS	MXN/ARS	MYR/ARS	NOK/ARS	ARS/NZD	PEN/ARS	PHP/ARS	PKR/ARS	PLN/ARS	ARS/RON	RUB/ARS	SEK/ARS	ARS/SGD	SKK/ARS	THB/ARS	ARS/TRY	TWD/ARS	UAH/ARS	ARS/USD	VEB/ARS	ZAR/ARS
(b) Australian Dollar	AUD	ARS/AUD	—	BRL/AUD	CAD/AUD	CHF/AUD	CLP/AUD	CNY/AUD	COP/AUD	CZK/AUD	DKK/AUD	EGP/AUD	AUD/EUR	AUD/GBP	HKD/AUD	HUF/AUD	IDR/AUD	ILS/AUD	INR/AUD	JPY/AUD	KRW/AUD	LBP/AUD	MAD/AUD	MXN/AUD	MYR/AUD	NOK/AUD	NZD/AUD	PEN/AUD	PHP/AUD	PKR/AUD	PLN/AUD	RON/AUD	RUB/AUD	SEK/AUD	SGD/AUD	SKK/AUD	THB/AUD	TRY/AUD	TWD/AUD	UAH/AUD	USD/AUD	VEB/AUD	ZAR/AUD
(e) Brazilian Real	BRL	ARS/BRL	BRL/AUD	—	BRL/CAD	BRL/CHF	CLP/BRL	CNY/BRL	COP/BRL	CZK/BRL	DKK/BRL	EGP/BRL	BRL/EUR	BRL/GBP	HKD/BRL	HUF/BRL	IDR/BRL	ILS/BRL	INR/BRL	JPY/BRL	KRW/BRL	LBP/BRL	MAD/BRL	MXN/BRL	MYR/BRL	NOK/BRL	BRL/NZD	PEN/BRL	PHP/BRL	PKR/BRL	PLN/BRL	RON/BRL	RUB/BRL	SEK/BRL	BRL/SGD	SKK/BRL	THB/BRL	BRL/TRY	TWD/BRL	UAH/BRL	BRL/USD	VEB/BRL	ZAR/BRL
(g) Canadian Dollar	CAD	ARS/CAD	CAD/AUD	BRL/CAD	—	CHF/CAD	CLP/CAD	CNY/CAD	COP/CAD	CZK/CAD	DKK/CAD	EGP/CAD	CAD/EUR	CAD/GBP	HKD/CAD	HUF/CAD	IDR/CAD	ILS/CAD	INR/CAD	JPY/CAD	KRW/CAD	LBP/CAD	MAD/CAD	MXN/CAD	MYR/CAD	NOK/CAD	CAD/NZD	PEN/CAD	PHP/CAD	PKR/CAD	PLN/CAD	RON/CAD	RUB/CAD	SEK/CAD	SGD/CAD	SKK/CAD	THB/CAD	TRY/CAD	TWD/CAD	UAH/CAD	CAD/USD	VEB/CAD	ZAR/CAD
(bg) Swiss Franc	CHF	ARS/CHF	CHF/AUD	BRL/CHF	CHF/CAD	—	CLP/CHF	CNY/CHF	COP/CHF	CZK/CHF	DKK/CHF	EGP/CHF	CHF/EUR	CHF/GBP	HKD/CHF	HUF/CHF	IDR/CHF	ILS/CHF	INR/CHF	JPY/CHF	KRW/CHF	LBP/CHF	MAD/CHF	MXN/CHF	MYR/CHF	NOK/CHF	CHF/NZD	PEN/CHF	PHP/CHF	PKR/CHF	PLN/CHF	RON/CHF	RUB/CHF	SEK/CHF	SGD/CHF	SKK/CHF	THB/CHF	TRY/CHF	TWD/CHF	UAH/CHF	CHF/USD	VEB/CHF	ZAR/CHF
(h) Chilean Peso	CLP	CLP/ARS	CLP/AUD	CLP/BRL	CLP/CAD	CLP/CHF	—	CLP/CNY	COP/CLP	CLP/CZK	CLP/DKK	CLP/EGP	CLP/EUR	CLP/GBP	CLP/HKD	CLP/HUF	IDR/CLP	CLP/INR	CLP/JPY	KRW/CLP	LBP/CLP	CLP/MAD	CLP/MXN	CLP/MYR	CLP/NOK	CLP/NZD	CLP/PEN	CLP/PHP	CLP/PKR	CLP/PLN	CLP/RON	CLP/RUB	CLP/SEK	CLP/SGD	CLP/SKK	CLP/THB	CLP/TRY	CLP/TWD	CLP/UAH	CLP/USD	VEB/CLP	CLP/ZAR	
(i) Chinese Renminbi	CNY	CNY/ARS	CNY/AUD	CNY/BRL	CNY/CAD	CNY/CHF	CLP/CNY	—	COP/CNY	CZK/CNY	CNY/DKK	CNY/EGP	CNY/EUR	CNY/GBP	CNY/HKD	HUF/CNY	IDR/CNY	CNY/ILS	INR/CNY	JPY/CNY	KRW/CNY	LBP/CNY	MAD/CNY	MXN/CNY	CNY/MYR	CNY/NOK	CNY/NZD	CNY/PEN	PHP/CNY	PKR/CNY	CNY/PLN	CNY/RON	RUB/CNY	CNY/SEK	CNY/SGD	SKK/CNY	THB/CNY	CNY/TRY	TWD/CNY	CNY/UAH	CNY/USD	VEB/CNY	CNY/ZAR
(j) Colombian Peso	COP	COP/ARS	COP/AUD	COP/BRL	COP/CAD	COP/CHF	COP/CLP	COP/CNY	—	COP/CZK	COP/DKK	COP/EGP	COP/EUR	COP/GBP	COP/HKD	COP/HUF	IDR/COP	COP/ILS	COP/INR	COP/JPY	COP/KRW	COP/LBP	COP/MAD	COP/MXN	COP/MYR	COP/NOK	COP/NZD	COP/PEN	COP/PHP	COP/PKR	COP/PLN	COP/RON	COP/RUB	COP/SEK	COP/SGD	COP/SKK	COP/THB	COP/TRY	COP/TWD	COP/UAH	COP/USD	COP/VEB	COP/ZAR
(l) Czech Koruna	CZK	CZK/ARS	CZK/AUD	CZK/BRL	CZK/CAD	CZK/CHF	CLP/CZK	CZK/CNY	COP/CZK	—	CZK/DKK	CZK/EGP	CZK/EUR	CZK/GBP	CZK/HKD	HUF/CZK	IDR/CZK	INR/CZK	JPY/CZK	KRW/CZK	LBP/CZK	CZK/MAD	CZK/MXN	CZK/MYR	CZK/NOK	CZK/NZD	CZK/PEN	PHP/CZK	PKR/CZK	CZK/PLN	CZK/RON	RUB/CZK	CZK/SEK	CZK/SGD	SKK/CZK	THB/CZK	CZK/TRY	TWD/CZK	CZK/UAH	CZK/USD	VEB/CZK	CZK/ZAR	
(m) Danish Krone	DKK	DKK/ARS	DKK/AUD	DKK/BRL	DKK/CAD	DKK/CHF	CLP/DKK	CNY/DKK	COP/DKK	CZK/DKK	—	DKK/EGP	DKK/EUR	DKK/GBP	DKK/HKD	HUF/DKK	IDR/DKK	INR/DKK	JPY/DKK	KRW/DKK	LBP/DKK	MAD/DKK	MXN/DKK	DKK/MYR	NOK/DKK	DKK/NZD	DKK/PEN	PHP/DKK	PKR/DKK	DKK/PLN	DKK/RON	RUB/DKK	SEK/DKK	DKK/SGD	SKK/DKK	THB/DKK	DKK/TRY	TWD/DKK	DKK/UAH	DKK/USD	VEB/DKK	ZAR/DKK	
(q) Egyptian Pound	EGP	EGP/ARS	EGP/AUD	EGP/BRL	EGP/CAD	EGP/CHF	CLP/EGP	CNY/EGP	COP/EGP	CZK/EGP	DKK/EGP	—	EGP/EUR	EGP/GBP	HKD/EGP	HUF/EGP	IDR/EGP	INR/EGP	JPY/EGP	KRW/EGP	LBP/EGP	MAD/EGP	MXN/EGP	EGP/MYR	NOK/EGP	EGP/NZD	EGP/PEN	PHP/EGP	PKR/EGP	EGP/PLN	EGP/RON	RUB/EGP	SEK/EGP	EGP/SGD	SKK/EGP	THB/EGP	EGP/TRY	TWD/EGP	EGP/UAH	EGP/USD	VEB/EGP	ZAR/EGP	
(s) Euro	EUR	ARS/EUR	AUD/EUR	BRL/EUR	CAD/EUR	CHF/EUR	CLP/EUR	CNY/EUR	COP/EUR	CZK/EUR	DKK/EUR	EGP/EUR	—	GBP/EUR	HKD/EUR	HUF/EUR	IDR/EUR	ILS/EUR	INR/EUR	JPY/EUR	KRW/EUR	LBP/EUR	MAD/EUR	MXN/EUR	MYR/EUR	NOK/EUR	NZD/EUR	PEN/EUR	PHP/EUR	PKR/EUR	PLN/EUR	RON/EUR	RUB/EUR	SEK/EUR	SGD/EUR	SKK/EUR	THB/EUR	TRY/EUR	TWD/EUR	UAH/EUR	USD/EUR	VEB/EUR	ZAR/EUR
(be) Sterling	GBP	ARS/GBP	AUD/GBP	BRL/GBP	CAD/GBP	CHF/GBP	CLP/GBP	CNY/GBP	COP/GBP	CZK/GBP	DKK/GBP	EGP/GBP	GBP/EUR	—	HKD/GBP	HUF/GBP	IDR/GBP	ILS/GBP	INR/GBP	JPY/GBP	KRW/GBP	LBP/GBP	MAD/GBP	MXN/GBP	MYR/GBP	NOK/GBP	NZD/GBP	PEN/GBP	PHP/GBP	PKR/GBP	PLN/GBP	RON/GBP	RUB/GBP	SEK/GBP	SGD/GBP	SKK/GBP	THB/GBP	TRY/GBP	TWD/GBP	UAH/GBP	USD/GBP	VEB/GBP	ZAR/GBP
(w) Hong Kong Dollar	HKD	HKD/ARS	HKD/AUD	HKD/BRL	HKD/CAD	HKD/CHF	CLP/HKD	CNY/HKD	COP/HKD	CZK/HKD	DKK/HKD	HKD/EGP	HKD/EUR	HKD/GBP	—	HUF/HKD	IDR/HKD	HKD/ILS	INR/HKD	JPY/HKD	KRW/HKD	LBP/HKD	MAD/HKD	MXN/HKD	HKD/MYR	NOK/HKD	HKD/NZD	HKD/PEN	PHP/HKD	PKR/HKD	HKD/PLN	HKD/RON	RUB/HKD	HKD/SEK	HKD/SGD	SKK/HKD	THB/HKD	HKD/TRY	TWD/HKD	HKD/UAH	HKD/USD	VEB/HKD	HKD/ZAR
(x) Hungarian Forint	HUF	HUF/ARS	HUF/AUD	HUF/BRL	HUF/CAD	HUF/CHF	CLP/HUF	HUF/CNY	COP/HUF	HUF/CZK	HUF/DKK	HUF/EGP	HUF/EUR	HUF/GBP	HUF/HKD	—	IDR/HUF	HUF/INR	HUF/JPY	KRW/HUF	LBP/HUF	HUF/MAD	HUF/MXN	HUF/MYR	HUF/NOK	HUF/NZD	HUF/PEN	HUF/PHP	HUF/PKR	HUF/PLN	HUF/RON	HUF/RUB	HUF/SEK	HUF/SGD	HUF/SKK	HUF/THB	HUF/TRY	HUF/TWD	HUF/UAH	HUF/USD	VEB/HUF	HUF/ZAR	
(z) Indonesian Rupiah	IDR	IDR/ARS	IDR/AUD	IDR/BRL	IDR/CAD	IDR/CHF	IDR/CLP	IDR/CNY	IDR/COP	IDR/CZK	IDR/DKK	IDR/EGP	IDR/EUR	IDR/GBP	IDR/HKD	IDR/HUF	—	IDR/ILS	IDR/INR	IDR/JPY	IDR/KRW	IDR/LBP	IDR/MAD	IDR/MXN	IDR/MYR	IDR/NOK	IDR/NZD	IDR/PEN	IDR/PHP	IDR/PKR	IDR/PLN	IDR/RON	IDR/RUB	IDR/SEK	IDR/SGD	IDR/SKK	IDR/THB	IDR/TRY	IDR/TWD	IDR/UAH	IDR/USD	IDR/VEB	IDR/ZAR
(ab) Israeli Shekel	ILS	ILS/ARS	ILS/AUD	ILS/BRL	ILS/CAD	ILS/CHF	CNY/ILS	—	COP/ILS	ILS/CZK	ILS/DKK	ILS/EGP	ILS/EUR	ILS/GBP	HKD/ILS	IDR/ILS	—	INR/ILS	JPY/ILS	KRW/ILS	LBP/ILS	ILS/MAD	ILS/MXN	ILS/MYR	NOK/ILS	ILS/NZD	ILS/PEN	PHP/ILS	PKR/ILS	ILS/PLN	ILS/RON	ILS/RUB	ILS/SEK	ILS/SGD	ILS/SKK	ILS/THB	ILS/TRY	TWD/ILS	ILS/UAH	ILS/USD	VEB/ILS	ZAR/ILS	
(ay) Indian Rupee	INR	INR/ARS	INR/AUD	INR/BRL	INR/CAD	INR/CHF	CLP/INR	CNY/INR	COP/INR	INR/CZK	INR/DKK	INR/EGP	INR/EUR	INR/GBP	INR/HKD	HUF/INR	IDR/INR	INR/ILS	—	JPY/INR	KRW/INR	LBP/INR	INR/MAD	INR/MXN	INR/MYR	INR/NOK	INR/NZD	INR/PEN	PHP/INR	PKR/INR	INR/PLN	INR/RON	INR/RUB	INR/SEK	INR/SGD	INR/SKK	INR/THB	INR/TRY	INR/TWD	INR/UAH	INR/USD	VEB/INR	INR/ZAR
(bo) Yen	JPY	JPY/ARS	JPY/AUD	JPY/BRL	JPY/CAD	JPY/CHF	CLP/JPY	JPY/CNY	COP/JPY	JPY/CZK	JPY/DKK	JPY/EGP	JPY/EUR	JPY/GBP	JPY/HKD	HUF/JPY	IDR/JPY	JPY/ILS	JPY/INR	—	KRW/JPY	LBP/JPY	JPY/MAD	JPY/MXN	JPY/MYR	JPY/NOK	JPY/NZD	JPY/PEN	JPY/PHP	JPY/PKR	JPY/PLN	JPY/RON	JPY/RUB	JPY/SEK	JPY/SGD	JPY/SKK	JPY/THB	JPY/TRY	JPY/TWD	JPY/UAH	JPY/USD	VEB/JPY	JPY/ZAR
(af) Korean Won	KRW	KRW/ARS	KRW/AUD	KRW/BRL	KRW/CAD	KRW/CHF	KRW/CLP	KRW/CNY	COP/KRW	KRW/CZK	KRW/DKK	KRW/EGP	KRW/EUR	KRW/GBP	KRW/HKD	KRW/HUF	IDR/KRW	KRW/ILS	KRW/INR	KRW/JPY	—	LBP/KRW	KRW/MAD	KRW/MXN	KRW/MYR	KRW/NOK	KRW/NZD	KRW/PEN	KRW/PHP	KRW/PKR	KRW/PLN	KRW/RON	KRW/RUB	KRW/SEK	KRW/SGD	KRW/SKK	KRW/THB	KRW/TRY	KRW/TWD	KRW/UAH	KRW/USD	VEB/KRW	KRW/ZAR
(ai) Lebanese Pound	LBP	LBP/ARS	LBP/AUD	LBP/BRL	LBP/CAD	LBP/CHF	LBP/CLP	LBP/CNY	COP/LBP	LBP/CZK	LBP/DKK	LBP/EGP	LBP/EUR	LBP/GBP	LBP/HKD	LBP/HUF	IDR/LBP	LBP/INR	LBP/JPY	LBP/KRW	—	LBP/MAD	LBP/MXN	LBP/MYR	LBP/NOK	LBP/NZD	LBP/PEN	LBP/PHP	LBP/PKR	LBP/PLN	LBP/RON	LBP/RUB	LBP/SEK	LBP/SGD	LBP/SKK	LBP/THB	LBP/TRY	LBP/TWD	LBP/UAH	LBP/USD	VEB/LBP	LBP/ZAR	
(an) Moroccan Dirham	MAD	MAD/ARS	MAD/AUD	MAD/BRL	MAD/CAD	MAD/CHF	CLP/MAD	MAD/CNY	COP/MAD	CZK/MAD	MAD/DKK	MAD/EGP	MAD/EUR	MAD/GBP	MAD/HKD	HUF/MAD	IDR/MAD	INR/MAD	JPY/MAD	KRW/MAD	LBP/MAD	—	MXN/MAD	MAD/MYR	MAD/NOK	MAD/NZD	MAD/PEN	PHP/MAD	PKR/MAD	MAD/PLN	MAD/RON	RUB/MAD	MAD/SEK	MAD/SGD	SKK/MAD	THB/MAD	MAD/TRY	TWD/MAD	MAD/UAH	MAD/USD	VEB/MAD	MAD/ZAR	
(am) Mexican Peso	MXN	MXN/ARS	MXN/AUD	MXN/BRL	MXN/CAD	MXN/CHF	CLP/MXN	MXN/CNY	COP/MXN	CZK/MXN	MXN/DKK	MXN/EGP	MXN/EUR	MXN/GBP	MXN/HKD	HUF/MXN	IDR/MXN	MXN/ILS	INR/MXN	JPY/MXN	KRW/MXN	LBP/MXN	MXN/MAD	—	MXN/MYR	MXN/NOK	MXN/NZD	MXN/PEN	PHP/MXN	PKR/MXN	MXN/PLN	MXN/RON	RUB/MXN	MXN/SEK	MXN/SGD	SKK/MXN	THB/MXN	MXN/TRY	TWD/MXN	MXN/UAH	MXN/USD	VEB/MXN	MXN/ZAR
(al) Malaysian Ringgit	MYR	MYR/ARS	MYR/AUD	MYR/BRL	MYR/CAD	MYR/CHF	CLP/MYR	CNY/MYR	COP/MYR	CZK/MYR	DKK/MYR	EGP/MYR	MYR/EUR	MYR/GBP	HKD/MYR	HUF/MYR	IDR/MYR	ILS/MYR	INR/MYR	JPY/MYR	KRW/MYR	LBP/MYR	MAD/MYR	MXN/MYR	—	NOK/MYR	MYR/NZD	MYR/PEN	PHP/MYR	PKR/MYR	MYR/PLN	MYR/RON	RUB/MYR	SEK/MYR	MYR/SGD	SKK/MYR	THB/MYR	MYR/TRY	TWD/MYR	UAH/MYR	MYR/USD	VEB/MYR	ZAR/MYR
(ap) Norwegian Krone	NOK	NOK/ARS	NOK/AUD	NOK/BRL	NOK/CAD	NOK/CHF	CLP/NOK	CNY/NOK	COP/NOK	CZK/NOK	NOK/DKK	NOK/EGP	NOK/EUR	NOK/GBP	HKD/NOK	HUF/NOK	IDR/NOK	NOK/ILS	INR/NOK	JPY/NOK	KRW/NOK	LBP/NOK	MAD/NOK	MXN/NOK	NOK/MYR	—	NOK/NZD	NOK/PEN	PHP/NOK	PKR/NOK	NOK/PLN	NOK/RON	RUB/NOK	SEK/NOK	NOK/SGD	SKK/NOK	THB/NOK	NOK/TRY	TWD/NOK	NOK/UAH	NOK/USD	VEB/NOK	ZAR/NOK
(ao) New Zealand Dollar	NZD	ARS/NZD	NZD/AUD	BRL/NZD	CAD/NZD	CHF/NZD	CLP/NZD	CNY/NZD	COP/NZD	CZK/NZD	DKK/NZD	EGP/NZD	NZD/EUR	NZD/GBP	HKD/NZD	HUF/NZD	IDR/NZD	ILS/NZD	INR/NZD	JPY/NZD	KRW/NZD	LBP/NZD	MAD/NZD	MXN/NZD	MYR/NZD	NOK/NZD	—	PEN/NZD	PHP/NZD	PKR/NZD	PLN/NZD	RON/NZD	RUB/NZD	SEK/NZD	SGD/NZD	SKK/NZD	THB/NZD	TRY/NZD	TWD/NZD	UAH/NZD	USD/NZD	VEB/NZD	ZAR/NZD
(ar) Peruvian Sol	PEN	PEN/ARS	PEN/AUD	PEN/BRL	PEN/CAD	PEN/CHF	CLP/PEN	CNY/PEN	COP/PEN	CZK/PEN	DKK/PEN	EGP/PEN	PEN/EUR	PEN/GBP	HKD/PEN	HUF/PEN	IDR/PEN	INR/PEN	JPY/PEN	KRW/PEN	LBP/PEN	MAD/PEN	MXN/PEN	MYR/PEN	NOK/PEN	PEN/NZD	—	PHP/PEN	PKR/PEN	PEN/PLN	PEN/RON	RUB/PEN	SEK/PEN	PEN/SGD	SKK/PEN	THB/PEN	PEN/TRY	TWD/PEN	UAH/PEN	PEN/USD	VEB/PEN	ZAR/PEN	
(as) Philippine Peso	PHP	PHP/ARS	PHP/AUD	PHP/BRL	PHP/CAD	PHP/CHF	CLP/PHP	PHP/CNY	COP/PHP	PHP/CZK	PHP/DKK	PHP/EGP	PHP/EUR	PHP/GBP	PHP/HKD	HUF/PHP	IDR/PHP	PHP/ILS	PHP/INR	JPY/PHP	KRW/PHP	LBP/PHP	PHP/MAD	PHP/MXN	PHP/MYR	PHP/NOK	PHP/NZD																

Compendium of Amendments to Annex A to the 1998 FX and Currency Option Definitions

Updated as of July 20, 2005

International Swaps and Derivatives Association, Inc. (ISDA)
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16th Floor
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New York, NY 10045



Compendium of Amendments to Annex A to the 1998 FX and Currency Option Definitions

Updated as of July 20, 2005

Annex A to the *1998 FX and Currency Option Definitions* was last updated and published in its entirety on September 25, 2000, by the International Swaps and Derivatives Association, Inc. (ISDA), EMTA, Inc. (EMTA), and the Foreign Exchange Committee (FXC). Since then, a number of amendments to Annex A have been published by ISDA, EMTA, and the FXC. Pending the publication of an update in its entirety at an appropriate time in the future, all amendments that have been made to Annex A since September 25, 2000, are set out below (in reverse chronological order).

Each amendment listed below established a new version of Annex A as of, and identified by, the effective date of such amendment.¹ Parties to a transaction may identify in the confirmation by date the specific version of Annex A that is intended by the parties to apply. In the absence of specificity in the confirmation, the parties will be deemed to have intended that Annex A as amended up to and including the trade date of the transaction will apply. Consult the “Practitioner’s Notes” to each amendment (included below) for further information.



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¹ Please note that, in some cases, notice of an amendment may have been published prior to its anticipated effective date. For example, notice of the March 1, 2004, amendment to the Brazilian Real rate source definitions was originally published on February 18, 2004, and notice of the January 2, 2003, Argentine Peso rate source definitions was originally published on December 20, 2002. The relevant date for purposes of identifying which version of Annex A is intended to govern a particular transaction is the effective date of the amendment.



Amendments Dated July 1, 2005

Malaysian Ringgit Rate Source Definitions

Effective as of July 15, 2005, Annex A of the 1998 FX and Currency Option Definitions (the “1998 Definitions”) is amended to add a new Section 4.5(a)(vi) as follows:

- (A) “MYR ABS” or “MYR01” each means that the Spot Rate for a Rate Calculation Date will be the Malaysian Ringgit/U.S. Dollar spot rate at 11:00 a.m., Singapore time, expressed as the amount of Malaysian Ringgit per one U.S. Dollar, for settlement in two Business Days, reported by the Association of Banks in Singapore, which appears on the Telerate Page 50157 to the right of the caption “Spot” under the column “MYR” at approximately 11:30 a.m., Singapore time, on that Rate Calculation Date.
- (B) “SFEMC MYR INDICATIVE SURVEY RATE” or “MYR02” each means that the Spot Rate for a Rate Calculation Date will be the Malaysian Ringgit/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Malaysian Ringgit per one U.S. Dollar, for settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m., Singapore time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC MYR Indicative Survey Methodology (which means a methodology, dated as of July 15, 2005, as amended from time to time, for a centralized industry-wide survey of financial institutions that

are active participants in the Malaysian Ringgit/U.S. Dollar markets for the purpose of determining the SFEMC MYR Indicative Survey Rate).

Practitioner’s Notes:

- ⌘ “MYR ABS” or “MYR01” each refers to a rate reported by the Association of Banks in Singapore (“ABS”), which is derived from a poll of offshore banks based on their perception of onshore rates as of 11:00 a.m., Singapore time, and Telerate displays this rate at approximately 11:30 a.m., Singapore time. The ABS polling procedures allow for corrections to be made to a reported rate up to one hour from the time it is reported. Accordingly, in the event of any correction to the displayed rate, practitioners should consult Section 4.7(a) of Annex A. Section 4.7(a) provides that a Spot Rate based on information obtained from Telerate will be subject to any corrections subsequently displayed by Telerate within one hour of the time when a rate is first displayed by Telerate.
- ⌘ Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of July 15, 2005, if they desire to incorporate any or all of the new Malaysian Ringgit rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Malaysian Ringgit rate source definitions will apply to trades that incorporate the 1998 Definitions and have a trade date on or after July 15, 2005.



Indonesian Rupiah Rate Source Definition

Effective as of July 15, 2005, Annex A of the 1998 FX and Currency Option Definitions (the “1998 Definitions”) is amended to revise Section 4.5(a)(vii)(A) and the Practitioner’s Notes thereto as follows:

- (A) “IDR ABS” or “IDR01” each means that the Spot Rate for a Rate Calculation Date will be the Indonesian Rupiah/U.S. Dollar spot rate at 11:00 a.m., Singapore time, expressed as the amount of Indonesian Rupiah per one U.S. Dollar, for settlement in two Business Days, reported by the Association of Banks in Singapore, which appears on the Telerate Page 50157 to the right of the caption “Spot” under the column “IDR” at approximately 11:30 a.m., Singapore time, on that Rate Calculation Date.

Practitioner’s Notes:

~ “IDR ABS” or “IDR01” each refers to a rate reported by the Association of Banks in Singapore (“ABS”), which is derived from a poll of offshore banks based on their perception of onshore rates as of 11:00 a.m., Singapore time. Telerate publishes this rate at 11:30 a.m.,

Singapore time, and Telerate displays this rate at approximately 11:30 a.m., Singapore time. The ABS polling procedures allow for corrections to be made to a reported rate up to one hour from the time it is reported. Accordingly, in the event of any correction to the displayed rate, practitioners should consult Section 4.7(a) of Annex A. Section 4.7(a) provides that a Spot Rate based on information obtained from Telerate will be subject to any corrections subsequently displayed by Telerate within one hour of the time when a rate is first displayed by Telerate.

~ *Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of July 2005 if they desire to incorporate any or all of the revisions to the Indonesian Rupiah rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Indonesian Rupiah rate source definitions will apply to trades that incorporate the 1998 Definitions and have a trade date on or after July 15, 2005.*

Romanian Leu Definition

Effective July 1, 2005, Section 4.3(av) is amended in its entirety as follows:

- (av) Romanian Leu. “Romanian Leu”, “ROL”, and “RON” each means the lawful currency of Romania.



Amendment Dated June 16, 2005

Russian Ruble/U.S. Dollar Settlement Rate Options

Effective as of June 16, 2005, Section 4.5(b) (iii) of Annex A will be amended to replace section (C) thereof in its entirety and to add a new section (D), each as follows:

(C) "RUB CME-EMTA" and "RUB03" each means that the Spot Rate for a Rate Calculation Date will be the Russian Ruble/U.S. Dollar Specified Rate, expressed as the amount of Russian Rubles per one U.S. Dollar, for settlement in one Business Day, calculated by the Chicago Mercantile Exchange ("CME") and as published on CME's website, which appears on the Reuters Screen EMTA Page, at approximately 1:30 p.m., Moscow time, on that Rate Calculation Date. The Spot Rate shall be calculated by the CME pursuant to the Chicago Mercantile Exchange/EMTA, Inc. Daily Russian Ruble Per U.S. Dollar Reference Rate Methodology (which means a methodology, effective as of June 16, 2005, as amended from time to time, for a centralized industry-wide survey of financial institutions in Russia that are active participants in the Russian Ruble/U.S. Dollar spot market for the purpose of determining the RUB CME-EMTA Rate).

(D) "EMTA RUB INDICATIVE SURVEY RATE" and "RUB04" each means that the Spot Rate for a Rate Calculation Date will be the Russian Ruble/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Russian Rubles per one U.S. Dollar, for settlement in one Business Day, as published on EMTA's web site (www.emta.org) at approximately 2:45 p.m., Moscow 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 RUB Indicative Survey Methodology (which means a methodology dated as of June 16, 2005, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Russian Ruble/U.S. Dollar spot market for the purpose of determining the EMTA RUB Indicative Survey Rate).

Practitioner's Notes:

- Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of June 16, 2005, if they desire to incorporate either or both of the amended RUB CME-EMTA (RUB03) or the new EMTA RUB Indicative Survey Rate (RUB04) definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Russian Ruble rate source definitions will apply to trades that incorporate the 1998 FX and Currency Option Definitions and have a trade date on or after June 16, 2005.
- The RUB CME-EMTA rate source definition has been updated to incorporate a one business day settlement convention and a corresponding reliance on a "TOM" rate quote over a "TOD" rate quote, which changes are also embedded in the methodology used by the CME and EMTA to produce the rate.



Amendment Dated January 1, 2005

Turkish Lira Definition

Effective January 1, 2005, Section 4.3(bj) is amended in its entirety as follows:

- (bj) Turkish Lira. “Turkish Lira”, “TRY”, and “TRL” each means the lawful currency of the Republic of Turkey.

Amendments Dated December 1, 2004

Chinese Renminbi/U.S. Dollar Settlement Rate Option

Effective December 1, 2004, Annex A is amended to add a new Section 4.5(a)(i)(B) as follows:

- (B) “SFEMC CNY INDICATIVE SURVEY RATE” or “CNY02” each means that the Spot Rate for a Rate Calculation Date will be the Chinese Renminbi/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Chinese Renminbi per one U.S. Dollar, for settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m. (Singapore time), or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC CNY Indicative Survey Methodology (which means a methodology, dated as of December 1, 2004, as amended from time to time, for a centralized

industry-wide survey of financial institutions that are active participants in the Chinese Renminbi/U.S. Dollar markets for the purpose of determining the SFEMC CNY Indicative Survey Rate).

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 December 1, 2004, if they desire to incorporate the new Chinese Renminbi 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 Definitions and have a trade date on or after December 1, 2004.*



Indonesian Rupiah/U.S. Dollar Settlement Rate Options

Effective December 1, 2004, Annex A is amended to add new Sections 4.5(a)(vii)(A) and 4.5(a)(vii)(B) as follows:

- (A) “IDR ABS” or “IDR01” each mean that the Spot Rate for a Rate Calculation Date will be the Indonesian Rupiah/U.S. Dollar spot rate, expressed as the amount of Indonesian Rupiah per one U.S. Dollar, for settlement in two Business Days, reported by the Association of Banks in Singapore which appears on the Telerate Page 50157 to the right of the caption “Spot” under the column “IDR” at approximately 11:00 a.m., Singapore time on that Rate Calculation Date.
- (B) “SFEMC IDR INDICATIVE SURVEY RATE” or “IDR02” each means that the Spot Rate for a Rate Calculation Date will be the Indonesian Rupiah/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Indonesian Rupiah per one U.S. Dollar, for settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m., Singapore time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion)

pursuant to the SFEMC IDR Indicative Survey Methodology (which means a methodology, dated as of December 1, 2004, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Indonesian Rupiah/U.S. Dollar markets for the purpose of determining the SFEMC IDR Indicative Survey Rate).

Practitioner’s Notes:

- ⌘ “IDR ABS” or “IDR01” refers to a rate reported by the Association of Banks in Singapore, which is derived from a poll of offshore banks based on their perception of onshore rates.
- ⌘ Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of December 1, 2004, if they desire to incorporate any or all of the new Indonesian Rupiah rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Indonesian Rupiah rate source definitions will apply to trades that incorporate the 1998 Definitions and have a trade date on or after December 1, 2004.



Indian Rupee/U.S. Dollar Settlement Rate Option

Effective December 1, 2004, Annex A is amended to add a new Section 4.5(a)(ii)(B) as follows:

- (B) “SFEMC INR INDICATIVE SURVEY RATE” or “INR02” each means that the Spot Rate for a Rate Calculation Date will be the Indian Rupee/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Indian Rupee per one U.S. Dollar, for settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m. (Singapore time), or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC INR Indicative Survey Methodology (which means a methodology, dated as of December 1, 2004, as amended from time to time, for a centralized industry-

wide survey of financial institutions that are active participants in the Indian Rupee/U.S. Dollar markets for the purpose of determining the SFEMC INR Indicative Survey Rate).

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 December 1, 2004, if they desire to incorporate the new Indian Rupee rate source definition into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Indian Rupee rate source definition will apply to trades that incorporate the 1998 Definitions and have a trade date on or after December 1, 2004.

Korean Won/U.S. Dollar Settlement Rate Option

Effective December 1, 2004, Annex A is amended to add a new Section 4.5(a)(iii)(C) as follows:

- (C) “SFEMC KRW INDICATIVE SURVEY RATE” or “KRW04” each means that the Spot Rate for a Rate Calculation Date will be the Korean Won/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Korean Won per one U.S. Dollar, for settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m., Singapore time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC KRW Indicative Survey Methodology (which means a methodology, dated as of December 1, 2004, as amended from time to

time, for a centralized industry-wide survey of financial institutions that are active participants in the Korean Won/U.S. Dollar markets for the purpose of determining the SFEMC KRW Indicative Survey Rate).

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 December 1, 2004, if they desire to incorporate the new Korean Won rate source definition into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Korean Won rate source definition will apply to trades that incorporate the 1998 Definitions and have a trade date on or after December 1, 2004.



Philippine Peso/U.S. Dollar Settlement Rate Option

Effective December 1, 2004, Annex A is amended to add a new Section 4.5(a)(iv)(E) as follows:

(E) “SFEMC PHP INDICATIVE SURVEY RATE” or “PHP05” each means that the Spot Rate for a Rate Calculation Date will be the Philippine Peso/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Philippine Pesos per one U.S. Dollar, for settlement in one Business Day, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m., Singapore time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC PHP Indicative Survey Methodology (which means a methodology, dated as of December 1, 2004, as amended from time to time, for a centralized industry-

wide survey of financial institutions that are active participants in the Philippine Peso/U.S. Dollar markets for the purpose of determining the SFEMC PHP Indicative Survey Rate).

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 December 1, 2004, if they desire to incorporate the new Philippine Peso rate source definition into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Philippine Peso rate source definition will apply to trades that incorporate the 1998 Definitions and have a trade date on or after December 1, 2004.



Taiwanese Dollar/U.S. Dollar Settlement Rate Options

Effective December 1, 2004, Annex A is amended to add a new Section 4.5(a)(v)(D), and to delete Sections 4.5(a)(v)(A) and 4.5(a)(v)(C) in their entirety and replace them as follows:

- (A) “TWD TELERATE 6161” or “TWD01” each mean that the Spot Rate for a Rate Calculation Date will be the Taiwanese Dollar/U.S. Dollar spot rate, expressed as the amount of Taiwanese Dollars per one U.S. Dollar, for settlement in two Business Days, reported by the Taipei Forex Inc. which appears on the Telerate Page 6161 under the heading “Spot” as of 11:00 a.m., Taipei time, on that Rate Calculation Date, or if no rate appears as of 11:00 a.m., Taipei time, the rate that first appears in any of the next succeeding 15 minute intervals after such time, up to and including 12:00 noon, Taipei time, on that Rate Calculation Date.
- (C) “TWD TAIFX1” or “TWD03” each mean that the Spot Rate for a Rate Calculation Date will be the Taiwanese Dollar/U.S. Dollar spot rate, expressed as the amount of Taiwanese Dollars per one U.S. Dollar, for settlement in two Business Days, reported by the Taipei Forex Inc. which appears on the Reuters Screen TAIFX1 Page under the heading “Spot” as of 11:00 a.m. Taipei time, on that Rate Calculation Date, or if no rate appears as of 11:00 a.m., Taipei time, the rate that first appears in any of the next succeeding 15 minute intervals after such time, up to and including 12:00 noon, Taipei time on that Rate Calculation Date.
- (D) “SFEMC TWD INDICATIVE SURVEY RATE” or “TWD04” each means that the Spot Rate for a Rate Calculation Date will be the Taiwanese Dollar/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Taiwanese Dollars per one U.S. Dollar, for

settlement in two Business Days, as published on SFEMC’s website (www.sfemc.org) at approximately 3:30 p.m., Singapore time, or as soon thereafter as practicable, on such Rate Calculation Date. The Spot Rate will be calculated by SFEMC (or a service provider SFEMC may select in its sole discretion) pursuant to the SFEMC TWD Indicative Survey Methodology (which means a methodology, dated as of December 1, 2004, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Taiwanese Dollar/U.S. Dollar markets for the purpose of determining the SFEMC TWD Indicative Survey Rate).

Practitioner’s Notes:

~ “TWD Telerate 6161” or “TWD01” and “TWD TAIFX1” or “TWD03” have been revised to permit a limited delay in reporting the Spot Rate of the first trade that takes place through the Taipei Forex Inc. The first trade usually takes place at 11 a.m. Taipei Time, and its Spot Rate is posted in the first 15-minute segment. However, the first trade could take place and its Spot Rate could be posted at a later 15-minute interval. The rate source definitions incorporate the possibility of the first appearance of the Spot Rate in any succeeding 15-minute interval from 11 a.m. up to and including 12 Noon Taipei Time. Noon Taipei Time was deemed to be an appropriate cut-off point, because failure of a trade to take place through Taipei Forex Inc. by this time would indicate a disruption in the local market. If a Spot Rate is not posted by 12 Noon Taipei Time on a Valuation Date, a Price Source Disruption would be triggered as provided in the 1998 Definitions and the relevant confirmation.



☞ *Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of December 1, 2004, if they desire to incorporate any or all of the revised Taiwanese Dollar rate source definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Taiwanese Dollar rate source definitions will apply to trades that incorporate the 1998 Definitions and have a trade date on or after December 1, 2004.*



Amendment Dated March 1, 2004 Brazilian Real/U.S. Dollar Settlement Rate Option

Effective as of March 1, 2004, Annex A is amended to replace Section 4.5(c)(ii)(D) in its entirety and to add new provisions Sections 4.5(c)(ii)(G) and (H) as follows:

(D) “BRL PTAX” or “BRL09” each means that the Spot Rate for a Rate Calculation Date will be the Brazilian Real/U.S. Dollar offered rate for U.S. Dollars, expressed as the amount of Brazilian Reais per one U.S. Dollar, for settlement in two Business Days reported by the Banco Central do Brasil on SISBACEN Data System under transaction code PTAX-800 (“Consulta de Cambio” or Exchange Rate Inquiry), Option 5 (“Cotacões para Contabilidade” or “Rates for Accounting Purposes”) by approximately 6:00 p.m., São Paulo time, on that Rate Calculation Date.

(G) “EMTA BRL INDUSTRY SURVEY RATE” or “BRL12” each means that the Spot Rate for a Rate Calculation Date will be the Brazilian Real/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Brazilian Reais per one U.S. Dollar, for settlement in two Business Days, as published on EMTA’s web site (www.emta.org) at approximately 3:45 p.m. (São Paulo 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 BRL Industry Survey Methodology (which means a methodology, dated as of March 1, 2004, as amended from time to time, for a centralized industry-wide survey of financial institutions in Brazil that are active participants in the Brazilian Real/U.S. Dollar spot markets for the purpose of determining the EMTA BRL Industry Survey Rate).

(H) “EMTA BRL INDICATIVE SURVEY RATE” or “BRL13” each means that the Spot Rate for a Rate Calculation Date will be the Brazilian Real/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Brazilian Reais per one U.S. Dollar, for settlement in two Business Days, as published on EMTA’s web site (www.emta.org) at approximately 12:00 p.m. (São Paulo 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 BRL Indicative Survey Methodology (which means a methodology, dated as of March 1, 2004, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Brazilian Real/U.S. Dollar markets for the purpose of determining the EMTA BRL Indicative Survey Rate).

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 1, 2004, if they desire to incorporate any or all of the amended BRL PTAX (BRL09) rate definition, the EMTA BRL Industry Survey Rate definition or the EMTA BRL Indicative Survey Rate definition into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Brazilian Real rate source definitions will apply to trades that incorporate the 1998 FX and Currency Option Definitions and have a trade date on or after March 1, 2004.



Amendment Dated December 2, 2003

Korean Won/U.S. Dollar Settlement Rate Option

Effective December 2, 2003, Sections 4.5(a)(iii)(A) and (B) are amended to replace the current provisions with the following:

- (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 KFTC18 Page to the right of the caption “USD Today” that is available at approximately 5:30 p.m., Seoul time, on the Rate Calculation Date or as soon thereafter as practicable, but in no event later than 9:00 a.m., Seoul time, on the first Business Day following the Rate Calculation Date.
- (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 5:30 p.m., Seoul time, on the Rate Calculation Date or as soon thereafter as practicable, but in no event later than 9:00 a.m., Seoul time, on the first Business Day following the Rate Calculation Date.

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 on Telerate Page 45644.

- ~ *On June 20, 2001, the Korean Won rate source definitions were amended to incorporate reference to a “tom” rate and a one Business Day settlement convention. Since this amendment, the KRW/USD spot rate was integrated into one value date with a two Business Day settlement convention. Accordingly, this amendment deletes the word “tom” from the definitions of the KRW rate and replaces the words “settlement in one Business Day” with “settlement in two Business Days”.*
- ~ *The Korean Won rate source definitions provide for a KRW rate availability time of “5:30 p.m., Seoul time, on the Rate Calculation Date, but in no event later than 9:00 a.m., Seoul time, on the Business Day following the Rate Calculation Date”. The final publication time of 9:00 a.m. the next Business Day is a cut-off time for purposes of determining the availability of a Settlement Rate for the Rate Calculation Date.*
- ~ *Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of December 2, 2003, 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 December 2, 2003.*



Amendment Dated March 3, 2003

Taiwanese Dollar/U.S. Dollar Settlement Rate Option

Effective March 3, 2003, Section 4.5(a)(v)(B) of Annex A will be deleted in its entirety (and intentionally left blank) and a new Section 4.5(a)(v)(C) will be added as follows:

- (C) "TWD TAIFX1" or "TWD03" each mean that the Spot Rate for a Rate Calculation Date will be the Taiwanese Dollar/U.S. Dollar spot rate, expressed as the amount of Taiwanese Dollars per one U.S. Dollar, for settlement in two Business Days reported by the Taipei Forex Inc. which appears on the Reuters Screen TAIFX1 Page under the heading "Spot" as of 11:00 a.m., Taipei 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 March 3, 2003, if they desire to incorporate the revised Taiwanese Dollar Rate definition into their trades.*



Amendment Dated January 2, 2003

Argentine Peso/U.S. Dollar Settlement Rate Option

Effective as of January 2, 2003, Section 4.5(c)(i) of Annex A will be amended to delete Section 4.5(c)(i)(B) in its entirety and to replace the provisions of Sections 4.5(c)(i)(C) and (D) with the following:

- (C) “EMTA ARS INDUSTRY SURVEY RATE” or “ARS03” each means that the Spot Rate for a Rate Calculation Date will be the Argentine Peso/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Argentine Pesos per one U.S. Dollar, for settlement on the same day, as published on EMTA’s web site (www.emta.org) at approximately 1:00 p.m. (Buenos Aires 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 ARS Industry Survey Methodology (which means a methodology, dated as of January 2, 2003, as amended from time to time, for a centralized industry-wide survey of financial institutions in Buenos Aires that are active participants in the Argentine Peso/ U.S. Dollar spot markets for the purpose of determining the EMTA ARS Industry Survey Rate).
- (D) “EMTA ARS INDICATIVE SURVEY RATE” or “ARS04” each means that the Spot Rate for a Rate Calculation Date will be the Argentine Peso/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Argentine Pesos per one U.S. Dollar, for

settlement on the same day, as published on EMTA’s web site (www.emta.org) at approximately 1:00 p.m. (Buenos Aires 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 ARS Indicative Survey Methodology (which means a methodology, dated as of January 2, 2003, as amended from time to time, for a centralized industry-wide survey of financial institutions that are active participants in the Argentine Peso/ U.S. Dollar markets for the purpose of determining the EMTA ARS Indicative Survey Rate).

Practitioner’s Notes:

- Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of January 2, 2003, if they desire to incorporate the revised EMTA ARS Industry Survey Rate definition and/or the new EMTA ARS Indicative Survey Rate definition into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Argentine 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 January 2, 2003.
- Section 4.5(c)(i)(B) will be intentionally left blank.



Amendment Dated July 10, 2001

Argentine Peso/U.S. Dollar Settlement Rate Option

Annex A is amended, effective as of July 10, 2001, to replace the current ARS Official Rate definition with that in (1) below, and to add the CME/EMTA ARS Industry Survey Rate definition in (2) below:

1. (B) "ARS OFFICIAL RATE" or "ARS02" each means that the Spot Rate for a Rate Calculation Date will be the Argentine Peso/U.S. Dollar offered rate for U.S. Dollars, expressed as the amount of Argentine Pesos per one U.S. Dollar, for settlement on the same day quoted by Banco de la Nacion (in accordance with the Convertibility Law of March 27, 1991, and Regulatory Decree No. 529/91 of April 1, 1991, as may be amended from time to time) for that Rate Calculation Date.
2. (C) "CME/EMTA ARS INDUSTRY SURVEY RATE" or "ARS03" each means that the Spot Rate for a Rate Calculation Date will be the Argentine Peso/U.S. Dollar Specified Rate for U.S. Dollars, expressed as the amount of Argentine Pesos per one U.S. Dollar, for settlement on the same day calculated by Chicago Mercantile Exchange, Inc. ("CME") pursuant to the CME/EMTA ARS Methodology Summary which appears on the Reuters Screen EMTA Page (the EMTA website (www.emta.org) and CME website (www.cme.com)) at approximately 1:00 p.m. Buenos Aires time, or as soon thereafter as practicable, on the Rate Calculation Date. "CME/EMTA ARS Methodology" as used herein means a methodology dated and effective as of July 10, 2001, for a centralized industry-wide survey of financial institutions in Buenos Aires that are active participants in the Argentine Peso/U.S. Dollar spot markets

for the purpose of determining the CME/EMTA ARS Industry Survey Rate, which is published by EMTA and may be obtained from EMTA's website at www.emta.org.

Practitioner's Notes:

- ~ *The ARS Official Rate is published by Banco de la Nacion on Reuters Page ARSX=BNAR daily between 3:00 p.m. and 5:00 p.m. daily. This information is not included in the ARS Official Rate definition because the Argentine Peso/U.S. Dollar exchange rate is established by the 1991 Convertibility Law. This Law determines the ARS Official Rate for a Rate Calculation Date, regardless of when or where the ARS Official Rate is published on such Rate Calculation Date.*
- ~ *Market participants may agree to the CME/EMTA ARS Industry Survey Rate in accordance with EMTA's recommendations for use in the event of a Price Source Disruption or of a Price Materiality Disruption Event. Details of these Disruption Events are available in the 1998 FX and Currency Option Definitions.*
- ~ *Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of July 10, 2001, if they desire to incorporate the revised ARS Official Rate and CME/EMTA ARS Industry Survey Rate definitions into their trades. If parties do not specify in their confirmations a particular version of Annex A, the above Argentine Peso rate source definitions would apply to trades that incorporate the 1998 FX and Currency Option Definitions and have a trade date on or after July 10, 2001.*



Amendment Dated June 20, 2001

Korean Won/U.S. Dollar Settlement Rate Option

Annex A is amended, effective as of June 20, 2001, to replace the current KRW rate source definitions with the following:

- (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 tom rate, expressed as the amount of Korean Won per one U.S. Dollar, for settlement in one Business Day reported by the Korea Financial Telecommunications and Clearing Corporation which appears on the Reuters Screen KFTC18 Page to the right of the caption “USD Today” that is available at approximately 5:30 p.m., Seoul time on that Rate Calculation Date, or as soon thereafter as practicable, but in no event later than 9:00 a.m., on the Business Day following the Rate Calculation Date.
- (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 tom rate, expressed as the amount of Korean Won per one U.S. Dollar, for settlement in one Business Day reported by the Korea Financial Telecommunications and Clearing Corporation which appears on the Telerate Page 45644 to the right of the caption “USD Today” that is available at approximately 5:30 p.m., Seoul time on that Rate Calculation Date, or as soon thereafter as practicable, but in no event later than 9:00 a.m., on the Business Day following the Rate Calculation Date.

Practitioner’s Notes:

~ The Korean Won rates reported by the Korea Financial Telecommunications and Clearing Corporation are market average rates for value in one Business Day in the local market. The Korean Won rate source definitions have

been amended to reflect this fact by adding the word “tom” to the description of the rate, and adding the words “for settlement in one Business Day”. This does not affect the settlement convention in the non-deliverable markets, which continues to be two Business Days from the Valuation Date.

~ The Korean Won rate source definitions provide for a KRW rate availability time of “5:30 p.m., Seoul time, but no later than 9:00 a.m., on the Business Day following the Rate Calculation Date”. Although the KFTC has reported the KRW rate at the end of each business day for some time now, previously there was no end-of-day publication of the KRW rate. The KRW rate for a particular Business Day was published only at 9:00 a.m. on the next Business Day (e.g., “the Business Day following the Rate Calculation Date”). Now, in light of the end-of-day availability of the KRW rate, market consensus is to reference the 5:30 p.m. time (on the Rate Calculation Date), but to continue to maintain the reference to 9:00 a.m. (on the next Business Day after the Rate Calculation Date) as the final publication time. The final publication time serves as a cut-off time for purposes of determining whether a Settlement Rate is available or whether a Price Source Disruption has occurred. This approach also enables market participants to take into account adjustments to the KRW rate made after the 5:30 p.m. publication (with the addition of late-settling trades into the market average). It also addresses the practical reality that, because the KRW rate is published so late in the day in Seoul, most traders do not consult the rate until 9:00 a.m. on the following Business Day.

~ The Korea Financial Telecommunications and Clearing Corporation reports the KRW rate. However, the KRW rate is published on Reuters Page KFTC18, which is a page supplied by Seoul Money Brokerage Services, LTD.



☞ *Parties that specify in confirmations that a particular version of Annex A applies to their trades should reference Annex A effective as of June 20, 2001, 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 June 20, 2001.*





**24/7
BANKING**



Letters

Supporting the Bankruptcy Provisions of the Bankruptcy Abuse Prevention and Consumer Protection Act of 2005

Announcing the Publication of a Master FX Give-Up Agreement

Commenting on the Romanian Leu Conversion

Announcing New Template Terms and Documentation for Malaysian Ringgit Non-Deliverable Foreign Exchange Transactions

Commenting on the Practice of Issuing Authorization Letters

Commenting on the Retail Foreign Exchange Market

Announcing Best Practice Recommendations for Foreign Exchange Prime Brokerage

**COMMITTEE LETTER • ISSUED JOINTLY
WITH INDUSTRY ASSOCIATIONS**
**Supporting the Bankruptcy Provisions of the
Bankruptcy Abuse Prevention and Consumer
Protection Act of 2005**

March 3, 2005

The Honorable Bill Frist
Majority Leader
U.S. Senate

The Honorable Harry Reid
Democratic Leader
U.S. Senate

The undersigned organizations thank you for your leadership in securing favorable passage of the comprehensive bankruptcy reform bill, “Bankruptcy Abuse Prevention and Consumer Protection Act of 2005” (S. 256), which includes the Financial Contracts Provisions. These provisions strengthen and clarify the enforceability of early termination and close-out netting provisions and related collateral arrangements in U.S. insolvency proceedings. They have bipartisan support, have passed the House and Senate a number of times without opposition, reflect years of work with the President’s Working Group on Financial Markets, and include much needed improvement of the payment risk reduction and netting provisions of the Bankruptcy Code and bank insolvency laws.

The legal uncertainty created by the Bankruptcy Code treatment of financial contracts has resulted in U.S. companies receiving less favorable credit treatment from their trading counterparties than companies that are not subject to the U.S. insolvency laws. The disparate treatment of financial contracts under different insolvency regimes increases risks associated with cross-border insolvencies by providing an incentive for debtors (or their creditors) to initiate insolvency proceedings in different or in multiple jurisdictions. Enactment of these provisions would improve harmonization between U.S. insolvency laws and other jurisdictions such as England, Canada, Australia, France, Germany, and Japan. Additionally, these uncertainties have been a major impediment to the adoption of cross-product netting documentation developed by the industry. Removing these uncertainties will make it easier for providers of credit to ascertain their risks, thereby assisting in providing needed credit to American businesses.

Federal Reserve Chairman Alan Greenspan has testified and submitted letters in favor of the netting provisions for many years, and other federal regulators including the Treasury, FDIC, SEC, and CFTC have supported passage of the netting provisions. **We urge you and**



your Senate colleagues to pass the comprehensive bankruptcy reform measure so that yet another opportunity for enactment of the netting provisions is not missed.

Sincerely,

ABA Securities Association

American Bankers Association

The Bond Market Association

Edison Electric Institute

EMTA (Emerging Markets Traders Association)

The Financial Services Roundtable

The Foreign Exchange Committee

Futures Industry Association

International Swaps and Derivatives Association, Inc.

Investment Company Institute

Managed Funds Association

Securities Industry Association



COMMITTEE LETTER

Announcing the Publication of a Master FX Give-Up Agreement

April 6, 2005

The Foreign Exchange Committee is pleased to announce the publication of a Master FX Give-Up Agreement and invites market participants to use the Agreement in documenting foreign exchange “give-up” relationships. In such relationships, which occur commonly in the foreign exchange markets, a party designated by a prime broker executes transactions with a dealer that are “given up” to the prime broker. The result is one transaction between the dealer and the prime broker and an offsetting transaction between the prime broker and the designated party or funds or accounts for which that party executes foreign exchange trades.

The Master FX Give-Up Agreement is the product of in-depth discussions among market participants and contains generally accepted standard provisions addressing most aspects of the give-up relationship between a prime broker and a dealer. With respect to a few provisions, the Agreement permits the parties to choose which of several clearly defined alternatives they want to apply in their agreement by selecting them in a schedule that is part of the Agreement. The Committee believes that, as a result, this Agreement will greatly facilitate negotiation of give-up agreements and reduce the time and expense necessary to implement them.

In addition, the Foreign Exchange Committee recognizes that parties may always choose to draft and negotiate documentation in a manner that fits the needs of a particular relationship or product and may choose to use other agreements to document give-up arrangements.

The Master FX Give-Up Agreement is a bilateral master agreement, to be entered into by the prime broker and an executing dealer. A Give-Up Agreement Notice, between the prime broker and the dealer, supplements the Master Give-Up Agreement and sets forth the terms under which the dealer may enter into foreign exchange transactions with a particular designated party pursuant to the Master Agreement. The bilateral nature of the Master Agreement reflects the need for efficiency and standardization and takes into account the fact that a prime broker may designate a number of parties to engage in foreign exchange give-up transactions on its behalf pursuant to a single Master Agreement.



The Master FX Give-Up Agreement is accompanied by a Compensation Agreement, designed to be executed by the prime broker's designated party and a dealer. The Compensation Agreement provides for the compensation of losses in the event that the give-up of a transaction is not accepted by the prime broker.

The Foreign Exchange Committee recommends that dealers evaluate the likelihood that prime brokers will reject transactions when they enter into Master FX Give-Up Agreements and assess the possibility that they will incur trading losses as a result. In so doing, dealers should evaluate the controls they have in place to reduce the chance of incurring such losses. Such controls can include internal procedures designed to reduce the possibility of executing trades that may be rejected, use of the Compensation Agreement, or some combination of methods. While the risk of a trade being rejected by the prime broker has generally been considered by market participants to be minimal, the Committee believes that dealers should consider the execution of a Compensation Agreement as a means of addressing that risk. Parties asked to sign a Compensation Agreement should recognize and understand the reasons a dealer would ask them to do so.

The Committee believes that the Master FX Give-Up Agreement and Compensation Agreement will significantly assist participants in the foreign exchange market in the documentation of give-up relationships.



**COMMITTEE OPERATIONS MANAGERS WORKING GROUP
LETTER • ISSUED JOINTLY WITH THE LONDON FOREIGN
EXCHANGE JOINT STANDING COMMITTEE**
Commenting on the Romanian Leu Conversion

May 31, 2005

The London Foreign Exchange Joint Standing Committee Operations Sub-Group (FXJSC Operations Group) and the Foreign Exchange Committee Operations Managers Working Group (FXC Operations Group) are pleased to announce the results of a consultation among members regarding their intentions for processing outstanding foreign exchange trades denominated in Romanian leu to address the conversion of old Romanian leu (ROL) to new Romanian leu as of July 1, 2005. The currency code for the new Romanian leu will be RON.

The FXJSC Operations Group and the FXC Operations Group encourage market participants to review their outstanding ROL trades bridging the July 1, 2005, cutover. In order to promote a smooth operational transition, the FXJSC Operations Group and the FXC Operations Group suggest that market participants contact their trade counterparties to cancel, rebook, and reconfirm spot and forward ROL trades with a value date on and after July 1, 2005, as RON trades with the same original value date. The conversion rate is 1 RON = 10,000 ROL under the Law on the Redenomination of the Domestic Currency (Law No. 348 of 14 July 2004, published in *Monitorul Oficial al României*, Part One, No. 664 of 23 July 2004).

As always, the FXJSC Operations Group and FXC Operations Group recognize that all documentation is negotiated and must be amended on a counterparty-by-counterparty basis. For this reason, parties are encouraged to inventory their existing ROL trades and contact counterparties as soon as possible to resolve any issues regarding the scheduled conversion on a mutually satisfactory basis.

The FXJSC Operations Group and the FXC Operations Group also note that products other than foreign exchange spot and forward trades may raise different operational issues for the parties to consider in the implementation of mutually satisfactory solutions to the scheduled conversion. Other trade associations, including the International Swaps and Derivatives Association, may issue statements to their membership addressing the conversion to RON.



Romanian authorities have published information on the conversion to RON at <www.bnro.ro/def_en.htm>.

If you have any inquiries regarding this notice, please contact Sumita Ghosh (0044.207.601.5982; e-mail: sumita.ghosh@bankofengland.co.uk) or Laura Huizi (001.212.720.2399; e-mail: laura.huizi@ny.frb.org).



**COMMITTEE LETTER • ISSUED JOINTLY WITH THE
SINGAPORE FOREIGN EXCHANGE MARKET COMMITTEE
AND EMTA, INC.**

**Announcing New Template Terms and Documentation
for Malaysian Ringgit Non-Deliverable Foreign Exchange
Transactions**

July 1, 2005

The Singapore Foreign Exchange Market Committee (SFEMC), EMTA, Inc. (EMTA), and the Foreign Exchange Committee (FXC), acting as cosponsors, are pleased to announce the publication of template terms for Malaysian Ringgit/U.S. Dollar non-deliverable foreign exchange transactions (the “MYR Template Terms”) and related documentation. The Treasury Markets Forum of Hong Kong supports the cosponsors in their publication of the MYR Template Terms for the benefit of market participants.

As with the documentation published by the cosponsors for six other Asian currencies in 2004 (the “2004 Templates”), the MYR Template Terms are intended to enhance efficient settlements across the market for non-deliverable foreign exchange transactions in the event of a long-term disruption in the local Malaysian market. In addition to furthering this goal, the MYR Template Terms closely follow the terms of the 2004 Templates, achieving a consistent approach across the Asian currency markets. Like the 2004 Templates, outstanding features of the MYR Template Terms include a 14-day Deferral Period and, following lapse of the Deferral Period, a fallback settlement rate option of an indicative market rate quote based on a survey to be administered by the SFEMC.

By separate publication, the International Swaps and Derivatives Association (ISDA), EMTA, and the FXC have published new rate source definitions for the Malaysian Ringgit to be included in Annex A of the *1998 FX and Currency Option Definitions*. In addition, the rate source definition for the Indonesian Rupiah (IDR) has been amended to more clearly reflect the technical aspects of the rate publication.

To promote market-wide coordination in the bilateral implementation of the new documentation, the effective date of the new MYR Template Terms is July 15, 2005. The effective date of the new and amended Annex A definitions for MYR and IDR is also July 15, 2005.

The MYR Template Terms and the related documentation may be found on the websites of the SFEMC, EMTA, and the FXC at www.sfemc.org (see Market Practice),



<www.emta.org> (see Standard Documentation/FX and Currency Derivatives Documentation), and <www.newyorkfed.org/fxc> (see Ongoing Work/FX Options and NDFS), respectively.

Parties wishing to amend their outstanding MYR/USD transactions to incorporate the new MYR Template Terms should do so on a bilateral basis. Neither EMTA nor the SFEMC will collect or monitor amendments of outstanding transactions. Nevertheless, for the convenience of the marketplace, a form of agreement that may be used to amend outstanding transactions between parties is also available on the websites listed above.

The cosponsors encourage institutions to use the MYR Template Terms to further enhance market efficiency and reduce settlement risk in the event of long-term market disruption. In addition, they are committed to providing ongoing support to the industry as it continues to improve documentation of non-deliverable foreign exchange transactions to promote smooth market functioning.

Loh Boon Chye

Chair

Singapore Foreign Exchange Market Committee

Michael Chamberlin

Executive Director

EMTA, Inc.

Mark Snyder

Chair

Foreign Exchange Committee



COMMITTEE LETTER

Commenting on the Practice of Issuing Authorization Letters

July 14, 2005

Dear Market Participant,

Member firms of the Foreign Exchange Committee have noted that participants in the foreign exchange market are sending to dealing firms letters that limit and restrict the authority of individuals to trade, invest, and authorize settlement-related instructions on the firm's behalf. Such letters attempt to shift the burden of enforcing compliance with internal policies and controls from the participant to the dealing firm and are inconsistent with best practices in the foreign exchange market.

With respect to trading and investing, the limitations set forth in this documentation may take a number of forms including, but not limited to, restrictions on particular employees with respect to currency, amounts that may be traded, and type of instrument. In terms of authorizing settlement-related instructions, the letters may restrict the employees that are authorized to confirm trades or provide settlement instructions for particular products, currencies, or notional trade amounts. This documentation may or may not require that the receiving firm indicate its acceptance of these limitations by returning a signed acknowledgment.

Authentication is a key component of effective market, operational, legal, and reputational risk management. However, each market participant is also responsible for ensuring that its own staff adheres to internal guidelines and authorization restrictions. To send letters that request or would require that a firm monitor whether an individual has authority to act for another entity is contrary to the spirit and intent of authentication. The Committee has consistently taken the position that wholesale foreign exchange market participants are responsible for ensuring compliance with their own internal policies and procedures. (A more complete discussion of authentication, particularly as it relates to confirmation and settlements, is included as an appendix to this letter.)

In its 1995 *Principles and Practices for Wholesale Financial Market Transactions*, the Committee noted that “[a] Participant should maintain and enforce internal and compliance procedures designed so that its Transactions are conducted in accordance with applicable legal and regulatory requirements, internal policies and any specific requirements contained in any agreements applicable to its Transactions.” (Now titled *Guidelines for Foreign Exchange Trading Activities*, the best practices are available on the



Committee's website.) More recently, the Committee issued a letter articulating the risks associated with trading and investing authorization letters last year. In addition, the Committee incorporated this recommendation in the recently updated guidance for nondealer participants, *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants*, also available on the Committee's website.

Parties may agree that one counterparty will, for compensation, perform the service of monitoring whether individuals from another counterparty are acting within the scope of their authority. But unilateral attempts to transfer responsibility for adherence to such procedures are not consistent with best practices and, as a matter of law, raise serious issues regarding enforceability.

In sum, the Committee believes that authentication remains an important element of the management of risk. However, letters or other documentation that purport to unilaterally shift the burden of enforcing compliance with internal policies and limitations to a market counterparty, or that may have that effect, are not consistent with best practices in the wholesale foreign exchange market.

A market participant may wish to reply to such letters or documentation in the event that such participant has a policy, and wishes to assert that policy, of not agreeing to such letters. These responses may take the form of a communication in which the participant affirms that its receipt of such a letter does not impose any duty on it to monitor compliance with the restrictions set forth in the letter or impose any liability if it fails to do so.

Very truly yours,

John Anderson, JPMorgan Chase

Nigel Babbage, BNP Paribas

Joseph De Feo, CLS Bank International

Mark De Gennaro, Lehman Brothers

Simon Eedle, Calyon

Jeff Feig, Citigroup

Peter Gerhard, Goldman Sachs & Co.

Jack Jeffery, EBS Group Limited

Stephen Kemp, Merrill Lynch

Richard Mahoney, The Bank of New York

Christiane Mandell, Bank of America

John Nelson, ABN-AMRO

Philip Newcomb, Morgan Stanley & Co.

Douglas Rhoten, ICAP

Ivan Ritossa, Barclays Capital

Richard Rua, Mellon Bank, N.A.

Ellen Schubert, UBS

Mark Snyder, State Street Corporation

Susan Storey, CIBC World Markets

Jamie Thorsen, Bank of Montreal

Benjamin Welsh, HSBC



Appendix: Confirmation and Settlement

Authentication is the process by which an institution validates that information, instructions, or advices that it has received have originated from a known entity or individual. Authenticated communication methods are those made by way of a secure electronic transfer or communication network, such as SWIFT, where the integrity of the sender's identity is certified and transparent. However, not all counterparties have access to such systems for transferring key financial-related information. In such an environment, alternative authentication procedures can be developed in line with the nature and scale of a firm's foreign exchange (FX) business. To support authentication, firms may exchange signature lists. These lists are intended to validate authentic signatures rather than to represent the authority of individuals to perform narrowly-defined tasks.

Authentication affects all stages of the FX transaction process, but is particularly important in the confirmation and settlement stages. Failure to properly authenticate confirmation and settlement information from counterparties may result in increased operational, market, financial, legal, and reputational risks. Some examples are noted below:

- ❧ Unauthenticated confirmations may facilitate fraudulent trading activity. Trades may not be entered accurately on the books and records of both counterparties, exposing the firm to financial, legal, and reputational risks.
- ❧ Unauthenticated confirmations can increase the risk of settlement errors on value date, resulting in increased operational risk and market risk.
- ❧ Settlement instructions sent through unauthenticated means can result in incorrect or fraudulent instructions being applied to a specific settlement or captured in a standing settlement instructions (SSIs) database. Funds could be directed to an erroneous recipient, exposing the firm to legal, financial, and reputational risks.
- ❧ Third-party advices that include unfamiliar payees could expose firms to illicit activities such as money laundering and illegal cash transfers. A failure to comply with applicable "Know Your Customer" laws and regulations could heighten the firm's exposure to legal and reputational risks.

In order to mitigate these risks, the Committee recommends that firms employ the following acceptable practices:

Confirmation Process

The confirmation process should be automated, where possible. However, in the event that phone confirmations are necessary, the individual confirming trade details (such as trade date, notional amount, settlement date, currency pair) should not be the executing trader or a member of the front-office staff. Instead, the confirming individual must be able



to represent the trade details incorporated in the institution's books and records (that is, the back office). Moreover, this confirmation should be completed on a recorded line. Following the telephone confirmation, both parties should exchange and match a written confirmation via fax, mail, or e-mail.

Settlement Instructions

The counterparty should agree to a protocol for exchanging standard settlement instructions. Acceptable practices include the exchange of SWIFT messages or other authenticated electronic means, such as Alert, FXall Settlement Center, or a hardcopy format of instructions. For any non-SSI instructions received, including third-party payments, the following best practices are recommended:

- ✧ If faxed, the specific instructions, together with the transaction details and cash movements, should be received on firm letterhead.
- ✧ If via e-mail notification, the e-mail address should be a "known" counterparty name and address. The instructions and transaction information can be contained either in the content of the e-mail or as an attachment on firm letterhead.
- ✧ If instructions are given verbally over a recorded line, the counterparty should request written instructions to be sent referencing the specific settlement. If the instruction becomes the standard instruction going forward, then the normal SSI protocol should be followed.
- ✧ Third-party payments are the transfer of settlement funds for an FX transaction to the account of an entity other than the counterparty to the transaction. For a third-party payment, the written payment instructions should include details such as transaction cash movements; the third-party's receiving bank name, address, and account number; and the affiliation of the third party to the beneficial owner.



COMMITTEE LETTER

Commenting on the Retail Foreign Exchange Market

December 9, 2005

Dear Market Participant,

Over the past few years, the Foreign Exchange Committee has studied the market implications of a number of recent industry developments, including the rapid growth of electronic trading platforms, new distribution channels, and business practice developments. The introduction of intermediated distribution and credit arrangements, together with heightened retail investor interest in foreign exchange, has transformed the nature of the relationships among market participants. At the same time, credit and liquidity have become unbundled and repackaged for nontraditional or noninstitutional participants. As the foreign exchange industry continues to evolve rapidly, it is important that institutions be vigilant in mitigating the legal, operational, and reputational risks that might accompany retail foreign exchange trading.

The number of individuals interested in including foreign exchange in their investment portfolios has increased significantly. Technology has allowed price discovery, liquidity, pre- and post-trade information, aggregation, execution, confirmation, and reporting services to be parsed in real, or near real, time. Specialists now offer individual segments of what had historically been bundled transaction services in the foreign exchange distribution channel. Examples of this segmentation include:

- ⌘ Retail aggregation, or the development of portals for retail investors to trade foreign exchange on a margin basis (see Appendix 1); and
- ⌘ White labeling, or the “outsourcing” of foreign exchange pricing and liquidity to a third-party bank, typically through an e-commerce platform (see Appendix 2).

These and other innovations separate the wholesale foreign exchange dealer from the end user, perhaps by multiple intermediaries. Segmentation may complicate the execution of responsibilities that accompany foreign exchange trading—from typical know-your-customer and anti-money-laundering obligations to compliance with statutory and supervisory guidance invoked for particular clients (retail investors) or markets (securities, where foreign exchange is bundled with other products) (see Appendix 3).



Even if not a legal counterparty to a trade with a retail investor, a foreign exchange dealer is exposed to reputational risk if it is linked to a chain of transactions that result in dissatisfaction or litigation or both. Reputational risk is the current and prospective impact on earnings and capital caused by negative public opinion regarding an institution's products or activities. This risk affects the institution's ability to establish new relationships or services or to continue servicing existing relationships. In addition, reputational risk may expose the institution to litigation, financial loss, or a decline in its customer base. Carefully drawn contracts may minimize, but not completely remove, the risk of entanglement in a dispute arising elsewhere in the channel of distribution. Financial institutions may be exposed to reputational damage that exceeds any legal liability.

We encourage market participants to review their legal and contractual relationships with clients, intermediaries, vendors, and other entities that could be considered counterparties. Participants should ensure compliance with anti-money-laundering, counterterrorism, bank secrecy, and privacy regulations. They should also ensure that the existence of intermediaries does not obscure responsibility for these compliance functions by the party or parties that have that legal responsibility. Issues of client sophistication and disclosure, regulatory jurisdictions, and local securities laws should be dealt with, as appropriate. Care should be taken that no party in the foreign exchange distribution channel is misled regarding the rights and obligations of its counterparties.

The promotion of an efficient and vigorous foreign exchange market through ongoing improvements in the quality of risk management is a core element of the Foreign Exchange Committee's mandate. Traditionally, the Committee has focused on market, credit, and operational risks. Although reputational risk is not new to the foreign exchange market, recent developments highlighted in this letter and its appendices suggest that reputational risk may be even more important for market participants going forward. In sum, we advise that each firm carefully review its documentation and consider the commercial benefits and all the potential risks—market, credit, operational, and reputational—as it determines the business models appropriate to its organization.

Very truly yours,

Mark Snyder

Chair

Foreign Exchange Committee



COMMITTEE LETTER

Commenting on the Retail Foreign Exchange Market Appendix I: Retail Aggregation

Disclaimer: The following appendices were developed by the Foreign Exchange Committee based on information available to, and collected on a best-efforts basis by, the drafters. The Committee does not guarantee the accuracy of these appendices and notes that, given the fluidity of the foreign exchange market, the data are subject to change. No person should rely on the information provided herein.

The evolution of electronic trading technology over the past several years has led to the rapid development of the retail aggregator (RA) market segment. Retail aggregators can be either financial institutions (banks, registered brokers) or intermediaries (for example, E-Trade, where foreign exchange is an induced flow from other electronically traded businesses). Many RAs are registered futures commission merchants (FCMs) whose retail foreign exchange business has developed from their retail futures client base.

There are approximately thirty RAs in the United States, with ten significant firms. With the U.S. market reportedly reaching saturation, some U.S. RAs have begun expanding their operations and establishing offices in China, Hong Kong, and Japan to try to capture business in Asia. Retail foreign exchange trading is reportedly well established and widespread in Asia, with more than 100 RAs in Japan alone.

Retail aggregators act as portals through which retail investors can trade foreign exchange on a margin basis, using sophisticated technology. RAs provide a focused client service offering based on foreign exchange spot transactions with consistent tight spreads and foreign exchange orders (both stop-loss and take-profit). They deal

mainly in the G-7 (Group of Seven) currencies; the vast majority of their trades are in the EUR/USD and USD/JPY currency pairs. Clients utilize a web-based interface for trading as well as APIs (application program interfaces) for position management, margin utilization, and reporting. Although automated position rolls are offered, RAs do not offer settlement for their clients.

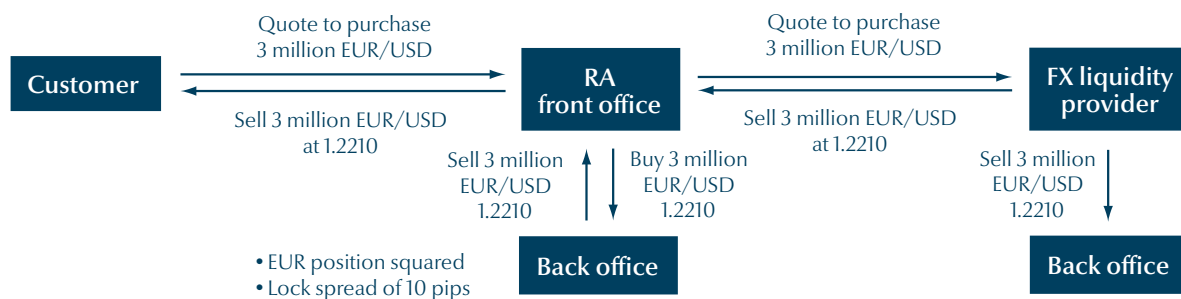
Firms spend tremendous resources to develop a sophisticated business process with cutting-edge technology and marketing. Each firm has only a handful of in-house traders given that all liquidity is quickly outsourced.

The target market for RAs consists of retail investors and small professional counterparties such as CTAs (commodity trading advisors), hedge funds, and banks that want to access the foreign exchange market at “interbank” spreads. RAs offer clients leverage ranging from 50:1 to 400:1, with initial margin requirements as low as \$200 for “mini” accounts. The average size of client trades is in the range of \$100,000 to \$500,000, with a minimum of approximately \$10,000 to establish a regular trading account. While RAs have experienced tremendous growth in total customer accounts, some also report client burnout rates in excess of 50 percent.



Figure 1

FX Retail Aggregation Process, One-to-One Hedging



RAs have absolutely no risk tolerance toward their clients. They retain the right to reject client deals, and every client request is automatically checked against client limits. Their margin policy is stringent with forced closeouts.

Typically, RAs have minimal capital and no settlement requirements. To manage market risk, RAs may utilize either one-to-one hedges with a liquidity provider so that each client trade is priced according to liquidity provider quotes and back-to-backs executed with the client, or deal aggregation and periodic market risk offsets. With deal aggregation, only minimal foreign exchange risk positions are created (for example, positions of \$3 million to \$5 million, with no strategic foreign exchange positions being held).

RAs depend on the major foreign exchange market makers as liquidity providers. Typically, RAs maintain trading relationships with between two and four providers. In addition to trade execution, RAs often use prime brokerage or CLS services from their key liquidity providers.

RAs generate revenues from the spread on each ticket; increasingly, they charge a

fee for acting as a price provider. They often offer their clients consistent spreads (for example, EUR is always 5 pips wide despite market conditions) and rely upon their ability to obtain liquidity inside the spread they broadcast to their customers. They may also obtain income from rolls, fees (either ticket or subscription), and interest on collateral deposits. Their chief costs are technology and marketing as well as capital costs on collateral or fees paid to liquidity providers for CLS or prime brokerage services.

In the United States, most RAs are futures commission merchants that fall under the regulatory auspices of the Commodities Futures Trading Commission and are fully subject to the USA PATRIOT Act. As such, they are required to have an anti-money-laundering program equivalent to that of banks and broker-dealers, including

- a system of internal controls, policies, and procedures;
- a senior officer responsible for the anti-money-laundering program;
- an anti-money-laundering training program; and



✎ an independent audit for compliance with the anti-money-laundering program.

In addition, RAs are required to obtain and verify the identity of all their clients, including the client's name, address, social security number, and date of birth, and to compare their client names against government-supplied lists.

Despite the above restrictions, RAs are not required to register as FCMs.



COMMITTEE LETTER

Commenting on the Retail Foreign Exchange Market Appendix 2: White Labeling

White labeling is the name given to an arrangement whereby a bank (white-label bank) uses an e-commerce platform to allow its clients to execute foreign exchange transactions at prices quoted by a third-party bank (liquidity provider). Under a white-label arrangement, a client trades with the white-label bank at the price provided by the liquidity provider. At the same time, an equivalent trade is automatically generated between the white-label bank and the liquidity provider, thereby transferring the market risk associated with the initial transaction to the liquidity provider.

White labeling may involve only the outsourcing of market risk management or, additionally, the outsourcing of technology and trading platforms. The latter requires the liquidity provider, or an IT vendor on behalf of the liquidity provider, to provide an e-commerce platform that is branded with the identity of the white-label bank. It is estimated that approximately twenty to thirty institutions have implemented a white-labeling

arrangement, outsourcing both liquidity and technology, while approximately forty to fifty institutions have partially or wholly outsourced liquidity.

The white-label bank is able to offer its clients a broader array of foreign exchange services without incurring the costs of independently developing the associated infrastructure. The arrangement allows the white-label bank to enhance its client relationships without substantially increasing its infrastructure costs. The white-label bank also retains important customer service and credit relationships, while outsourcing foreign exchange pricing and risk management to the liquidity provider. Since the white-label bank retains the credit relationship with the client, it also retains the know-your-customer and anti-money-laundering due diligence responsibilities.

The liquidity provider in a white-labeling arrangement benefits from the creation of a fee- and spread-based revenue stream. The establishment of additional distribution channels may also result in increased

Figure 2
White-Labeling Trade Process



deal volume. In light of ongoing pressures on margins, this greater volume enables the liquidity provider to leverage its investments in technology and infrastructure for greater profitability.

White-labeling arrangements are typically tailored to the individual white-label bank's requirements. For example, a white-label bank may elect to receive prices from the liquidity provider only in certain currencies, deal sizes, or time zones. Examples of these bespoke arrangements include:

- ❧ Small- and medium-sized banks outsourcing liquidity provision "out of hours." The white-label bank is able to offer its customers twenty-four-hour service without dedicating staff resources over the entire period.
- ❧ Regional banks outsourcing currencies in which they have no particular expertise or core competency; for example, a regional North American bank might outsource secondary and exotic currencies.



COMMITTEE LETTER

Commenting on the Retail Foreign Exchange Market Appendix 3: Legal Framework for Understanding the Retail-Wholesale Boundary in Foreign Exchange

The Financial Markets Lawyers Group (FMLG) has been asked to provide its views to the Foreign Exchange Committee (FXC) on the legal framework for understanding the retail-wholesale boundary in foreign exchange. This information is being made available to educate foreign exchange market participants about issues that they should consider with their dedicated legal counsel. This document provides a discussion of issues that may arise under United States and New York law as of December 9, 2005. The views expressed in this document are subject to change and to revisions in the law; are not intended to, and do not, constitute legal advice; and do not constitute an official position of the FMLG or the FXC.

Executive Summary

The Retail-Wholesale Subcommittee of the Foreign Exchange Committee asked the FMLG a number of questions with respect to the boundary between the wholesale foreign exchange market and the retail foreign exchange market. It is the view of the FMLG that the line between the retail and wholesale markets, and the changing responsibilities of foreign exchange dealers, can only be determined on a case-by-case, product-by-product basis. A transaction that may be thought of as “wholesale” in one situation may more appropriately be thought of as “retail” if, for example, the nature of the counterparty were to change. This contextual approach to the

issue requires that, in order to protect themselves, dealers analyze the product, the transactions, and the counterparty with a view toward properly understanding the risks and allocating those risks in a way consistent with the parties’ expectations.

We note that foreign exchange dealers may take steps to protect themselves from reputational risk or undertake specified contractual responsibilities vis-à-vis their counterparties. However, these voluntary measures should not be construed as implying or giving rise to statutory or regulatory requirements. As described below, the best way to mitigate the risks posed by new products is to provide for clear contractual documentation that reflects the parties’ expectations and allocates the risks and responsibilities between the parties.

Statutory and Supervisory Guidance

A useful statutory concept for analyzing this issue is contained in the Commodity Exchange Act (CEA). In the discussions leading up to the adoption of the CEA amendments contained in the Commodity Futures Modernization Act (CFMA) in 2000, participants put forth much effort to distinguish wholesale foreign exchange market futures transactions from retail futures transactions, with the retail futures transactions being subject to the protections of the CEA.



Specifically, the CEA, as amended by the CFMA, excludes from the regulatory jurisdiction of the Commodity Futures Trading Commission (CFTC) foreign exchange futures transactions that involve regulated financial institutions, including banks, broker-dealers, and insurance companies. This exclusion includes transactions between those types of entities and any other person or entity. The theory behind this treatment is that the supervisors of the financial institutions—such as the Office of the Comptroller of the Currency (OCC), the Federal Reserve System, the Securities and Exchange Commission (SEC), and state insurance regulators—are in a better position to police the activities of those entities.

The CEA also excludes from the jurisdiction of the CFTC futures transactions involving “eligible contract participants” (ECPs) that are not regulated financial institutions. The CEA’s framework for nonregulated entities that are ECPs provides some guidance regarding the nature of a retail entity. Broadly, the CEA defines ECPs as:

1. banks, broker-dealers, futures commission merchants (FCMs), and other regulated entities;
2. certain other institutions, such as commodity pools, ERISA (Employee Retirement Income Security Act of 1974) plans, and governments that meet certain size tests;
3. corporations and partnerships having total assets greater than \$10 million or having a net worth greater than \$1 million, and the transaction is for balance sheet management; and
4. individuals having total assets greater than \$10 million or having total assets greater than \$5 million, and the transaction is for balance sheet management.

In effect, the asset tests contained in (3) and (4) create a boundary line for wholesale-retail transactions for purposes of complying with the CEA. Futures transactions involving entities that are not regulated financial institutions, and that are not ECPs because they do not meet the asset tests, are subject to the full regulatory jurisdiction of the CFTC. At this time, however, Congress is considering legislation to reauthorize the CFTC and to amend provisions of the CEA to broaden the jurisdiction of the CFTC over retail futures transactions. The preceding discussion could be affected by such legislation, if it is enacted.

With respect to the regulated financial institutions that are excluded from the CEA, we may look to industry, regulatory, and supervisory guidance to determine the border between the wholesale and retail foreign exchange markets. Recently, efforts have been made to provide a definition of retail for special purposes; for example, the second report of the Counterparty Risk Management Policy Group (2005) provides guiding principles for firms to manage reputational risk associated with the sale of complex structured products to retail investors, who within this context are defined to be individual investors who are not investment professionals and act for their own account. Outside of the CEA, however, no industry, regulatory, or supervisory guidance provides a specific bright-line test for the boundary between retail and wholesale in foreign exchange.

However, supervisory guidance is clear that firms, in order to protect themselves, must take into account the types of counterparties with which they deal and the overall context of the dealing relationship. The Federal Reserve's Trading and Capital Markets Activities Manual emphasizes that firms, depending on the circumstances, must take into account the sophistication of a counterparty, the nature of the relationship, and the type of transaction being contemplated or executed. Specifically, the manual states that with respect to a determination of customer suitability:

For its own protection, a financial institution should take steps to ensure that its counterparties understand the nature and risk inherent in agreed-upon transactions. These procedures may vary with the type and sophistication of a counterparty. When a counterparty is unsophisticated, either generally or with respect to a particular type of transaction, the financial institution should take additional steps to adequately disclose the attendant risks of specific types of transactions. Furthermore, a financial institution that recommends specific transactions to an unsophisticated counterparty should have adequate information on which to base its recommendation—and the recommendation should be consistent with the needs of the counterparty as known to the financial institution.¹

This approach requires procedures that are variable and flexible. From this it may be inferred that financial institutions should not structure their procedures

around an inflexible definition of retail and wholesale markets. Rather, from the financial institution's perspective, the important inquiry is into the nature of the trading relationship and the nature and sophistication of the counterparty. There is no bright line, but context can alter the duties of a financial institution.

Questions and Answers

1. Can we define a retail-wholesale boundary?

As described above, there are no bright-line legal rules that describe a clear boundary between retail and wholesale foreign exchange. While some statutory provisions, such as the ECP concept in the CEA, may provide some guidance, a dealer must consider all aspects of a transaction and trading relationship to properly understand its duties and obligations.

2. Do the responsibilities of dealers differ when they are on different sides of that line?

As noted above, the responsibilities of a foreign exchange dealer may differ, but for a regulated financial institution the difference is not based on a legal retail-wholesale boundary line with a specific legal standard. Instead, it is based on the dealer's specific contractual obligations and its prudent risk management of its exposures. To protect itself from risk, a dealer must take into account the overall context of the transaction and the counterparty relationship when determining its responsibilities. These responsibilities

¹Federal Reserve System, Trading and Capital-Markets Activities Manual, Section 2150.1, "Customer Suitability."



will vary with the financial position of the counterparty, the sophistication of the counterparty, the dealing relationship, the type of transaction, the nature of the product, and other factors. Each of these factors must be considered when a foreign exchange dealer determines what responsibilities it has to its counterparty with respect to disclosure and suitability analysis.

3. **Is the boundary line being blurred by new products?**

As we noted above, a clear boundary line between the retail and wholesale foreign exchange markets does not exist. A dealer must determine its responsibilities and duties based on the overall context of the dealing relationship. The introduction of new products does not alter this analysis; rather, it offers an additional element that must be factored into the overall contextual analysis. Each new product must be analyzed with respect to the particular issues that it raises and the risks that it poses to the dealer. A dealer, in order to protect itself, must examine on a case-by-case basis the required disclosure, due diligence procedures, and documentation. The analysis should consider all the factors

of the dealing relationship in the context of the risks posed by the features of the new product. A dealer will also need to determine what risk mitigation techniques should be used to address the particular risks of new products.

4. **What can be done to mitigate the risks?**

Strong and clear contractual provisions are the most effective tool for mitigating risk. The responsibilities of, and the risks faced by, a dealer with respect to counterparty transactions should always be clearly documented. The absence of clear legal standards imposing specific duties on a dealer requires that market participants use clear contractual language that defines the roles of the respective parties, determines liability upon the occurrence of certain events, and allocates the various risks represented by the transaction, product, or relationship to ensure that all parties are aware of the risks inherent in dealing. Clear contractual language is the best evidence of the intent of the parties with respect to these issues. Accordingly, a dealer should consider contractual provisions that clearly describe the principal-to-principal nature of a transaction or arrangement.



COMMITTEE LETTER

Announcing Best Practice Recommendations for Foreign Exchange Prime Brokerage

December 19, 2005

Dear Market Participant,

In light of the significant increase in foreign exchange prime brokerage transaction volume and market participation, the Foreign Exchange Committee established a working group to explore the risks associated with the product.

The resulting document, *Foreign Exchange Prime Brokerage: Product Overview and Best Practice Recommendations*, reflects the working group's collective experience with the service. The document provides a description of the prime brokerage product, participants, value proposition, and legal framework. It also includes a collection of recommended best practices that clarify the relationship among the prime broker, executing dealer, and client in order to mitigate some of the credit, operational, and reputational risks associated with the prime brokerage service. The recommended best practices should be read in conjunction with the Committee's three primary documents—*Guidelines for Foreign Exchange Trading Activities*, *Management of Operational Risk in Foreign Exchange*, and *Foreign Exchange Transaction Processing: Execution-to-Settlement Recommendations for Nondealer Participants*.

Earlier this year, the Committee and the Financial Markets Lawyers Group published standard legal documentation for foreign exchange prime brokerage market participants. The Master FX Give-Up Agreement is a bilateral master agreement, to be entered into by the prime broker and an executing dealer. A Give-Up Agreement Notice supplements the Master Give-Up Agreement and sets forth the terms under which the dealer may enter into foreign exchange transactions with a particular designated party. The Master FX Give-Up Agreement may be accompanied by a Compensation Agreement, to be executed by the prime broker's designated party and a dealer. The Compensation Agreement provides for the compensation of losses in the event that the prime broker does not accept the give-up of a transaction.

The Committee first published recommended guidelines for the foreign exchange industry in 1979. As the market evolves and new instruments, participants, and services



are introduced, the Committee will continue to review its market guidance on an ongoing basis and address as needed other practices that affect the smooth and efficient functioning of the market. Together with all the Committee's publications, the prime brokerage materials are available online at <www.newyorkfed.org/fxc>.

Yours truly,

Mark Snyder
Chair
Foreign Exchange Committee



Survey

of North American

Foreign Exchange

Volume



ANNOUNCEMENT

Foreign Exchange Committee Releases FX Volume Survey Results

New York, January 23, 2006

The Foreign Exchange Committee today released the results of its third Survey of North American Foreign Exchange Volume. For the October 2005 reporting period, key findings include:

- ~ average daily volume in traditional foreign exchange instruments (spot transactions, outright forwards, and foreign exchange swaps) totaled \$440 billion;
- ~ average daily volume in over-the-counter foreign exchange options totaled \$37 billion; and
- ~ combined total average daily volume of traditional foreign exchange instruments and options increased 28.4 percent since October 2004, driven by an increase in forward transactions.

“These survey results provide our first year-on-year comparison of foreign exchange market volume, and the significant increases that we’ve seen since the inaugural survey in October 2004 illustrate the strong growth in foreign exchange market volume,” said Mark Snyder, Chair of the Foreign Exchange Committee. “This survey, together with the related market share report, can be used by market participants to monitor developing foreign exchange industry trends and allocate their resources accordingly.”

This new 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 2005. The Committee also collaborated with the United Kingdom’s Foreign Exchange Joint Standing Committee (FXJSC) and the Singapore Foreign Exchange Market Committee (SFEMC), which conducted similar surveys for the U.K. and Singapore markets, respectively, over the same time period. The FXJSC and the SFEMC are also 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 differences in the reporting methodology.

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 online at <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 <www.bankofengland.co.uk/markets/forex/fxjsc/index.htm>. The results of the Singapore Foreign Exchange Market Committee's survey for the Singapore market can be found at <www.sfemc.org>.

Contact: Lynn Mansfield
Telephone: 617-664-1148



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 transactions, forwards, swaps, and options that involve the exchange of two currencies. Turnover is defined as the gross value in U.S. dollars of purchases and sales entered into during the reporting period. The data cover a full one-month period 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 volume was obtained by dividing the total reported volume by twenty trading days in the United States in October 2005 and by twenty-one trading days in the United States in April 2005. 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 made up 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 involve 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—the terms depend upon 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: comprises contracts having an original maturity of fewer than thirty-one calendar days,
- ~ one month to one year: comprises contracts having an original maturity of thirty-one calendar days but no more than one year, and
- ~ more than one year: comprises 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: comprises options with an expiration date of fewer than thirty-one calendar days,
- ~ one to six months: comprises options with expirations of 31 to 180 calendar days, and
- ~ more than six months: comprises 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, transactions 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, transactions 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.



List of Reporting Dealers

ABN AMRO	JPMorgan Chase Bank
Bank of America	Lehman Brothers
Bank of Montreal	Mellon Bank N.A.
The Bank of New York	Merrill Lynch
Bank of Tokyo-Mitsubishi	Mizuho Corporate Bank
Barclays Capital	Morgan Stanley
Bear Stearns	Royal Bank of Canada
BNP Paribas	Royal Bank of Scotland
Calyon	Skandinaviska Enskilda Bank
Canadian Imperial Bank of Commerce	Société Générale
Citigroup	Standard Chartered
CSFB	State Street Corporation
Deutsche Bank AG	Sumitomo Mitsui Banking Corporation
Dresdner Bank AG	UBS Bank
Goldman Sachs & Co.	Wells Fargo Bank N.A.
HSBC Bank USA	



Tables

MARKET SHARE, October 2005

Percent

Instrument	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
SPOT TRANSACTIONS					
Ranges held	≥6.04	6.01 - 3.49	2.96 - 2.22	1.19 - 0.56	≤0.45
Market share	50.26	28.15	14.68	4.75	2.14
OUTRIGHT FORWARDS					
Ranges held	≥6.76	6.68 - 2.97	2.03 - 0.97	0.52 - 0.33	≤0.23
Market share	58.57	29.61	8.62	2.55	0.65
FOREIGN EXCHANGE SWAPS					
Ranges held	≥5.36	4.66 - 4.20	3.49 - 1.65	1.41 - 0.52	≤0.45
Market share	50.59	27.13	14.56	6.14	1.57
OTC FOREIGN EXCHANGE OPTIONS					
Ranges held	≥6.11	5.17 - 3.57	3.38 - 1.03	1.00 - 0.29	≤0.25
Market share	59.09	25.92	10.54	3.73	0.73
Counterparty					
	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
REPORTING DEALERS					
Ranges held	≥5.54	5.47 - 3.48	3.42 - 1.70	1.51 - 0.45	≤0.37
Market share	50.54	25.99	16.05	5.39	2.05
OTHER DEALERS					
Ranges held	≥6.24	5.76 - 3.35	2.81 - 1.76	1.49 - 0.61	≤0.53
Market share	50.26	27.30	14.18	6.08	2.18
OTHER FINANCIAL CUSTOMERS					
Ranges held	≥6.87	4.96 - 3.00	2.96 - 0.35	0.35 - 0.17	≤0.17
Market share	65.79	23.62	8.42	1.65	0.49
NONFINANCIAL CUSTOMERS					
Ranges held	≥5.84	3.94 - 2.05	1.92 - 0.89	0.88 - 0.39	≤0.22
Market share	69.18	16.88	9.09	4.00	0.85

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 2005

Percent

Currency Pair	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
U.S. DOLLAR VERSUS					
Euro					
Ranges held	≥6.39	6.16 - 3.63	2.95 - 1.86	1.46 - 0.60	≤0.43
Market share	46.91	31.09	14.10	6.20	1.68
Japanese yen					
Ranges held	≥6.46	6.36 - 3.61	3.30 - 1.56	1.32 - 0.55	≤0.52
Market share	49.77	29.14	13.95	5.18	1.98
British pound					
Ranges held	≥6.10	5.64 - 4.14	3.03 - 1.35	1.22 - 0.34	≤0.32
Market share	52.52	29.27	13.03	4.04	1.13
Canadian dollar					
Ranges held	≥5.69	5.56 - 4.72	3.15 - 1.32	1.23 - 0.37	≤0.24
Market share	48.94	30.69	14.19	5.24	0.93
Swiss franc					
Ranges held	≥5.17	5.14 - 3.17	2.62 - 1.28	1.26 - 0.48	≤0.25
Market share	57.53	25.10	10.84	5.57	0.96
Australian dollar					
Ranges held	≥6.04	6.02 - 4.09	3.91 - 1.25	1.10 - 0.21	≤0.21
Market share	49.71	30.61	14.90	4.05	0.74
Argentine peso					
Ranges held	≥7.91	7.07 - 1.44	1.34 - 0.04	0.00 - 0.00	0.00
Market share	73.43	21.45	5.14	0.00	0.00
Brazilian real					
Ranges held	≥6.80	6.01 - 2.65	2.25 - 0.39	0.34 - 0.00	0.00
Market share	70.38	21.47	7.42	0.73	0.00
Chilean peso					
Ranges held	≥8.52	7.52 - 2.10	2.07 - 0.09	0.04 - 0.00	0.00
Market share	69.19	24.65	6.08	0.06	0.00
Mexican peso					
Ranges held	≥6.21	5.91 - 2.90	2.10 - 1.06	0.98 - 0.05	≤0.04
Market share	60.30	27.29	9.43	2.84	0.15
All other currencies					
Ranges held	≥6.74	6.13 - 3.03	2.89 - 1.20	1.20 - 0.40	≤0.37
Market share	57.25	26.50	11.45	3.78	1.01
EURO VERSUS					
Japanese yen					
Ranges held	≥6.33	5.46 - 2.76	2.67 - 1.79	1.43 - 0.73	≤0.59
Market share	54.24	24.24	13.44	6.22	1.90
British pound					
Ranges held	≥6.04	5.56 - 4.28	3.43 - 1.80	1.41 - 0.37	≤0.35
Market share	48.22	29.77	15.85	5.13	1.02
Swiss franc					
Ranges held	≥5.82	5.75 - 4.35	3.65 - 1.72	1.65 - 0.39	≤0.32
Market share	45.70	29.37	17.91	6.21	0.81
ALL OTHER CURRENCY PAIRS					
Ranges held	≥7.91	7.68 - 2.52	2.10 - 0.77	0.72 - 0.28	≤0.20
Market share	60.88	26.14	9.33	2.98	0.65

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 2005

Percent

Instrument	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
SPOT TRANSACTIONS					
Ranges held	≥5.28	5.25 - 3.66	3.30 - 1.99	1.68 - 0.50	≤0.50
Market share	49.45	26.94	16.23	5.05	2.33
OUTRIGHT FORWARDS					
Ranges held	≥7.84	7.71 - 2.19	1.79 - 1.05	0.50 - 0.33	≤0.22
Market share	58.02	29.45	9.05	2.66	0.82
FOREIGN EXCHANGE SWAPS					
Ranges held	≥5.44	4.77 - 4.16	3.94 - 1.42	1.41 - 0.71	≤0.42
Market share	49.69	27.22	15.86	5.64	1.59
OTC FOREIGN EXCHANGE OPTIONS					
Ranges held	≥5.60	5.49 - 2.39	2.37 - 1.00	0.84 - 0.24	≤0.16
Market share	61.50	23.80	11.05	3.22	0.43
Counterparty					
	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
REPORTING DEALERS					
Ranges held	≥5.42	5.31 - 3.66	3.44 - 1.54	1.47 - 0.48	≤0.44
Market share	52.19	26.60	13.51	5.48	2.22
OTHER DEALERS					
Ranges held	≥5.51	5.38 - 3.80	3.75 - 1.84	1.56 - 0.77	≤0.64
Market share	46.87	27.47	16.03	7.02	2.61
OTHER FINANCIAL CUSTOMERS					
Ranges held	≥8.34	7.77 - 2.82	2.48 - 0.47	0.30 - 0.13	≤0.09
Market share	62.70	28.12	7.50	1.42	0.26
NONFINANCIAL CUSTOMERS					
Ranges held	≥5.77	4.37 - 2.36	2.20 - 1.26	1.02 - 0.41	≤0.39
Market share	65.56	18.80	10.00	4.07	1.57

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 2005

Percent

Currency Pair	First Quintile (Six Dealers)	Second Quintile (Six Dealers)	Third Quintile (Six Dealers)	Fourth Quintile (Six Dealers)	Last Quintile (Seven Dealers)
U.S. DOLLAR VERSUS					
Euro					
Ranges held	≥6.30	5.76 - 4.15	3.65 - 1.44	1.43 - 0.63	≤0.47
Market share	45.48	30.35	15.35	6.86	1.97
Japanese yen					
Ranges held	≥6.68	5.31 - 3.34	3.07 - 1.31	1.01 - 0.77	≤0.62
Market share	53.73	26.00	12.67	5.47	2.13
British pound					
Ranges held	≥5.78	5.75 - 3.99	3.44 - 1.64	1.47 - 0.58	≤0.55
Market share	50.28	28.52	14.16	5.42	1.62
Canadian dollar					
Ranges held	≥5.88	5.82 - 3.51	3.13 - 1.55	1.09 - 0.30	≤0.28
Market share	52.27	28.48	14.01	4.28	0.96
Swiss franc					
Ranges held	≥6.13	5.49 - 3.89	3.85 - 1.91	1.47 - 0.35	≤0.25
Market share	50.01	26.78	17.25	4.97	0.99
Australian dollar					
Ranges held	≥7.02	6.69 - 4.16	3.51 - 1.76	0.93 - 0.36	≤0.29
Market share	51.23	30.00	13.88	3.89	1.00
Argentine peso					
Ranges held	≥4.36	4.30 - 1.40	1.23 - 0.11	0.08 - 0.00	0.00
Market share	80.51	15.69	3.71	0.08	0.00
Brazilian real					
Ranges held	≥7.17	4.13 - 2.42	1.75 - 0.45	0.30 - 0.03	0.00
Market share	73.59	19.69	6.10	0.61	0.00
Chilean peso					
Ranges held	≥5.71	5.59 - 1.88	1.83 - 0.04	0.00	0.00
Market share	74.81	20.80	4.39	0.00	0.00
Mexican peso					
Ranges held	≥6.14	5.47 - 2.27	2.15 - 1.09	0.89 - 0.03	≤0.03
Market share	65.84	22.41	9.22	2.46	0.08
All other currencies					
Ranges held	≥6.98	6.51 - 3.35	2.98 - 1.07	0.79 - 0.39	≤0.38
Market share	54.81	31.10	10.04	3.21	0.83
EURO VERSUS					
Japanese yen					
Ranges held	≥6.92	5.73 - 2.99	2.93 - 1.50	1.49 - 0.48	≤0.37
Market share	55.10	25.69	13.34	4.71	1.17
British pound					
Ranges held	≥5.65	5.35 - 4.40	3.20 - 1.28	1.02 - 0.41	≤0.34
Market share	51.39	28.99	14.17	4.40	1.05
Swiss franc					
Ranges held	≥6.57	6.19 - 4.48	4.21 - 1.20	1.17 - 0.21	≤0.19
Market share	46.47	31.14	18.61	3.05	0.73
ALL OTHER CURRENCY PAIRS					
Ranges held	≥6.87	5.87 - 2.97	2.69 - 1.02	0.98 - 0.35	≤0.33
Market share	59.58	24.98	10.56	4.06	0.82

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 2005

Millions of U.S. Dollars

AVERAGE DAILY VOLUME

Instrument	Current Amount Reported	Dollar Change over Previous Year	Percentage Change over Previous Year
Spot transactions	211,799	43,365	25.7
Outright forwards	73,190	24,181	49.3
Foreign exchange swaps	155,134	37,177	31.5
Over-the-counter foreign exchange options	36,731	701	1.9
Total	476,854	105,423	28.4

TOTAL MONTHLY VOLUME

Instrument	Current Amount Reported	Dollar Change over Previous Year	Percentage Change over Previous Year
Spot transactions	4,235,936	867,254	25.7
Outright forwards	1,463,816	483,629	49.3
Foreign exchange swaps	3,102,625	743,464	31.5
Over-the-counter foreign exchange options	734,636	14,029	1.9
Total	9,537,013	2,108,376	28.4

Note: The data are adjusted for double reporting of trades between reporting dealers.

2a. SPOT TRANSACTIONS, Average Daily Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	16,080	38,422	15,692	5,065	75,259
Japanese yen	7,414	13,566	8,237	2,289	31,506
British pound	4,256	9,004	7,570	1,918	22,748
Canadian dollar	3,954	7,164	2,790	1,609	15,517
Swiss franc	2,910	6,321	3,956	818	14,005
Australian dollar	1,315	3,508	1,796	607	7,226
Argentine peso	19	44	18	22	103
Brazilian real	371	816	518	122	1,827
Chilean peso	131	221	73	42	467
Mexican peso	2,088	4,979	1,115	619	8,801
All other currencies	1,468	3,903	3,501	1,648	10,520
EURO VERSUS					
Japanese yen	1,441	3,365	940	239	5,985
British pound	1,010	2,046	391	320	3,767
Swiss franc	1,219	2,663	539	224	4,645
ALL OTHER CURRENCY PAIRS					
Total ^a	45,295	99,369	48,574	18,561	211,799

2b. OUTRIGHT FORWARDS, Average Daily Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	1,890	4,703	7,727	3,442	17,762
Japanese yen	1,175	2,654	5,506	1,791	11,126
British pound	860	1,867	3,490	1,571	7,788
Canadian dollar	417	1,147	2,237	1,800	5,601
Swiss franc	375	752	1,555	642	3,324
Australian dollar	317	953	1,356	622	3,248
Argentine peso	34	49	29	16	128
Brazilian real	449	1,104	671	250	2,474
Chilean peso	166	399	96	30	691
Mexican peso	319	615	1,889	352	3,175
All other currencies	1,141	3,180	3,803	2,166	10,290
EURO VERSUS					
Japanese yen	136	417	446	228	1,227
British pound	54	226	391	246	917
Swiss franc	82	262	342	180	866
ALL OTHER CURRENCY PAIRS					
Total ^a	7,653	19,749	30,943	14,845	73,190

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 October.

^aFigures may not sum to totals because of rounding.



2c. FOREIGN EXCHANGE SWAPS, Average Daily Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	6,977	25,070	11,147	2,726	45,920
Japanese yen	5,280	13,216	8,012	1,097	27,605
British pound	3,215	8,752	4,322	1,251	17,540
Canadian dollar	4,339	11,277	3,391	1,686	20,693
Swiss franc	1,982	4,204	2,061	329	8,576
Australian dollar	894	4,512	1,420	228	7,054
Argentine peso	1	3	1	1	6
Brazilian real	28	23	27	7	85
Chilean peso	6	15	4	1	26
Mexican peso	2,718	5,384	1,556	690	10,348
All other currencies	1,805	8,572	2,997	839	14,213
EURO VERSUS					
Japanese yen	61	194	334	70	659
British pound	12	73	202	219	506
Swiss franc	15	12	137	28	192
ALL OTHER CURRENCY PAIRS					
Total^a	27,418	81,798	36,493	9,425	155,134

2d. OVER-THE-COUNTER FOREIGN EXCHANGE OPTIONS, Average Daily Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	2,602	2,720	3,123	1,159	9,604
Japanese yen	1,995	2,428	2,265	695	7,383
British pound	545	1,152	1,838	148	3,683
Canadian dollar	774	2,463	719	325	4,281
Swiss franc	201	238	400	67	906
Australian dollar	185	290	328	41	844
Argentine peso	5	10	3	17	35
Brazilian real	359	455	218	295	1,327
Chilean peso	4	25	20	3	52
Mexican peso	419	808	269	98	1,594
All other currencies	154	215	303	152	824
EURO VERSUS					
Japanese yen	352	543	564	33	1,492
British pound	168	216	197	44	625
Swiss franc	203	191	288	41	723
ALL OTHER CURRENCY PAIRS					
Total^a	8,534	13,149	11,730	3,318	36,731

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 October.

^aFigures may not sum to totals because of rounding.

2e. AVERAGE DAILY VOLUME, by Execution Method and Currency Pair, October 2005

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		
U.S. DOLLAR VERSUS							
Euro	13,440	46,721	63,311	23,041	29,580	176,093	37,313
Japanese yen	7,890	27,385	26,652	12,746	18,808	93,481	16,704
British pound	3,444	16,840	16,209	11,431	12,710	60,634	10,176
Canadian dollar	4,485	18,067	16,833	4,681	11,507	55,573	10,448
Swiss franc	2,376	7,877	10,484	6,869	4,671	32,277	8,746
Australian dollar	920	6,497	6,382	3,145	4,138	21,082	5,007
Argentine peso	36	115	36	25	118	330	79
Brazilian real	1,216	2,963	342	427	1,970	6,918	840
Chilean peso	247	582	118	183	411	1,541	251
Mexican peso	3,634	8,645	7,754	810	8,615	29,458	3,400
All other currencies	3,126	16,599	7,003	4,162	9,522	40,412	8,483
EURO VERSUS							
Japanese yen	1,166	3,654	4,087	1,202	1,243	11,352	3,622
British pound	578	1,734	3,022	962	759	7,055	2,281
Swiss franc	585	1,879	3,506	951	1,023	7,944	2,303
ALL OTHER CURRENCY PAIRS							
	2,531	11,105	3,258	2,583	2,095	21,572	5,627
Total^a	45,674	170,663	168,997	73,218	107,170	565,722	115,280

2f. AVERAGE DAILY VOLUME, by Execution Method, Instrument, and Counterparty, October 2005

Millions of U.S. Dollars

	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
INSTRUMENT							
Spot transactions	20,982	63,621	107,471	40,560	24,447	257,081	89,629
Outright forwards	5,078	36,320	8,421	14,869	16,151	80,839	19,482
Foreign exchange swaps	11,545	47,137	43,523	17,238	63,100	182,543	4,259
OTC FX options	8,070	23,586	9,582	552	3,472	45,262	1,910
Total^a	45,675	170,664	168,997	73,219	107,170	565,725	115,280
COUNTERPARTY							
Reporting dealers	45,674	—	78,099	8,583	45,418	177,774	31,894
Banks/other dealers	—	63,038	82,279	18,863	49,881	214,061	43,148
Other financial customers	—	74,004	5,499	37,594	10,642	127,739	28,934
Nonfinancial customers	—	33,622	3,121	8,179	1,227	46,149	11,305
Total^a	45,674	170,664	168,998	73,219	107,168	565,723	115,281

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

^aFigures may not sum to totals because of rounding.



3a. SPOT TRANSACTIONS, Total Monthly Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	321,592	768,445	313,849	101,301	1,505,187
Japanese yen	148,282	271,319	164,734	45,774	630,109
British pound	85,113	180,073	151,396	38,369	454,951
Canadian dollar	79,079	143,279	55,806	32,171	310,335
Swiss franc	58,197	126,423	79,122	16,362	280,104
Australian dollar	26,304	70,158	35,915	12,134	144,511
Argentine peso	378	872	363	442	2,055
Brazilian real	7,411	16,315	10,370	2,431	36,527
Chilean peso	2,627	4,416	1,453	833	9,329
Mexican peso	41,764	99,580	22,295	12,388	176,027
All other currencies	29,356	78,062	70,016	32,959	210,393
EURO VERSUS					
Japanese yen	28,814	67,308	18,792	4,788	119,702
British pound	20,196	40,916	7,819	6,400	75,331
Swiss franc	24,387	53,264	10,786	4,482	92,919
ALL OTHER CURRENCY PAIRS					
	32,373	66,943	28,758	60,382	188,456
Total^a	905,873	1,987,373	971,474	371,216	4,235,936

3b. OUTRIGHT FORWARDS, Total Monthly Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	37,806	94,065	154,549	68,834	355,254
Japanese yen	23,493	53,073	110,124	35,829	222,519
British pound	17,206	37,346	69,802	31,428	155,782
Canadian dollar	8,347	22,949	44,744	35,998	112,038
Swiss franc	7,507	15,043	31,095	12,847	66,492
Australian dollar	6,348	19,054	27,113	12,449	64,964
Argentine peso	685	976	586	329	2,576
Brazilian real	8,977	22,074	13,424	5,004	49,479
Chilean peso	3,317	7,980	1,910	593	13,800
Mexican peso	6,387	12,295	37,774	7,035	63,491
All other currencies	22,829	63,591	76,054	43,323	205,797
EURO VERSUS					
Japanese yen	2,714	8,334	8,923	4,559	24,530
British pound	1,089	4,512	7,812	4,921	18,334
Swiss franc	1,641	5,234	6,833	3,596	17,304
ALL OTHER CURRENCY PAIRS					
	4,758	28,421	28,102	30,175	91,456
Total^a	153,104	394,947	618,845	296,920	1,463,816

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

^aFigures may not sum to totals because of rounding.



3c. FOREIGN EXCHANGE SWAPS, Total Monthly Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	139,542	501,405	222,944	54,524	918,415
Japanese yen	105,600	264,312	160,237	21,931	552,080
British pound	64,302	175,036	86,445	25,021	350,804
Canadian dollar	86,787	225,533	67,814	33,719	413,853
Swiss franc	39,635	84,085	41,228	6,573	171,521
Australian dollar	17,877	90,232	28,405	4,559	141,073
Argentine peso	14	66	15	23	118
Brazilian real	567	467	535	133	1,702
Chilean peso	129	292	75	17	513
Mexican peso	54,355	107,670	31,122	13,802	206,949
All other currencies	36,101	171,442	59,937	16,789	284,269
EURO VERSUS					
Japanese yen	1,223	3,871	6,674	1,390	13,158
British pound	245	1,453	4,041	4,385	10,124
Swiss franc	295	231	2,746	570	3,842
ALL OTHER CURRENCY PAIRS					
	1,691	9,823	17,639	5,051	34,204
Total^a	548,363	1,635,918	729,857	188,487	3,102,625

3d. OVER-THE-COUNTER FOREIGN EXCHANGE OPTIONS, Total Monthly Volume, October 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	52,038	54,410	62,453	23,176	192,077
Japanese yen	39,908	48,567	45,307	13,892	147,674
British pound	10,905	23,031	36,766	2,959	73,661
Canadian dollar	15,483	49,254	14,372	6,506	85,615
Swiss franc	4,019	4,769	7,992	1,337	18,117
Australian dollar	3,693	5,806	6,569	816	16,884
Argentine peso	91	208	52	343	694
Brazilian real	7184	9,100	4,366	5,895	26,545
Chilean peso	90	497	401	69	1,057
Mexican peso	8,372	16,150	5,379	1,951	31,852
All other currencies	3,083	4,294	6,057	3,035	16,469
EURO VERSUS					
Japanese yen	7,050	10,867	11,289	663	29,869
British pound	3,356	4,311	3,933	874	12,474
Swiss franc	4,065	3,828	5,769	824	14,486
ALL OTHER CURRENCY PAIRS					
	11,362	27,891	23,902	4,007	67,162
Total^a	170,699	262,983	234,607	66,347	734,636

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

^aFigures may not sum to totals because of rounding.



3e. TOTAL MONTHLY VOLUME, by Execution Method and Currency Pair, October 2005

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		
U.S. DOLLAR VERSUS							
Euro	268,792	934,427	1,266,211	460,814	591,607	3,521,851	746,256
Japanese yen	157,796	547,697	533,031	254,927	376,157	1,869,608	334,087
British pound	68,877	336,796	324,183	228,623	254,190	1,212,669	203,520
Canadian dollar	89,709	361,348	336,666	93,623	230,136	1,111,482	208,968
Swiss franc	47,522	157,540	209,689	137,389	93,412	645,552	174,923
Australian dollar	18,391	129,937	127,632	62,896	82,759	421,615	100,143
Argentine peso	720	2,295	715	508	2,358	6,596	1,571
Brazilian real	24,315	59,266	6,838	8,541	39,408	138,368	16,800
Chilean peso	4,946	11,648	2,365	3,663	8,222	30,844	5,024
Mexican peso	72,675	172,904	155,090	16,190	172,293	589,152	68,001
All other currencies	62,525	331,987	140,067	83,232	190,435	808,246	169,668
EURO VERSUS							
Japanese yen	23,315	73,074	81,743	24,038	24,852	227,022	72,430
British pound	11,566	34,673	60,443	19,248	15,181	141,111	45,617
Swiss franc	11,709	37,589	70,124	19,021	20,463	158,906	46,067
ALL OTHER CURRENCY PAIRS							
Total^a	913,470	3,413,277	3,379,947	1,464,371	2,143,375	11,314,440	2,305,616

3f. TOTAL MONTHLY VOLUME, by Execution Method, Instrument, and Counterparty, October 2005

Millions of U.S. Dollars

Instrument	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
INSTRUMENT							
Spot transactions	419,639	1,272,413	2,149,428	811,202	488,932	5,141,614	1,792,586
Outright forwards	101,553	726,405	168,420	297,372	323,016	1,616,766	389,642
Foreign exchange swaps	230,894	942,745	870,452	344,764	1,261,995	3,650,850	85,186
OTC FX options	161,392	471,716	191,646	11,036	69,430	905,220	38,202
Total^a	913,478	3,413,279	3,379,946	1,464,374	2,143,373	11,314,450	2,305,616
COUNTERPARTY							
Reporting dealers	913,480	—	1,561,979	171,664	908,360	3,555,483	637,885
Banks/other dealers	—	1,260,765	1,645,571	377,263	997,628	4,281,227	862,955
Other financial customers	—	1,480,076	109,981	751,874	212,849	2,554,780	578,679
Nonfinancial customers	—	672,439	62,415	163,574	24,536	922,964	226,096
Total^a	913,480	3,413,280	3,379,946	1,464,375	2,143,373	11,314,454	2,305,615

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

^aFigures may not sum to totals because of rounding.

4a. OUTRIGHT FORWARDS, Total Monthly Volume by Maturity, October 2005

Millions of U.S. Dollars

Currency Pair	Maturity		
	Less Than One Month	One Month to One Year	More Than One Year
U.S. DOLLAR VERSUS			
Euro	227,462	162,476	3,108
Japanese yen	151,777	90,829	3,393
British pound	89,284	82,816	879
Canadian dollar	68,715	50,069	1,594
Swiss franc	42,370	31,479	140
Australian dollar	40,214	30,928	166
Argentine peso	905	2,261	87
Brazilian real	41,126	16,224	1,099
Chilean peso	6,672	10,089	348
Mexican peso	20,409	47,265	2,191
All other currencies	110,331	116,025	2,258
EURO VERSUS			
Japanese yen	17,867	8,811	553
British pound	12,553	6,649	212
Swiss franc	13,403	5,425	105
ALL OTHER CURRENCY PAIRS			
	63,515	32,306	383
Total^a	906,603	693,652	16,516

4b. FOREIGN EXCHANGE SWAPS, Total Monthly Volume by Maturity, October 2005

Millions of U.S. Dollars

Currency Pair	Maturity		
	Less Than One Month	One Month to One Year	More Than One Year
U.S. DOLLAR VERSUS			
Euro	838,157	214,163	5,622
Japanese yen	538,127	113,726	5,815
British pound	346,403	67,635	1,054
Canadian dollar	430,543	68,257	1,825
Swiss franc	185,815	24,680	649
Australian dollar	137,384	20,856	702
Argentine peso	52	78	0
Brazilian real	597	1,629	40
Chilean peso	287	322	32
Mexican peso	219,920	37,700	3,672
All other currencies	274,263	45,367	725
EURO VERSUS			
Japanese yen	10,587	3,710	82
British pound	6,550	3,727	84
Swiss franc	3,183	922	30
ALL OTHER CURRENCY PAIRS			
	25,786	9,944	157
Total^a	3,017,654	612,716	20,489

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

^aFigures may not sum to totals because of rounding.



4c. OVER-THE-COUNTER FOREIGN EXCHANGE OPTIONS, Total Monthly Volume by Maturity, October 2005

Millions of U.S. Dollars

Currency Pair	Maturity		
	Less Than One Month	One Month to Six Months	More Than Six Months
U.S. DOLLAR VERSUS			
Euro	120,668	106,587	16,849
Japanese yen	77,546	65,533	44,490
British pound	23,654	57,995	2,909
Canadian dollar	51,772	36,862	12,451
Swiss franc	12,049	7,598	2,487
Australian dollar	9,229	9,004	2,335
Argentine peso	52	381	350
Brazilian real	11,691	15,166	6,865
Chilean peso	294	847	4
Mexican peso	20,952	11,016	8,249
All other currencies	5,088	10,529	3,922
EURO VERSUS			
Japanese yen	13,457	19,224	4,232
British pound	7,792	6,534	1,497
Swiss franc	6,500	10,390	1,655
ALL OTHER CURRENCY PAIRS			
Total^a	388,707	393,242	123,271

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

^aFigures may not sum to totals because of rounding.



I. TOTAL FOREIGN EXCHANGE VOLUME, April 2005

Millions of U.S. Dollars

AVERAGE DAILY VOLUME^a

Instrument	Current Amount Reported	October 2004
Spot transactions	194,806	168,434
Outright forwards	57,454	49,009
Foreign exchange swaps	149,100	117,958
Over-the-counter foreign exchange options	41,436	36,030
Total	442,796	371,431

TOTAL MONTHLY VOLUME^a

Instrument	Current Amount Reported	October 2004
Spot transactions	4,090,921	3,368,682
Outright forwards	1,206,511	980,187
Foreign exchange swaps	3,131,079	2,359,161
Over-the-counter foreign exchange options	870,122	720,607
Total	9,298,633	7,428,637

^aThe data are adjusted for double reporting of trades between reporting dealers.



2a. SPOT TRANSACTIONS, Average Daily Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	16,270	36,948	15,351	4,073	72,642
Japanese yen	6,300	11,799	8,935	1,544	28,578
British pound	3,477	7,298	3,689	1,415	15,879
Canadian dollar	2,933	4,972	2,374	1,346	11,625
Swiss franc	2,762	4,833	2,727	1,036	11,358
Australian dollar	1,329	3,133	1,887	593	6,942
Argentine peso	16	37	24	5	82
Brazilian real	347	673	436	97	1,553
Chilean peso	79	255	133	27	494
Mexican peso	1,799	4,389	972	514	7,674
All other currencies	1,218	4,245	6,595	1,483	13,541
EURO VERSUS					
Japanese yen	1,882	4,109	1,627	251	7,869
British pound	1,140	2,500	674	367	4,681
Swiss franc	1,389	3,258	721	316	5,684
ALL OTHER CURRENCY PAIRS					
Total^a	42,143	91,259	47,085	14,319	194,806

2b. OUTRIGHT FORWARDS, Average Daily Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	1,149	2,281	7,085	3,154	13,669
Japanese yen	905	2,729	5,161	1,709	10,504
British pound	471	1,192	2,868	1,248	5,779
Canadian dollar	295	621	1,467	1,183	3,566
Swiss franc	220	404	1,654	524	2,802
Australian dollar	204	610	1,363	497	2,674
Argentine peso	19	31	8	14	72
Brazilian real	327	742	382	124	1,575
Chilean peso	95	314	61	42	512
Mexican peso	235	624	382	320	1,561
All other currencies	730	2,281	2,878	1,469	7,358
EURO VERSUS					
Japanese yen	300	586	915	234	2,035
British pound	76	237	564	440	1,317
Swiss franc	30	115	244	217	606
ALL OTHER CURRENCY PAIRS					
Total^a	5,199	13,655	25,979	12,621	57,454

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-one trading days in April.

^aFigures may not sum to totals because of rounding.



2c. FOREIGN EXCHANGE SWAPS, Average Daily Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	9,138	23,317	13,578	2,462	48,495
Japanese yen	5,888	10,099	6,865	1,230	24,082
British pound	4,194	7,937	5,331	980	18,442
Canadian dollar	4,541	10,499	3,055	1,479	19,574
Swiss franc	1,692	3,740	2,643	241	8,316
Australian dollar	813	3,909	2,197	247	7,166
Argentine peso	1	0	0	0	1
Brazilian real	34	27	22	4	87
Chilean peso	2	7	1	0	10
Mexican peso	1,821	3,556	1,266	443	7,086
All other currencies	2,307	7,216	3,709	370	13,602
EURO VERSUS					
Japanese yen	101	88	295	35	519
British pound	7	118	132	172	429
Swiss franc	4	65	82	39	190
ALL OTHER CURRENCY PAIRS					
	73	353	508	167	1,101
Total^a	30,616	70,931	39,684	7,869	149,100

2d. OVER-THE-COUNTER FOREIGN EXCHANGE OPTIONS, Average Daily Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	2,198	3,220	2,689	842	8,949
Japanese yen	1,743	2,805	3,530	587	8,665
British pound	1,046	1,916	808	268	4,038
Canadian dollar	823	1,745	779	310	3,657
Swiss franc	157	376	444	114	1,091
Australian dollar	350	749	701	77	1,877
Argentine peso	3	6	4	2	15
Brazilian real	228	302	376	92	998
Chilean peso	11	19	62	1	93
Mexican peso	446	1,510	389	167	2,512
All other currencies	227	445	784	238	1,694
EURO VERSUS					
Japanese yen	669	1,209	1,104	125	3,107
British pound	120	297	232	61	710
Swiss franc	197	520	391	61	1,169
ALL OTHER CURRENCY PAIRS					
	312	1,064	1,262	223	2,861
Total^a	8,530	16,183	13,555	3,168	41,436

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-one trading days in April.

^aFigures may not sum to totals because of rounding.

2e. AVERAGE DAILY VOLUME, By Execution Method and Currency Pair, April 2005

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		
U.S. DOLLAR VERSUS							
Euro	12,021	45,699	62,239	24,666	27,882	172,507	33,933
Japanese yen	7,818	30,994	22,627	12,040	13,185	86,664	14,348
British pound	3,422	16,159	16,811	7,200	9,732	53,324	8,193
Canadian dollar	3,514	14,534	14,161	4,511	10,291	47,011	8,629
Swiss franc	2,337	8,595	9,686	3,766	4,011	28,395	7,743
Australian dollar	1,414	8,015	6,098	2,641	3,184	21,352	4,747
Argentine peso	46	107	4	3	50	210	53
Brazilian real	920	2,319	187	188	1,533	5,147	698
Chilean peso	222	682	60	12	318	1,294	226
Mexican peso	3,615	7,767	4,705	843	6,200	23,130	2,385
All other currencies	3,078	20,230	6,071	3,885	7,411	40,675	7,464
EURO VERSUS							
Japanese yen	2,029	5,751	4,995	2,061	1,644	16,480	3,935
British pound	336	2,498	3,734	1,018	893	8,479	2,546
Swiss franc	595	2,247	4,248	1,008	1,171	9,269	2,560
ALL OTHER CURRENCY PAIRS							
	2,027	8,044	1,978	1,433	1,837	15,319	4,063
Total^a	43,394	173,641	157,604	65,275	89,342	529,256	101,523

2f. AVERAGE DAILY VOLUME, By Execution Method, Instrument, and Counterparty, April 2005

Millions of U.S. Dollars

	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
INSTRUMENT							
Spot transactions	21,654	62,972	106,031	27,310	18,971	236,938	75,695
Outright forwards	3,845	30,802	5,438	13,313	9,248	62,646	17,675
Foreign exchange swaps	9,461	51,313	41,831	20,210	56,894	179,709	5,161
OTC FX options	8,435	28,551	4,306	4,439	4,228	49,959	2,994
Total^a	43,395	173,638	157,606	65,272	89,341	529,252	101,525
COUNTERPARTY							
Reporting dealers	43,395	—	73,979	12,888	42,688	172,950	29,998
Banks/other dealers	—	61,134	78,636	18,145	34,111	192,026	37,480
Other financial customers	—	86,233	4,083	25,802	10,184	126,302	24,515
Nonfinancial customers	—	26,271	909	8,437	2,359	37,976	9,531
Total^a	43,395	173,638	157,607	65,272	89,342	529,254	101,524

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

^aFigures may not sum to totals because of rounding.



3a. SPOT TRANSACTIONS, Total Monthly Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	341,678	775,906	322,376	85,536	1,525,496
Japanese yen	132,293	247,785	187,639	32,417	600,134
British pound	73,023	153,249	77,479	29,723	333,474
Canadian dollar	61,591	104,419	49,854	28,256	244,120
Swiss franc	58,000	101,489	57,267	21,757	238,513
Australian dollar	27,908	65,796	39,619	12,457	145,780
Argentine peso	332	781	507	113	1,733
Brazilian real	7,278	14,135	9,147	2,034	32,594
Chilean peso	1,653	5,357	2,794	574	10,378
Mexican peso	37,784	92,159	20,418	10,789	161,150
All other currencies	25,572	89,144	138,497	31,140	284,353
EURO VERSUS					
Japanese yen	39,516	86,286	34,161	5,267	165,230
British pound	23,947	52,492	14,157	7,704	98,300
Swiss franc	29,169	68,408	15,151	6,642	119,370
ALL OTHER CURRENCY PAIRS					
	25,249	59,016	19,737	26,294	130,296
Total^a	884,993	1,916,422	988,803	300,703	4,090,921

3b. OUTRIGHT FORWARDS, Total Monthly Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	24,127	47,894	148,775	66,236	287,032
Japanese yen	19,007	57,319	108,387	35,886	220,599
British pound	9,885	25,037	60,224	26,217	121,363
Canadian dollar	6,192	13,042	30,812	24,848	74,894
Swiss franc	4,616	8,481	34,740	10,995	58,832
Australian dollar	4,284	12,808	28,624	10,446	56,162
Argentine peso	398	651	168	293	1,510
Brazilian real	6,871	15,576	8,014	2,599	33,060
Chilean peso	1,996	6,585	1,272	886	10,739
Mexican peso	4,929	13,102	8,013	6,716	32,760
All other currencies	15,335	47,911	60,428	30,852	154,526
EURO VERSUS					
Japanese yen	6,298	12,309	19,214	4,914	42,735
British pound	1,605	4,969	11,854	9,242	27,670
Swiss franc	635	2,411	5,134	4,550	12,730
ALL OTHER CURRENCY PAIRS					
	3,004	18,657	19,880	30,358	71,899
Total^a	109,182	286,752	545,539	265,038	1,206,511

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

^aFigures may not sum to totals because of rounding.



3c. FOREIGN EXCHANGE SWAPS, Total Monthly Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	191,892	489,666	285,131	51,710	1,018,399
Japanese yen	123,652	212,089	144,171	25,830	505,742
British pound	88,073	166,682	111,944	20,580	387,279
Canadian dollar	95,365	220,480	64,149	31,050	411,044
Swiss franc	35,527	78,543	55,502	5,066	174,638
Australian dollar	17,064	82,085	46,144	5,188	150,481
Argentine peso	18	9	0	0	27
Brazilian real	714	575	463	83	1,835
Chilean peso	51	138	22	0	211
Mexican peso	38,242	74,673	26,585	9,309	148,809
All other currencies	48,455	151,532	77,887	7,771	285,645
EURO VERSUS					
Japanese yen	2,114	1,854	6,190	727	10,885
British pound	151	2,469	2,763	3,603	8,986
Swiss franc	90	1,366	1,720	809	3,985
ALL OTHER CURRENCY PAIRS					
	1,532	7,412	10,664	3,505	23,113
Total^a	642,940	1,489,573	833,335	165,231	3,131,079

3d. OVER-THE-COUNTER FOREIGN EXCHANGE OPTIONS, Total Monthly Volume, April 2005

Millions of U.S. Dollars

Currency Pair	Counterparty				Total
	Reporting Dealers	Other Dealers	Other Financial Customers	Nonfinancial Customers	
U.S. DOLLAR VERSUS					
Euro	46,153	67,613	56,479	17,672	187,917
Japanese yen	36,601	58,898	74,137	12,319	181,955
British pound	21,966	40,236	16,966	5,624	84,792
Canadian dollar	17,285	36,646	16,355	6,506	76,792
Swiss franc	3,301	7,899	9,319	2,385	22,904
Australian dollar	7,349	15,731	14,723	1,623	39,426
Argentine peso	64	136	74	47	321
Brazilian real	4,797	6,341	7,898	1,932	20,968
Chilean peso	224	403	1,299	14	1,940
Mexican peso	9,367	31,704	8,159	3,501	52,731
All other currencies	4,760	9,340	16,464	4,996	35,560
EURO VERSUS					
Japanese yen	14,059	25,395	23,192	2,632	65,278
British pound	2,530	6,229	4,865	1,278	14,902
Swiss franc	4,139	10,914	8,209	1,283	24,545
ALL OTHER CURRENCY PAIRS					
	6,556	22,346	26,499	4,690	60,091
Total^a	179,151	339,831	284,638	66,502	870,122

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

^aFigures may not sum to totals because of rounding.



3e. TOTAL MONTHLY VOLUME, By Execution Method and Currency Pair, April 2005

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		
U.S. DOLLAR VERSUS							
Euro	252,436	959,672	1,307,029	517,980	585,515	3,622,632	712,586
Japanese yen	164,182	650,866	475,170	252,831	276,888	1,819,937	301,302
British pound	71,856	339,339	353,038	151,194	204,376	1,119,803	172,050
Canadian dollar	73,796	305,210	297,387	94,729	216,109	987,231	181,214
Swiss franc	49,083	180,485	203,402	79,089	84,232	596,291	162,603
Australian dollar	29,703	168,317	128,066	55,454	66,859	448,399	99,683
Argentine peso	962	2,241	88	55	1,044	4,390	1,118
Brazilian real	19,315	48,703	3,934	3,944	32,192	108,088	14,663
Chilean peso	4,670	14,314	1,265	256	6,673	27,178	4,752
Mexican peso	75,923	163,098	98,804	17,696	130,207	485,728	50,090
All other currencies	64,634	424,826	127,494	81,590	155,621	854,165	156,744
EURO VERSUS							
Japanese yen	42,619	120,767	104,890	43,271	34,523	346,070	82,632
British pound	7,051	52,458	78,414	21,368	18,763	178,054	53,473
Swiss franc	12,487	47,179	89,215	21,161	24,599	194,641	53,758
ALL OTHER CURRENCY PAIRS							
Total^a	911,292	3,646,396	3,309,735	1,370,712	1,876,178	11,114,313	2,131,992

3f. TOTAL MONTHLY VOLUME, by Execution Method, Instrument, and Counterparty, April 2005

Millions of U.S. Dollars

Instrument	Execution Method					Total	Total Number of Trades
	Interdealer Direct	Customer Direct	Electronic Brokering Systems	Electronic Trading Systems	Voice Broker		
INSTRUMENT							
Spot transactions	454,737	1,322,404	2,226,652	573,520	398,392	4,975,705	1,589,588
Outright forwards	80,745	646,833	114,207	279,567	194,205	1,315,557	371,166
Foreign exchange swaps	198,681	1,077,580	878,448	424,405	1,194,779	3,773,893	108,377
OTC FX options	177,131	599,576	90,428	93,220	88,795	1,049,150	62,866
Total^a	911,294	3,646,393	3,309,735	1,370,712	1,876,171	11,114,305	2,131,997
COUNTERPARTY							
Reporting dealers	911,294	—	1,553,554	270,643	896,447	3,631,938	629,957
Banks/other dealers	—	1,283,822	1,651,365	381,054	716,326	4,032,567	787,089
Other financial customers	—	1,810,889	85,734	541,832	213,863	2,652,318	514,807
Nonfinancial customers	—	551,684	19,085	177,182	49,535	797,486	200,142
Total^a	911,294	3,646,395	3,309,738	1,370,711	1,876,171	11,114,309	2,131,995

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

^aFigures may not sum to totals because of rounding.

4a. OUTRIGHT FORWARDS, Total Monthly Volume by Maturity, April 2005

Millions of U.S. Dollars

Currency Pair	Maturity		
	Less Than One Month	One Month to One Year	More Than One Year
U.S. DOLLAR VERSUS			
Euro	174,970	134,098	2,078
Japanese yen	159,202	78,627	1,764
British pound	70,434	59,858	947
Canadian dollar	42,568	37,313	1,198
Swiss franc	41,458	21,854	129
Australian dollar	32,200	27,959	271
Argentine peso	717	1,107	77
Brazilian real	25,957	12,328	1,630
Chilean peso	5,117	7,366	244
Mexican peso	16,791	18,424	2,463
All other currencies	82,076	85,589	2,188
EURO VERSUS			
Japanese yen	35,735	13,209	79
British pound	15,351	13,729	188
Swiss franc	8,737	4,611	15
ALL OTHER CURRENCY PAIRS			
Total^a	765,431	536,505	13,618

4b. FOREIGN EXCHANGE SWAPS, Total Monthly Volume by Maturity, April 2005

Millions of U.S. Dollars

Currency Pair	Maturity		
	Less Than One Month	One Month to One Year	More Than One Year
U.S. DOLLAR VERSUS			
Euro	1,013,666	190,022	6,581
Japanese yen	506,916	118,155	4,313
British pound	400,383	70,784	4,171
Canadian dollar	444,229	59,998	2,170
Swiss franc	186,513	23,271	371
Australian dollar	138,851	28,037	646
Argentine peso	21	22	0
Brazilian real	632	1,629	285
Chilean peso	80	152	27
Mexican peso	155,973	28,076	2,993
All other currencies	300,618	32,264	1,212
EURO VERSUS			
Japanese yen	9,560	3,412	19
British pound	3,840	5,253	40
Swiss franc	2,509	1,560	1
ALL OTHER CURRENCY PAIRS			
Total^a	3,177,560	573,279	23,056

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

^aFigures may not sum to totals because of rounding.



4c. OVER-THE-COUNTER FOREIGN EXCHANGE OPTIONS, Total Monthly Volume by Maturity, April 2005

Millions of U.S. Dollars

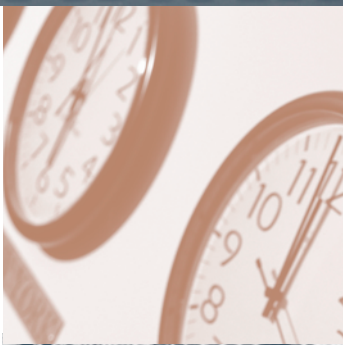
Currency Pair	Maturity		
	Less Than One Month	One Month to Six Months	More Than Six Months
U.S. DOLLAR VERSUS			
Euro	114,668	95,651	23,742
Japanese yen	92,584	95,565	30,396
British pound	42,513	59,297	4,934
Canadian dollar	49,937	35,202	8,921
Swiss franc	16,991	8,324	881
Australian dollar	23,504	20,004	3,255
Argentine peso	36	344	5
Brazilian real	6,033	12,848	6,878
Chilean peso	1,253	911	0
Mexican peso	29,812	17,878	14,402
All other currencies	17,521	17,669	5,123
EURO VERSUS			
Japanese yen	33,676	39,286	6,363
British pound	8,035	7,588	1,797
Swiss franc	14,810	11,584	2,283
ALL OTHER CURRENCY PAIRS			
Total^a	474,933	447,804	126,411

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

^aFigures may not sum to totals because of rounding.



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Membership and Meetings

Membership Report
Meetings, 2005 and 2006
Member List, 2005
Member List, 2006

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 on page 263. Some important requirements for membership are explained below:

- ~ Frequent face-to-face interaction is encouraged to maximize camaraderie and facilitate problem solving and crisis management. To accomplish this, members need to attend all Committee meetings; there are no alternate members and no provisions for conferencing to outside locations.
- ~ The Committee seeks to improve market conditions and reduce risk by developing recommendations or other guidance for market participants. To ensure that the Committee is current on market problems and issues, members need to expeditiously alert the Committee to important developments that they might encounter during a day's activity.
- ~ Each member must be an effective communicator and problem solver with a commitment to raise and, when possible,

resolve market and industry issues. The Committee's sponsor, the Federal Reserve Bank of New York, views the Committee as an advisory group that identifies market-related problems, suggests solutions or next steps, and provides feedback on any agreed-upon actions. Members need to meet these expectations.

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

MEMBERSHIP SUBCOMMITTEE

The Membership Subcommittee manages the organization of the Committee by selecting new members, assigning duties, assessing the participation of the current membership, and changing, if needed, the composition of the



Committee. The Membership Subcommittee is the only standing subgroup of the Committee; other subgroups function on a temporary basis and are formed to address specific issues or concerns.

The Federal Reserve representative on the Committee chairs the Membership Subcommittee. Subcommittee members (see the next page for 2005 and 2006 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 long-standing

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

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

The subcommittee also weighs the institutional composition of the Committee in its membership decisions on the theory that membership should reflect the overall organization of the actual market. During 2006, the Committee's membership will include individuals from commercial and investment banks, a voice broker, and EBS Group Limited.

Finally, the subcommittee designates appropriate members to function as liaisons to facilitate communication between the Committee and its existing working groups. The liaisons for 2005 and 2006 for the two existing working groups are identified on the next page.



ASSIGNMENTS, 2005 AND 2006

2005

Committee Chair

Mark Snyder

Liaisons for Working Groups

Chief Dealers

Nigel Babbage

Susan Storey

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

2006

Committee Chair

Mark Snyder

Liaisons for Working Groups

Chief Dealers

Nigel Babbage

Susan Storey

Operations Managers

Richard Rua

Ellen Schubert

Membership Subcommittee

Robert Elsasser (Chair)

Jack Jeffery

Douglas Rhoten

Mark Snyder

Jamie Thorsen

Communication Subcommittee

Simon Eedle

Jamie Thorsen



Meetings 2005 and 2006

The Foreign Exchange Committee meets approximately eight times a year. Of the eight meetings held, two are usually luncheons, and the remaining six are two-hour late afternoon sessions followed by a reception and dinner. The Chair, working with the executive assistant and other representatives from the Federal Reserve Bank of New York, is responsible for the agenda. In preparing for the meetings, the Chair solicits advice from the other 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 will often ask members specific questions and request their feedback, comment, or advice. In 2005, for example, members began a number of meetings with detailed comments on the recent trading patterns of the U.S. dollar, euro, and yen. Other topics included foreign exchange reform in China and the implications for other Asian currency regimes. The discussions during the market developments portion of the meeting not only provide important information and guidance for the Committee's sponsor—the Federal Reserve Bank of New York—but also plant seeds for future projects and initiatives. The market developments section is followed

by a review of specific industry developments, including legal matters.

In the second half of the meeting, the members turn to the specific projects or initiatives of the Committee and its associated working groups. The individual members who sponsor the Committee's projects lead the project discussion with the objective of obtaining approval of next or final steps. In 2005, for example, some of the projects included initiatives to introduce best practice recommendations associated with foreign exchange prime brokerage, to examine the risks related to retail foreign exchange trading, and to develop trade-related documentation for exotic foreign exchange options. Decisions on project-related work are made during meetings.

The Committee underscores the importance of strong interaction with its associated global groups by routinely inviting guests from other foreign exchange committees and related industry groups. At the May 2005 meeting, the Committee invited members of the Operations Managers Working Group. At the September meeting, the chairs of the London Foreign Exchange Joint Standing Committee and the Canadian Foreign Exchange Committee were guests. On November 10, the Committee held its ninth annual joint meeting with the Singapore Foreign Exchange Market Committee.



2005

January 13

February 17

March 24

May 5

June 9

September 8

October 6

November 10
(in New York with the Singapore Foreign
Exchange Committee)

2006

January 5

February 16

March 23

May 4

June 8

September 7

October 5

November 9
(in Singapore with the Singapore Foreign
Exchange Committee)



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2005

John Anderson

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Document of Organization

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

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

- ❖ 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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