



Apr 25th, 10:30 AM - 4:30 PM

Options Pricing: Is the Minority Outpricing the Majority?

Colin Fitzgerald
Illinois Wesleyan University

Robert Leekley, Faculty Advisor
Illinois Wesleyan University

Follow this and additional works at: <https://digitalcommons.iwu.edu/jwprc>

Fitzgerald, Colin and Leekley, Faculty Advisor, Robert, "Options Pricing: Is the Minority Outpricing the Majority?" (1992). *John Wesley Powell Student Research Conference*. 36. <https://digitalcommons.iwu.edu/jwprc/1992/posters/36>

This is protected by copyright and/or related rights. It has been brought to you by Digital Commons @ IWU with permission from the rights-holder(s). You are free to use this material in any way that is permitted by the copyright and related rights legislation that applies to your use. For other uses you need to obtain permission from the rights-holder(s) directly, unless additional rights are indicated by a Creative Commons license in the record and/ or on the work itself. This material has been accepted for inclusion by faculty at Illinois Wesleyan University. For more information, please contact digitalcommons@iwu.edu.

©Copyright is owned by the author of this document.

OPTIONS PRICING: IS THE MINORITY OUTPRICING THE MAJORITY?

Colin Fitzgerald, Dept. of Economics, IWU, Robert Leekley*

Options are among the most flexible financial instruments. They can serve many functions; profit enhancement, risk management, arbitrage and hedging are but a few. For this reason, options have become an invaluable component of many financial portfolios. Since April of 1973, when a uniform options market was established, the options market has grown more rapidly than any other financial market.

The value of an option depends on several factors. The strike price of the option and the price of the underlying instrument are the most important. Others include the time to expiry, the volatility of the underlying instrument, the risk free interest rate, and cash flows from the instrument. The exact magnitude of the effect that some of these factors have on the value of an option is still unsettled. However traders need some model, to guide them in deciding whether an option is properly valued. Many traders use some version of the Black-Scholes model. A few use more complicated models, such as the model developed by Cox, Ross and Rubinstein. Are these more complex models actually better? This study attempts to find out.

Whatever models traders use, their purpose is to estimate the (unknown) intrinsic value of an option. If this value is greater than the (known) current market price, they would want to buy; if it is less than the current market price, they would want to sell. Thus a good model is one that gives profitable buy and sell signals. This study compares buying and selling according to the signals generated by both the Black-Scholes and the Cox-Ross-Rubinstein models. The profits generated by each model are then compared. If the Cox-Ross-Rubinstein model is actually better, it should generate greater profits.