

# eCommerce in the Fixed-Income Markets



**THE 2004 REVIEW OF ELECTRONIC TRANSACTION SYSTEMS**

**DECEMBER 2004**



## ***Review of Electronic Transaction Systems for Fixed-Income Markets***

Electronic trading in the U.S. and European bond markets continued to develop and evolve in 2004, and several notable trends emerged. Importantly, trading platforms have accelerated the development of value-added services to enhance their product offerings. These services—such as the availability of historical pricing data, confirmation and allocation services, order management systems and electronic research delivery—complement the basic functions of price discovery and trade execution and enhance the efficiency of electronic trading.

In addition, a growing number of trading platforms now support trading in OTC derivatives. According to survey responses, 25 platforms in the U.S. and Europe now allow users to execute transactions in interest rate swaps, credit default swaps, options, futures and other derivative products. That number is nearly double the 13 platforms that supported derivatives trading in 2003. The growth in online derivatives trading reflects the rapid growth in the use of derivative products in the market and the vital role they play in fixed-income portfolios as well as the trend towards commoditization in some sectors of the derivatives market. It also reflects the efficiencies brought about by electronic execution in a product sector where just a few years ago, conducting trades electronically was a novelty.

### ***Value-added services***

Online bond trading platforms have accelerated the development and implementation of value-added services to enhance the efficiency of electronic trade execution and reduce users' costs. In this year's survey, we asked trading platform vendors about their current and planned offerings of some key services which enhance the core function of trade execution. Virtually all offer at least some of the services described below.

**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.

**Confirmation and allocation services** — Users can obtain electronic trade confirmations and/or use the platform to allocate trades among several accounts.

**Order management system** — 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.

**Matching services** — Users can compare trades against a counterparty's records to enhance the clearance and settlement process.

**Electronic research delivery** — Users can obtain research products produced by dealers or third-party providers.

**Regulatory compliance services** — Assists users in complying with certain regulatory requirements such as record-keeping or due diligence in price discovery.

**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.

**Identity management services** — Advanced login features that allow users to monitor or control access to certain functions or services.

Table 1 summarizes the value-added services offered by survey respondents.

**Table 1**

	Pricing Data		Confirmation/allocation		Order Management System	
	Offer Currently	Plan to Offer	Offer Currently	Plan to Offer	Offer Currently	Plan to Offer
Multi-Dealer	12	-	10	-	11	-
Interdealer	15	4	16	1	13	1
Auction	6	1	9	-	6	-
Cross-Matching	7	-	4	1	5	1
Single Dealer	12		8	2	7	2
<b>Total</b>	<b>52</b>	<b>5</b>	<b>47</b>	<b>4</b>	<b>42</b>	<b>4</b>

	Pre-Trade Analytics		Electronic Research Delivery		Matching Services System	
	Offer Currently	Plan to Offer	Offer Currently	Plan to Offer	Offer Currently	Plan to Offer
Multi-Dealer	10	2	10	2	6	-
Interdealer	4	3	2	3	16	-
Auction	6	2	4	1	2	-
Cross-Matching	5	-	4	2	5	-
Single Dealer	16	1	15	1	4	-
<b>Total</b>	<b>41</b>	<b>8</b>	<b>35</b>	<b>9</b>	<b>33</b>	<b>-</b>

	Regulatory/Compliance		Risk Monitoring or Management		Identity Management System	
	Offer Currently	Plan to Offer	Offer Currently	Plan to Offer	Offer Currently	Plan to Offer
Multi-Dealer	8	3	7	2	6	2
Interdealer	4	2	3	1	4	4
Auction	7	1	6	-	-	2
Cross-Matching	4	1	1	2	4	-
Single Dealer	1	2	5	2	3	1
<b>Total</b>	<b>24</b>	<b>9</b>	<b>22</b>	<b>7</b>	<b>17</b>	<b>9</b>

### ***Derivatives trading***

Derivative products have become an integral part of the fixed-income markets in the U.S. and Europe, and their use continues to grow. Derivatives are absolutely vital for executing trading and risk management strategies. Using derivatives can often be more efficient than using cash products for both the interest rate and credit markets. Growth in the use of derivatives, particularly OTC products such as interest rate, currency and credit

default swaps and OTC options, has led to a degree of commoditization of certain OTC derivatives, which in turn contributes to the ability of market participants to execute trades in these products electronically. In addition, electronic execution greatly enhances the ability to conduct trades in multiple products, both cash and derivatives, simultaneously.

As a result, more online bond trading platform vendors than ever now support derivatives trading on their systems. Table 2 details platform vendors responses to questions we posed regarding their support of derivatives trading.

**Table 2**

	Interest Rate Swaps	Credit Default Swaps	OTC Options	Exchange-Traded Options	Futures	Other Derivative Products
Multi-Dealer	1	1	-	1	1	2
Interdealer	4	2	2	1	3	3
Auction	3	-	-	-	-	-
Cross-Matching	1	1	-	2	2	1
Single Dealer	1	-	-	1	2	8
<b>Total</b>	<b>10</b>	<b>4</b>	<b>2</b>	<b>5</b>	<b>8</b>	<b>14</b>

### **Summary of systems**

The total number of systems that support electronic trading in fixed-income securities and related products declined in 2004 as the industry matures, competition intensifies and consolidation sets in. In all, we have identified 74 trading platforms in the U.S. and Europe in December 2004, down from 77 in 2003. That number peaked in 2002 at 81.

The trend of consolidation among platform vendors continued in 2004, highlighted by several high-profile mergers between fixed-income trading platform vendors and between platform vendors and market data and news providers. In addition, several smaller platforms closed their doors as liquidity on their systems waned. Tables 3 and 4 detail the trend in the total number of platform vendors and the products for which trade execution is supported.

**Table 3**

System Type	1997	1998	1999	2000	2001	2002	2003	2004
Auction	1	2	10	14	16	14	12	10
Cross-Matching	2	6	8	22	25	17	12	9
Interdealer	1	0	5	10	15	21	21	21
Multi-Dealer	0	4	3	9	10	13	16	16
Single Dealer	7	12	13	17	19	22	21	21
Other	0	2	1	0	0	0	0	0
<b>Total</b>	<b>11</b>	<b>27</b>	<b>40</b>	<b>72</b>	<b>79</b>	<b>81</b>	<b>77</b>	<b>74</b>

All figures are as of November except 2001 and 2004, which are as of December. "Auction" systems was formerly "Primary Market Auction" systems. Total figures for 2001-2004 do not necessarily reflect column totals because several companies operate more than one type of platform.

Table 4

Market Sector	1997	1998	1999	2000	2001	2002	2003-U	2003-E	2004-U	2004-E
Agency	5	8	17	31	28	29	27	7	28	16
Asset-Backed	0	1	2	6	6	6	6	7	5	8
Corporate	2	9	14	30	26	29	29	10	30	16
Derivatives	N/A	N/A	N/A	N/A	8	9	10	3	18	15
European (total)	N/A	N/A	N/A	16	37	45	N/A	N/A	N/A	N/A
Loans	N/A	N/A	N/A	N/A	6	6	5	1	4	2
Mortgage-Backed	2	3	5	14	8	12	12	5	16	10
Money Market	3	5	13	13	11	13	15	3	21	19
Municipal	3	10	18	31	11	24	23	0	17	4
Repo	4	4	4	4	6	9	10	4	6	14
Treasury	9	20	27	34	33	31	29	37	32	32
Other	0	0	0	11	13	19	18	7	14	11

All figures are as of November except 2001 and 2004, which are as of December. Totals may exceed the actual number of systems listed since some systems cover multiple product lines. For 2003 and 2004 U = United States and E = Europe.

## ***A look ahead***

This year, we asked survey respondents about their views on important trends in electronic bond trading. There were several recurring themes in their responses.

**Derivatives trading** — A number of respondents believe online derivatives trading will grow in 2005 as more platforms offer the service, customers become more comfortable with electronic execution and the derivatives market continues to grow.

**Program trading** — Some respondents believe program trading in the fixed-income markets will take stronger hold in 2005 as vendors integrate program trading capabilities into their platforms and users consolidate data feeds available from platform vendors into their internal program trading systems.

**Transparency** — A number of respondents cited the availability of real-time trade data in the U.S. corporate and municipal bond markets in 2005 as contributing to more liquidity, reduced transaction costs and a greater use of electronic trading. The National Association of Securities Dealers in the corporate market and the Municipal Securities Rulemaking Board in the municipal market will both introduce expansions of their trade reporting systems in early 2005.

**Straight-through processing** — Fixed-income trading platforms increasingly offer services which enhance the ability of users to clear and settle trades, and a number of respondents believe this trend will continue in 2005. Straight-through trade processing offers the promise of reduced operational costs and risks for users.

## ***Background***

This report catalogs and describes all systems that allow dealers or institutional investors to buy or sell fixed-income products electronically. We generally do not include "middleware" providers—vendors that principally market software or other infrastructure used to build electronic trading systems—unless those vendors also operate their own trading platform. We also do not include systems focused principally on retail, or individual, investors. For more information on individual systems, please contact the respective firms.

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## ***Types of Systems***

### **Auction Systems**

Auction systems enable participants to conduct electronic auctions of securities offerings. Some auction systems are tailored to new issues in the primary market. Others focus on auctions of secondary market offerings by investors or others. In either case, a seller or issuer typically posts the details of a security being offered for sale and the specific terms of the auction, i.e., whether the auction is single-price or multiple-price, the time the auction is open, whether partial orders will be filled, etc. Buyers are able to submit bids for the offered securities, and the offering is awarded to the bidder that offers the highest price or lowest yield. In some cases, the identities of the bidders and the amounts of the bids are kept anonymous. In others, identities or bid amounts are viewable by all participants.

### **Cross-Matching Systems**

Cross-matching systems generally bring both dealers and institutional investors together in electronic trading networks that provide real-time or periodic cross-matching sessions. Customers are able to enter anonymous buy and sell orders with multiple counterparties that are automatically executed when contra side orders are entered at the same price or when the posted prices are "hit" or "lifted." In some cases, customers are able to initiate negotiation sessions to establish the terms of trades.

### **Interdealer Systems**

Interdealer systems allow dealers to execute transactions electronically with other dealers through the fully anonymous services of interdealer brokers.

## **Multi-Dealer Systems**

Multi-dealer systems provide customers with consolidated orders from two or more dealers and provide customers with the ability to execute from among multiple quotes. Often, multi-dealer systems display to customers the best bid or ask price for a given security among all the prices posted by participating dealers. These systems also generally allow investors to request quotes for a particular security or type of security from one or more dealers. Participating dealers generally act as principals in transactions. A variety of security types are offered through these systems.

## **Single-Dealer Systems**

Single-dealer systems allow investors to execute transactions directly with a specific dealer of choice, with the dealer acting as principal in each transaction. Dealers offer access through a combination of third-party providers, proprietary networks and the Internet.



## American Express Credit Corporation

301 North Walnut Street, Suite 1002  
Wilmington, Delaware 19801  
302.594.3350  
[www.axpcp.com](http://www.axpcp.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities Money Market Treasury Securities	Corporate Securities	Regulatory and Compliance	Auction

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## Autobahn Electronic Trading\*

Deutsche Bank  
31 West 52nd Street  
New York, New York 10019-6118  
212.469.4562  
[www.autobahn.db.com](http://www.autobahn.db.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities Agency Securities Money Market Mortgage-Backed Securities Treasury Securities Other	Asset-Backed Securities Treasury Securities	Electronic Research Delivery Pre-Trade Analytics Confirmation/Allocation	Single Dealer

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## Automated Bond System

New York Stock Exchange, Inc.  
Fixed Income Markets Division  
20 Broad Street  
New York, New York 10005  
212.656.2073  
[www.nyse.com](http://www.nyse.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities Agency Securities Municipal Securities Treasury Securities Other	Supranational	Regulatory and Compliance Pricing Data Matching Services System	Cross-Matching

\* Based on publicly available information

## **Banco Portugues de Investimento SA\***

Largo Jean Monnet, 1 - 4°  
1269-067 Lisboa  
Portugal  
351.21.310.1159  
[www.bancobpi.pt](http://www.bancobpi.pt)

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<i>Offerings by Sector</i>		
<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Treasury Securities	Matching Services System	Single Dealer

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## **Bear, Stearns & Co. Inc.\***

383 Madison Avenue  
New York, New York 10179  
212.272.2000  
[www.bearstearns.com](http://www.bearstearns.com)

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<i>Offerings by Sector</i>		
<u>U.S.</u>	<u>Services Provided</u>	<u>System Type</u>
Corporate Securities	Electronic Research Delivery	Single Dealer
Treasury Securities	Pre-Trade Analytics	
Other	Pricing Data	
	Order Management System	
	Confirmation/Allocation	

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## **Blackbird**

55 Broad Street  
8th Floor  
New York, New York 10004  
212.609.4749  
[www.blackbird.net](http://www.blackbird.net)

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<i>Offerings by Sector</i>			
<u>U.S.</u>	<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Interest Rate Swaps	Interest Rate Swaps	Matching Services System Order Management System Confirmation/Allocation Risk Monitoring	Interdealer

## **Bloomberg BondTrader**

Bloomberg L.P.  
499 Park Avenue  
New York, New York 10022  
212.318.2000  
[www.bloomberg.com](http://www.bloomberg.com)

<u>Offerings by Sector</u>		<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Corporate Securities	Regulatory and Compliance	Multi-Dealer
Agency Securities	Treasury Securities	Electronic Research Delivery	
Treasury Securities	Supranational	Pre-Trade Analytics	
Interest Rate Swaps	Interest Rate Swaps	Pricing Data	
Credit Default Swaps	Credit Default Swaps	Order Management System	
Futures	Futures	Confirmation/Allocation	
Other	Other	Risk Monitoring	

## **Bloomberg Money Markets Platforms**

Bloomberg L.P.  
499 Park Avenue  
New York, New York 10022  
212.318.2000  
[www.bloomberg.com](http://www.bloomberg.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>		
Money Markets	Regulatory and Compliance Electronic Research Delivery Pre-Trade Analytics Pricing Data Order Management System Confirmation/Allocation Risk Monitoring	Multi-Dealer

## **Bloomberg Municipal System\***

Bloomberg L.P.  
499 Park Avenue  
New York, New York 10022  
212.318.2000  
[www.bloomberg.com](http://www.bloomberg.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>		
Municipal Securities	Regulatory and Compliance Electronic Research Delivery Pre-Trade Analytics Pricing Data Order Management System Confirmation/Allocation Risk Monitoring	Auction

## **BondDesk Group**

One Lovell Avenue  
Mill Valley, California 94941  
877.266.3922  
[www.bonddeskgroup.com](http://www.bonddeskgroup.com)

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<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Corporate Securities	Electronic Research Delivery	Cross-Matching
Agency Securities	Pre-Trade Analytics	
Municipal Securities	Pricing Data	
Treasury Securities	Order Management System	
Money Markets		
Mortgage-Backed Securities		
Other		

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## **Bondpage.com**

Cambridge Group Investments, Ltd.  
4660 S. Hagadorn Road, Suite 100  
East Lansing, Michigan 48823  
800.795.4648  
[www.bondpage.com](http://www.bondpage.com)

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<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Asset-Backed Securities	Electronic Research Delivery	Multi-Dealer
Corporate Securities	Pricing Data	
Agency Securities	Order Management System	
Municipal Securities		
Treasury Securities		
Money Markets		
Mortgage-Backed Securities		
Other		

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## **Bondscape.net**

54 Lombard Street  
London EC3P 3AH  
United Kingdom  
08702.426637  
[www.bondscape.net](http://www.bondscape.net)

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<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>European</u>		
Corporate Securities	Identity Management System	Multi-Dealer
Agency Securities	Electronic Research Delivery	
Treasury Securities	Pre-Trade Analytics	
	Pricing Data	

## **BondVision**

Piazza Paolo Ferrari 8  
20121 Milan  
Italy  
39.02.80235.201  
Fax: 39.02.80235.200  
[www.bondvision.net](http://www.bondvision.net)

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### *Offerings by Sector*

#### European

Asset-Backed Securities  
Corporate Securities  
Agency Securities  
Money Markets  
Mortgage-Backed Securities  
Supranational  
Treasury Securities  
Other

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#### *Services Provided*

Order Management System  
Confirmation/Allocation

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#### *System Type*

Auction

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## **BondWave**

1001 Warrenville Road  
Suite 407  
Lisle, Illinois 60532  
877.795.6288  
[www.bondwave.com](http://www.bondwave.com)

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### *Offerings by Sector*

#### U.S.

Corporate Securities  
Agency Securities  
Municipal Securities  
Mortgage-Backed Securities

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#### *Services Provided*

Identity Management System  
Regulatory and Compliance  
Electronic Research Delivery  
Pre-Trade Analytics  
Order Management System  
Matching Services System  
Confirmation/Allocation  
Risk Monitoring

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#### *System Type*

Multi-Dealer

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## **Bondweb**

7525 SE 24<sup>th</sup> Street Suite 495  
Mercer Island, Washington 98040  
206.548.0071  
[www.bondweb.com](http://www.bondweb.com)

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### *Offerings by Sector*

#### U.S.

Mortgage-Backed Securities

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#### *Services Provided*

Pre-Trade Analytics  
Order Management System  
Matching Services System  
Confirmation/Allocation  
Risk Monitoring

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#### *System Type*

Multi-Dealer

## **Bonds Direct Securities**

520 Madison Avenue, 8<sup>th</sup> Floor  
New York, New York 10022  
212.284.2071  
[www.bondsdirectsecurities.com](http://www.bondsdirectsecurities.com)

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### *Offerings by Sector*

U.S.

System Type

Corporate Securities  
Agency Securities  
Treasury Securities

Single Dealer

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## **Chapdelaine & Co.**

One Seaport Plaza  
17<sup>th</sup> Floor  
New York, New York 10038  
212.208.9000  
[www.chappy.com](http://www.chappy.com)

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### *Offerings by Sector*

U.S.

Services Provided

System Type

Corporate Securities  
Municipal Securities

Pre-Trade Analytics  
Electronic Research Delivery  
Matching Services System

Multi-Dealer  
Interdealer

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## **Chicago Board of Trade (CBOT)**

141 West Jackson Boulevard  
Chicago, Illinois 60604-2994  
312.435.3500  
[www.cbot.com](http://www.cbot.com)

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### *Offerings by Sector*

U.S.

European

System Type

Exchange-Traded Options  
Futures

Exchange-Traded Options  
Futures

Cross-Matching

## Citigroup Fixed Income Direct\*

388 Greenwich Street  
New York, New York 10013  
212.723.9474  
44.207.986.9283 (London)  
<http://fidirect.citigroup.com>

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Treasury Securities	Electronic Research Delivery	Single Dealer
Agency Securities	Other	Pre-Trade Analytics	
Mortgage-Backed Securities		Order Management System	
Treasury Securities			
Money Market			

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## Credit Suisse First Boston\*

Credit Suisse First Boston  
11 Madison Avenue  
New York, New York 10010-3629  
212.325.2000  
[www.csfb.com](http://www.csfb.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Corporate Securities	Electronic Research Delivery	Single Dealer
Agency Securities	Treasury Securities	Pre-Trade Analytics	
Money Markets		Pricing Data	
Treasury Securities			
Futures			
Other			

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## creditex

26 West 17th Street, 4th Floor  
New York, New York 10011  
212.633.7277  
[www.creditex.com](http://www.creditex.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Credit Default Swaps	Credit Default Swaps	Identity Management System	Cross-Matching
Other Derivative	Other Derivative	Regulatory and Compliance	
		Pre-Trade Analytics	
		Pricing Data	
		Matching Services System	

## **dbconvertibles.com**

Deutsche Bank AG, London  
1 Great Winchester Street  
London EC2N 2EQ  
United Kingdom  
44.20.7545.2361  
[www.dbconvertibles.com](http://www.dbconvertibles.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Other Derivative	Identity Management System Pre-Trade Analytics Pricing Data	Single Dealer

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## **De@IDone\***

C.so Monforte, 15  
20122 Milan  
Italy  
39.02.69.705.690  
[www.mpsfinance.biz](http://www.mpsfinance.biz)

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<u>Offerings by Sector</u>		<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Asset-Backed Securities	Electronic Research Delivery	Single Dealer
Treasury Securities	Treasury Securities	Pre-Trade Analytics	
Other	Supranational	Order Management System	
	Other	Risk Monitoring	

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## **DebtDomain.com**

60 Lombard Street London EC3V 9EA  
United Kingdom  
44.20.7464.8612  
[www.debtDomain.com](http://www.debtDomain.com)

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<u>Offerings by Sector</u>		<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>	<u>European</u>		
Whole Loans	Whole Loans	Identity Management System Regulatory and Compliance Pre-Trade Analytics Pricing Data Order Management System Confirmation/Allocation Matching Services System	Cross-Matching



## DebtX\*

101 Arch Street, Suite 410  
Boston, Massachusetts 02110  
617.443.9199  
[www.debtX.com](http://www.debtX.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Whole Loans	Whole Loans	Regulatory and Compliance Pre-Trade Analytics Pricing Data Order Management System Matching Services System	Auction

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## eSpeed, Inc.

135 East 57th Street  
New York, New York 10002  
212.938.5000  
[www.espeed.com](http://www.espeed.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Corporate Securities	Identity Management System	Interdealer
Agency Securities	Agency Securities	Pre-Trade Analytics	
Mortgage-Backed Securities	Mortgage-Backed Securities	Pricing Data	
Municipal Securities	Repo Securities	Matching Services System	
Repo Securities	Supranational	Confirmation/Allocation	
Treasury Securities	Treasury Securities	Risk Monitoring	
Interest Rate Swaps	Interest Rate Swaps		
OTC Options	OTC Options		
Futures	Futures		
Other	Other		

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## Eurex

D-60485 Frankfurt/Main  
Germany  
49.69.21.01.0  
[www.eurexexchange.com](http://www.eurexexchange.com)

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<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>European</u>		
Exchange-Traded Options Futures	Identity Management System Regulatory and Compliance Pricing Data Order Management System Matching Services System Confirmation/Allocation	Cross-Matching

## **Eurex U.S.**

233 South Wacker Drive, Suite 2450  
Chicago, IL 60606  
312.544.1144  
[www.eurexchange.com](http://www.eurexchange.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>		
Exchange-Traded Options Futures	Identity Management System Regulatory and Compliance Pricing Data Order Management System Matching Services System Confirmation/Allocation	Interdealer

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## **Eurex Bonds GmbH**

D-60485 Frankfurt/Main  
Germany  
49.69.211.11222  
[www.eurex-bonds.com](http://www.eurex-bonds.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Corporate Securities Agency Securities Supranational Treasury Securities	Pricing Data Confirmation/Allocation Risk Monitoring Matching Services System	Interdealer

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## **Eurex Repo**

D-60485 Frankfurt/Main  
Germany  
44.69.2101.5741  
[www.eurexrepo.com](http://www.eurexrepo.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets Repo Securities Futures	Regulatory and Compliance Pricing Data Confirmation/Allocation	Interdealer

## **EuroMOT\***

Borsa Italiana S.p.A.  
Piazza degli Affari  
6 - 20123 Milano  
Italy  
011.39.02.724.261  
[www.borsaitalia.it](http://www.borsaitalia.it)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Asset-Backed Securities	Identity Management System	Interdealer
Corporate Securities	Regulatory and Compliance	
Mortgage-Backed Securities	Pricing Data	
	Order Management System	
	Matching Services System	

## **EuroMTS Limited**

30 Old Broad Street  
London EC2N 1HT  
England  
44.20.7786.6001  
[www.euromts-ltd.com](http://www.euromts-ltd.com)

<u>Offerings by Sector</u>		<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>	<u>European</u>		
Agency Securities	Agency Securities	Pricing Data	Interdealer
	Money Markets	Order Management System	
	Mortgage-Backed Securities	Matching Services System	
	Supranational	Confirmation/Allocation	
	Repo Securities		
	Treasury Securities		
	Other		

## **Fixed Income Securities, Inc.\***

7220 Trade Street, Suite 310  
San Diego, California 92121-2327  
800.697.7220  
[www.fisbonds.com](http://www.fisbonds.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>		
Corporate Securities	Pre-Trade Analytics	Multi-Dealer
Agency Securities	Pricing Data	
Municipal Securities	Matching Services System	
Money Markets	Confirmation/Allocation	
Mortgage-Backed Securities		
Treasury Securities		

## **GFI**

100 Wall Street  
New York, New York 10005  
212.968.4100  
[www.GFigroup.com](http://www.GFigroup.com)

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### *Offerings by Sector*

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<u>U.S.</u>	<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Interest Rate Swaps	Corporate Securities	Identity Management System	Interdealer
Credit Default Swaps	Repo Securities	Pre-Trade Analytics	
OTC Options	Interest Rate Swaps	Pricing Data	
Other	Credit Default Swaps		
	OTC Options		
	Other		

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## **Global Link\***

225 Franklin Street  
Boston, Massachusetts 02110  
877.454.3570  
[www.globallink.com](http://www.globallink.com)

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### *Offerings by Sector*

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<u>U.S.</u>	<u>Services Provided</u>	<u>System Type</u>
Money Markets	Electronic Research Delivery	Multi-Dealer
	Pre-Trade Analytics	
	Order Management System	

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## **Goldman, Sachs & Co.\***

85 Broad Street  
New York, New York 10004-2456  
212.902.1000  
[www.portal.gs.com](http://www.portal.gs.com)

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### *Offerings by Sector*

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<u>U.S.</u>	<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Corporate Securities	Agency Securities	Electronic Research Delivery	Single Dealer
Agency Securities	Treasury Securities	Pre-Trade Analytics	
Money Markets		Confirmation/Allocation	
Mortgage-Backed Securities			
Treasury Securities			
Futures			
Other			

## GovRate/Odd-Lot Machine

Zions Bank Capital Markets  
525 Washington Boulevard  
Jersey City, New Jersey 07310  
801.542.2312  
[www.govrate.com](http://www.govrate.com)

<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Corporate Securities	Identity Management System	Single Dealer
Agency Securities	Agency Securities	Pricing Data	
Money Markets	Money Markets	Confirmation/Allocation	
Treasury Securities	Treasury Securities		

## Grant Street Group

1800 Allegheny Building  
429 Forbes Avenue  
Pittsburgh, Pennsylvania 15219  
412.391.5555  
[www.grantstreet.com](http://www.grantstreet.com)

<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Corporate Securities	Pre-Trade Analytics	Auction
Agency Securities	Order Management System	
Money Markets	Confirmation/Allocation	
Municipal Securities		
Repo Securities		
Treasury Securities		
Interest Rate Swaps		

## G.X. Clarke & Co.\*

10 Exchange Place  
Jersey City, New Jersey 07302  
201.200.3600  
[www.gxecute.com](http://www.gxecute.com)

<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Agency Securities	Electronic Research Delivery	Single Dealer
Mortgage-Backed Securities	Pre-Trade Analytics	
Treasury Securities	Pricing Data	

## **HanoverTrade, Inc.**

379 Thornall Street  
Edison, New Jersey 08837  
732.548.0101  
[www.hanovertrade.com](http://www.hanovertrade.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>		
Whole Loans	Regulatory and Compliance Pre-Trade Analytics Pricing Data	Auction

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## **Hartfield, Titus & Donnelly LLC**

111 Pavonia Avenue, Suite 1430  
Jersey City, New Jersey 07310  
201.217.8080  
[www.htdonline.com](http://www.htdonline.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>U.S.</u>		
Municipal Securities	Regulatory and Compliance Electronic Research Delivery Pre-Trade Analytics Matching Services System	Interdealer

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## **Helaba**

11 Ironmonger Lane  
London  
United Kingdom  
44.20.7334.4512  
[www.helaba.de](http://www.helaba.de)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Agency Securities Mortgage-Backed Securities Interest Rate Swaps	Electronic Research Delivery Order Management System	Cross-Matching

## ***i-Deal LLC***

40 West 23rd Street, 5th Floor  
New York, New York 10010  
212.812.0602  
[www.i-deal.com](http://www.i-deal.com)

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### *Offerings by Sector*

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<u>U.S.</u>	<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Asset-Backed Securities	Asset-Backed Securities	Identity Management System	Multi-Dealer
Corporate Securities	Corporate Securities	Regulatory and Compliance	Auction
Agency Securities	Municipal Securities	Electronic Research Delivery	
Municipal Securities	Money Markets	Order Management System	
Money Markets	Mortgage-Backed Securities	Confirmation/Allocation	
Mortgage-Backed Securities	Other	Risk Monitoring	
Other		Pre-Trade Analytics	

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## ***ICAP Electronic Broking***

Harborside Financial Center Plaza 5  
Jersey City, New Jersey 07302  
201.209.7800  
[www.icap.com](http://www.icap.com)

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### *Offerings by Sector*

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<u>U.S.</u>	<u>European</u>	<u>System Type</u>
Agency Securities	Agency Securities	Interdealer
Municipal Securities	Repo Securities	
Mortgage-Backed Securities	Supranational	
Repo Securities	Treasury Securities	
Treasury Securities	Interest Rate Swaps (EONIA)	
Credit Default Indices	Credit Default Swaps	
Other	Other Derivatives	

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## ***J.P. Morgan eXpress\****

J.P. Morgan Chase  
270 Park Avenue, 6th Floor  
New York, New York 10017  
866.762.7559  
[www.jpmorganexpress.com](http://www.jpmorganexpress.com)

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### *Offerings by Sector*

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<u>U.S.</u>	<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Asset-Backed Securities	Supranational	Electronic Research Delivery	Single Dealer
Corporate Securities	Treasury Securities	Pricing Data	
Agency Securities		Order Management System	
Money Markets			
Treasury Securities			
Other			

## LehmanLive\*

Lehman Brothers Inc.  
745 Seventh Avenue  
New York, New York 10019  
800.265.3251  
[www.lehmanlive.com](http://www.lehmanlive.com)

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<i>Offerings by Sector</i>		
<u>U.S.</u>	<u>Services Provided</u>	<u>System Type</u>
Corporate Securities	Electronic Research Delivery	Single Dealer
Agency Securities	Pre-Trade Analytics	
Municipal Securities	Pricing Data	
Repo Securities	Confirmation/Allocation	
	Risk Monitoring	
	Pricing Data	

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## MarketAxess

140 Broadway, 42nd Floor  
New York, New York 10005  
212.813.6000

United Kingdom  
44.20.7709.3105  
[www.marketaxess.com](http://www.marketaxess.com)

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<i>Offerings by Sector</i>			
<u>U.S.</u>	<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Corporate Securities	Corporate Securities	Electronic Research Delivery	Multi-Dealer
Agency Securities	Agency Securities	Pre-Trade Analytics	Cross-Matching
Money Markets	Money Markets	Pricing Data	
Municipal Securities	Municipal Securities	Confirmation/Allocation	
Treasury Securities	Supranational	Risk Monitoring	
	Treasury Securities		



## Merrill Lynch Capital Markets

250 Vesey Street  
New York, New York 10281  
212.449.1000  
[www.ml.com](http://www.ml.com)

<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Asset-Backed Securities	Corporate Securities	Electronic Research Delivery	Single Dealer
Corporate Securities	Agency Securities	Pre-Trade Analytics	
Agency Securities	Money Markets	Matching Services System	
Municipal Securities	Mortgage-Backed Securities	Confirmation/Allocation	
Treasury Securities	Supranational		
Money Markets	Treasury Securities		
Whole Loans			
Mortgage-Backed Securities			
Repo Securities			

## Mizuho Securities Inc.

111 River Street, 11th Floor  
Hoboken, New Jersey 07030  
201.626.1000  
[www.mizuhosecurities.com](http://www.mizuhosecurities.com)

<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Treasury Securities	Electronic Research Delivery Pre-Trade Analytics Pricing Data	Single Dealer

## Morgan Stanley\*

1585 Broadway  
New York, New York 10036  
212.761.4000  
[www.morganstanley.com](http://www.morganstanley.com)

<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Municipal Securities	Electronic Research Delivery	Single Dealer
Treasury Securities	Pre-Trade Analytics	
Repo Securities	Order Management System Confirmation/Allocation	

## **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](http://www.borsaitalia.it)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Treasury Securities	Identity Management System Regulatory and Compliance Pricing Data Order Management System Matching Services System	Multi-Dealer

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## **MTS Amsterdam**

MTS Amsterdam  
Orlyplein 32  
1043 DP Amsterdam  
31.20.5310460  
[www.mtsamsterdam.com](http://www.mtsamsterdam.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets Repo Securities Treasury Securities	Pricing Data Order Management System Confirmation/Allocation Matching Services System	Interdealer

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## **MTS Associated Markets**

Rue du Commerce 96  
B-1040 Brussels  
Belgium  
32.2.280.0427  
[www.mtsbelgium.com](http://www.mtsbelgium.com)  
[www.mtsfinland.com](http://www.mtsfinland.com)

<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets Repo Securities Treasury Securities	Pricing Data Order Management System Confirmation/Allocation Matching Services System	Interdealer

## **MTS Austria**

30 Old Broad Street  
London EC2N 1HT  
England  
44.20.7786.6001  
Fax: 44.20.7786.6000  
[www.mtsaustria.com](http://www.mtsaustria.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets	Pricing Data	Interdealer
Repo Securities	Order Management System	
Treasury Securities	Confirmation/Allocation	
	Matching Services System	

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## **MTS France**

39, Rue Cambon  
75039 Paris de la defense cedex  
France  
33.1.4927.1462  
[www.mtsfrance.com](http://www.mtsfrance.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Agency Securities	Pricing Data	Interdealer
Money Markets	Order Management System	
Repo Securities	Confirmation/Allocation	
Treasury Securities	Matching Services System	
Other		

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## **MTS Germany**

Lurgialle 5  
604439 Frankfurt  
Germany  
49.69.5808.4511  
[www.mtsgermany.com](http://www.mtsgermany.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Agency Securities	Pricing Data	Interdealer
Money Markets	Order Management System	
Repo Securities	Confirmation/Allocation	
Treasury Securities	Matching Services System	
Mortgage-Backed Securities		
Other		

## **MTS Greece**

30 Old Broad Street  
London EC2N 1HT  
United Kingdom  
44.20.7786.6001  
Fax: 44.20.7786.6000  
[www.mtsgreece.com](http://www.mtsgreece.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets	Pricing Data	Interdealer
Repo Securities	Order Management System	
Treasury Securities	Confirmation/Allocation	
	Matching Services System	

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## **MTS Ireland**

30 Old Broad Street  
London EC2N 1HT  
England  
44.20.7786.6001  
[www.mtsireland.com](http://www.mtsireland.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets	Pricing Data	Interdealer
Repo Securities	Order Management System	
Treasury Securities	Confirmation/Allocation	
Agency Securities	Matching Services System	

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## **MTS Portugal SGMR,SA**

Av. Defensores de Chaves, 15, 4B  
10 0 0-109 Lisbon  
Portugal  
351.21.792.3386  
[www.mtsportugal.com](http://www.mtsportugal.com)

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<u>Offerings by Sector</u>	<u>Services Provided</u>	<u>System Type</u>
<u>European</u>		
Money Markets	Pricing Data	Interdealer
Repo Securities	Order Management System	
Treasury Securities	Confirmation/Allocation	
	Matching Services System	

## **MTS S.p.A.**

Piazza Paolo Ferrari, 8  
20121 Milan  
Italy  
39.02.80235201  
[www.mtsspa.it](http://www.mtsspa.it)  
[www.mtsgroup.org](http://www.mtsgroup.org)

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### *Offerings by Sector*

<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Money Markets	Pricing Data	Interdealer
Repo Securities	Order Management System	
Treasury Securities	Confirmation/Allocation	
Agency Securities	Matching Services System	
Asset-Backed Securities		
Supranational		
Other		

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## **MTS Spain**

Torres Colon  
Torre II  
Plaza Colon, 2  
28046  
Madrid, Spain  
34.91.702.7909  
[www.mtsspain.com](http://www.mtsspain.com)

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### *Offerings by Sector*

<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Money Markets	Pricing Data	Interdealer
Repo Securities	Order Management System	
Treasury Securities	Confirmation/Allocation	
	Matching Services System	

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## **Ragen MacKenzie Incorporated**

2440 Carillon Point  
Kirkland, Washington 98033  
425.453.1616  
[www.ragen-mackenzie.com](http://www.ragen-mackenzie.com)

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### *Offerings by Sector*

<u>U.S.</u>	<u>Services Provided</u>	<u>System Type</u>
Agency Securities	Pre-Trade Analytics	Single Dealer
Treasury Securities		

## RetLots Caboto

Via Boito, 7  
20121 Milan  
Italy  
39.02.80 215.500  
[www.caboto.it](http://www.caboto.it) (corporate Web site)

<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Corporate Securities	Electronic Research Delivery	Single Dealer
Treasury Securities	Municipal Securities	Pre-Trade Analytics	
Agency Securities	Supranational	Pricing Data	
	Treasury Securities	Order Management System	
	Asset-Backed Securities	Matching Services System	
	Credit Default Swaps	Confirmation/Allocation	
		Risk Monitoring	

## SEB Merchant Banking\*

Kungsträdgårdsgatan 8  
Post Office Box 16067  
103 22 Stockholm  
Sweden  
46.8763.8000  
[www.mb.seb.se](http://www.mb.seb.se)

<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>European</u>			
Asset-Backed Securities		Electronic Research Delivery	Single Dealer
Corporate Securities		Pre-Trade Analytics	
Money Markets		Pricing Data	
Mortgage-Backed Securities			
Treasury Securities			
Interest Rate Swaps			

## Spear, Leeds & Kellogg

10 Exchange Place  
Jersey City, New Jersey 07302  
201.309.4581  
[www.slkbond.com](http://www.slkbond.com)

<i>Offerings by Sector</i>	<i>System Type</i>
<u>U.S.</u>	
Corporate Securities	Multi-Dealer
Agency Securities	
Municipal Securities	
Treasury Securities	

## SunGard Transaction Network

SUNGARD  
11 Salk Creek Lane  
Hinsdale, Illinois 60521  
866.276.2753  
[www.sungard.net](http://www.sungard.net)

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### *Offerings by Sector*

<u>U.S.</u>	<u>Services Provided</u>	<u>System Type</u>
Asset-Backed Securities	Identity Management System	Multi-Dealer
Corporate Securities	Electronic Research Delivery	
Money Markets	Pre-Trade Analytics	
Other	Pricing Data	
	Order Management System	
	Confirmation/Allocation	

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## SWX Eurobonds

Selnaustrasse 30/Postfach  
CH-8021 Zurich  
Switzerland  
41.1.229.25.95  
[www.swx.com](http://www.swx.com)

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### *Offerings by Sector*

<u>European</u>	<u>Services Provided</u>	<u>System Type</u>
Asset-Backed Securities	Regulatory and Compliance	Multi-Dealer
Corporate Securities	Pricing Data	
Agency Securities	Order Management System	
Mortgage-Backed Securities	Confirmation/Allocation	
Municipal Securities	Matching Services System	
Treasury Securities		
Supranational		
Exchange-Traded Options		
Other		

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## TAAPSLink®

U.S. Treasury Securities Department  
Bureau of the Public Debt  
Washington, DC 20239  
202.691.3550  
[www.publicdebt.treas.gov](http://www.publicdebt.treas.gov)

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### *Offerings by Sector*

<u>U.S.</u>	<u>Services Provided</u>	<u>System Type</u>
Treasury Securities	Confirmation/Allocation	Auction

## **TDAX Eurobonds\***

Triton Court, 14-18 Finsbury Square  
London EC2A 1DB  
United Kingdom  
44.20.7628.4445  
[www.tdsecurities.com](http://www.tdsecurities.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Treasury Securities	Electronic Research Delivery	Single Dealer
Treasury Securities		Pre-Trade Analytics	
Other			

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## **TLX SpA**

Via Cavriana 20  
20134 Milano  
Italy  
39.02.30301450  
[www.eurotlx.com](http://www.eurotlx.com)

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<i>Offerings by Sector</i>		<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>	<u>European</u>		
Corporate Securities	Corporate Securities	Regulatory and Compliance	Multi-Dealer
Treasury Securities	Asset-Backed Securities	Order Management System	
Agency Securities	Treasury Securities	Matching Services System	
	Mortgage-Backed Securities	Confirmation/Allocation	
	Supranational	Pricing Data	

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## **TheMuniCenter**

540 Madison Avenue  
4th Floor  
New York, New York 10022  
866.686.4287  
[www.TheMuniCenter.com](http://www.TheMuniCenter.com)

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<i>Offerings by Sector</i>	<i>Services Provided</i>	<i>System Type</i>
<u>U.S.</u>		
Corporate Securities	Identity Management System	Interdealer
Agency Securities	Regulatory and Compliance	
Municipal Securities	Electronic Research Delivery	
Treasury Securities	Pre-Trade Analytics	
Money Markets	Order Management System	
	Matching Services System	
	Confirmation/Allocation	



## Tradebonds.com

Finacorp Securities  
4100 MacArthur Boulevard, Suite 315  
Newport Beach, California 92660  
877.708.7233  
[www.tradebonds.com](http://www.tradebonds.com)

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### *Offerings by Sector*

#### U.S.

Corporate Securities  
Agency Securities  
Treasury Securities  
Money Markets  
Mortgage-Backed Securities

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#### *Services Provided*

Identity Management System  
Electronic Research Delivery  
Pre-Trade Analytics  
Pricing Data  
Order Management System  
Confirmation/Allocation  
Matching Services System

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#### *System Type*

Single Dealer

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## TradeWeb LLC

Harborside Financial Center  
2200 Plaza Five  
Jersey City, New Jersey 07311  
800.541.2268  
[www.tradeweb.com](http://www.tradeweb.com)

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### *Offerings by Sector*

#### U.S.

Corporate Securities  
Agency Securities  
Treasury Securities  
Money Markets  
Mortgage-Backed Securities  
Interest Rate Swaps  
Other

#### European

Money Markets  
Supranational  
Treasury Securities  
Interest Rate Swaps

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#### *Services Provided*

Regulatory and Compliance  
Electronic Research Delivery  
Pre-Trade Analytics  
Pricing Data  
Confirmation/Allocation  
Risk Monitoring

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#### *System Type*

Multi-Dealer  
Auction

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## TreasuryDirect

U.S. Treasury Securities Department  
Bureau of the Public Debt  
Washington, DC 20239  
800.722.2678  
[www.Treasurydirect.gov](http://www.Treasurydirect.gov)

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### *Offerings by Sector*

#### U.S.

Treasury Securities

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#### *Services Provided*

Confirmation/Allocation

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#### *System Type*

Auction

## **ValuBond, Inc.**

ValuBond Securities, Inc.  
6 Piedmont Center, Suite 300  
Atlanta, Georgia 30306  
877.392.8258  
[www.valubond.com](http://www.valubond.com)

<u><i>Offerings by Sector</i></u>	<u><i>Services Provided</i></u>	<u><i>System Type</i></u>
<u>U.S.</u>		
Corporate Securities	Identity Management System	Cross-Matching
Agency Securities	Electronic Research Delivery	
Mortgage-Backed Securities	Pre-Trade Analytics	
Municipal Securities	Pricing Data	
Treasury Securities	Order Management System	
Other	Confirmation/Allocation	
	Matching Services System	

\* Based on publicly available information