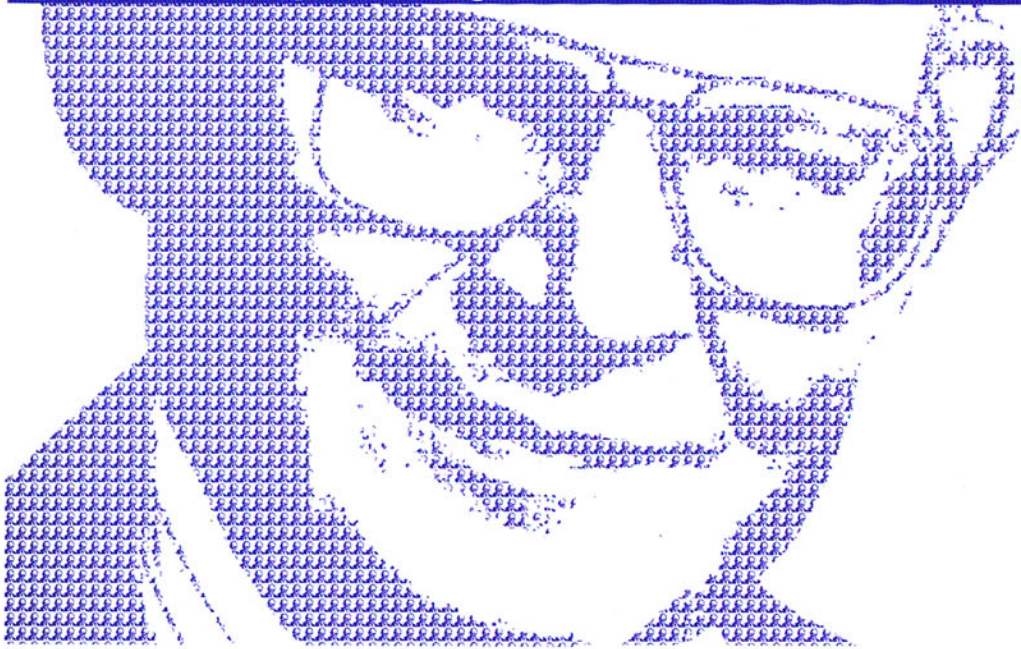


# WILMOTT

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# Maybe This Time . . .

**B**enoit Mandelbrot is the founder of fractal geometry, and as such can already lay claim to having overturned over 2,000 years of accepted thinking. He isn't a man to shirk a challenge, and it is with pride that this issue we focus on the gauntlet he has laid down to us in the financial community. His new book, co-authored with Richard Hudson, *The (Mis)Behavior Of Markets* is an accessible route map to Mandelbrot's work since the 1960s in the field of finance. Herein he provides a comprehensive critique of the accepted approaches to pricing under which academia would have us believe the financial markets labor.

This issue we present two special essays from Nassim Nicholas Taleb, whose deeply felt respect for Mandelbrot stands in stark contrast to his usually irreverent attitude towards the great and the good of both academia and industry. We also publish two technical articles inspired by Mandelbrot's work in finance.

The first, from Lisa Borland, Jean-Phillipe Bouchaud, Jean Francois Muzy and Gilles Zumbach discusses the long-term nature of volatility in financial time series in relation to multiplicative cascades and multifractal ideas. They introduce a new approach to multi-timescale models intermediate between GARCH models and multifractal models.

The second paper from Jan Beirlant, Wim Schoutens and Johan Segers looks at extreme value theory and the work of Mandelbrot, and applies this to an analysis of the crash of 1987, which should be a perfectly good example of a tail event!

Now, just as the stock market does not like the Central Limit Theorem (which topic we begin discussing in Lyceum this month, ironically), we are not prepared to be bunched up amidst the mediocre and mundane opinions that maintain the status quo. You will find at the beginning of the technical section a call to action from Richard Olsen, who calls for nothing less than Mandelbrot be conferred the Bank of Sweden Prize in Economic Sciences in Memory of Alfred

Nobel. We can't help agreeing that it is about time such an honor was bestowed upon the focus of this themed issue. Recognition in this field often goes to the less deserving, and having had an opportunity to review Mandelbrot's contribution to everything from statistical physics, cosmology, meteorology through to information technology, computer graphics and mathematics as a whole, we cannot help but put our support behind such a campaign.

As you will see Mandelbrot's theories have been the stalking horse to the Gaussian worldview that has been the accepted model for the past forty years. This despite the fact that you need only need to use the evidence of your own eyes to see it doesn't fit. But now, with decades of observation behind him Mandelbrot has presented us with a boost up, that we might look over the wall and see what lies beyond. He has not promised us a solution in his book, but a definite way forward – and so in manifesting what is only normally muttered under one's breath when trying to get a proprietary model to fit, he is lighting the way forward for us. We can only hope that now enough people follow the path that this Rough Guide has shown us, and so find the answers that have so far proved somewhat elusive.

As this issue is all about recognition, we are proud to announce the final results of the voting which has been going on for some months now on [www.wilmott.com](http://www.wilmott.com). This year's *Wilmott* Awards are entirely nominated and voted for by members of the website and subscribers to the magazine. We're sure you'll agree that the recipients of this year's honors are well deserving and we extend our congratulations to all of them. Enjoy the issue!



Paul Wilmott  
Editor-in-chief