



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

The first comprehensive database of historical option prices, implied volatility, and sensitivity calculations for the major listed European markets. Similar in design to our industry-leading lyyDB US database, lyyDB Europe provides data of the highest obtainable quality. lvyDB Europe comes ready to be used in empirical research and/or econometric studies or for development and testing of derivatives trading strategies.



### Updated daily.

lvyDB Europe provides you with last traded prices or last available bid and ask quotes for each option, every day. We time-synchronize those prices with the security price for accurate implied volatility and greeks calculations. We also publish daily settlement prices and their implied volatilities. Our own dividend projections ensure reliable inputs into our models. You will also receive information on historical distributions and corporate actions such as dividend payments, splits, mergers, and name changes.

#### **Coverage:**

- Over 900 optionable securities (equities and indices) from UK, French, German, Swiss, Dutch, Belgium, Spanish and Italian exchanges
- Historical data and daily updates since January 2002 for most securities



# Effortless software integration.

- Arranged as a set of flat files, organized in a relational structure
- Easily incorporated into a DBMS (e.g. SQL, server, Oracle, Sybase)
- Access via MS Excel, MS Access, Crystal Reports, MatLab, or programming language of your choice
- Nightly downloads of zipped files via FTP
- Corrections issued through patching system



## **Smoothed Daily Volatility Surfaces.**

In addition to the daily implied volatility values for each listed option, we also publish a smoothed and interpolated volatility surface for each security, each available currency, every day. You may now directly compute skew, term structure, and correlations.

- Expirations: 30, 60, 91, 122, 152, 182, 273, 365, 547, and 730 calendar days
- Deltas: 0.20, 0.25, 0.30, 0.35, 0.40, 0.45, 0.50, 0.55, 0.60, 0.65, 0.70, 0.75, and 0.80 (negative deltas for puts)
- Implied Strikes and Premium

#### Calculations and methodologies:

- Interest rate is calculated from a collection of continuously-compounded zero-coupon interest rates at various maturities for different currencies, collectively referred to as the zero curve
- European-style options are priced according to the Black-Scholes model
- American-style options are priced using a proprietary pricing algorithm that is based on the industry-standard Cox-Ross-Rubinstein model
- Dividend projections for equities use a proprietary predictive algorithm to project discrete payment dates. Interim and final dividends are handled. For indices, continuous dividend payment is assumed.



