Evaluations provided in the U.S. through Interactive Data Pricing and Reference Data LLC

Fair Value Information Services

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, 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.

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

- **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**: Close of London Stock Exchange, normally at 16:30 UK time (11:30 ET), for equities and futures (“FVIS London Close”)
- **10:00 ET**: At 15:00 UK time / 16:00 CET (10:00 ET), for equities and futures (“FVIS 10:00 ET”)
- **07:00 ET**: Mid-day of London Stock Exchange at 12:00 UK time (07:00 ET) for equities and futures (“FVIS London Noon”)
- **Real-Time**: 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.

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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.

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 the **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 FundRunSM. 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 360ViewSM.
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.
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.

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