



Doing  
data  
differently



## Helping the global financial community make informed decisions through the provision of fast, accurate, timely and affordable reference data services

With more than 20 years of experience, we offer comprehensive and complete securities reference and pricing data for equities, fixed income and derivative instruments around the globe.

Our customers can rely on our successful track record to efficiently deliver high quality data sets including:

- Worldwide Corporate Actions
- Worldwide Fixed Income
- Security Reference File
- Worldwide End-of-Day Prices

In 2018, EDI launched the US Bankruptcy Data Service in collaboration with New Generation Research.

EDI has recently expanded its data coverage to include economic data. Currently it has three products:

- African Economic Data [www.africadata.com](http://www.africadata.com)
- Economic Indicator Service (EIS)
- Global Economic Data

Our professional sales, support and data/research teams deliver the lowest cost of ownership whilst at the same time being the most responsive to client requests.

As a result of our on-going commitment to providing cost effective and innovative data solutions, whilst at the same time ensuring the highest standards, we have been awarded the internationally recognized symbol of quality ISO 9001.

Headquartered in United Kingdom, we have staff in Australia, Canada, China, Hong Kong, India, Malaysia, Morocco, South Africa and United States.



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## North American Data Coverage

EDI has developed a range of highly customizable products available by exchange, country or region. Our securities data suite includes amongst others:

- Equity Corporate Actions
- Fixed Income Data
- End of Day Prices
- Adjustment Factors
- Initial Public Offerings
- Shares Outstanding Figures
- Security Reference Services
- US Bankruptcies

### When it comes to efficient securities processing, high quality data is everything.

We have segmented our database to provide exclusive North American information to help our clients in the US and Canada achieve better results with comprehensive coverage of the North American security market.

EDI has recently incorporated Financial Instrument Global Identifiers (FIGI) enabling users of both its corporate action and security reference services to easily cross-check the data provided and make well-informed decisions.

Gain valuable insights of the North American equity and bond market with easy access to:

- Up-to-date security reference data
- Detailed corporate actions announcements
- Comprehensive coverage of the North American bond market
- Adjusted and non-adjusted closing prices from 11 North American exchanges
- Official and Adjusted Shares Outstanding amounts

## Equities Stock Exchanges Covered (as per November 2019)

Country	MIC Code	Exchange Name	Equity	Bond	Indices
<b>Canada</b>	XCNQ	Canadian Securities Exchange	02/01/2007		
	XTSX	TSX Venture Exchange	01/10/2000		20/07/2007
	XTNX	TSX Venture Exchange NEX	07/06/2012		06/10/2012
	XTSE	Toronto Stock Exchange	09/08/2005	09/04/2007	31/08/2007
<b>United States of America</b>	XASE	NYSE MKT	31/12/2004	10/04/2010	
	XCHI	Chicago Stock Exchange	09/03/2006	10/04/2010	31/08/2007
	XCIS	National Stock Exchange (USA)	09/03/2006	10/04/2010	31/08/2007
	USCOMP	US Composite (NYSE, NASDAQ)	19/12/2014	10/04/2010	31/08/2007
	GOVX	US Treasury bonds	30/05/2008		
	XNAS	NASDAQ Stock Market	07/07/2011	10/04/2010	13/07/2007
	XNYS	New York Stock Exchange	31/12/2004	10/04/2010	31/08/2007
	XOTC	OTC Markets Group	14/02/2006	10/04/2010	31/08/2007
	OTCB	Non Nasdaq OTC BB	13/07/2007	10/04/2010	
	ARCX	NYSE Arca	09/03/2006	10/04/2010	31/08/2007
TRCE	FINRA TRACE	09/06/2009			
BATY	US BATS	08/09/2018	08/09/2018		

## Number of Securities

### Security Reference File

#### Identify securities together with their associated standing data

Get up to date information on equities, warrants, fixed income instruments and many other types of securities traded on North American exchanges.

Instrument	Canadian Securities	US Securities
Bonds	49,750	134,628
Depository Receipts		3029
Equity Shares	3760	25298
Exchange Traded Funds	859	2655
Interval Funds		169
Mutual Funds		46262
Preferred Securities	42	639
Preference Shares	895	1659
Structured Products	12	257
Stapled Securities		170
Tradeable Rights		33
Units	162	369
Warrants	135	351
When Issued		20
Others	19	21

Note: The number of securities is derived using the country of exchange.

#### Undertake quick and accurate reference checks

Use the securities reference file to identify name changes and additions and deletions that occur in any stock comprised in this extensive database. The files cover 40 fields including:

- Financial Instrument Ticker (Composite Level) (Ticker + Exchange Code) (FIGI)
- Financial Instrument Ticker (Exchange Level) (Ticker + Exchange Code) (FIGI)
- Financial Instrument Global Identifier (FIGI)
- Financial Instrument Global Identifier
- Composite Country of Exchange (FIGI)
- Country of Incorporation
- Country of Registration
- Currency
- US Code
- Defunct Flag
- Exchange/Market Name
- Issue Price
- Paid Up Value
- Issuer ID
- Issuer Name
- Listing Date
- Listing Status
- Local Code, Ticker
- Lot
- MIC Code
- Minimum Trading Quantity
- Par Value
- Parent Security ID
- Primary Exchange
- Security Description
- Security ID
- Security Type
- SEDOL™
- Share Outstanding
- Status Flag
- Status Reason
- Stock Exchange Market Segment
- Voting Rights

#### Combine securities reference data with GICS®

Classify securities by industry sector and use the universal, reliable and comprehensive information you are provided with to capture and assess the impact of global, regional and local industry portfolio trends.

#### Facilitate SFTP

Reference data is used across the front, middle and back offices. Utilize our reference data to ensure straight through processing, from front to back office, to drive settlement and reconciliation systems.

**US listed Exchange Traded Funds data now available**

Clients of EDI are now able to gain access to ETF Global Data – a comprehensive set of reference and analytics data for U.S Listed Exchange-Traded Funds primarily sourced directly from fund sponsors, custodians, distributors and exchanges.

**Customization & Delivery**

Upon request, we can provide clients with a tailored feed for any instrument, field and in any order, they prefer.

**Equity Corporate Actions**

**Increase efficiencies by centralizing corporate action operations**

From new listings to bankruptcy, the North American Corporate Actions service covers over 50 events affecting Equity Shares, ETFs, Covered Warrants, Warrants, Depository Receipts, and Structured Products.

In addition to covering all equities traded on the stock exchanges it also includes securities traded on the OTC Market Groups, as well as the Grey Market.

Our service focuses on crucial events, which can be divided into four main categories:

**General events**

- Announcement
- Arrangement
- Call
- Company meeting
- Lawsuit/Class action
- Listing status change

**Static data change events**

- Financial year change
- Incorporation change
- International code change
- Issuer name change
- Local code change
- Lot change
- Security description
- SEDOL™ change

**Securities exchange events**

- Certificate exchange
- Demerger/spinoff
- Merger
- New listing
- Preferential offer
- Purchase offer
- Security reclassification
- Security swap
- Takeover

**Capital change events**

- |  |  |  |
|--|--|--|
| <ul style="list-style-type: none"> <li>▪ Assimilation</li> <li>▪ Bankruptcy</li> <li>▪ Bonus/capitalization</li> <li>▪ Bonus rights</li> <li>▪ Buy back/repurchase offer</li> <li>▪ Capital reduction</li> </ul> | <ul style="list-style-type: none"> <li>▪ Consolidation/reverse stock split</li> <li>▪ Conversion terms</li> <li>▪ Conversion terms change</li> <li>▪ Currency redenomination</li> <li>▪ Distribution/distribution in specie</li> <li>▪ Divestment</li> <li>▪ Dividend</li> <li>▪ Dividend reinvestment plan</li> </ul> | <ul style="list-style-type: none"> <li>▪ Franking</li> <li>▪ Entitlement/open offer</li> <li>▪ Liquidation</li> <li>▪ Par value redenomination</li> <li>▪ Redemption terms</li> <li>▪ Return of capital</li> <li>▪ Rights</li> <li>▪ Sub division/stock split</li> </ul> |
|--|--|--|

**Get direct access to any data on the underlying securities**

The service also clearly links American Depository Receipts (ADRs) and foreign ordinaries traded on the North American market with their underlying securities.

## Customization & Delivery

Subscribe to North American Corporate actions in its full version or have it customized according to event types, instruments and exchange coverage.

The data is available either via:

- A web based application
- A 4x daily or an end-of-day data feed via SFTP
  - Proprietary format
  - ISO 15022 format (MT564 & 568) – 2019 Compliant

## Initial Public Offerings

### Stay ahead of the game with IPO data

We monitor IPOs using local stock exchanges as the primary source of information, along with additional secondary sources such as international news agencies as confirmation.

Announcements are captured at six different stages:

New	The IPO is complete and the listing date is today or yesterday.
Rumor	The company or another respected source has announced the intention to hold an IPO before the necessary approval has been given.
Pending	The IPO is confirmed and the necessary approval has been given.
Postponed	The IPO has been deferred
Withdrawn	The company has cancelled the IPO
Historical	The IPO has taken place and the listing date is more than two days ago.

## Delivery

The IPO service is available either via our online platform or an end-of-day feed through an FTP connection.

## Further Public Offering

### Keep track of further public offerings (FPO) data

The FPO event is created when a company that has previously had an IPO offers additional securities for sale via a stock offering. This type of offering is often referred to as a “secondary offering.”

We keep track of FPO events made by companies wishing to refinance or raise capital for growth.

## Data Fields

List of new data fields included within FPO event type:

Announced	Date on which the FPO was announced
FPO Status	The state of the FPO record. Values are – Closed, New, Postponed, Withdrawn
Price	Offer Price
FPO Shares Offered	Total number of shares offered in the FPO
FPO Value	Total Value of FPO
FPO Share Issue Date	Date on which the FPO shares are issued
FPO Shares Issued	Number of shares issued after the completion of FPO

## Shares Outstanding

In conjunction with an FPO event a shares Outstanding event will always be published to reflect the previous and new amount of securities outstanding as a consequence of the additional securities distributed in the secondary offering.

## Delivery

The FPO service is available either via our online platform or an end-of-day feed through an FTP connection.



## Short Interest Data

EDI provides short interest data for a number of global markets. Short interest is a market-sentiment indicator that tells whether investors think a stock's price is likely to fall. It can be also be compared over time to examine changes in investor sentiment.

Short interest regulation and reporting vary by country.

### Canada (IIROC)

Canadian (IIROC) Short Interest Data is available monthly – published on 15<sup>th</sup> of each month. History is available from January 2013. Fields available are:

- FIGI Composite Ticker
- FIGI Global ID
- FIGI Exchange Ticker
- ISIN
- SEC ID
- US Code
- Security Description
- Short Volume
- Short Values
- Short Trade
- % Short Volume
- % Short Values
- % Short Trades

### Canada (CSE)

Canadian (CSE) Short Interest Data is available monthly – published on 15<sup>th</sup> of each month. History is available from January 2013. Fields available are:

- FIGI Composite Ticker
- FIGI Global ID
- FIGI Exchange Ticker
- ISIN
- SEC ID
- US Code
- Security Description
- Short Volume
- Short Values
- Short Trade
- % Short Volume
- % Short Values
- % Short Trades

### United States (US) Finra Short Sales Report

US Finra Short Sales Report\* is updated daily. History is available from 1 Jan 2014. Fields available are:

- FIGI Exchange Ticker
- FIGI Global ID
- ISIN
- Value Currency
- SEC ID
- US Code
- Reporting Market\*
- Short Position
- Short Position Previous Balance

### United States (US) Finra OTC

US Finra OTC\* is updated twice a month. History is available from 1 Jan 2014. Fields available are:

- FIGI Exchange Ticker
- FIGI Global ID
- ISIN
- Value Currency
- SEC ID
- US Code
- Short Position Previous Balance
- Short Position
- Average Daily Share Volume
- Days to Cover

\*Reporting market values are: Q = NASDAQ (for NQ TRF) D = ADF O = ORF N = NYSE (for NYX TRF)

NYSE, NASDAQ, AMEX and OTC

Stocks trading on the NYSE, NASDAQ, AMEX and OTC exchanges. Updated bi-monthly. Fields available are:

- Current Short Interest
- Previous Short Interest
- Percent Change Short Interest
- Days to Cover
- Average Daily Volume
- Short Percent of Float
- Float
- Symbol
- Total Short Interest
- Day to Cover
- Short Percentage of Float
- Performance (52-wk)
- Percentage Insider Ownership
- Short: Prior Month
- Percentage Change Month /Month
- Shares: Float
- Average Daily Volume
- Shares Outstanding
- Exchange
- Sector
- Industry
- Short Squeeze Ranking
- Record Date

## Threshold Securities

### Access daily threshold securities listings so that you can comply with SHO regulations governing short selling activities

Threshold Securities Listings detail daily market settlement system failures (or 'fails'). They are published in compliance with SEC regulations.

### The criteria for inclusion of a security on a Threshold List

Over a period of 5 consecutive days a security must have:

- A total number of 'fails to deliver' exceeding 10,000 shares
- A total number of 'shares that have failed to deliver at least equal to .5% of the issuer's total outstanding shares
- Been listed on a similar list by a self-regulatory organization

We aggregate daily threshold securities listings from:

- NASDAQ Stock Market
- New York Stock Exchange
- NYSE Arca
- NYSE MKT
- OTC Markets

We clearly identify each listed security by running the consolidated threshold securities listings against our securities master reference.

## Delivery

The list is available at the end of the day through an FTP connection

## US Bankruptcy Data

The US Bankruptcy Data service is a partnership between Exchange Data International (EDI) and New Generation Research, INC.

US Bankruptcy Data allows subscribers to spend less time looking for business bankruptcy information and more time using it. Clients can power their analysis, streamline their search and monitor efforts with in-depth bankruptcy information right at the fingertips.

The case information for all companies that file bankruptcy in the 94 U.S. Bankruptcy Courts is imported and updated daily, currently consisting of more than 500,000 bankrupt companies.

In addition to a comprehensive database, we "track" and write news about every public company currently operating under Chapter 11 protection. This process allows us to continue collecting information about the public company bankruptcy.

We cover over 340 fields including: plans of reorganization and disclosure statements, debtor-in-possession financing information, professional retention data, 363 sales motions, key employee incentive plans, monthly operating reports, claim transfer activity, securities and security pricing data, committee information and many more.

### How can Bankruptcy Data Help You?

- Stay on top of bankruptcy case activity with Bankruptcy Daily and Bankruptcy Week;
- Conduct industry research using our advanced and customized bankruptcy database search platform;
- Output bankruptcy search results for further analysis and review;
- Generate sales leads with a daily file of bankrupt companies;
- Monitor competition by accessing our professional retention database;
- Feed in-house applications and databases with custom APIs and data feeds.

### The Bankruptcy Data services includes:

- Comprehensive data on US business filings for businesses over 50MM in Assets, with historical data going back to 2001
- Original source documents
- Daily news on important updates in cases
- Creditor Profiling
- Distressed Company Alert: Catalysts for DCA monitoring
  - Audit Concern
  - Default
  - Covenant Violation
  - Low Rating
  - Debt at significant Discount
  - Preferred dividend omission
  - Distressed debt exchange

### Delivery & Customization

US Bankruptcy Data is available through **FTP, API, Flat files**, and more. Bankruptcy bulk data can be used in applications for:

- Credit Risk Models
- Customer Profiling
- Investment Screening

- Creditor Profiling
- Bankruptcy Emergence data
- Creating trading signals in combination with other data

## Historical Reference Service (HRS)

### The Historical Reference Service is in partnership with Financial Information Incorporated (FII)

Subscribers will have access to multiple historical data services which are comprised of stocks listed on the U.S. and Canadian exchanges: 50,000 Active Securities; 125,000 Obsolete Securities; 2,500,000 Trackable Securities, and more.

### Security Reference Service (SRS)

SRS allows subscribers 24/7 access to FII's historical and reference databases. Packaged together with FII's Annual Guide to Stocks (printed edition) SRS offers subscribers complete historical data coverage.

### Active Stock Guide Service

50,000 United States and Canadian securities which are listed on US security exchanges, including companies incorporated offshore, full security issuer, Issue Descriptions, CUSIP® or CINS®; Place of Incorporation; Par Value; Transfer Agents, plus a separate section for inactive agents referencing the new agent; Transfer Charge; Dividend Disbursing Agent; Lead Underwriter; Poison Pills; Summary of Capital Changes & Stock Dividends for Active Stocks.

### Obsolete Stock Guide

Obsolete Stock Guide Service - More than 100,000 Obsolete Securities dating back to the late 1800s, Bankruptcies and Receivership, Liquidations, Dissolutions, Corporate Charter Cancellations, Mergers & Acquisitions, Name Changes, Recapitalizations, Reorganizations, Stocks Declared Worthless, Summary of Capital Changes and Stock Dividends for Obsolete Stocks.

### End-of-Life (ELF) Service

ELF empowers subscribers to authenticate the accuracy of their Security Master File for North American Equities. ELF is now packaged with the Security Reference Service (SRS) and subscribers have 24/7 access to FII's reference and historical databases.

ELF results are divided into the following subsets: Worthless & Equity Unlikely; Non-Transferable; Cashed Out; Identity Change – No Exchange; SEC Registration Revoked, and Company Terminating Registration.

## Delivery

- FII Online (Web-Based Query Service)
- Variable Length Records
- Customized Solutions
- Fixed 80 Byte Records
- Print

## Shares Outstanding Figures

Efficiently calculate share stakes, regulatory reporting levels & capitalization figures

### Official Shares Outstanding

Provides official figures sourced directly from local changes or company sources, as soon as they are published. The frequency of official updates varies from market to market. Updates can also range from daily to annually.

### Adjusted Shares Outstanding

When corporate actions occur prior to the release of official updates, the number of shares outstanding can be impacted drastically. Use the adjusted shares outstanding data set to provide you with figures for events including:

- Bonus
- Bonus rights
- Buyback
- Capital Reduction
- Consolidation
- Conversion
- Demerger
- Divestment
- Entitlement
- Redemption
- Rights
- Sub-division

Then receive reverted figures once the figures have been adjusted by the exchange.

### Easily identify each security

Take advantage of data content including:

#### Official Shares Outstanding

- Country
- Country of incorporation
- Country of registration
- Effective date
- Exchange name (source)
- ISIN, US code, local code
- Issuer name
- Listing date and status
- MIC code
- Old and new shares outstanding figures
- Par value, amount and currency

#### Adjusted Shares Outstanding

- Effective date
- Event type
- ISIN
- Issuer name
- Listing country
- Listing exchange
- Old & new ratios
- Old & new shares outstanding figures
- Security description
- Trading currency

### Delivery

The data is delivered either via our online platform or a daily feed through and FTP connection.

## Woodseer – Dividend Forecasting Service

*Woodseer forecasts are provided by Investment Tools Ltd in partnership with EDI*

Woodseer is an advanced algorithmic system for accurately predicting future dividend payments and dates associated with a vast array of securities across the global market. Woodseer incorporates a huge database of corporate actions extending back to 2012 to build up patterns of dividend payments, identifying changes in shares in issue.

Combining algorithmic calculations with input from our London-based analyst team the process involves inspecting dividend history, incorporating changes to the issued share capital, identifying patterns, and calculating individual forward amounts and dates two full fiscal years ahead.

Where a clear pattern cannot be identified (e.g. due to a recent change in the fiscal year-end date, a resumption or cut of dividend, or alteration in the dividend payment pattern) the security is flagged to our analysts who perform individual market research to forecast the data.

### Global breakdown:

- 100+ countries
- 1000+ indices
- 25,000+ securities forecasts
- 135,000+ individual forecasts
- 3,000,000+ corporate actions

### Total securities with forecasts by region:

- Asia Pacific: 12,450+ securities
- Europe: 3,900+ securities
- Latin America: 600+ securities
- Middle East & Africa: 1,050+ securities
- North America: 6,750+ securities

The forecasts predict when and how much 25,000+ securities will pay out in dividends during the coming two full fiscal years.

These forecasts are valuable for activities including stock selection, income planning, option pricing and dividend capture.

Algorithmically calculated and manually analyzed, we work from a huge database of corporate actions to build up patterns and forecast with a high level of accuracy.

### Delivery

The data can be accessed via API, via a regular push in flat-file, or via direct login.

## End-of-Day Pricing Data

Mark-to-market your positions and settle transactions on a timely basis

The End-of-Day Pricing service covers **equities, bonds and indices listed** on:

Canadian Securities Exchange	New York Stock Exchange	TSX Venture Exchange
CBOE BZX Options Exchange	Nasdaq	TSX Venture Exchange NEX
Chicago Stock Exchange	NYSE Arca	US Treasury
FINRA Trace	NYSE MKT	US Composite (NYSE, NASDAQ)
NASDAQ Stock Market	OTC Markets Group	US BATS
National Stock Exchange (USA)	Toronto Stock Exchange	

Obtain fast access to accurate closing pricing data

Available as a feed or via API

Data elements include:

• Ask	• ISIN	• Security Description
• Ask Size	• Issuer Name	• Security ID
• Bid	• Last	• Security Type
• Bid Size	• Low	• SEDOL™
• Close	• Market Close Date	• Total Trades
• Comment	• MIC	• Traded Value
• Currency	• Mid	• Traded Volume
• Element Name	• Open	• US Code
• Exchange	• Price Date	
• High	• Primary Exchange	

## Worldwide Adjustment Factors Data Feed

Adjustment factors are generated using price, corporate action data and foreign exchange data supplied by EDI.

One of the principal uses of adjustment factors is to back adjust EOD (end of day) per-share price data so that the price series can be graphed with the effect of any events (bonus, rights, consolidation, etc) “factored” into the earlier prices. Once adjusted meaningful comparisons can be made between a recent price and an earlier price, e.g. comparing a recent price of 15 against an earlier price of 20 it would appear that the security has lost 25% of its value however, after adjusting the earlier price for the 2 for 1 split (factor = 0.5), that happened between the two prices, you can see that security has actually increased in value by 50%.

All “per-share” series, including prices, earnings per share, dividends per share, assets per share, cash flow per share, etc. need to be adjusted before meaningful conclusions can be drawn about growth rates, trends, etc.

### Adjustment factors data feed

Have full control over events or factors you adjust for and perform your own historical adjustments.

Available as a feed or via an API



## Fixed Income

### Fixed Income Data

#### Keep pace with on-going changes in the fixed income marketplace

Track corporate action events for all corporate, government and government agencies bonds with our North American Fixed Income service

Security Type	Canadian	US	Security Type	Canadian	US
Bankers' Acceptances	1932	6	Medium Term Notes	1648	13151
Bonds	22237	37027	Notes	8182	56827
Capital Securities	7	407	Preferential Securities	895	1660
Certificates	77	4230	Preferred Securities	42	639
Certificates of Deposit		8257	Reference Bills		21
Commercial Paper	4979	27	Structured Products	17	4122
Covered Bonds	33	171	Strip Packages	785	
Debentures	1419	1953	Treasury Bills	177	75
Loan Notes		123			

In addition to providing details of interest payments for both fixed and floating rate issues, the service covers 40 event types which can be divided into 3 main categories.

#### Static data events

#### Distribution events

#### Securities exchange events

- |  |   |  |  |
|--|---|--|--|
| <ul style="list-style-type: none"> <li>▪ Agency Change</li> <li>▪ Agency Details Change</li> <li>▪ Bond Static Change</li> <li>▪ Conversion Terms Change</li> <li>▪ Incorporation change</li> <li>▪ Interest Rate Change</li> <li>▪ Interest Frequency Change</li> <li>▪ International code change</li> <li>▪ Issuer name change</li> <li>▪ Local code change</li> </ul> | <ul style="list-style-type: none"> <li>▪ Maturity Change</li> <li>▪ New Issue</li> <li>▪ Redemption</li> <li>▪ Redemption Change</li> <li>▪ Registered Office Change</li> <li>▪ Security Agency Change</li> <li>▪ SEDOL™ change</li> <li>▪ Selling Restrictions Change</li> </ul> | <ul style="list-style-type: none"> <li>▪ Bond Outstanding Value</li> <li>▪ Call</li> <li>▪ Currency Redenomination</li> <li>▪ Interest</li> <li>▪ Interest Payment</li> <li>▪ Listing Status Change</li> <li>▪ Reconvention</li> <li>▪ Redenomination</li> </ul> | <ul style="list-style-type: none"> <li>▪ Conversion</li> </ul> |
|--|---|--|--|

### Customization & Delivery

The North American Fixed Income service is available in its full version or customized according to event types, instruments and exchange coverage.

Choose to receive our fixed income data either online or via FTP under our proprietary feed or the ISO 15022 messaging standard.

## Fixed Income Documenter

### Gain access to EDI's huge library of fixed income securities offering documents

Use the web-based Fixed Income Documenter to access archived documents.

Currently the database contains over 175,000 documents on North American instruments in the form of offering circulars, prospectuses, pricing supplements and term sheets in their original format including PDF, Excel and Word.

### Easily locate documents for retrieval

If a document is unavailable, subscribers can place an order for it to be traced.

### Delivery & Customization

Download located documents either from the web-browser or have them pushed in bulk to an FTP account.

Choose from search fields including ISIN, US Code, SEDOL™ or Symbol as well as via Issuer Name or use the portfolio checker feature to locate required documents.

## U.S. Fixed Income Prices

The Fixed Income Pricing Service provides prices on a wide range of fixed income securities, including:

- |                         |                  |
|-------------------------|------------------|
| • Corporate Bonds       | • Non-Agency CMO |
| • Municipal Bonds       | • CMBS           |
| • Syndicated Bank Loans | • ABS            |
| • Agency MBS            | • CLO            |

Valuations are calculated daily at the close of major markets. For more liquid bonds, intraday valuations may be available. Valuations can be delivered on a same-day or next-day basis.

The following prices covers U.S and Non U.S bonds daily:

Bond Type	Count
Asset-Backed Securities	26,249
Collateralized Debt Obligations	21,335
Collateralized Mortgage Obligations	249,335
Commercial Mortgage-Backed Securities	22,964
Corporate Bonds	110,858
Government Bonds	7,576
Leveraged Loans	2,103
Non-U.S. Agency Bonds	21,038
Non-U.S. Municipal Bonds	5,381
Other or Not Defined	8,700
U.S. Agency Bonds	1,055,397
U.S. Municipal Bonds	1,201,856
Canada	6,987
United States	2,627,431

## Canadian Fixed Income Evaluated Pricing

EDI's proprietary evaluated pricing methodology uses market information to produce evaluated prices and analytics for fixed income securities of the Canadian and US markets in the most efficient way possible, in order to give fixed income asset managers an optimized tool to assist them in improving their asset management decisions and risk management/regulatory reporting process.

### Curve Pricing

EDI receives multiple prices/yields/bids/asks from its sources, for a number of different issuers. Depending on client specifications, Exchange Data International will either use the bid or the mid  $((bid + ask) / 2)$  to build the issuer curves.

The resulting issuer curves are checked against each source and an EDI curve is generated for each issuer. All fixed income securities are then priced off the respective curves using linear interpolation and extrapolation.

Curve pricing is employed by Exchange Data International to price fixed income securities from the following issuers:

- ✓ National Governments
- ✓ Canadian provinces

### Spread Pricing

Spread pricing uses multiple sources to spot the most liquid securities of a specific issuer by virtue of specific factors such as agreement amongst sources, tightness in the bid-ask spread, etc. Analysts also look at source prices every day to determine the most liquid points on the issuer curve and the illiquid issues are then interpolated/extrapolated off that curve. This interpolation/extrapolation method also allows quick validation of incorrect source prices.

All securities are priced using a spread off the underlying government interpolated/extrapolated curve using data collected from the liquid securities of the same issuer. All terms and conditions are taken into account when comparing illiquid securities to liquid ones.

Spread pricing is employed by Exchange Data International to price fixed income securities from the following issuers:

- ✓ Agencies, Crown corporations and Corporates are priced using the Government Curve
- ✓ Canadian municipals are priced using their respective Provincial Curve

### Bond Pricing Model

Once Exchange Data International has computed the yield for a fixed income security, the price of the security is then evaluated using the market standard, long form model. This means that Exchange Data International does not use an approximation formula but actually computes all discounted coupons individually and then adds them together to the discounted principal amount to get the bond price.

To be more precise, the following formula is used to compute a Clean Price, taking into account all terms and conditions, such as periodicity of coupon payments (annual, semi-annual, quarterly, monthly, etc.), day count conventions (Act/Act, Act/365, 30/360, etc.), etc.

$$\text{Clean Price} = \sum_{i=1}^n \frac{C}{(1+y/k)^{kt_i}} + \frac{100}{(1+y/k)^{kt_n}} - \text{Accrued Interest}$$

## Customization and Delivery

Pricing files can be picked up by customers via Exchange Data International's FTP sites.

Two different FTP sites (.com, .net) are employed to ensure that pricing files can still be delivered to customers in the event that one FTP site is down.

Depending on the specifications of the customers, pricing files can be delivered at flexible times during the business day and the file format is always fully customized to the customer's requirements.

Exchange Data International also offers the possibility to receive more than one pricing file, at different "snapshot" times during the business day. For example, a client could receive a 12:00 pm snapshot, 2:00 pm snapshot and 4:00 pm snapshot.

## U.S Corporate Bond Data

The U.S Corporate Bond Data is in partnership with BondCliQ

### Post-trade Data Product

BondCliQ aggregates all investment and high-grade bonds disseminated by FINRA, enriches the data with essential risk spreads, and delivers the data in multiple formats for efficient consumption

#### Source

FINRA TRACE Services

#### Scope

All reported trades registered & 144a

#### Options

Raw: Only Trade Prices

Enriched: T, I, Z and G spreads with size estimates

#### Frequency

Available in real-time, intraday, end-of-day.

Historical data back to October 2016.

### Pre-trade Data Product

Pre-trade data is commonly loosely organized, often poor quality and not actionable, there creating an inefficient trading environment for block trading. As the only solution provider with this approach to high-quality pre-trade data, BondCliQ's consolidated platform, BondTIQ, creates a competitive environment which encourages market makers to compete for client order flow based on price and customer service.

#### Source

Direct contributions from >35 bond dealers.

#### Scope

All major sectors across investment grade and high-yield.

#### Features

Consolidated data (all participants see all prices), attributed pricing with size details

#### Frequency

Available in real-time, intraday, end-of-day.

Historical data back to June 2019.

## Funds

### US Mutual Funds

Our US Mutual product offers the highest quality reference data, comprehensive corporate actions and dividends data plus a daily pricing feed for US Mutual funds.

### Reference Data

#### Empowering investors with the highest quality reference data

Access dynamically updated, maintained and detailed information on over 28,000 Mutual Funds, 18,000 Unit Investment Trusts (UITs) and 130 + Interval Funds for the US.

#### Fund Comparisons

Compare funds with similar characteristics using our security level reference data and drill down using the CFI code to further focus your search to the funds you are interested in.

#### On our website easily select securities reference data that really matters to you

Use our powerful search tool to search and select data from over 20+ fields including:

- US Local Code
- ISIN
- CFI code
- Tickers
- Issuer name

#### Easily crosscheck data with other providers using Financial Instrument Global Identifiers

- Financial Instrument Global Identifier (FIGI)
- Financial Instrument Global Identifier Composite (FIGI composite)
- Financial Composite Ticker (Composite Level) (Tickers + Exchange Codes)
- Financial Exchange Ticker (Exchange Level) (Ticker + Exchange Code)

#### Have securities reference data delivered to you simply

Choose to receive EDI's reference data either daily with history via an FTP connection or as a one off ad-hoc feed.

### Field Coverage - Reference Data

Fields	Description
Issuer ID	Unique ID for the Issuer linking all funds for the issuer
Issuer Name	Name of the Issuer of the Fund
FIGI Exchange Ticker	Composite Financial Instrument Global Identifier enables users to link multiple FIGIs at the trading venue level within the same country or market in order to obtain an aggregated view for an instrument within that country or market.
FIGI Global ID	Financial Instrument Global Identifier (FIGI) - An identifier that is assigned to instruments of all asset classes and is unique to an individual instrument. Once issued, the FIGI assigned to an instrument will

not change. Financial Instrument Global Identifier (FIGI) - An identifier that is assigned to instruments of all asset classes and is unique to an individual instrument. Once issued, the FIGI assigned to an instrument will not change.

CFI	CFI Code is a 6 character code for classifying financial instruments in order to identify the type and characteristics of each financial instrument in accordance with international standards
Country of Incorporation	ISO country of Incorporation of the company
Country of Register	Country where the fund is registered
Currency	Currency of the fund
Exchange Code	Identifier for the exchange
Security Description	Summary description of the fund including share class, type of distribution, currency of the fund and whether the fund is hedged.
Security Type	The Fund type e.g. Mutual Funds
ISIN	ISIN code
Structure Code	The Legal structure
Listing Country	Country where the fund is listed
Listing Status	Indicates exchange listing status
Local Code	The local security identification code given by the exchange
MIC Code	ISO Market Identification Code
Primary Exchange	Y/N Field
Security ID	Unique ID for the Fund
US Code	US security identification code

## Corporate Actions

### Reduce operational risk and ensure you have up-to-date information on US Mutual Funds

Processing corporate actions is essential to your business. Misinterpreted or missed information can have a significant cost to the business (trades undertaken using wrong information, reputational damage etc.) that can result in substantial losses. At EDI we deliver business critical information when

you need it, direct from the source. So, you can be sure your firm does not miss key corporate action data. EDI also has a wealth of experience with over 25 years participation in the corporate actions industry.

### Easily select corporate actions data that really matters to you

On our website, use our powerful search tool to search and select corporate actions data including:

- Issuer ID
- US Local Code
- ISIN
- Event ID
- Issuer name
- CFI code
- Security ID
- FIGI Composite code
- FIGI code
- FIGI Exchange Ticker
- FIGI Composite Exchange Ticker

## Field Coverage – Corporate Actions

- Announcement
- Buy Back
- CIK change (US only)
- Class Action
- Consolidation
- Dividend
- Fund Transfer
- Financial Year End change
- General Meeting
- International Code change
- Issuer Name change
- Location change
- Listing Status change
- Lot change
- NAICS change (US only)
- Primary Exchange change
- Par Value redenomination
- Return of Capital
- Registered Office change
- Security Description change
- Security Swap
- Sub-division
- Security Reclassification

## Pricing Data

**Get access to US Mutual Funds Net Asset Values (NAVs) data as soon as it becomes available**

Use our end of day pricing data feed to:

- Access closing pricing data for US Mutual Funds and Unit Investment Trusts (UITs).
- Easily identify US funds through static data elements taken from the Security Reference File

## Price Feed Field Coverage

Field Heading	Description
MIC	Market Identifier Code
Pricefilesymbol	Ticker
ISIN	ISIN Identifier of fund
Currency	Currency of Fund
PriceDate	Date of NAV
Open	Open NAV
Close	Price field for NAVs
SecID	Security ID
MktCloseDate	Market Close Date
Volflag	Flag
Issuename	Issuer of the Fund
Sectycd	Security Type Code (MF, UNT etc)
SecurityDesc	Fund Name
USCode	US Code
PrimaryExchgCD	Primary Exchange Code
ExchgCD	Exchange Code

## Derivatives

### Reference Data

#### Undertake quick and accurate reference checks

Get up-to-date information on exchange traded futures and options where the underlying asset is either an equity or index.

Use the derivative reference data file to efficiently identify any specific derivative contract in our extensive database. The file currently covers more than 30 fields, including:

- Root code
- Ticker
- ISIN
- Aii
- Security Description
- MIC Code
- Contract Size
- Exercise Style
- Expiry Date
- Strike Price
- Exercise Price

#### Easily determine the underlying asset on which the derivative's price is based.

The Derivatives Reference Data clearly indicates the underlying security attached to the contract.

- Security Description
- ISIN/SEDOL\*/Ticker
- Primary Exchange

\*Registered Trademark of London Stock Exchange

### End-of-Day Pricing

#### Obtain fast access to accurate closing pricing data

Data elements include of High, Low, Open, Close and Open Interest

Choose to receive derivative end-of-day pricing data by exchange, portfolio or on a global basis.

### North American Derivatives Coverage

Country	MIC Code	Exchange	Prices	Corporate Actions	Estimated ETA (GMT)
Canada	XMOD	The Montreal Exchange / Bourse de Montreal	X	X	04:30:00
U.S	BATO	BZX Options Market (CBOE BZX Options Exchange)	X	X	20:30:00
	XBOX	Boston Options Exchange (TMX Group) (BOX Options Exchange)	X	X	04:30:00
	C2OX	C2 Options Exchange Inc. (CBOE)	X	X	05:30:00
	XCBO	CBOE - Chicago Board Options Exchange (CBOE Global Markets Inc.)	X	X	04:00:00
	XCBF	CBOE Futures Exchange	X	X	07:00:00
	XCME	Chicago Mercantile Exchange (CME)	X	n/a	05:30:00
	EDGA	EDGA Exchange (CBOE EDGA U.S. Equities Exchange)	X	X	05:00:00
	EDGX	EDGX Exchange (CBOE EDGX U.S. Equities Exchange)	X	X	05:00:00
	IFUS	ICE Futures U.S.	X	n/a	05:00:00
	GMNI	Nasdaq GMX (ISE Gemini Exchange)	X	X	05:00:00
MCRY	Nasdaq MRX (ISE Mercury, LLC)	X	X	05:00:00	



XISE	Nasdaq ISE (International Securities Exchange, LLC - Equities)	X	X	05:00:00
XMIO	Miami International Securities Exchange	X	X	05:00:00
MPRL	Miax Pearl, LLC	X	X	05:00:00
EMLD	Miax Emerald, LLC	X	X	05:00:00
XMGE	Minneapolis Grain Exchange	X	n/a	12:30:00
XPBT	Nasdaq Futures Exchange (NFX)	X	X	05:00:00
XNDQ	Nasdaq Options Market	X	X	05:00:00
XPHL	NASDAQ PHL	X	X	04:30:00
AMXO	NYSE Amex Options	X	X	05:00:00
ARCX	NYSE ARCA Options	X	X	05:00:00
XOCH	Onechicago, LLC	X	X	23:00:00
OPRA	Options Price Reporting Authority	X	n/a	TBP
XMIO	Miami International Securities Exchange	X	X	05:00:00

## Options Analytics Service

The Options Analytics Service uses daily updates and historical data to provide end-of-day analytics and reference for U.S and international exchange-listed options on equities, exchange traded funds (ETFs), equity indexes and futures. This service can run tests simulation of trading strategies, generate risk and regulatory reports on portfolios of options and underlying securities, perform in depth analysis of options positions. Accounting firms can also use this service to their advantage, to help calculating the amount of dividend equivalent payment and delta test for the IRS Section 871 (m).

## OTC Data

### Swap Curve Data

The Swap Curve Data Service provides clients with a daily source of independent zero-coupon, swap-implicated yield curves for valuations, portfolio analytics and risk management calculations.

Yield curve data is available on an intraday or end-of-day basis. End-of-day data is delivered at the close of major global markets or as a consolidated file at 4pm ET. Up to 5 years of history is also available.

EDI implies yield curves from readily-observable market prices. We select the most liquid instruments available in the market for each maturity regime. OIS is the assumed approach if a liquid market exists for the referenced currency. The zero-coupon yields and discount factors are implied using an industry-standard bootstrapping model.

### Credit Default Swap Data

The CDS Data Service supplies 5 & 10-year spreads for over 2000 reference entities, together with a wide range of currency, restructuring clause and tier of debt combinations. Spreads are expressed as the basis point cost of buying protecting on the corresponding CDS. Full term structure curves (with spreads covering 6 months through 30 years) are available at a premium service level.

CDS data are available on a daily basis, with delivery at approximately 4pm ET. 10 years of history is also available.

EDI parses CDS quotes from market communication, typically in the form of indicative quotes emailed from the sell side to the buy side. These data are cleaned for spurious points, such as outliers or stale spreads. Curves displaying inversion are investigated manually to ensure accuracy. Cleaned data are then averaged into a composite.

## FX Options Volatility

The FX Option Volatility Data Service supplies daily volatility surfaces for FX options, including skew, across 30 global currencies and precious metals. Results are expressed as follows:

- For at-the-money (ATM) strikes: as percentage implied volatility
- For 10 and 25 Delta Risk Reversals & Butterflies: as offsets to the corresponding ATM volatility

FX option volatility data is available on an intraday or end-of-day basis. End-of-day data is delivered at the close of major global markets or as a consolidated file at 4pm ET. Up to 5 years of history is also available.

EDI receives market-observable quotes for precious metal and FX options directly from dealer desks. These data are cleaned for spurious points, such as outliers or stale contributions. Cleaned data are then averaged into a composite.

## Swaption Volatility Data

The Swaption Volatility Data Service supplies daily normalized volatility cubes for interest rate swaptions, including skew, across many popular global currencies. Volatilities are expressed in basis points and correspond to standardized cube nodes, including:

- At-the-Money (ATM) strikes, and out-of-the-money strikes specified as positive and negative offsets of the ATM forward rate in 25, 50, 100, 150 and 200 basis point increments
- Standard option tenors, typically from 1 month to 30 years
- Standard swap tenors, typically from 1 year to 30 years

Swaption volatility data is available on an intraday or end-of-day basis, with snap times at the close of the local currency bond market and delivery at approximately 4pm ET. Up to 5 years of history is also available.

EDI receives market-observable quotes for swaptions directly from dealer desks. These volatilities are quoted using OIS discounting, where applicable, or as forward premiums. We use these quotes to calibrate the SABR model, the output of which is a normalized volatility cube.

- The service provides normalized volatilities in order to ensure consistent coverage, even in negative interest rate environments.
- While normalized volatilities will calibrate for negative ATM rates, some negative offset strikes, particularly for short tenors, that produce negative forward rates, will not calibrate given limitations of the SABR model.

The Swaption Data Service comes in two separate packages: G5 and Premium. The G5 Package covers USD swaptions with the following tenors:

Currency	Option Tenor		Swap Tenor	
	Min	Max	Min	Max
USD	1M	30Y	1Y	30Y



## Customization

EDI is proud to offer the most effective and efficient solutions tailored to meet each individual customer's needs. We offer a range of customization options including:

- Delivery-based solutions to complement existing client infrastructure.
- Content provided at the geographical or portfolio holding level.
- Feeds containing particular formats, field content and integrated client level data items.

EDI uses its extensive data research expertise to source, scrub and integrate new client specified data items with existing products and services. For instance, a request from a multinational investment bank to source the DR universe and map it against its underlying share portfolio ultimately led to the development of EDI's successful Depository Receipt Database.

In addition, EDI was the first vendor to successfully launch an ISO 15022 Corporate Action Messaging feed. This enables customers to reduce costs and increase efficiency by removing the need for multiple feed handlers.

## Support

### Customer Support

**Monday – Friday**  
Open 24 hours

**Saturday**  
12AM - 8AM (GMT)

**Sunday**  
11PM-12AM(GMT)

**Call +44 207 324 0020**

Email: [support@exchange-data.com](mailto:support@exchange-data.com)

Customer support is closed Christmas and New Year's Day.

We aim to acknowledge all queries within an hour of receipt and answer queries within 24 hours where possible.

We will send a progress report if a query is not resolved within that time-frame. We resolve around 95% of customer queries within 24 hours.

All queries sent to our Support department are filtered and dispatched to the relevant department. An IT staff member is engaged in the communication process to resolve complicated technical issues.

[www.exchange-data.com](http://www.exchange-data.com)



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