

# D THE JOURNAL OF DERIVATIVES

VOLUME 12, NUMBER 3 SPRING 2005

STEPHEN FIGLEWSKI	Editor
RANGARAJAN K. SUNDARAM	Co-Editor
SANJIV DAS	Co-Editor
ROBYN VANTERPOOL	Editorial Assistant
PATRICIA B. PEAT	Copyeditor
<hr/>	
HARRY KATZ	Production Director
MICHELLE WRIGHT	Senior Production Manager
DAVID GOMBAC	Senior Staff Copyeditor
AJANI MALIK	Reprints Manager
<hr/>	
ANNE O'BRIEN	Marketing Director
MICHELLE COX	Senior Marketing Manager
<hr/>	
DAVID BLIDE	Business Development Manager
RASHETDA CAMBRIDGE	Advertising Assistant
<hr/>	
ROBERT TONCHUK	Fulfillment Director
KELVIN LOUIE	Senior Fulfillment Manager
CHERLY-NINA BONNY	Fulfillment Manager
<hr/>	
DAVID E. ANTIN	Director of Finance and Operations
KAREN KNOW	Business Manager
<hr/>	
ALLISON ADAMS	Publisher
CHRIS BROWN	CEO

One has the impression that there is a lot of news these days. The American president has come through a close election and been re-inaugurated; the Iraqis and the Palestinians have also held elections, much more successfully than many had feared; the groundhog has spoken (six more weeks of winter in New York, unfortunately);\* and the Super Bowl is over (congratulations, once again, to Boston). But somehow, even with the arrival of a large amount of new information, it feels like resolution of uncertainty is lagging behind (except with regard to the Super Bowl). The economic and financial future appears muddier than ever, with massive deficits in the U.S. government budget and the balance of trade, and a wide range of possible future scenarios for economies and financial markets around the world. Yet, in the past year, stock market volatility and corporate credit spreads have fallen to exceptionally low levels. What does this mean? Is there a cognitive disconnect here?

Leaving those provocative questions on the table, let us turn to the Spring 2005 *Journal of Derivatives*. Our lead article, by Cai and Vjih, presents a fresh look at executive stock option valuation. Option grants have become a substantial component of overall compensation for top management in many firms. Recipients are restricted, for an extended period, from selling the options they receive, or the stock that may be acquired through option exercise, partly because it is thought that a manager with a large equity stake in the firm will work harder in the interests of the stockholders. But standard finance theory also suggests that because this creates a very concentrated risk exposure, the recipients will not value the options as highly as what it costs the firm to provide them. This article clarifies the effect and explains why the loss in option value due to the trading restriction has seemed fairly small in earlier models, because they assumed that the manager's entire wealth was split between the firm's securities and the riskless asset. The authors show that introducing possible investment in a market portfolio makes a lot of difference.

Virtually all textbooks and practitioner introductions to options contain a picture book chapter showing a variety of payouts on combination positions: straddles and strangles, bull spreads and bear spreads, and many others. Some of the more fanciful ones may not even exist in nature, but spreads and straddles are common and the practitioner literature offers multiple possible reasons why an investor might enter into such trades. But in practice, what really motivates a trader to prefer a spread over an outright long or short option posi-

tion? In our second article, Chaput and Ederington provide evidence from a unique dataset covering large trades in eurodollar futures options.

The third article, by Benzion, Danan, and Yagil, looks for profitable arbitrage opportunities in box spreads. A box spread is a trade involving four options, which (if they are European) sets up a completely riskless position that does not need to be rebalanced. This is an excellent example of an arbitrage study done well, not because the authors find a lot of trading opportunities, but because they demonstrate clearly what it takes to do a proper test for arbitrage opportunities in a real derivatives market. Their results heighten our confidence in the informational efficiency of financial markets, as well as our skepticism about “profitable arbitrage trades” discovered in studies that do not place such stringent requirements on the data. The final article, by Albrecher et al., introduces a new methodology for pricing Asian options, using the mathematical property of comonotonicity to derive tight bounds on the possible value, for options on an underlying that follows a Lévy process.

Despite the pessimistic prognostication from the groundhog, spring is definitely on its way. So I am wondering where the “January effect” went. Did we miss it, somehow? Unfortunately, one suspects that this is just one more example of the principle in quantum theory, that observing a phenomenon changes it. The January effect was a strong and highly regular feature of stock markets in the U.S. and around the world—until someone took notice of it, whereupon it disappeared. Once we learned to expect it, it was gone. I suppose we should celebrate the increase in market efficiency, and try not to linger on memories of that warm feeling of satisfaction with one’s prowess as an investor that used to be part of the post-holiday period.

## ENDNOTE

\*For details on this peculiarly American tradition, see the official groundhog website <http://www.groundhog.org>.

**Stephen Figlewski**  
Editor