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Editor's Letter

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"Summertime and the livin' is easy."

So long as one proceeds directly to the business section of the newspaper and avoids looking at the front page, things appear to be going very well these days. The U.S. stock market has hit its highest level in the last four years; equity implied volatilities are down; after a small hiccup in the spring from the downgrade of General Motors, credit spreads are currently about as low as they have been in years; business profits are up; and the U.S. economy looks like it is recovering from its long swoon. Even the persistent tightening by the Federal Reserve is being greeted with enthusiasm in the equity and currency markets, and indifference in the long-term bond market. If only we could get the front page news to go along with the trend...

Credit risk continues to be one of the hottest areas in derivatives research. Our lead article in this issue is on that topic and there are several more good pieces in the pipeline that will be appearing in future issues. The current generation of credit risk models focus on the stochastic process governing default, either modeling the evolution of a firm's net asset value to predict the probability it will fall to the critical level that will trigger bankruptcy, or treating insolvency more generally, as a transition into the "default state" of a Markov chain. But these models do not always have an easy time dealing with correlation in defaults, which is increasingly important as credit products based on portfolios of risky instruments become more common. By contrast, earlier credit models tried to link default probabilities more directly to observable financial variables, like a firm's accounting ratios, and to overall economic conditions, like GDP growth. Sensitivity to common macroeconomic factors leads to correlation in default risk in a natural way. Here, Kim and Kim offer an interesting blend of the two approaches. Their stochastic process model incorporating macro factors can produce a rich array of correlation behavior, both in cross-section and over time.

Research articles published in the *JOD* are meant to be relevant to practitioners, but they tend to fall very much in the paradigm of academic finance. Since academics tend to view technical analysis with the highest degree of skepticism, relatively little academic research is done on it. Yet many practitioners continue to pay careful attention to chart patterns in making their trading decisions. In our second article, Fock, Klein, and Zwergel conduct a rigorous investigation of the performance of the "candlestick" method for day-trading in DAX and Bund futures. They give a nice exposition

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of the technique and develop a set of rules for defining the various patterns consistently. But their empirical tests show that candles are, in fact, not very illuminating when it comes to predicting short-term movements in futures prices.

It is clear that volatility of most asset returns varies randomly over time. The issue for modelers is not whether volatility is stochastic, but rather how to model it in a way that produces realistic behavior but remains mathematically tractable. Affine jump-diffusion processes have proven very useful in this regard, but they impose constraints on the returns process that may not always be appropriate. Our third article presents an alternative approach in the regime-switching framework. Tractability is achieved through use of a stochastic time change in representing the second regime. Next, Boyle, Hardy, and Vorst describe how to construct a (highly) risky position that probably makes $1 million in a week. If it doesn't, the loss will be gigantic, and yet the position satisfies a seemingly stringent value-at-risk constraint. (Don't try this one at home!) Their point is to highlight one of the shortcomings of VaR as a risk management tool, and to offer alternative risk measures that are in the same spirit as VaR but perform much better.

Our final article reexamines a commonly held belief that because the average price of an asset over a future time interval has a lower standard deviation than the asset price at the end of the interval, an Asian option whose payoff is based on the average should be worth less than an equivalent European option with the same terminal date. Ye shows that this is not true in general, because the difference in expected value between the average and the final price can reverse the relationship between the option values.

We are deep in the "dog days" of summer as this is being written. Looking ahead to the academic year that will begin in September, we wish all faculty and students who are returning to the halls of academe a successful and productive year. And to everyone else, best wishes to you, too—it is now OK to stop envying the academics for their extended summer breaks.

Stephen Figlewski
Editor