THE JOURNAL OF DERIVATIVES

Editor's Letter

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VOLUME 20, NUMBER 1 20TH ANNIVERSARY ISSUE

It was twenty years ago today,
Sergeant Pepper taught the band to play.
They've been going in and out of style
But they're guaranteed to raise a smile.
So may I introduce to you
The act you've known for all these years…
*The Journal of Derivatives!**

This issue marks the 20th anniversary of *The Journal of Derivatives.* Although I am certain that I cannot possibly be 20 years older than I was in the fall of 1992, when we first began talking about launching a journal devoted to derivatives, there is no question that this journal has reached the major milestone of Volume 20, Number 1. It has been a period of explosive growth and proliferation in both the practitioner world of derivatives trading and the academic world of derivatives modeling and research, during which this journal has tried to play a valuable role in publishing the best of both worlds.

We have a special feature to celebrate this special anniversary. My original plan was to invite our associate editors to write short pieces about some development in the derivatives world in the past 20 years that they found particularly interesting and important. With more than 30 associate editors, I figured I would get 8 or 10 articles. But to my (pleasant) surprise, by the time I had managed to ask a dozen of the associate editors for op-ed-type articles, 9 had agreed, so I had to stop asking. As you will see, the collected thoughts from some of the top thinkers in the field are, as one would expect, highly thought provoking. In fact, this exercise has proven to be so valuable that I plan to continue down the list of associate editors for the next several issues until they all have had a chance to share their thoughts on the current state of the derivatives world.

We begin with comments from nine of our associate editors. Mark Kritzman leads the issue with the theme of option pricing being the "most successful theory in all of economics." The quote is from Stephen Ross, whose point was that even though pricing models such as the CAPM experience considerable difficulty in

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showing that real-world securities obey the theory, derivatives pricing theory has had much greater success in the real world because of its focus on valuing a derivative relative to its underlying. Alan White then follows by raising the question of why there is so much trading in derivatives. After all, derivatives are a zero-sum game and are even redundant securities (in theory, anyway). Maybe it is because investors can't judge derivatives' risks very well. Joanne Hill's reflections relate to both of the previous articles, as she reviews the periods of turbulence in the derivatives markets from the perspective of three characteristics of successful markets: liquidity, transparency, and capacity.

Thomas Ho, Miguel Palacios, and Hans Stoll then offer their ideas on the appropriate principles that should guide any restructuring of the financial regulatory system. Transparency is important, which is a common theme among commentators, but they also favor a more open regulatory system based on general principles of correct practice rather than explicitly detailed rules that can be sidestepped with minor tweaks to a security design or become outdated as the markets evolve. Competition among regulatory authorities is also desirable, in their view, to promote innovation and avoid regulatory capture. One major change in the regulatory environment for derivatives is the Dodd–Frank Act requirement that most over-the-counter (OTC) derivatives contracts must be centrally cleared. While this feature would increase transparency and reduce the impact of counterparty credit risk, it is not without potential problems, including the fact that credit risk from every clearing member is borne by all of the other member firms, as John Hull discusses.

Robert Jarrow, an old friend of the JOD who served as co-editor for a number of years before becoming an associate editor, has been thinking about financial bubbles. The big problem with bubbles, of course, is that everyone thinks "this time it's different"—until it isn't. But by the time that fact is clear, the bubble has burst. Jarrow proposes a bubble test to reveal whether a bubble is in progress, before it bursts. The set of associate editor comments concludes with a reflection by Emanuel Derman on the dilemma of the ethical financial engineer. His bottom line is that "capitalism is OK," but nevertheless, we should recognize our impact on the financial markets and the investors that use them and accept certain standards of proper behavior for financial modelers.

Peter Carr, the final associate editor in this issue, proposed to write about one of three ideas that he considers the most important in the past 20 years. These were 1) the rise of adjoint or forward methods, such as local volatility; 2) the use of Fourier analyses and, more generally, integral transforms; and 3) Ross's recovery theorem. All of these topics are vital, but his preference was the Ross recovery theorem. Much of my own personal research agenda over the past few years has been on extracting and exploring the risk-neutral probability distribution from stock index option prices. The Ross article has been a major development, because it shows how both the risk-neutral and real-world density can be recovered from market prices, which I (along with many others) believed to be impossible. Peter and Jiming Yu have written a detailed explanation and discussion of Ross's work and have extended it. Their article is a substantial, so it seemed appropriate to place it in the section with the other "regular" research articles.

The next regular article, by Yu Kan and Claus Pedersen, presents a somewhat surprising argument. Something that has been largely ignored as a minor market "imperfection" in theoretical derivatives modeling—interest on the required margin or collateral deposit for a derivatives contract—is actually an important factor in determining the value of credit default swaps (CDS). The final article in this issue, by John Hull and Alan White, addresses the fact that two of the major credit rating agencies base their ratings on the estimated probability of default, without considering the loss-given default. As a result, their bond ratings fail as "coherent risk measures," which means they impound profitable arbitrage possibilities. This problem may well help to explain the poor performance of ratings for mortgage-backed securitized products in the market meltdown of 2007–2008.

In writing the Editor's Letter, I usually add a few comments about the current state of the financial markets and the world at large. I am happy not to have to do so this time.

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I can enjoy the Olympics, which are a welcome distraction right now. By concentrating on the terrific 20 years I have enjoyed as the editor of *The Journal of Derivatives*, I can ignore—well, sort of—the "all negative all the time" election season in the U.S., the murky future of the eurozone, and the likelihood that because of global warming, we will probably all wash away in floods, burn up in forest fires, or blow away in tornadoes and hurricanes long before rising sea levels from the melting ice caps drown our coastal cities. Not to mention that I really am 20 years older.

It has been a nice interlude.

Stephen Figlewski
Editor

*With apologies to the Beatles.