Fair Value Information Services

MORE INFO

Interactive Data's Fair Value Information Services offer mutual funds a convenient and flexible tool to assist them in meeting their fair value requirements and to reassure investors that their investment fund company is taking steps to safeguard shareholder interests. The result of on-going research and development, these pioneering services build on over 30 years of experience evaluating securities in the marketplace, and are a direct and logical extension of our fixed income evaluation services.

Interactive Data's pioneering role in developing a fair value information tool for the mutual fund industry reflects our leadership in providing mission-critical data to financial institutions worldwide and illustrates our commitment to technical innovation.

Interactive Data's Fair Value Information Services offer a number of important benefits to fund families:

- A Proven Methodology
- Bottom-Up Approach
- Rigorous Market Data Input
- Extensive Coverage
- Flexible Delivery
- Reporting Tools
- Specialized Client Service

Proven Methodology

Interactive Data's Fair Value Information Services are designed to provide subscribers with various information that can be used to estimate a price for an equity security, equity index futures contract[1], or equity option* that would likely prevail in a liquid market in view of market information available at the time of each security's evaluation.

[1] The Fair Value Information Services for equity futures and options are currently customized services generated by Interactive Data Pricing and Reference Data's Mutual Funds Products group, with our Evaluated Services group available to provide support.

The Fair Value Information Services currently offer subscribers a choice of evaluation times[2].

- **16:00 ET**: Close of New York Stock Exchange, normally at 16:00 Eastern Time (ET), for equities, futures, and options ("FVIS New York Close")
- **11:30 ET**[3]: Close of London Stock Exchange, normally at 16:30 UK time (11:30 ET), for equities and futures ("FVIS London Close")
- **10:00 ET**[3]: At 15:00 UK time / 16:00 CET (10:00 ET), for equities and futures ("FVIS 10:00 ET")
- **07:00 ET**[3]: Mid-day of London Stock Exchange at 12:00 UK time (07:00 ET) for equities and futures ("FVIS London Noon")
- **Real-Time**[4]: Streaming every 15 seconds during U.S. trading hours

For equities, all services use a multi-factor model. The models include such information as the issue's local closing price, relevant general and sector indices, currency fluctuations, depositary receipts, and futures, as applicable. The models generate an **Evaluated Adjustment Factor** for each security, which can be applied to the local closing price to adjust it for post-closing market movements.

[2] Interactive Data also offers evaluations for U.S. and Canadian equities on U.S. and Canadian market holidays. Please refer to the *Fair Value Information Services Methodology - Holiday Service for U.S. and Canadian Equities.*
[3] Times for the 11:30, 10:00, and 07:00 (ET) services may vary due to differences in Daylight Savings Times.
[4] For information on the real-time service, please refer to the *Real-Time Fair Value Information Services.*

Utilizing that **Evaluated Adjustment Factor**, the Fair Value Information Services can provide an **evaluated price**, which clients may consider as part of their fair value deliberations. We also provide a **Confidence Level** for each security that is a measure of the probability of a relationship between a given equity security and the factors in the Fair Value Information Services models. It is intended to give a sense of the strength of this relationship for the applicable set of historical data used by the models.

For equity futures and options, the Fair Value Information Services evaluated prices for the underlying equity securities are key inputs to the evaluation process.

Bottom-Up Approach

Interactive Data's proprietary methodology utilizes a security-level rather than a top-down methodology addressing an entire portfolio or broad sectors. The Interactive Data bottom-up, security-by-security approach takes into account the fact that securities in different sectors, or securities within a sector, may react differently to events and may even be inversely related; i.e., an event that causes the price of one security to rise might cause others to fall. Additionally, a bottom-up approach is unaffected by changes in a fund's portfolio.

Rigorous Market Data Input and Testing

Interactive Data has over three decades of experience collecting and analyzing equities data. Our global team of knowledgeable data collectors is committed to providing timely, high quality data, and each trading day subjects market data inputs to rigorous edit checks. In addition, we regularly evaluate and test our Fair Value Information Services models in order to fine tune and refine their statistical performance.

Extensive Coverage

Interactive Data's Fair Value Information Services leverage our global financial databases, among the largest in the world. Our Fair Value Information Services cover approximately 22,000 equity securities traded globally. New issues can be added daily based on clients' input files. We use the last 12 months' trading days of data, when available, and a minimum of 100 trading days of data for each equity security covered in the services.

Coverage for equity index futures and equity options is by request only, and is dependent on the input provided by the client.

Flexible Delivery

Interactive Data's Fair Value Information Services can be linked to a fund's existing fund accounting system through FundRun℠. We can transmit the data in existing formats or in special detailed formats.

- **Equity Security:** Transmissions can include the SEDOL® number, evaluated price, evaluated adjustment factor, confidence level, details, status codes, and r-squared value.
- **Equity Index Future:** Transmissions can include the aggregate evaluated price, aggregate evaluated adjustment factor, and the items associated with the underlying equity (shown under **Equity Security**, above).
- **Equity Option:** Transmissions can include the evaluated option price and the items associated with the underlying equity (shown under **Equity Security**, above).

Funds can also access equity security data (or underlying security data for equity index futures or equity options), as well as other fair value information and reports, online through 360View℠.

Reporting Tools

Interactive Data's Fair Value Information Services offer the following reports for equity securities (or underlying equities, for futures and options):

Daily Reports

Daily reports allow clients to review the information used in, and produced by, the Fair Value Information Services. The reports currently available include:

- Security Info Details,
- Market Indicators Report,
- Benchmark Portfolios Report (*for New York service only*),
- Top 50 Movers Report,
- Status Code Report,
- Distance Report,
- Open Report, and
- Factor Detail Report.

Quarterly Back Test Reports

Quarterly Back Test Reports allow clients to measure the effectiveness of the Fair Value Information Services models through a standard set of tests. Clients input test parameters (e.g., time period, benchmark, confidence level, etc.), and can upload the input file and download the results via the Internet. The tests that we currently offer include:

- Absolute Distance Reduction,
- Days Closer, and
- Arbitrage Reduction.

Customized Reports

Customized Reports (available for an additional fee) allow clients to review additional tests and research beyond the standard daily and quarterly back test reports. These reports include:

- Public NAV Arbitrage Report,
- Post-4:00 pm Analysis,
- Exchange Rate Configurations,
- Security Level Reports,
- Attribution Analysis, and
- Lack of Bias.

Client Support

Interactive Data is committed to the highest standard of client support, and that commitment extends to our Fair Value Information Services. We designed our Fair Value Information Services with client support as an integral component. Our specialized Funds client support team is focused exclusively on the mutual fund industry. Interactive Data provides both local and corporate-level technical support for the data, services, and data delivery, through a network of sales professionals, centralized client service, and extensive product management, fixed income, equity and systems personnel.

MORE INFO

About Interactive Data

Interactive Data Corporation is a trusted leader in financial information. Thousands of financial institutions and active traders, as well as hundreds of software and service providers, subscribe to our fixed income evaluations, reference data, real-time market data, trading infrastructure services, fixed income analytics, desktop solutions, and web-based solutions. Interactive Data's offerings support clients around the world with mission-critical functions, including portfolio valuation, regulatory compliance, risk management, electronic trading, and wealth management. Interactive Data is headquartered in Bedford, Massachusetts and has over 2,500 employees in offices worldwide.

For more information, please visit www.interactivedata.com.

Interactive Data's Pricing and Reference Data business provides global securities pricing, evaluations, and reference data designed to support financial institutions' and investment funds' pricing activities, securities operations, research, and portfolio management. Interactive Data collects, edits, maintains, and delivers data on more than 10 million securities, including daily evaluations for approximately 2.8 million fixed income and international equity issues. Interactive Data specializes in 'hard-to-get' information and evaluates many 'hard-to value' instruments. Pricing, evaluations and reference data are provided in the U.S. through Interactive Data Pricing and Reference Data LLC and internationally through Interactive Data (Europe) Ltd. and Interactive Data (Australia) Pty Ltd.

Amsterdam ■ Bedford ■ Chicago ■ Cologne ■ Dubai ■ Dublin ■ Frankfurt ■ Geneva ■ Glasgow ■ Hayward ■ Helsinki ■ Hong Kong ■ Irvine ■ Jersey, CI ■ London
Luxembourg ■ Madrid ■ Melbourne ■ Milan ■ Minneapolis ■ New York ■ Paris ■ Rome ■ Santa Monica ■ Singapore ■ Sydney ■ Tokyo ■ Toronto ■ Zurich

Interactive Data Pricing and Reference Data LLC
32 Crosby Drive
Bedford, MA 01730
Tel: 781 687 8800
Fax: 781 687 8289
email: info@interactivedata.com

100 William Street, 17th Floor
New York, NY 10038
Tel: 212 269 6300
Fax: 212 771 6987

600 West Fulton, 7th Floor
Chicago, IL 60661
Tel: 312 893 6000
Fax: 312 896 0300

Limitations

Use of this documentation is limited to authorized clients of Interactive Data Pricing and Reference Data services. This material contains information that is confidential and proprietary property and/or trade secrets of Interactive Data Pricing and Reference Data LLC and/or its affiliates, and is not to be published, reproduced, copied, disclosed, or used without the express written consent of Interactive Data Pricing and Reference Data LLC.

This document is provided for informational purposes only. The information contained in this document is subject to change without notice and does not constitute any form of warranty, representation, or undertaking. Nothing herein should in any way be deemed to alter the legal rights and obligations contained in agreements between Interactive Data Pricing and Reference Data LLC. and/or affiliates and their clients relating to any of the products or services described herein. Interactive Data Pricing and Reference Data LLC does not provide legal, tax, accounting, or other professional advice. Clients should consult with an attorney, tax, or accounting professional regarding any specific legal, tax, or accounting situation.

The Interactive Data Pricing and Reference Data models described herein contain mathematical algorithms that compute theoretical approximations of value rather than market values, for certain securities. Interactive Data Pricing and Reference Data LLC makes no representations or warranties that its Fair Value Information Services provide the only predictive indicators, or that the evaluations generated by the Services correspond to the price which could actually be obtained on any given day for any particular security. Interactive Data Pricing and Reference Data LLC makes no warranties whatsoever, either express or implied, as to merchantability, fitness for a particular purpose, or any other matter. Without limiting the foregoing, Interactive Data Pricing and Reference Data LLC makes no representation or warranty that any data or information (including but not limited to evaluations) supplied to or by it are complete or free from errors, omissions, or defects.

Users of the Fair Value Information Service should be aware that it cannot take the place of a subscriber's internal fair valuation responsibilities. Rather, this Service is designed to provide subscribers with input to their independent fair value determinations. The extent of the Service's utility in any particular circumstance is necessarily dependent upon each individual subscriber's daily assessment of its own situation.

Interactive Data℠ and the Interactive Data logo are registered service marks or service marks of Interactive Data Corporation in the United States or other countries. FundRun℠ and 360View℠ are service marks of Interactive Data Pricing and Reference Data LLC. Other products, services, or company names mentioned herein are the property of, and may be the service mark or trademark of, their respective owners.

Protected by U.S. Patents 7,167,837, 7,860,770, and 8,156,027

©2012 Interactive Data Pricing and Reference Data LLC
5180 (0512)

Interactive Data