Autodealing:

Market Impact and Best Practice Recommendations

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

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

Evolution of autodealing and current market overview

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

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

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

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

White-labeling solutions were followed swiftly by the introduction of bank- and vendor-owned multidealer electronic marketplaces in which secondary market participants could access liquidity from multiple bank sources in competition. The offerings in this category currently include FXall, FXConnect, Hotspot, Lava, Currenex, and others. Multibank platforms began with a request-for-quote protocol; next, some of these platforms moved to a streaming, executable price model; and currently, a few even offer market-making capabilities not unlike the interbank platforms.

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

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

Implications of autodealing for the market

New types of market activity

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

- Computerized proprietary mathematical models that trade for profit by reacting to patterns in foreign exchange market prices or in foreign exchange relative to other asset classes;
- Models that conduct arbitrage between available prices on a single platform or between platforms;
- Automated risk-management models that cover risk positions assumed from customers;
- Risk-taking models that respond quickly to events that can be monitored electronically (such as data releases) and execute orders across multiple systems; and
- Price aggregation on platforms such as Currenex, Lava, Portware, and Flextrade, where a single co-mingled price is posted at any given time.

Market effects of autodealing

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

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

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

Recommended practices for dealers and prime brokers

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

Ensure adequate risk management and technology when operating in the autodealing space.

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

Apprise new market entrants of professional practices and standards of behavior.

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

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

Monitor reputational risks and confidentiality issues.

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

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

Manage Latency Issues.

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

Conclusion

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

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