

A Minute with Giovanni Barone-Adesi

In each issue, *Algorithmic Finance* features a brief interview with one member of our advisory or editorial boards or another leading academic or practitioner. These brief conversations are intended to provide a glimpse of their current thinking. In this issue, we talk with Giovanni Barone-Adesi.

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GIOVANNI BARONE-ADESI is professor of finance theory and director at the Swiss Finance Institute, University of Lugano, Switzerland. He studied electrical engineering as an undergraduate at the University of Padova. Later he received a MBA and a PhD from the Graduate Business School at the University of Chicago, specializing in Finance and Statistics. Before moving to Lugano he has taught at the University of Alberta, University of Texas at Austin, the Wharton School of the University of Pennsylvania and City University. His main research interests are derivative securities, asset and risk management. He is the author of several models for valuing and hedging securities. Especially well-known are his contributions with Whaley to the pricing of American commodity options and his filtered simulation approach to the measurement of market risk, developed while advising the London Clearing House. His more recent works concern the pricing of index options, barrier options, and gold derivatives. Currently he is president of Open Capital, a fund management firm. He has been an advisor to several exchanges, financial intermediaries and other business organizations in the areas of risk management and financial strategy.

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What are your research interests right now?

Currently I am interested in understanding the component of systemic risk due to investors' behavior,

which has been neglected in the literature. Most of the current debate on financial regulation relates to institutions too big to fail. I am old enough to remember the Savings & Loans crisis. The herding behavior of thousands of small institutions may be very destructive.

I am trying to model investors' behavior by proposing a precise definition of sentiment that is econometrically testable, linked to the pricing kernel. Also I am interested in the herding generated by regulation itself. Rules meant to increase safety may force institutions toward holding similar portfolios and also to attempt making simultaneous adjustments. This behavior increases the likelihood of a crash.

What do you see as academically exciting?

I enjoy financial research because it brings together ideas from a wide variety of academic disciplines. Some of the most innovative theories I am excited about are based on the analysis of the stability of complex systems, the neurological basis of investment decisions, and the legal foundations of financial systems.

On a more applied level, I am interested in the design of a new financial architecture to replace the economic functions of the financial system displaced by the new safety regulations. Whenever we say that banks should reduce their exposure to a market, we leave unanswered questions about the financial intermediaries that will replace them.

What would you work on if you had lots of time?

I would like to work on the design of a safer financial system to support the global economy. I do not believe that it can be achieved simply by plugging existing gaps. It will be the challenge for the next decade. However now I am spending all of my time on more immediate concerns.