

eCommerce in the Fixed-Income Markets



THE 2005 REVIEW OF ELECTRONIC TRANSACTION SYSTEMS

DECEMBER 2005

eCommerce in the Fixed-Income Markets: The 2005 Review of Electronic Transaction Systems was conducted and compiled by the staff of the Bond Market Association.

Michael Decker
Senior Vice President, Research and Policy Analysis

Steven C. Davidson
Director, Research

Marcelo Vieira
Manager, Market Statistics

Tiffany Coln,
Research Analyst

Bryan Gross
Research Analyst

Mary Bateman
Policy Analysis Coordinator

Justin Friedman
Research Intern

The Bond Market Association
Washington Office
1399 New York Avenue, NW
Washington, DC 20005-4711
202.434.8400

www.bondmarkets.com

TABLE OF CONTENTS

Summary of Survey	1
Electronic Trading Platform Characteristics & Services	7
Systems	17
Other Trading Platforms	83
Glossary	85
Methodology	87

Review of Electronic Transaction Systems for Fixed-Income Markets

The evolution and adoption of electronic trade execution in the fixed-income markets continues to advance and has contributed significantly to enhancing price transparency in all market sectors. By providing market participants with access to both pre-trade quotes and data on trades after execution, mainly in real time, platform operators have made it more cost-efficient and less time consuming for users to view bond prices. Of the 54 respondents to the Association's 2005 trading system survey, 50 provide users with some form of pricing information before trade execution. A number of trading platforms make their transaction information available to market participants who do not trade on their platforms, either directly or through third-party data vendors. Some platform operators also provide their users with direct access to third-party sources of bond price information such as the National Association of Securities Dealers' (NASD's) TRACE system or the Municipal Securities Rulemaking Board's (MSRB's) trade reporting system.

Background

Every year since 1997, The Bond Market Association has surveyed firms that offer electronic trade execution services in fixed-income securities and related products, principally for broker-dealers, institutional investors and bond issuers. In general, fixed-income trading platforms can be categorized in two principal ways:

- By whom the participants are and how they trade with each other.
 - Inter-dealer platforms support trading only between broker-dealers.¹
 - Dealer-to-customer platforms—either single-dealer or multiple-dealer—support trading between broker-dealers and investors.² Investors are overwhelmingly institutional but 12 platforms report that retail investors are eligible to participate.
 - New issue platforms support sales of new bond issues to either broker-dealers or institutional investors or both.
- By the methodology or technology used for price discovery and trade execution.
 - Request-for-quote systems, most often used in dealer-to-customer platforms, allow investors to request executable price quotations from broker-dealers. The participants that requested the quotes can then execute the trade within a specified time limit at the quoted price. In the case of multi-dealer systems, the requesting customer can obtain

¹ Inter-dealer platforms are sometimes referred to as “B2B” platforms.

² Dealer-to-customer platforms are often referred to as “B2C” platforms.

pre-trade quotes from each of the dealers with which it has a customer relationship.

- Order-driven systems allow participants to enter quotations into a central order book which can be viewed and executed by all other participants on the platform.
- On market-making or cross-matching systems, participants make ongoing buy and sell quotations during the trading day. Trades are executed when bid and offer quotations and amounts match or when a participant chooses to accept a published, quoted price.
- Auction systems, most often used for new-issue sales, allow participants to bid simultaneously for a securities offering. Individual bids may or may not be known to other bidders.

How the Rise of Electronic Trading Has Contributed to Price Transparency

Before electronic trade execution for fixed-income products became commonplace, secondary market transactions in bonds were conducted exclusively by telephone. When an institutional investor wanted to buy or sell a bond, it would call several broker-dealers for price quotes and execute the trade with whichever dealer offered the best price. Investors had access to some limited, publicly available information on market prices through printed publications or through electronic information vendors, but often these price data were indicative³ at best and may not have been closely related to executable quotes or to actual trade prices.

The inter-dealer bond market has had access to real-time, electronic price information for certain, highly liquid products, principally U.S. Treasury, federal agency and government sponsored enterprise securities, since the late 1970s through inter-dealer broker (IDB) screens. These prices were often known to institutional investors through several means. For example, in 1990 GovPx was formed to consolidate and publish IDB prices in real time to the market beyond dealers. However, until the late 1990s, it was not possible, even for dealers, to execute trades electronically. Prices could be viewed on a screen in real time, but execution was still by telephone, meaning that in a fast-moving market, the screen price may not have reflected the actual trading price. Beginning in the late 90s, platforms began to emerge that allowed traders not only to view prices on a screen in real time, but to execute transactions on the screen as well, without the need for voice interaction.

Price transparency refers to the ability of market participants to access information on executed transactions (post-trade transparency), price quotations (pre-trade transparency) and indicative price information that is helpful to the price discovery process. The development and adoption of on-screen, electronic execution of secondary market transactions in fixed-income products has significantly improved the state of both pre- and post-trade transparency in the U.S. and Europe in several ways.

³ An “indicative” price is an estimate of where a bond might trade, but it is not a firm, executable quote, nor is it necessarily a post-trade price reflecting an actual transaction.

- A majority of electronic platforms allow users to view prices of executed transactions. Of the 54 respondents to this year’s survey, 27 platforms allow their users to view at least the last traded price for a security or product and most of those allow users to view all recent transactions. Of those respondents who publish data on trades executed on their platforms, 20 make those data available to market participants who do not necessarily trade on the platform and 26 make the data available to data vendors for redistribution.
- An even larger majority of electronic trading platforms—40 respondents in total—publish executable quotations.
- Multi-dealer request-for-quote platforms, which have proven to be some of the most widely used types of systems for dealer-to-customer trading, allow investors to compare multiple, executable quotes requested from dealers on a single screen at the same time. Some multi-dealer request-for-quote platforms limit the number of quotes that may be simultaneously requested to as few as four and some have no limit at all. Platforms that limit the number of price makers from which simultaneous quotes may do so to avoid the “winner’s curse” that might adversely affect the winning quote provider of an institutional-sized position when all price makers on the platform know that the winner will be seeking to dispose of a long position or cover a short.
- Twenty-three platforms allow users to view indicative bond prices, which, even though they are not executable, are useful to investors in “reading” the market and gauging the quality of dealer quotes provided electronically or by voice.
- A number of trading platforms allow users to view prices from third-party sources. Ten platforms report that they provide access to trade prices from the MSRB’s trade reporting system and eight platforms do the same for the NASD’s TRACE system. Providing TRACE and MSRB price information via a trading platform can enhance the value of that data because it allows investors to view the prices of executed trades alongside executable quotes provided by dealers.

Electronic Trading Is Widely Employed

Electronic trading has become well established in the U.S. and European marketplaces. This year for the first time, we asked platform vendors how many dealers and institutional investors use their platforms. Of those who responded to this question, answers varied widely. The largest trading platform reports 7,650 buy-side firms as registered users. Four platforms reported over 1,000 buy-side firms registered, and another five platforms reported between 500 and 1,000 registered buy-side firms. Seventeen in total reported 100 or more registered institutional investors.

We also asked the trading platforms about the number of liquidity providers that participate on their systems. Of the 54 total respondents to the survey, 32 said they have dedicated liquidity providers or market-makers (disregarding responses from single-dealer platforms). Eight platforms reported more than 25 liquidity providers and of these eight, responses ranged from 35 to 530. The systems with large numbers of liquidity providers tend to be platforms operating in the U.S. that are focused mainly on retail-size transactions. Responses from platforms with 25 or fewer liquidity providers ranged from three to 25. Of those, the average number reported was 14.

We also asked about average trade size executed on electronic systems. Of those platforms that responded, average trade size ranged from \$25,000 to \$15 million. Of those platforms with a minimum trade size of \$1 million or more, all inter-dealer platforms, the average response to the question of average trade size was approximately \$12 million.

Because in previous years many trading platforms were reluctant to report statistics on trading volume, we did not ask that question this year. However, based on anecdotal and publicly available information, The Bond Market Association estimates that daily cash market trading volume executed electronically in the U.S. and Europe is the equivalent of \$750 billion.

In this year's survey, we asked platform vendors about trends in electronic trading volume. Of the 48 who responded to this question, 18 said that volume on their platform had increased at least ten percent in 2005 relative to 2004—14 of those reported an increase greater than 20 percent—and 17 said volume increased less than ten percent. Thirteen said volume fell in 2005 relative to 2004.

Value-added Services

A majority of respondents (29 of 54) reported that their platforms provide users with direct access to trade clearance and settlement systems. Respondents reported links to a variety of clearing organizations around the world, including DTCC, NSCC, GSCC, Euroclear, Clearstream and Bloomberg, among numerous others.

In addition to clearing and settlement, respondents reported that they offer their customers a variety of other value-added products and services designed to streamline the trading process. A summary of services offered follows:

Table 1.

Value-added Service	Number of Platforms
Confirmation/allocation services	42
Order management	25
Pre-trade analytics	23
Electronic research delivery	20
Regulatory/compliance services	19
Identity management	15
Risk monitoring or management	14
Electronic link from dealer inventory to buy-side portfolio	12

Other Survey Conclusions

Respondents to this year's survey characterized their trading platforms as follows:

Table 2. The number of platforms exceeds the number of respondents because some respondents operate more than one platform or some platforms cover more than one trading sector.

Type of Platform	Number of Platforms
Inter-dealer	29
Single dealer-to-customer	22
Multiple dealer-to-customer	19
New issue	12

As for trading method, respondents characterized their platforms as follows:

Table 3.

Trading Method	Number of Platforms
Order driven	33
Market-making/Cross-matching	27
Request for quote	26
Auction	11

Finally, 17 respondents report that their platforms are compatible with FIX protocol version 4.4. In 2003, the Fix Protocol Organization (FPO) released version 4.4 of its technical specification for the electronic communication of trade-related messages. Version 4.4 included a large number of additions and changes designed to facilitate the use of FIX for trading fixed-income products. The fixed-income enhancements included in version 4.4 resulted from extensive collaboration among The Bond Market Association members, trading platform vendors and members of the FPO.

The Future

We asked respondents about their vision for the continued evolution of electronic trading in 2006 and what new features and functions are likely to be incorporated into trade execution platforms. Responses varied, but two principal themes emerged. First, many platform operators expect the continued incorporation of trading in OTC derivatives, particularly credit default swaps, into electronic trading systems. Second, a number of respondents are focused on the continued development of straight-through processing and connections to clearance and settlement facilities as a means to automate back-office functions, again with a particular emphasis on derivatives. Other themes that emerged from the responses include:

- The further adoption of FIX 4.4, the further refinement of application program interfaces (APIs) and the development of “connectivity hubs” to enhance communication among market participants and trading systems.
- A magnified effect of enhanced price transparency on how bonds trade.
- A movement towards larger trade sizes on electronic platforms, particularly for mortgage-related products.
- The integration of program or algorithmic trading with electronic execution.

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES¹

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS ¹	INFORMATION AVAILABLE	SECTOR COVERAGE ¹
American Express	Issuer to dealer/investor	Order Driven	Dealers as consumers of liquidity		Yield, Size	In real-time	U – cp
Autobahn	Single dealer-to (buy-side) customer	Order driven Market-making or Cross-matching Request for quote	Institutional investors	Executable	Spread	In real-time	U – ust, as, su, cp, mm, hg, hy, em, irs, cd E – sv, as, su, mm, hg, hy, pf, ss, em, irs, cd A – sv, as, su, mm, hg, hy, pf, em, ss, irs, cd
Automated Bond System (ABS)	Inter-dealer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Last traded price	Price, Yield, Size	In real-time	U – ust, as, hg, hy, muni E – sv, hg, hy
Bear Stearns & Co. Inc.	Inter-dealer Single dealer-to (buy-side) customer Issuer to dealer/investor	Order driven Request for quote	Institutional investors	Executable Indicative	Price, Yield, Spread, Size	In real-time	U – ust, as, su, hg, hy, ambs, muni, em, cd E – sv, su, em A – sv, su, hg, hy
Blackbird	Inter-dealer Single dealer-to (buy-side) customer Multiple dealer-to (buy-side) customer	Order driven Market-making or cross-matching Request for quote Auction	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Indicative Last traded price	Price, Bid/Ask, Size	In real-time	U – ambs, nm, irs, cd, ft E – mbs, irs, cd, ft A – mbs, irs, cd, ft

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
Bloomberg, LP ²	Inter-dealer Single dealer-to (buy-side) customer Multiple dealer-to (buy-side) customer Issuer to dealer/investor	Order driven Request for quote Auction	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Indicative Last traded price	Price, Yield, Spread, Size	In real-time	U – ust, as, su, cp, mm, hg, hy, em, irs, cd, ft E – sv, as, su, cp, mm, hg, hy, pf, ss, em, irs, cd, ft A – sv as, su
BondDesk Group	Inter-dealer	Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Yield, Spread, Size	In real-time	U – ust, su, hg, hy, ambs, nm, abs, muni
Bondpage.com	Inter-dealer Single dealer-to (buy-side) customer Multiple dealer-to (buy-side) customer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors Retail investors	Executable	Price, Yield, Spread, Size	With a delay	U – ust, as, hg, hy, muni
Bondscape.net	Multiple dealer-to (buy-side) customer.	Order driven	Dealers as consumers of liquidity Institutional investors Retail investors	Indicative	Price, Yield, Bid/Ask, Size	In real-time	E – sv, as, su, hg
BondVision	Multiple dealer-to (buy-side) customer	Request for quote	Dealers as providers of liquidity Institutional investors	Last traded price	Price, Yield	In real-time	U – ust, as su E – sv, as, su, mm, hg, pf, mbs, abs, ss, et
BondWave	Inter-dealer Single dealer-to (buy-side) customer Issuer to dealer/investor	Order driven Market-making or cross-matching Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Indicative Last traded price	Price, Yield, Spread, Size	With a delay	U – muni

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
BondWeb	Inter-dealer Multiple dealer-to- (buy-side) customer	Market-making or cross-matching Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional Investors	Executable Indicative	Price, Yield, Spread, Size	In real-time	U – amb, nm
CanDeal	Multiple dealer-to- (buy-side) customer	Request for quote	Dealers as providers of liquidity Institutional investors	Indicative	Spread	In real-time	X – cg
Chapdelaine & Co.	Inter-dealer Multiple dealer-to- (buy-side) customer	Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity	Last traded price	Price, Yield, Bid/Ask, Spread, Size	With a delay	U – muni
Chicago Board of Trade (CBOT)	Inter-dealer Single dealer-to (buy-side) customer Multiple dealer-to- (buy-side) customer Issuer to dealer/ investor	Order driven Market-making or cross-matching Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors Retail investors	Indicative Last traded price	Price	In real-time	U – ft, eto
creditex	Inter-dealer	Order driven Auction	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Bid/Ask, Size	In real-time	U – cd E – cd A – cd
Credit Suisse First Boston LLC	Single dealer-to (buy-side) customer	Order driven Request for quote	Institutional investors Retail investors	Indicative	Price, Yield, Bid/Ask	In real-time	U – ust, as, ft, eto E – sv, su, cp, hg, hy, pf, em, etf, ft, eto A – sv

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
CreditTrade	Inter-dealer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Bid/Ask, Size	In real-time	U – hg, cd E – hg, cd
Dbconvertibles.com	Single dealer-to (buy-side) customer	Market-making or cross-matching	Institutional investors	Executable			E – hg, hy
DebtDomain.com	Inter-dealer Single dealer-to (buy-side) customer Multiple dealer-to (buy-side) customer	Order driven Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors Retail investors	Executable Indicative Last traded price	Price, Yield, Size	In real-time	E – em, wl A – em, wl
eSpeed, Inc.	Inter-dealer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Yield, Bid/Ask, sb Size	In real-time	U – ust, as, irs ft, mbs E – sv, as, su, mbs, irs, ft A – sv
Eurex	Multiple dealer-to (buy-side) customer	Order driven Market-making or cross-matching Request for quote Auction	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Last traded price	Price, Size	In real-time	U – ust, ft E – sv, as, su, pf, et, irs, ft, eto, otco
Eurex Bonds GmbH	Inter-dealer	Order driven Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Last traded price	Price, Yield, Size	In real-time	E – sv, as, su, mm, pf, ss
Eurex Repo GmbH	Inter-dealer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity	Last traded price	Price, Size	In real-time	E – sv, as, pf

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
Eurex U.S.	Multiple dealer-to- (buy-side) customer	Order driven Market-making or cross-matching Request for quote Auction	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors Retail Investors	Executable Last traded price	Price, Size	In real-time	U – ft, fxf, ustf
FTN Financial	Single dealer-to- (buy-side) customer	Market-making or cross-matching Request for quote	Institutional investors	Executable	Price, Yield, Spread	In real-time	U – ust, as su, hg, hy, muni
GFI Group	Inter-dealer	Market-making or cross-market	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Bid/Ask, Size	In real-time	U – hg, hy, em, cd, ci E – su, hg, mbs, abs, ss, cd, otc, frn, cdsi A – hg, cd, cdsi
Goldman, Sachs & Co.	Inter-dealer Single dealer-to (buy-side) customer	Order driven Request for quote	Dealers as consumers of liquidity Institutional investors Retail Investors	Executable Indicative Last traded price	Price, Yield, Bid/Ask, Spread, Size	In real-time With a delay	U – ust, as, su, cp, mm, hg, nm, muni, em, cd E – sv, as, su, cp, hg, pf, em, etf, irs, cd, ft A – sv
GovRate/Odd-Lot Machine	Single dealer-to (buy-side) customer	Order driven Market-making or cross-matching Request for quote	Dealers as consumers of liquidity Institutional investors	Executable	Price, Yield, Spread, Size	In real-time	U – ust, as, hg, muni
Grant Street Group	Issuer to dealer/investor	Request for quote Auction	Dealers as providers of liquidity Dealers as consumers of liquidity		Yield, Bid/Ask, Size	In real-time With a delay	U – ust, as, cp, mm, muni, irs, rp

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
G.X. Clarke & Co.	Single dealer-to (buy-side) customer Multiple dealer-to (buy-side) customer	Order driven Market-making or cross-matching Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable	Price, Yield, Bid/Ask, Spread, Size	In real-time	U – ust, as, amb
HDAT	Inter-dealer Issuer to dealer/investor	Market-making or cross-matching Auction	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Last traded price	Price, Size	In real-time	E – sv
HTDonline	Inter-dealer	Market-making or cross-matching Request for quote Auction	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Indicative Last traded price	Price, Yield, Spread, Size	In real-time	U – muni
ICAP Electronic Broking	Inter-dealer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable	Price, Yield, Bid/Ask, Spread, Size	In real-time	U – ust, as, amb cd, xf E – sv, as, su, hg, hy, pf, irs, cd, xf, eur A – sv, xf X – cg
iDeal LLC	Single dealer-to (buy-side) customer Multiple dealer-to (buy-side) customer Issuer to dealer/investor	Order driven Auction	Dealers as consumers of liquidity Institutional investors Retail investors	Executable	Price, Yield, Spread, Size	In real-time	U – cp, mm, hg, hy, muni, cd

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
J.P. Morgan Express (JPeX)	Single dealer-to (buy-side) customer	Market-making or cross-matching Request for quote	Dealers as consumers of liquidity Institutional investors Retail investors	Executable Indicative	Price, Yield, Spread, Size	In real-time	U – ust, su, cp, mm, hg, hy, abs, em, irs, cd, fx, fxo, sd, sn E – sv, su, cp, hg, hy, pf, ss, em, irs, cd, fx, fxo, sd, sn A – sv, cp, hg, em, fx, fxo, sd, sn
Lehman Live	Inter-dealer Single dealer-to (buy-side) customer Issuer to dealer/investor	Order driven	Dealers as consumers of liquidity Institutional investors	Executable Indicative	Price, Yield Spread, Size	In real-time	U – ust, as, su, ft, fx E – as, ft, fx A – ft, fx
MarketAxess	Multiple dealer-to (buy-side) customer	Request for quote	Dealers as providers of liquidity Institutional investors	Indicative Last traded price	Price, Yield, Spread, Size	In real-time	U – as, su, hg, hy, em, cd, frn E – sv, as, su, hg, pf, ss, em, cd
Merrill Lynch	Single dealer-to (buy-side) customer	Order driven Auction	Dealers as consumers of liquidity Institutional investors Retail Investors	Executable Indicative	Price, Yield, Bid/Ask, Spread, Size	In real-time	U – ust, as, su, cp, mm, hg, muni, em E – sv, as, su, hg, hy, em A – sv, su, hg, hy
Mizuho Securities	Inter-dealer Single dealer-to (buy-side) customer	Market-making or cross-matching Request for quote	Dealers as consumers of liquidity Institutional investors	Executable	Price, Yield, Size	In real-time	U – ust, mm

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
MOT	Inter-dealer	Order driven Auction	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Bid/Ask, Size	In real-time	E – sv su, hg, hy, abs, ss, em, et
MTS Group ³	Inter-dealer Issuer to dealer/ investor	Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Last traded price	Price, Yield, Bid/Ask, Size	In real-time	U – as, su E – sv, as, su, mm, pf, mbs, abs, ss A – sv
RetLots Exchange	Single dealer-to- (buy-side) customer	Market-making or cross-matching	Dealers as providers of liquidity Institutional investors (buy side)	Executable Last traded price	Price, Yield, Bid/Ask, Size	In real-time	U – as, su, hg, hy, em E – sv, as, hg, hy, em
Reuters Trading for Fixed Income	Single dealer-to- (buy-side) customer Multiple dealer-to- (buy-side) customer	Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors Retail investors	Executable	Price, Yield, Bid/Ask, Spread, Size	In real-time	U – ust, as, su, hg, hy, ambs, nm, abs, em E – sv, as, su, hg, hy, pf, mbs, abs, ss, em A – sv, as, su, hg, hy, pf, mbs, abs, ss, em
SENAF	Inter-dealer	Order driven Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable	Price, Yield, Bid/Ask, Size	In real-time	E – sv, cp, pf
SWX Eurobonds	Multiple dealer-to- (buy-side) customer	Order driven	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable	Price, Size	In real-time	E – sv, as, su, hg, hy, pf, mbs, abs, ss, em, et

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
TAAPSLink	Issuer to dealer/investor	Auction	Dealers as providers of liquidity Institutional investors Retail investors		Price, Yield, Size	With a delay	U – ust
TDAX Eurobonds	Inter-dealer Single dealer-to-(buy-side) customer	Order driven Request for quote	Institutional investors Retail investors	Executable	Price, Yield, Size	In real-time	U – su, hg, em E – sv, su, hg, em
The MuniCenter	Inter-dealer Multiple dealer-to-(buy-side) customer	Order driven Market-making or cross-matching Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Executable Last traded price	Price, Yield, Spread, Size	In real-time	U – as, hg, hy, muni, cd, mtn
TLX S.p.A.	Multiple dealer-to-(buy-side) customer	Order driven Market-making or cross-matching	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Last traded price	Price, Size	In real-time	U – ust, as, su, hg, hy, em E – sv, su, hg, hy, em
TradeWeb LLC	Multiple dealer-to-(buy-side) customer	Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity Institutional investors	Indicative		In real-time	U – ust, as, su, cp, mm, hg, ambs, irs, cd, otco E – sv, su, cp, pf, irs, cd X – ca
TreasuryDirect ⁴	Issuer to dealer/investor	Order driven	Retail investors		Price, Yield, Size	With a delay	U – ust
ValuBond, Inc.	Inter-dealer	Market-making or cross-matching Request for quote	Dealers as providers of liquidity Dealers as consumers of liquidity	Executable Indicative Last traded price	Price, Yield, Size	In real-time	U – ust, as, mm, hg, hy, ambs, nm, abs, muni cds

ELECTRONIC TRADING PLATFORM CHARACTERISTICS AND SERVICES (continued)

PLATFORM NAME	TYPE OF SYSTEM	TRADING METHOD	TRADING PLATFORM PARTICIPANTS	PRE-TRADE PRICES AVAILABLE	INFORMATION AVAILABLE TO PARTICIPANTS	INFORMATION AVAILABLE	SECTOR COVERAGE
Wells Fargo	Single dealer-to-(buy-side) customer	Market-making or cross-matching	Dealers as consumers of liquidity	Executable	Price, Yield, Size	In real-time	U – ust, as

¹Information Available to Participants:

Bid/Ask	Whether trade was executed at the bid or ask	Trade	Trade size
Price	Price of trade	Yield	Yield of trade
Spread	Spread to benchmark		

Sector Coverage:

A = Asia
E = Europe
U = United States
X = Other

abs	Asset-backed securities	etd	Exchange-traded funds	otco	OTC options
abcp	Agency backed commercial paper	fxf	FX futures	pf	Pfandbriefe/covered bonds
ambs	Agency MBS	fxo	FX Options	rp	Repo
as	Agency securities	frn	Floating rate notes, new issues	sd	Securitized derivatives
ca	Canadian debt securities	ft	Futures	sn	Structured notes
cds	Credit derivatives	fx	FX	ss	Sub-sovereign securities
cg	Canadian government, agency and provincial, Canadian government bonds	hg	High-grade corporate	su	Supranational securities
cdsi	CDS index tranches	hy	High-yield corporate	sv	Sovereign securities
cp	Commercial paper	irs	Interest rate swaps	ust	Treasury securities
cd	Certificate of deposit	mbs	Mortgage-backed securities	ustf	US Treasury futures
eur	Euro bonds	mm	Other money market	wl	Whole loans
em	Emerging markets	muni	Municipal securities	xf	Forward FX
eto	Exchange-traded options	mtn	Medium-term notes		
		nm	Non-agency MBS		

²Bloomberg includes Bloomberg All Q, Bloomberg Bond Trader and Bloomberg Money Market Platform.

³MTS Group includes Euro MTS Limited, MTS Amsterdam, MTS Associated Markets, MTS Austria, MTS Deutschland, MTS France, MTS Greek Market, MTS Ireland, MTS Portugal SMGR, SA, MTS S.p.A., MTS Spain.

⁴Treasury Direct includes a separate platform known as Legacy Treasury Direct.

SYSTEMS

American Express Credit Corporation

301 North Walnut Street, Suite 1002
 Wilmington, Delaware 19801
 1.302.594.3350
www.axpcp.com

Market:

Issuer to dealer/investor

Platform Supports:

Primary market new-issues

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform has a minimum trade size of <\$1 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Yield of trade
CUSIP/ISIN number	Maturity	
Issue size	Trade size	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Commercial Paper		U		

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

Autobahn Electronic Trading

Deutsche Bank
 Winchester House
 1 Great Winchester Street
 London EC2N 2DB
 United Kingdom
 44.207.547.6469
www.autobahnfi.db.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity –Not Eligible
 Dealers as consumers of liquidity –Not Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors –Not Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system in real-time for trades executed on this platform:

Coupon	Maturity
CUSIP/ISIN number	Rating
Issuer name	Spread to benchmark

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products)	
	Cash	Repo Basis Spread
Agency securities	U E A	U E A
Commercial paper		U
Credit derivatives	U E A	
Emerging markets	U E A	
High-grade corporate	U E A	
High-yield corporate	U E A	
Interest rate swaps	U E A	U E A
Other money market	U E A	
Pfandbriefe/covered bonds	E A	E A
Sovereign securities	E A	E A
Sub-sovereign securities	E A	A
Supranational securities	U E A	U E A
Treasury securities	U	U

Trading Available in all European Countries.

Trading Available in all Asian Countries:

Platform provides direct access to trade clearance and settlement functions through:
ETC, OMGEO, ALERT

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

Order management – Currently Offered

Pre-trade analytics – Plan to Offer

Direct feed to dealer inventory to buy-side portfolio – Currently Offered

Automated Bond System (ABS)

New York Stock Exchange, Inc.

Fixed Income Markets Division

20 Broad Street

New York, New York 10005

1.212.656.7094

www.nyse.com

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible

Dealers as consumers of liquidity – Eligible

Institutional investors (“buy side”) – Not Eligible

Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Trade size
CUSIP/ISIN number	Maturity	Yield of trade
Historical trade data	Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)				
<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U			
High-grade corporate	U E			
High-yield corporate	U E			
Municipal securities	U			

Platform provides direct access to trade clearance and settlement functions through:
DTCC

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
Regulatory/compliance – Currently Offered

Bear Stearns & Co., Inc.

383 Madison Avenue
New York, New York 10179
1.212.272.2000
www.bearstearns.com

Market:

Inter-dealer
Single dealer-to-(buy-side) customer
Issuer to dealer/investor

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven
Request for quote.

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	TRACE trade data
CUSIP/ISIN number	MSRB trade data	Trade size
Historical trade data	Price of trade	Yield of trade
Issue size	Rating	
Issuer name	Spread to benchmark	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency MBS	U			U
Agency securities	U			U
Credit derivatives	U			U
Emerging markets	U E			U E
High-grade corporate	U A			U A
High-yield corporate	U A			A
Municipal securities	U			U
Sovereign securities	E A			E A
Supranational securities	U E A			U E A
Treasury securities	U			U

Platform supports trading in the following Asian sovereigns:

South Korea Philippines
 Malaysia Thailand

Platform provides direct access to trade clearance and settlement functions through:

DTCC

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Electronic research delivery – Currently Offered

Blackbird

55 Broad Street, 8th Floor
 New York, New York 10004
 1.212.609.4750
www.blackbird.net

Market:

Inter-Dealer
 Single dealer-to-(buy-side) customer
 Multiple dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote. No limit in the number of quotes a customer may request for a single trade.
 Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail Investors – Not Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$25 million.

Information available to all trading system participants in real-time and at the end of the day for trades executed on this platform:

Historical trade data Trade size
 Price of trade Whether trade was executed at the bid or ask

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Agency MBS	U	U	U	U
Credit derivatives	U E A	U E A	U E A	U E A
Futures	U E A	U E A	U E A	U E A
Interest rate swaps	U E A	U E A	U E A	U E A
MBS	E A	E A	E A	E A
Non-agency MBS	U	U	U	U

Platform provides direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered
 Risk monitoring or management – Currently Offered
 Identity management – Currently Offered

Bloomberg

731 Lexington Avenue
 New York, New York 10022
 1.212.318.2000
www.bloomberg.com

Bloomberg includes the following fixed-income platforms:

Bloomberg All Q¹

Bloomberg Bond Trader

Bloomberg Money Markets Platforms

¹Dealers may post executable prices on the Bloomberg All Q function, but it is not considered a platform.

Market:

- Inter-Dealer
- Single dealer-to-(buy-side) customer
- Multiple dealer-to-(buy-side) customer
- Issuer to dealer/investor

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

- Order driven
- Request for quote. Maximum number of quotes a customer may request for a single trade is 5.
- Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

- Dealers as providers of liquidity – Eligible
- Dealers as consumers of liquidity – Eligible
- Institutional investors (“buy side”) – Eligible
- Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	TRACE trade data
CUSIP/ISIN number	MSRB trade data	Trade size
Historical trade data	Price of trade	Yield of trade
Issue size	Rating	
Issuer name	Spread to benchmark	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U E A	U E		U E A
Commercial paper	U E			
Credit derivatives	U E			
Emerging markets	U E	E		U E
Futures	U E			
High-grade corporate	U E	U E		U E
High-grade yield	U E	U E		U E
Interest rate swaps	U E			
Other money market	U E			
Pfandbriefe/covered bonds	E	E		E
Sovereign securities	E A	E		E A
Sub-sovereign securities	E	E		E
Supranational securities	U E A	U E		U E A
Treasury securities	U	U		U

Platform supports trading in the following European sovereigns:

Austria	Germany	Italy
Belgium	Poland	Norway
Czech Republic	Portugal	Spain
Denmark	Greece	Sweden
Finland	Hungary	The Netherlands
France	Ireland	United Kingdom

Platform supports trading in the following Asian sovereigns:

Australia	Philippines	Sri Lanka
Japan	Singapore	

Platform provides direct access to trade clearance and settlement functions through:

Omgeo DTCC

Trading platform is compliant with FIX Protocol version 4.4.**Services other than price discovery/trade execution offered or plan to offer to users of the platform:**

Confirmation/allocation – Currently Offered
Order management – Currently Offered
Pre-trade analytics – Currently Offered
Direct feed to dealer inventory to buy-side portfolio – Currently Offered
Electronic research delivery – Currently Offered
Risk monitoring or management – Currently Offered
Identity management – Currently Offered

BondDesk Group

One Lovell Avenue
Mill Valley, California 94941
1.877.266.3922

or

BondDesk Trading, LLC
 399 Park Avenue, 39th Floor
 New York, New York 10022
www.bonddeskgroup.com

Market:

Inter-Dealer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	TRACE trade data
CUSIP/ISIN number	MSRB trade data	Trade size
Historical trade data	Price of trade	Yield of trade
Issue size	Rating	
Issuer name	Spread to benchmark	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
ABS				U
Agency MBS				U
High-grade corporate				U
High-yield corporate				U
Municipal securities				U
Non-agency MBS				U
Supranational securities				U
Treasury securities				U

Platform provides direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered

Regulatory/compliance – Currently Offered
 Risk monitoring or management – Currently Offered
 Identity management – Currently Offered

Bondpage.com

Cambridge Group Investments, Ltd.
 4660 S. Hagadorn Road, Suite 520
 East Lansing, Michigan 48823
 1.800.795.4648
www.bondpage.com

Market:

Inter-Dealer
 Single dealer-to-(buy-side) customer
 Multiple dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$20K.

Information available to all trading system participants with a delay for trades executed on this platform:

Coupon	Maturity	Spread to benchmark
CUSIP/ISIN number	Price of trade	Trade size
Issuer name	Rating	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U			
High-grade corporate	U			
High-yield corporate	U			
Municipal securities	U			
Treasury securities	U			

Platform does not provide direct access to trade clearance and settlement functions.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Plan to Offer
 Order management – Plan to Offer
 Pre-trade analytics – Plan to Offer
 Direct feed to dealer inventory to buy-side portfolio – Plan to Offer
 Electronic research delivery – Plan to Offer
 Regulatory/compliance – Plan to Offer
 Risk monitoring or management – Plan to Offer
 Identity management – Plan to Offer

Bondscape.net

54 Lombard Street
 London EC3P 3AH
 United Kingdom
 44.08702.426637
www.bondscape.net

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Rating
CUSIP/ISIN number	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade
Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Agency securities	E			
High-grade corporate	E			
Sovereign securities	E			
Supranational securities	E			

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Pre-trade analytics – Currently Offered
Electronic research delivery – Currently Offered

BondVision

Piazza Paolo Ferrari, 8
20121 Milan
Italy
39.02.80235.201
Fax: 39.02.80235.200
www.bondvision.net

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Request for quote. Maximum number of quotes a customer may request for a single trade is four.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Not Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of €100,000 for sovereigns.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Rating
CUSIP/ISIN number	Maturity	Yield of trade
Historical trade data	Price of trade	

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products)			
	Cash	Repo	Basis	Spread
ABS		E		
Agency securities		U E		
ETFs		E		
High-grade corporate		E		
MBS		E		

Products traded on the platform and the types of trade (continued):

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Other Money Market	E			
Pfandbriefe/covered bonds	E			
Sovereign securities	E			
Sub-sovereign securities	E			
Supranational securities	U E			
Treasury securities	U			

Platform supports trading in the following European sovereigns:

Austria	France	Poland
Belgium	Germany	Portugal
Bulgaria	Greece	Romania
Croatia	Hungary	Slovakia
Cyprus	Ireland	Slovenia
Czech Republic	Italy	Spain
Denmark	Lithuania	Turkey
Finland	The Netherlands	

Platform does not provide direct access to trade clearance and settlement functions.**Trading platform is compliant with FIX Protocol version 4.4.****Services other than price discovery/trade execution offered or plan to offer to users of the platform:**

Confirmation/allocation – Currently Offered

Order management – Currently Offered

BondWave

1001 Warrenville Road
 Suite 407
 Lisle, Illinois 60532
 1.877.795.6288
www.bondwave.com

Market:

Inter-Dealer
 Single dealer-to-(buy-side) customer
 Issuer to dealer/investor

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote. No limit in the number of quotes a customer may request for a single trade.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in with a delay for trades executed on this platform:

Coupon	Issuer name	Rating
CUSIP/ISIN number	Maturity	Spread to benchmark
Historical trade data	MSRB trade data	Trade size
Issue size	Price of trade	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Municipal securities	U			

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered
 Risk monitoring or management – Currently Offered
 Identity management – Currently Offered

BondWeb

7525 SE 24th Street, Suite 495
 Mercer Island, Washington 98040
 1.206.548.0071
www.bondweb.com

Market:

Inter-Dealer
 Multiple dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching

Request for quote. No limit in the number of quotes a customer may request for a single trade.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible

Dealers as consumers of liquidity – Eligible

Institutional investors (“buy side”) – Eligible

Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Spread to benchmark
CUSIP/ISIN number	Price of trade	Trade size
Issue size	Rating	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency MBS	U		U	U
Non-agency MBS	U		U	U

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

Order management – Plan to Offer

Pre-trade analytics – Currently Offered

Direct feed to dealer inventory to buy-side portfolio – Plan to Offer

Electronic research delivery – Plan to Offer

Regulatory/compliance – Plan to Offer

Risk monitoring or management – Plan to Offer

Identity management – Plan to Offer

CanDeal

The Exchange Tower

130 King Street West

3rd Floor, Suite 540

Toronto, Ontario

Canada M5X 1J2

1.416.814.7800

www.candeal.ca

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Request for quote. Maximum number of quotes a customer may request for a single trade is 4.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Not Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Spread to benchmark
CUSIP/ISIN number	Maturity	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products X = Other)

Product	Cash	Repo	Basis	Spread
Other: Canadian government, Agency & provincial		X		X

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered
 Risk monitoring or management – Plan to Offer
 Identity management – Currently Offered

Chapdelaine & Co.

One Seaport Plaza, 17th Floor
 New York, New York 10038
 1.212.208.9000
www.chappy.com

Market:

Inter-Dealer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.**Platform does not have a minimum trade size.****Information available to all trading system participants with a delay for trades executed on this platform:**

Coupon	Price of trade
CUSIP/ISIN number	Rating
Historical trade data	Spread to benchmark
Issuer name	Trade size
Maturity	Whether trade was executed at the bid or ask
MSRB trade data	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Municipal securities		U		

Platform provides direct access to trade clearance and settlement functions through:

DTCC NSCC

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Pre-trade analytics – Currently Offered

Chicago Board of Trade (CBOT)

141 West Jackson Boulevard
 Chicago, Illinois 60604-2994
 1.312.435.3500
www.cbot.com

Market:

Inter-Dealer
 Single dealer-to-(buy-side) customer
 Multiple dealer-to-(buy-side) customer
 Issuer to dealer/investor

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of one contract.

Information available to all trading system participants in real-time for trades executed on this platform:

Price of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)				
Product	Cash	Repo	Basis	Spread
Exchange-traded options	U			U
Futures	U			U

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Risk monitoring or management – Currently Offered

creditex

26 West 17th Street, 4th Floor
 New York, New York 10011
 1.212.633.7277
www.creditex.com

Market:

Inter-Dealer

Trading Method:Order driven
Auction**Market Participants Eligible/Not Eligible to Use Platform Directly:**Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Eligible
Institutional investors – Not Eligible
Retail investors – Not Eligible**Platform does not have dedicated liquidity providers or market makers.****Platform has a minimum trade size of \$5 million.****Information available to all trading system participants in real-time for trades executed on this platform:**

Coupon	Maturity
CUSIP/ISIN number	Price of trade
Historical trade data	Rating
Issue size	Trade size
Issuer name	Whether trade was executed at the bid or ask

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Credit derivatives				U E A

Platform supports trading in the following European sovereigns:

Austria	Greece	Romania
Belgium	Hungary	Russian Federation
Bulgaria	Italy	Slovakia
Croatia	Kazakhstan	Slovenia
Czech Republic	Latvia	Spain
Estonia	Lithuania	The Netherlands
France	Poland	Turkey
Germany	Portugal	Ukraine

Platform supports trading in the following Asian sovereigns:

China	Indonesia	Philippines
Korea	Malaysia	Thailand

Platform does not provide direct access to trade clearance and settlement functions.**Trading platform is not compliant with FIX Protocol version 4.4.****Services other than price discovery/trade execution offered or plan to offer to users of the platform:**Order management – Currently Offered
Pre-trade analytics – Currently Offered

Credit Suisse First Boston LLC

11 Madison Avenue
 New York, New York 10010-3629
 1.212.325.2000
www.csfb.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Not Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity
CUSIP/ISIN number	Price of trade
Historical trade data	Rating
Issue size	Whether trade was executed at the bid or ask
Issuer name	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U			
Commercial Paper	E			
Emerging markets	E			
ETFs	E			
Exchange-traded options	U E			
Futures	U E			
High-grade corporate	E			
High-yield corporate	E			
Pfandbriefe/covered bonds	E			
Sovereign securities	E A	E		
Supranational securities	E			
Treasury securities	U			

Platform supports trading in the following European sovereigns:

Austria	Germany	Portugal
Belgium	Greece	Spain
Denmark	Ireland	Sweden
Finland	Italy	The Netherlands
France	Luxembourg	United Kingdom

Platform supports trading in the following Asian sovereigns:

Japan

Platform does not provide direct access to trade clearance and settlement functions for cash products only.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Pre-trade analytics – Currently Offered
 Risk monitoring or management – Currently Offered
 Identity management – Currently Offered

CreditTrade

No. 1 London Bridge, 6th Floor
 London SE1 9BG
 United Kingdom
 44.(0)20.7098.1600
www.credittrade.com

Market:

Inter-Dealer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity
CUSIP/ISIN number	Price of trade
Historical trade data	Trade size
Issuer name	Whether trade was executed at the bid or ask

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Credit derivatives	U E			
High-grade corporate		U E		

Platform provides direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

dbconvertibles.com

Deutsche Bank AG, London
 1 Great Winchester Street
 London EC2N 2EQ
 United Kingdom
 44.20.7545.2362
www.dbconvertibles.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Not Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants:

Coupon	Issue size	Maturity
CUSIP/ISIN number	Issuer name	Rating

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)				
<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
High-grade corporate	E			
High-yield corporate	E			

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

- Pre-trade analytics – Currently Offered
- Electronic research delivery – Currently Offered

DebtDomain.com

410 Park Avenue, 15th Floor
 New York, New York 10022
 1.212.231.8121
www.debtDomain.com

Market:

- Inter-Dealer
- Single dealer-to-(buy-side) customer
- Multiple dealer-to-(buy-side) customer

Platform Supports:

- Primary market new-issues and secondary market trading

Trading Method:

- Order driven
- Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

- Dealers as providers of liquidity – Eligible
- Dealers as consumers of liquidity – Eligible
- Institutional investors (“buy side”) – Eligible
- Retail investors – Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Rating
Historical trade data	Maturity	Trade size
Issue size	Price of trade	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)				
<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Emerging markets	E	A		
Whole loans	E	A		

Platform supports trading in the following European sovereigns:

All countries, Eastern Europe in particular

Platform supports trading in the following Asian sovereigns:

All countries

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Plan to Offer
 Pre-trade analytics – Plan to Offer
 Direct feed to dealer inventory to buy-side portfolio – Plan to Offer
 Electronic research delivery – Plan to Offer
 Regulatory/compliance – Currently Offered
 Identity management – Plan to Offer

eSpeed, Inc.

110 East 59th Street
 New York, New York 10022
 1.212.610.2200
www.espeed.com

Market:

Inter-Dealer

Platform Supports:

Primary market new-issues

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$1 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Spread to benchmark
CUSIP/ISIN number	Trade size
Maturity	Whether trade was executed at the bid or ask
Price of trade	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U E	U		
Futures	U E		U	
Interest rate swaps		U E		
Mortgage-backed securities		U E		
Sovereign securities		E A		
Supranational securities	E			
Treasury securities		U	U	U

Platform supports trading in the following Asian sovereigns:

Japanese government bonds

Platform provides direct access to trade clearance and settlement functions through:

FICC

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Identity management – Currently Offered

Eurex

D-60485 Frankfurt/Main
 Germany
 49.(0).69.211.0
www.eurexchange.com

Market:

Multiple dealer-to-(buy-side) customer

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote
 Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible

Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Historical trade data	Price of trade
CUSIP/ISIN number	Maturity	Trade size

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products)			
	Cash	Repo	Basis	Spread
Agency securities			E	
ETFs			E	
Exchange-traded options			E	
Futures			U E	
Interest rate swaps			E	
OTC options			E	
Pfandbriefe/covered bonds			E	
Sovereign securities			E	
Supranational securities			E	
Treasury securities			U	

Trading available in European sovereigns in Euro denominated Countries.

Platform provides direct access to trade clearance and settlement functions through:

Eurex Clearing AG

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
Order management – Currently Offered

Eurex Bonds GmbH

D-60485 Frankfurt/Main
Germany
49.(0)69.211.11.222
www.eurex-bonds.com

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
Market-making or Cross-matching

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of €1 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Price of trade
CUSIP/ISIN number	Maturity	Trade size

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products)	
	Cash	Repo
Agency securities		E
Pfandbriefe/covered bonds		E
Sovereign securities		E

Platform supports trading in the following European sovereigns:

Austria	Germany	Switzerland
---------	---------	-------------

Platform provides direct access to trade clearance and settlement functions.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Plan to Offer
 Identity management – Currently Offered

Eurex U.S.

233 South Wacker Drive, Suite 2450
 Chicago, Illinois 60606
 1.312.544.1144
www.eurexexchange.com

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote. No limit in the number of quotes a customer may request for a single trade.
 Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Issue size	Price of trade
Maturity	Trade size

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Futures			U	
Other: FX Futures				
Other: US Treasury Futures				

Platform provides direct access to trade clearance and settlement functions through:

The Clearing Corporation

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered

FTN Financial

10 Exchange Place
 Jersey City, New Jersey 07302
 1.201.309.4581
www.ftnbond.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Market-making or Cross-matching
Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
Dealers as consumers of liquidity – Not Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Rating
CUSIP/ISIN number	Maturity	Spread to benchmark
Issue size	Price of trade	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U			
High-grade corporate		U		
High-yield corporate		U		
Municipal securities		U		
Treasury securities		U		

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

GFI Group

100 Wall Street
New York, New York 10005
1.212.968.4100
www.gfigroup.com

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$1 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade
CUSIP/ISIN number	Trade size
Historical trade data	Whether trade was executed at the bid or ask
Issuer name	
Maturity	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Asset-backed securities	E			
Credit derivatives	U E A			
Emerging markets	U			
High-grade corporate	A			U E
High-yield corporate	U			
Mortgage-backed securities	E			
OTC options	E			
Other: CDS index tranches		U E A		
Other: Floating rate notes	E			
Sub-sovereign	E			
Supranational securities				E

Platform supports trading in the following European sovereigns:

Austria (cds)	Greece	Portugal
Belgium	Ireland	Spain
France	Italy	
Germany	The Netherlands	

Platform supports trading in the following Asian sovereigns:

China (cds)	Japan (cds)	Philipines (cds)
Hong Kong (cds)	Korea (cds)	
Indonesia (cds)	Malaysia (cds)	

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Risk monitoring or management – Currently Offered

Goldman, Sachs & Co.

85 Broad Street
 New York, New York 10004-2456
 1.212.902.1000
www.portal.gs.com

Market:

Inter-dealer
 Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time and with a delay for trades executed on this platform:

Coupon	Rating
CUSIP/ISIN number	Spread to benchmark
Historical trade data	TRACE trade data
Issue size	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade
MSRB trade data	
Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Agency securities	U	E		
Commercial paper	U	E		
Credit derivatives	E			
ETFs	E			
Emerging markets	U	E		
Futures	E			
High-grade corporate	U	E		
Interest rate swaps	E			
Municipal securities	U			
Non-agency MBS	U			

Products traded on the platform and the types of trade (continued):

Product	Cash	Repo	Basis	Spread
Other money market	U			
Pfandbriefe/covered bonds	E			
Sovereign securities	E A			
Supranational securities	U E			
Treasury securities	U			

Platform provides direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Pre-trade analytics – Currently Offered
 Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered
 Identity management – Currently Offered

GovRate/Odd-Lot Machine

Zions Bank Capital Markets
 1 South Main Street
 Salt Lake City, Utah 84111
 1.801.524.4640
www.govrate.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Spread to benchmark
CUSIP/ISIN number	Price of trade	Trade size
Historical trade data	Rating	Trade size
Issuer name	Rating	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U			
High-grade corporate		U		
Municipal securities		U		
Treasury securities		U		

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Grant Street Group

1800 Allegheny Building
 429 Forbes Avenue
 Pittsburgh, Pennsylvania 15219
 1.412.391.5555
www.grantstreet.com

Market:

Issuer to dealer/investor

Platform Supports:

Primary market new-issues

Trading Method:

Request for quote. No limit in the number of quotes a customer may request for a single trade.
 Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time and with a delay for trades executed on this platform:

Coupon	Rating
Issue size	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)	
<u>Product</u>	<u>Cash Repo Basis Spread</u>
Agency Securities	U
Commercial paper	U
Interest rate swaps	U
Municipal securities	U
Other money market	U
Other: Repo	U
Treasury securities	U

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

G.X. Clarke & Co.

10 Exchange Place, Suite 1005
 Jersey City, New Jersey 07302
 1.201.200.3600
www.gxecute.com

Market:

Single dealer-to-(buy-side) customer
 Multiple dealer to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching
 Request for quote

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform does have a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade
CUSIP/ISIN number	Spread to benchmark
Issue size	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency MBS	U			
Agency securities	U			
Treasury securities	U			

Platform provides direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
Order management – Currently Offered

HDAT

Bank of Greece
21 East Venizelos Avenue
102 50 Athens
Greece
30.210.320.111
www.bankofgreece.gr

Market:

Inter-Dealer
Issuer to dealer/investor

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or cross-matching
Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of €5 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issue size	Price of trade
CUSIP/ISIN number	Issuer name	Trade size
Historical trade data	Maturity	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Sovereign securities	E	E		

Platform supports trading in the following European sovereigns:

At present, supports trading only in Greek sovereign securities, both cash and repo, however, corporate bonds are also eligible for trading.

Platform provides direct access to trade clearance and settlement functions through:

Bank of Greece Securities Settlement System

Trading platform s not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
Order management – Currently Offered

HTDonline

Hartfield, Titus & Donnelly LLC
111 Pavonia Avenue, Suite 1430
Jersey City, New Jersey 07310
1.201.217.8080
www.htdonline.com

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Market-making or Cross-matching
Request for quote. No limit in the number of quotes a customer may request for a single trade.
Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Spread to benchmark
CUSIP/ISIN number	MSRB trade data	Trade size
Historical trade data	Price of trade	Yield of trade
Issuer name	Rating	

Products traded on the platform and the types of trade:

(U = US Products	E = European Products	A = Asian Products)		
<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Municipal securities	U			

Platform provides direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

- Confirmation/allocation – Currently Offered
- Order management – Currently Offered
- Pre-trade analytics – Currently Offered
- Electronic research delivery – Currently Offered
- Regulatory/compliance – Currently Offered

ICAP Electronic Broking

Harborside Financial Center Plaza 5
 Jersey City, New Jersey 07302
 1.201.209.7800
www.icap.com

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

- Dealers as providers of liquidity – Eligible
- Dealers as consumers of liquidity – Eligible
- Institutional investors (“buy side”) – Not Eligible
- Retail investors – Not Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$1 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade
CUSIP/ISIN number	Spread to benchmark
Historical trade data	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products X = Other)

Product	Cash	Repo	Basis	Spread
Agency MBS	U	U		
Agency securities	U E	U E		U
Credit derivatives	U ¹ E			
High-grade corporate		E		
High-yield corporate		E		
Interest rate swaps	E			
Other :Canadian Government Bonds, Forward FX	X			
Other: Eurobonds, Forward FX	E			
Pfandbriefe/covered bonds	E	E		
Sovereign securities	E A	E	E	
Supranational securities	E	E		
Treasury securities	U	U	U	U

¹Indices only

Platform supports trading in the following European sovereigns:

Austria	Germany	South Africa
Belgium	Greece	Spain
Denmark	Ireland	Sweden
Finland	Italy	The Netherlands
France	Portugal	United Kingdom

Platform supports trading in the following Asian sovereigns:

Australia	Japan
-----------	-------

Platform provides provide direct access to trade clearance and settlement functions through:

FICC	LCH/Clearnet	Euroclear	Clearstream
------	--------------	-----------	-------------

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

- Confirmation/allocation – Currently Offered
- Order management – Currently Offered
- Regulatory/compliance – Currently Offered
- Risk monitoring or management – Currently Offered
- Identity management – Currently Offered

i-Deal LLC

139 Broadway, 2nd Floor
 New York, New York 10018
 1.212.849.5000
www.i-deal.com

Market:

Single dealer-to-(buy-side) customer
 Multiple dealer-to-(buy-side) customer
 Issuer to dealer/investor

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Rating
CUSIP/ISIN number	Maturity	Spread to benchmark
Historical trade data	MSRB trade data	Trade size
Issue size	Price of trade	Yield of trade

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products)			
	Cash	Repo	Basis	Spread
Commercial Paper	U			
Credit derivatives	U			
High-grade corporate	U			
High-yield corporate	U			
Municipal securities	U			
Other money market	U			

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

- Confirmation/allocation – Currently Offered
- Order management – Currently Offered
- Pre-trade analytics – Currently Offered
- Direct feed to dealer inventory to buy-side portfolio – Currently Offered
- Electronic research delivery – Plan to Offer
- Regulatory/compliance – Currently Offered
- Risk monitoring or management – Currently Offered
- Identity management – Currently Offered

J.P. Morgan eXpress

J.P. Morgan Chase
 270 Park Avenue, 6th Floor
 New York, New York 10017
 1.866.762.7559
www.jpmorganexpress.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching
 Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

- Dealers as providers of liquidity – Not Eligible
- Dealers as consumers of liquidity – Eligible
- Institutional investors (“buy side”) – Eligible
- Retail investors – Eligible

Platform has a dedicated liquidity provider.

Platform has a minimum trade size that varies by asset class.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Trade size
CUSIP/ISIN number	Price of trade	Yield of trade
Issue size	Rating	
Issuer name	Spread to benchmark	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
ABS	U			
Commercial paper	U E A			
Credit derivatives ¹	U E			
Emerging markets	U E A			
High-grade corporate	U E A			U E A
High-yield corporate	U E			
Interest rate swaps ¹	U E			U E
Other money market	U			
Other: FX, FX Options	U E A			
Other: Securitized derivatives	U E A			
Other: Structured Notes	U E A			
Pfandbriefe/covered bonds	E			
Sovereign securities	E A			
Sub-sovereign securities	E			
Supranational securities	U E			
Treasury securities	U			

¹Price distribution only, trading pending**Platform supports trading in the following European sovereigns:**

Austria	Germany	The Netherlands
Belgium	Greece	Portugal
Denmark	Ireland	Spain
Finland	Italian FRN	Sweden
France	Italy	United Kingdom Guilts

Platform supports trading in the following Asian sovereigns:

Japan

Platform does not provide direct access to trade clearance and settlement functions.**Trading platform is compliant with FIX Protocol version 4.4.****Services other than price discovery/trade execution offered or plan to offer to users of the platform:**

Confirmation/allocation – Currently Offered
 Pre-trade analytics – Currently Offered
 Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered
 Identity management – Currently Offered

LehmanLive

Lehman Brothers, Inc.
 745 Seventh Avenue
 New York, New York 10019
 1.800.265.3251
www.lehmanlive.com

Market:

Inter-Dealer
 Single dealer-to-(buy-side) customer
 Issuer to dealer/investor

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has a dedicated liquidity provider.

Platform has a minimum trade size of \$0.025 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Trade size
CUSIP/ISIN number	Price of trade	Yield of trade
Issue size	Rating	
Issuer name	Spread to benchmark	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Agency securities	U	E		
Futures	U	E	A	
Other: FX	U	E	A	
Supranational securities	U			
Treasury securities	U			

Platform provides direct access to trade clearance and settlement functions through:

STP for customer via FIX, Oasis and TW. All trades are DVP to GSCC, DTCC, etc.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Plan to Offer
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered
 Risk monitoring or management – Currently Offered

MarketAxess

140 Broadway, 42nd Floor
New York, New York 10005
1.212.813.6000

or

MarketAxess Europe, Ltd.
71 Fenchurch Street
London EC3M 4BS
United Kingdom
44 (0) 20 7709 3105
www.marketaxess.com

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Request for quote. No limit in the number of quotes a customer may request for a single trade.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Not Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Spread to benchmark
CUSIP/ISIN number	Maturity	TRACE trade data
Historical trade data	Price of trade	Trade size
Issue size	Rating	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U	E		
Credit derivatives	U	E		
Emerging Markets	U	E		
High-grade corporate	U	E		
High-yield corporate	U			
Other: FRNs, New Issues	U			
Pfandbriefe/covered bonds	E			
Sovereign securities	E			
Sub-sovereign securities	E			
Supranational securities	U	E		

Platform supports trading in the following European sovereigns:

All countries in Europe—Eurobonds or Global only

Platform provides direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered

Merrill Lynch

2 World Financial Center
 New York, New York 10281
 1.212.236.2200
www.ml.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven
 Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Whether trade was executed
CUSIP/ISIN number	Price of trade	at the bid or ask
Historical trade data	Rating	Yield of trade
Issue size	Spread to benchmark	
Issuer name	Trade size	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Agency securities	U	E		
Commercial paper	U			
Emerging markets	U	E		
High-grade corporate	U	E	A	
High-yield corporate	E	A		
Municipal securities	U			
Other money market	U			
Sovereign securities	E	A		
Supranational securities	U	E	A	
Treasury securities	U			

Platform does not provide direct access to trade clearance and settlement functions.**Trading platform is not compliant with FIX Protocol version 4.4.****Services other than price discovery/trade execution offered or plan to offer to users of the platform:**

Confirmation/allocation – Currently Offered

Mizuho Securities

111 River Street, 11th Floor
Hoboken, New Jersey 07030
1.201.626.1000
www.mizuhosecurities.com

Market:

Inter-Dealer
Single dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching
Request for quote

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Not Eligible

Platform has a dedicated liquidity provider.**Platform does not have a minimum trade size.**

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Trade size
CUSIP/ISIN number	Maturity	Yield of trade
Issue size	Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Treasury securities	U			
Other money market	U			

Platform provides direct access to trade clearance and settlement functions through:

The Bloomberg System to Bloomberg trade support users

MOT

Borsa Italiana S.p.A.--Italian Exchange
 Piazza degli Affari n 6
 20123 Milano
 Italy
 011.39.02.72.42.6276
www.borsaitalia.it

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Order driven¹
 Auction

¹MOT is organized as an order driven market where only authorized operators (intermediaries) may directly enter orders. Intermediaries may operate on proper and/or customer account.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Broker/Dealers as providers of liquidity – Eligible
 Broker/Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trading lot size of €1,000.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity
CUSIP/ISIN number	Price of trade
Historical trade data	Trade size
Issue size	Whether trade was executed at the bid or ask
Issuer name	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
ABS	E			
Emerging markets	E			
High-grade corporate	E			
High-yield corporate	E			
Sovereign securities	E			
Sub-sovereign securities	E			
Supranational securities	E			

Platform supports trading in the following European sovereigns:

Austria	Germany	Spain
France	Greece	

Platform provides direct access to trade clearance and settlement functions through:

Monte Titoli, the Italian CSD; for euro-bonds, Euroclear and Clearstream

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
Identity management – Currently Offered

MTS Group

30 Old Broad Street
London EC2N 1HT
United Kingdom
44.20.7786.6001
www.mtsgroup.org

MTS Group includes the following fixed-income trading platforms:

EuroMTS Limited

30 Old Broad Street
London EC2N 1HT
United Kingdom
United Kingdom
44.20.7786.6001
www.euromts-ltd.com

MTS Amsterdam

Busitel 2
Orlyplein 32
1043 DP Amsterdam
The Netherlands
31.20.5310460
www.mtsamsterdam.com

MTS Associated Markets

Avenue des Artes 30
1040 Brussels
Belgium
32.2.235.0020
www.mtsbelgium.com
www.mtsfinland.com

MTS Austria

30 Old Broad Street
London EC2N 1HT
United Kingdom
44.20.7786.6001
Fax: 44.20.7786.6000
www.mtsaustria.com

MTS Deutschland

Lurgiallee 5
60295 Frankfurt
Germany
49.69.5808.4511
www.mtsgermany.com

MTS France

39, Rue Cambon
75039 Paris de la defense cedex
France
33.1.4927.1462
www.mtsfrance.com
www.mtsfinland.com

MTS Greek Market

30 Old Broad Street
London EC2N 1HT
United Kingdom
44.20.7786.6001
Fax: 44.20.7786.6000
www.mtsgreece.com

MTS Ireland

30 Old Broad Street
London EC2N 1HT
United Kingdom
44.20.7786.6001
www.mtsireland.com

MTS Portugal SGMR, SA

Av. Defensores de Chaves, 15, 4B
 10 0 0-109 Lisbon
 Portugal
 351.21.351.1930
www.mtsportugal.com

MTS S.p.A.

Piazza Paolo Ferrari, 8
 20121 Milan
 Italy
 39.02.80235201
www.mtspa.it
www.mtsgroup.org

MTS Spain

Torres Colón
 Torre II
 Plaza Colón, 2
 28046 Madrid
 Spain
 34.91.702.7909
www.mtsspain.com

Market:

Inter-Dealer
 Issuer to dealer/investor

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching¹

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size depending on instrument and market.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade
CUSIP/ISIN number	Rating
Historical trade data	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
ABS	E	E		
Agency securities	U E	E		
MBS	E	E		
Other money market	E	E		
Pfandbriefe/covered bonds	E	E		
Sovereign securities	E A	E		
Sub-sovereign securities	E	E		
Supranational securities	U E	E		

Platform supports trading in the following European sovereigns:

Austria	France	Portugal
Belgium	Germany	Romania
Bulgaria	Greece	Slovakia
Croatia	Hungary	Slovenia
Cyprus	Ireland	Spain
Czech Republic	Italy	The Netherlands
Denmark	Lithuania	Turkey
Finland	Poland	

Platform supports trading in the following Asian sovereigns:

China

Platform provides direct access to trade clearance and settlement functions.

Bank of Greece	Euroclear/Clearstream
CADE (Iberclear)	Express II
CC&G	LCH
Clearnet	National Bank Belgium

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered

RetLots Exchange

Via Boito, 7
 20121 Milan
 Italy
 39.02.80.215.500
www.caboto.it

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Not Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has a dedicated liquidity provider.**Platform does not have a minimum trade size.****Information available to all trading system participants in real-time for trades executed on this platform:**

Coupon	Price of trade
CUSIP/ISIN number	Rating
Historical trade data	Trade size
Issue size	Whether trade was executed at the bid or ask
Issuer name	Yield of trade
Maturity	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U E			
Emerging markets	U E			
High-grade corporate	U E			
High-yield corporate	U E			
Sovereign securities	E			
Supranational securities	U			

Platform does not provide direct access to trade clearance and settlement functions.**Trading platform is not compliant with FIX Protocol version 4.4.****Services other than price discovery/trade execution offered or plan to offer to users of the platform:**

Electronic research delivery – Currently Offered
 Regulatory/compliance – Currently Offered

Reuters Trading for Fixed Income

3 Times Square
 New York, NY 10036
 1.646.223.4000
www.reuters.com

Market:

Single dealer-to-(buy-side) customer
 Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Request for quote. Maximum number of quotes a customer may request for a single trade is five.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size depending on product.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Rating
CUSIP/ISIN number	Spread to benchmark
Historical trade data	TRACE trade data
Issue size	Trade size
Issuer name	Whether trade was executed at the bid or ask
Maturity	Yield of trade
Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
ABS	U E A			
Agency MBS	U			
Agency securities	U E A			
Emerging markets	U E A			
High-grade corporate	U E A			
High-yield corporate	U E A			
MBS	E A			
Non-agency MBS	U			
Pfandbriefe/covered bonds	E A			
Sovereign securities	E A			
Sub-sovereign securities	E A			
Supranational securities	U E A			
Treasury securities	U			

Platform supports trading in the following European sovereigns:

Bulgaria	Israel	South Africa
Croatia	Italy	Spain
Cyprus	Latvia	Sweden
Czech Republic	Lithuania	Turkey
Denmark	Poland	Ukraine
Estonia	Portugal	United Kingdom
Greece	Romania	
Hungary	Slovakia	

Platform supports trading in the following Asian sovereigns:

Australia	Malaysia	South Korea
China	New Zealand	Taiwan
Hong Kong	Philippines	Thailand
Indonesia	Singapore	

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

- Confirmation/allocation – Currently Offered
- Order management – Plan to Offer
- Pre-trade analytics – Currently Offered
- Direct feed to dealer inventory to buy-side portfolio – Plan to Offer
- Electronic research delivery – Currently Offered
- Regulatory/compliance – Currently Offered
- Risk monitoring or management – Currently Offered

SENAF

Pza. Pablo Ruiz Picasso 1
Torre Picasso Floor 26
Madrid 28020
Spain
00.34.91.7709370
www.senaf.net

Market:

Inter-Dealer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
Dealers as consumers of liquidity – Eligible
Institutional investors (“buy side”) – Not Eligible
Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$1 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade
CUSIP/ISIN number	Trade size
Historical trade data	Whether trade was executed at the bid or ask
Issuer name	Yield of trade
Maturity	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Sovereign securities	E	E	E	E
Commercial paper	E			
Pfandbriefe/covered bonds	E			

Platform supports trading in the following European sovereigns:

Spain

Platform provides direct access to trade clearance and settlement functions through:

Iberclear Meffclear

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Electronic research delivery – Currently Offered

SWX Eurobonds

Selnaustrasse 30/Postfach
 CH-8021 Zurich
 Switzerland
 41.1.229.25.95
www.swx.com

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issue size	Price of trade
CUSIP/ISIN number	Issuer name	Trade size
Historical trade data	Maturity	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)	
<u>Product</u>	<u>Cash Repo Basis Spread</u>
ABS	E
Agency securities	E
Emerging markets	E
ETFs	E
High-grade corporate	E
High-yield corporate	E
MBS	E
Pfandbriefe/covered bonds	E
Sovereign securities	E
Sub-sovereign securities	E
Supranational securities	E

Platform supports trading in the following European sovereigns:

All European countries

Platform provides direct access to trade clearance and settlement functions.

SIS Euroclear Clearstream Luxembourg

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Regulatory/compliance – Currently Offered
 Identity management – Currently Offered

TAAPSLink[®]

Bureau of the Public Debt
 Treasury Auction Processing Center
 999 E Street, NW, Room 510
 Washington, DC 20239
 1.202.691.3550
www.publicdebt.treas.gov

Market:

Issuer to dealer/investor

Platform Supports:

Primary market new-issues

Trading Method:

Auction

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Not Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$0.001 million

Information available to all trading system participants with a delay for trades executed on this platform:

Coupon	Issuer name	Trade size
CUSIP/ISIN number	Maturity	Yield of trade
Issue size	Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Treasury securities		U		

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

TDAX Eurobonds

Triton Court, 14-18 Finsbury Square
 London EC2A 1DB
 United Kingdom
 44.20.7920.0272
www.tdsecurities.com

Market:

Inter-Dealer
 Single dealer-to-(buy-side) customer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Order driven
Request for quote.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
Dealers as consumers of liquidity – Eligible
Institutional investors (“buy side”) – Eligible
Retail investors – Eligible

Platform has a dedicated liquidity provider.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade	Yield of trade
Issuer name	Rating	
Maturity	Trade size	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products¹)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Emerging markets	U E			
High-grade corporate	U E			
Sovereign securities	E			
Supranational securities	U E			

¹Does not trade in Asian sovereigns but does trade during Asian hours.

Platform supports trading in the following European sovereigns:

Czech Republic	Iceland	Turkey
Hungary	Poland	

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
Electronic research delivery – Currently Offered

TheMuniCenter

540 Madison Avenue
4th Floor
New York, New York 10022
1.866.686.4287
www.TheMuniCenter.com

Market:

Inter-Dealer
Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven

Market-making or Cross-matching

Request for quote. No limit in the number of quotes a customer may request for a single trade.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible

Dealers as consumers of liquidity – Eligible

Institutional investors (“buy side”) – Eligible

Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Rating
CUSIP/ISIN number	Maturity	Spread to benchmark
Historical trade data	MSRB trade data	Trade size
Issue size	Price of trade	Yield of trade

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Agency securities	U			
High-grade corporate	U			
High-yield corporate	U			
Municipal securities	U			
Other: CDs	U			
Other: MTNs	U			

Platform provides direct access to trade clearance and settlement functions.

Broadcort Bloomberg

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

Order management – Currently Offered

Pre-trade analytics – Currently Offered

Direct feed to dealer inventory to buy-side portfolio – Currently Offered

Electronic research delivery – Currently Offered

Regulatory/compliance – Currently Offered

Risk monitoring or management – Currently Offered

TLX S.p.A.

Via Cavriana 20
 20134 Milano
 Italy
 39.02.30301450
 www.eurotlx.com

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Order driven
 Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Price of trade
CUSIP/ISIN number	Rating
Issuer name	Trade size
Maturity	

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products)			
	Cash	Repo	Basis	Spread
Agency securities	U			
Emerging markets	U E			
High-grade corporate	U E			
High-yield corporate	U E			
Sovereign securities	E			
Supranational securities	U E			
Treasury securities	U			

Platform supports trading in the following European sovereigns:

Italy

Platform provides direct access to trade clearance and settlement functions.

Monte Titoli	Euroclear	Clearstream
--------------	-----------	-------------

Trading platform is compliant with FIX Protocol version 4.2.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Regulatory/compliance – Currently Offered

TradeWeb LLC

Harborside Financial Center
 2200 Plaza Five
 Jersey City, New Jersey 07311
 1.800.541.2268
www.tradeweb.com

Market:

Multiple dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Request for quote. Maximum number of quotes a customer may request for a single trade is market dependent.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform has a minimum trade size that is market dependent.

Information available to all trading system participants in real-time for trades executed on this platform:

TRACE trade data

Products traded on the platform and the types of trade:

Product	(U = US Products E = European Products A = Asian Products X = Other)			
	Cash	Repo	Basis	Spread
Agency MBS	U	U		U
Agency securities	U	U		U
Commercial paper	U E			
Credit derivatives	U ¹ E			
High-grade corporate	U			U
Interest rate swaps	U E ²			U E ²
Other money market	U			
Other: ABS CP	U			
Other: Canadian Debt	X			
Pfandbriefe/covered bonds	E			E

Products traded on the platform and the types of trade (continued):

Product	(U = US Products E = European Products A = Asian Products X = Other)			
	Cash	Repo	Basis	Spread
Sovereign securities	E			E
Supranational securities	U E			U E
Treasury securities	U	U		U

¹Index only

²For spread trades, customers can execute switches between two interest rate swaps.

Platform supports trading in the following European sovereigns:

Austria	Greece	Portugal
Belgium	Hungary	Slovakia
Czech Republic	Ireland	Spain
Denmark	Italy	Sweden
Finland	Lithuania	United Kingdom
France	Luxembourg	
Germany	Poland	

Platform provides direct access to trade clearance and settlement functions through DTCC

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

- Confirmation/allocation – Currently Offered
- Order management – Currently Offered
- Pre-trade analytics – Currently Offered
- Electronic research delivery – Currently Offered
- Regulatory/compliance – Currently Offered
- Risk monitoring or management – Currently Offered

TreasuryDirect¹

U.S. Treasury Department
 Bureau of the Public Debt
 Washington, DC 20239
 1.877.392.2678
www.treasurydirect.gov

¹Treasury Direct also includes a separate platform known as Legacy Treasury Direct.

Market:

Issuer to dealer/investor

Platform Supports:

Primary market new-issues

Trading Method:

Order driven

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Not Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Eligible

Platform does not have dedicated liquidity providers or market makers.

Platform has a minimum trade size of \$0.001 million.

Information available to all trading system participants with a delay for trades executed on this platform:

Coupon	Issuer name	Trade size
CUSIP/ISIN number	Maturity	Yield of trade
Issue size	Price of trade	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

Product	Cash	Repo	Basis	Spread
Treasury securities		U		

Platform does not provide direct access to trade clearance and settlement functions.

Trading platform is not compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

ValuBond, Inc.

ValuBond Securities
 6 Piedmont Center, Suite 300
 Atlanta, Georgia 30306
 1.877.392.8258
www.valubond.com

Market:

Inter-Dealer

Platform Supports:

Primary market new-issues and secondary market trading

Trading Method:

Market-making or Cross-matching
 Request for quote. No limit in the number of quotes a customer may request for a single trade.

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has dedicated liquidity providers or market makers.

Platform does not have a minimum trade size.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Issuer name	Rating
CUSIP/ISIN number	Maturity	TRACE trade data
Historical trade data	MSRB trade data	Trade size
Issue size	Price of trade	Yield of trade

Products traded on the platform and the types of trade:

Product	E = European Products		A = Asian Products	
	Cash	Repo	Basis	Spread
ABS	U			
Agency MBS	U			
Agency securities	U			
High-grade corporate	U			
High-yield corporate	U			
Municipal securities	U			
Non-agency MBS	U			
Other money market	U			
Other: CD's	U			
Treasury securities	U			

Platform provides direct access to trade clearance and settlement functions.

Trading platform is compliant with FIX Protocol version 4.4.

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered
 Order management – Currently Offered
 Pre-trade analytics – Currently Offered
 Direct feed to dealer inventory to buy-side portfolio – Currently Offered
 Regulatory/compliance – Currently Offered
 Risk monitoring or management – Currently Offered
 Identity management – Currently Offered

Wells Fargo

420 Montgomery Street
 San Francisco, California 94104
 1.800.869.3557
www.wellsfargo.com

Market:

Single dealer-to-(buy-side) customer

Platform Supports:

Secondary market trading

Trading Method:

Market-making or Cross-matching

Market Participants Eligible/Not Eligible to Use Platform Directly:

Dealers as providers of liquidity – Not Eligible
 Dealers as consumers of liquidity – Eligible
 Institutional investors (“buy side”) – Not Eligible
 Retail investors – Not Eligible

Platform has a dedicated liquidity provider.

Platform has a minimum trade size of \$0.005 million.

Information available to all trading system participants in real-time for trades executed on this platform:

Coupon	Maturity	Yield of trade
CUSIP/ISIN number	Price of trade	
Issuer name	Trade size	

Products traded on the platform and the types of trade:

(U = US Products E = European Products A = Asian Products)

<u>Product</u>	<u>Cash</u>	<u>Repo</u>	<u>Basis</u>	<u>Spread</u>
Agency securities	U			
Treasury securities	U			

Services other than price discovery/trade execution offered or plan to offer to users of the platform:

Confirmation/allocation – Currently Offered

OTHER TRADING PLATFORMS

The following firms are thought to operate fixed-income trading platforms but did not respond to the survey:

Bonds Direct

520 Madison Avenue, 8th Floor
New York, New York 10022
212.284.2071
www.jefferies.com/bd

Citigroup Fixed Income Direct

388 Greenwich Street
New York, New York 10013
212.723.9474
44.207.986.9283 (London)
www.fidirect.citigroup.com

De@lDone

C.so Monforte, 15
20122 Milan
Italy
39.02.69.705.690
www.mpsfinance.biz

DebtX

101 Arch Street, Suite 410
Boston, Massachusetts 02110
617.443.9199
www.debtX.com

Fixed Income Securities, LLC

7220 Trade Street, Suite 310
San Diego, California 92121-2327
800.697.7220
www.fisbonds.com

HanoverTrade, Inc.

376 Thornall Street
Edison, New Jersey 08837
www.hanovertrade.com

Morgan Stanley

1585 Broadway
New York, New York 10036
212.761.4000
www.morganstanley.com

SunGard Transaction Network

SUNGARD
11 Salk Creek Lane
Hinsdale, Illinois 60521
866.276.2753
www.sungard.net

Tradebonds.com

Finacorp Securities
4100 MacArthur Boulevard, Suite 315
Newport Beach, California 92660
877.708.7233
www.tradebonds.com

GLOSSARY OF TERMS

Auction Trading Method – A market in which the prevailing price is determined by prospective buyers entering competitive bids simultaneously, most common for newly issued instruments offered to the market by issuers.

Basis Trade – A simultaneous trade of either a purchase or sale of an instrument (the cash leg) and the corresponding sale or purchase of its futures equivalent (the futures leg). The tradable price is formed based on the difference between the spot price and the futures price of the underlying instrument.

Confirmation and Allocation Services – Users can obtain electronic trade confirmations and/or use the platform to allocate trades among several accounts.

Direct Feed of Dealer Inventory into Buy-side Portfolio – A service where a dealer counterparty to a trade automatically updates the portfolio or order management system records of a buy-side counterparty after trade execution to reflect changes in the portfolio.

Electronic Research Delivery – Users can obtain research products produced by dealers or third-party providers.

Identity Management Services – Advanced login features that allow users to monitor or control access to certain functions or services.

Market Making or Cross-matching Trading Method – A market where an institution must make consistent buy and sell quotations for a certain period of time in a selection of instruments traded. These quotes may be “hit” or “lifted” at any time where two market makers’ bid and ask prices on the same instrument cross.

Order Driven Trading Method – A market where orders are entered by participants into a central order book of the trading system and may be accessed by any participant on the market. Normally, the matched trades will be cleared through a central counterparty or through a particular settlement institution.

Order Management System (OMS) – Users can view and manage orders and positions on a real-time basis, in some cases across all traders within a firm or group.

Pre-trade Analytics – Users can access research, data and analytical functions to develop or test trade ideas before actual execution.

Pricing data -- Users can access a database of all trades executed on the system and, in some cases, trades executed on other platforms or by voice.

Regulatory Compliance Services – Assists users in complying with certain regulatory requirements such as record keeping or due diligence in price discover.

Request for Quote Trading Method – A system in which an institution, usually a buy-side firm, requests a buy or sell quote from a limited number of other institutions, typically dealers. Upon receipt of a quote, the requesting institution may enter into a trade.

Risk Monitoring or Management Services – Allows users to apply risk assessment functions or models to portfolio holdings or monitor and control portfolio risk for individual traders or across a group or firm.

Spread Trade – A simultaneous purchase and sale of one instrument and the corresponding purchase or sale of another instrument whereby the tradable price is formed based on the differential between the spot prices of the underlying instruments.

METHODOLOGY

This report catalogs and describes all systems that allow dealers or institutional investors to buy or sell fixed-income products electronically. We do not include systems focused principally on retail, or individual, investors. The information comprising this survey was collected over a three-week period beginning October 3, 2005. Questionnaires were sent to 63 known trading system operators in the U.S., Europe and Asia. Fifty-four responded. Except where otherwise noted, this report is based on those responses. Association staff has used their best efforts in attempting to ensure that all information is correct, but the Association cannot guarantee its accuracy. For more information on individual systems, please contact the respective firms.

The Bond Market Association, with offices in New York, Washington D.C. and London, represents securities firms, banks and asset managers that underwrite, trade, sell and invest in debt securities and other financial products globally.



Washington

New York

London

www.bondmarkets.com

©2005 The Bond Market Association