

CISER Information File
ECON-096
Standard & Poor's 500 Index Options, 1990-2007

These data were purchased from DeltaNeutral.com in January 2008 for use by Cornell faculty, staff, and students for academic research use only. They were received as 4523 comma-delimited files, one file for each trading day from January 1990 to December 2007, inclusive. CISER staff concatenated these into annual files.

These data represent the end-of-day prices for the S&P 500 Index (ticker symbol SPX). They contain index options for the S&P 500 Index, not option prices for each company that comprise SPX.

CISER received no documentation with these files. Information on the file layout and calculated variables that follows was excerpted from the web site and on the date indicated below:

Obviously the most important parts of the option quote are the time of the quote, the option symbol, and the bid and ask price of the option. In order for it to be easy for a person to be able to look up and process the option data, other important columns have been added including the underlying symbol, the underlying last price, the last price the option traded at, the strike, expiration data, option type, volume and open interest.

In addition to these data items, we also have calculated the greeks values such as beta, gamma, theta, vega, and the implied volatility. Including these is good and bad. First of all there are many different ways, using different formulas, for these greek values to be calculated. We have calculated these values in the simplest way possible, using the Black Scholes algorithm and using the Fed Funds Rate as the risk free rate. We also do not take dividends into account. Those who find this method unacceptable may wish to recalculate the greek values themselves.

The entire list of columns in our data is as follows:

UnderlyingSymbol,UnderlyingPrice,Exchange,OptionRoot,OptionExt,Type,Expiration,DataDate,Strike,Last,Bid,Ask,Volume,OpenInterest,IV,Delta,Gamma,Theta,Vega

You may want to use this list of columns after you have purchased the data and place the column headers into Excel. A couple of the column names need explanation. An option symbol can be from three to five characters long. The last two characters, which contain the expiration, option type, and strike we call the OptionExt. The preceding one to three characters we call the OptionRoot. The rest of the column names should be evident as to what they are.

<http://www.historicaloptiondata.com/structure.aspx>
accessed January 4, 2008