

## Introduction for Darrell Duffie.

By John H. Cochrane. Introduction given at the January 2010 American Finance Association business meeting, for Darrell's Presidential Address.

I am delighted and honored to introduce Darrell Duffie.

What stands out about Darrell, and is perhaps a little frustrating to the rest of us, is that he does *everything* so well.

Most of you met Darrell in your graduate studies: He wrote *The Book*. You may have had an occasional unkind thought about Darrell, facing a problem set at 2 AM, but you knew where to look for the answer.

Of course *The Book* stood on a set of classic papers, which developed the mathematical foundations of financial economics.

Now, you expect the author of papers like "Competitive Equilibria in General Choice Spaces" to go on writing deep but somewhat ivory-tower theory. Not Darrell. Darrell went on to develop the modern toolkit of term structure and credit modeling, especially with Ken Singleton. This work stands out for its immense *practicality*. These are the models we use.

Darrell has always thought about the mechanics of markets. For example, I'm a big fan his work on short sales and over-the-counter markets with Nicolae Garleanu and Lasse Pedersen. They showed how search for a counterparty can affect asset values, in a way that explains important puzzles. Darrell wrote a paper on "special repo rates," emphasizing collateral problems... in 1996, long before the rest of us had heard of such things. Now we have. In financial-crisis discussions, it's always Darrell who pipes up with "no, guys, that's not how the CDS market actually works." If you want to understand what the "fail" in "too big to fail" really means, you must read his "Failure mechanics of dealer banks." But, Darrell: a high priest of mathematical finance is not supposed *also* to be the one guy in the room who knows the institutions!

Darrell hasn't given up on deep theory, of course. His recent work on "percolation" addresses the Big Unsolved Problem in Finance: how trading works to bring information to the market.

Theorists are supposed to be inscrutable. Darrell is probably the clearest presenter in this room, as you will soon see. I heard a good story, which I did not verify because it cannot be improved by facts. A judge was getting fed up with experts in a complex securities legislation case. He told both sides. "stop, get Darrell Duffie to explain this. I don't care what you have to pay him." Wise man.

Theorists are supposed to be unapproachable. Darrell is famous as a teacher and a mentor. His students wrote lots of nice things while nominating him for a Stanford award. The best, I think is this: "Darrell makes you feel important. He respects *your* ideas and wants to help *you* develop important questions"

The job of AFA president is an academic honor, but it is also an important administrative position. Darrell turns out to be great at this too. His efforts have left important legacies for our association. When you elected him, you chose wisely.

Well, you might console yourself, someone so accomplished must be a geek who sits in his office all day and let himself go? No again. If we take a break and run a little tour des hotels around the meetings, it's an easy bet that Darrell will finish first.

So much for comparative advantage. Darrell does it all, with style, grace, and wit.

In the preface to his textbook, Darrell wrote, humbly but a bit depressingly, that "Theoretical developments...since 1979...have been a mopping-up operation." But he also wrote, "it's difficult to predict what the future will bring." Now we've seen a bit of that future, in Darrell's work and that of a lot of people in this room. Far from mopping up, I think we're in a second golden age of financial theory. And I can't think of a better person than Darrell Duffie to tell us about it.