



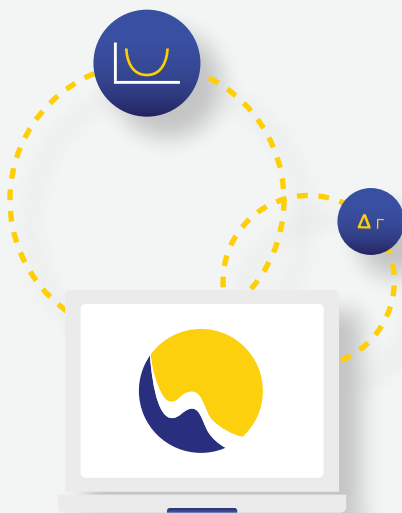
# IvyDB ETF

## Historical option pricing data, volatility, and analytics.

Comprehensive historical option pricing data and accurate implied volatility calculations and greeks for US-listed ETFs. Designed specifically for empirical research, IvyDB ETF allows you to backtest strategies, evaluate risk models, and perform sophisticated research on various aspects of derivatives trading.

### Features:

- Every option, every day with coverage beginning in 1996
- Clean and reliable historical data
- Best bid and ask quotes for each strike and expiration, plus underlying prices
- Implied volatility and greeks for each option
- Volume and open interest for each option
- Correct implied volatility models (a multi-thousand step binomial tree for American options; discrete dividend projections)
- Historical dividends and corporate actions
- Daily volatility surfaces (put and call) for each underlying security
- Over 3,000 underlying ETFs
- CUSIP and ticker information
- Unique Security IDs for easy backtesting regardless of CUSIP or ticker changes, or mergers
- Daily zero curves





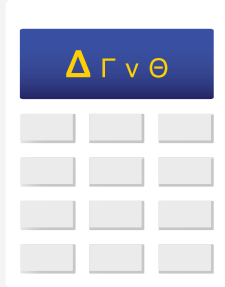
## Efficient data delivery.

IvyDB is provided in zipped text files organized in a relational structure. The data arrives ready for loading into the database management system of your choice at your location. You can easily access IvyDB with your preferred research and analysis applications and use spreadsheets and statistical applications such as Excel, SAS, S-PLUS, and MATLAB as well. Nightly updates are provided via FTP.



## Smoothed daily volatility surfaces.

IvyDB includes a kernel-smoothed constant expiration volatility surface file for each ETF. Deltas between 10 and 90 are provided, with increments of 5 (negative for puts), and expirations range from 10 days to 2 years. Now you can calculate skew and term structures, compute volatility surface dynamics, factor structures, and correlations without any additional data cleaning or preparation.



## Accurately calculated volatility and greeks.

Each daily closing option price has associated implied volatility, delta, gamma, vega, and theta, which are calculated using industry-standard algorithms that account for American exercise and discrete dividend payments.

### Common applications:

- Correlations in volatility across underlying stocks/indices
- Statistical properties of the volatility surface
- Smile/skew/term structure trends
- Dispersion trading
- Credit trading
- Variance swaps trading
- Efficiency tests
- Technical strategies
- Cheap/dear analysis