

## **WSJ BLOG/Deal Journal:Financial Meltdown, The Ultimate Human Error**

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What does one of the country's most well-known financial engineers, or quants, have to say about the fancy financial footwork that helped spark the global credit meltdown? Blame people, not the financial models they were using, said Emanuel Derman, director of Columbia University's financial engineering program.

Financial engineering and quantitative investing, with their sophisticated spreadsheets, models and algorithms are no better than the people who use them, Derman said at a recent lecture in New York sponsored by Columbia University's science department. Those people may make wrong assumptions, disregard flaws or ignore the possibility of rare but catastrophic outcomes. They also are responsible for communicating potential problems with their models and making management decisions based on them.

"I don't think banks in Iceland went bankrupt because of bad models. They went bankrupt because of overleveraging, said Derman. "Models are just the tool."

Derman also heads risk management at **Prisma Capital Partners**, authored "My Life As A Quant" (Wiley, 2004) and worked for many years as a physicist turned financial engineer at Goldman Sachs (GS). When asked if financial modelers should do a better job warning of flaws in their models and the effects of rare events like Sept. 11, 2001, on the models, Derman agreed they should. No model is infallible, even one purporting to show the best way to take a cab to the Lower East Side in New York, he said. "You can make a model to show you how to get there on time. But it can still fail," he said.

Derman said smart traders he worked with in the banking industry understood risks and flaws in models and others didn't.

Derman is troubled by the legions of Wall Streeters heading to jobs in Washington. He thinks the movement creates conflicts of interests as Wall Street veterans often have the agenda of Wall Street in mind. There's too much of a back and forth between Wall Street and the government, he said. In Singapore, they pay the regulators a lot of money so they don't go back and forth from the private sector.

The exodus of talented foreigners is another pet peeve. Derman said 95% of his students in financial engineering who have a high aptitude for math and lightning-fast spreadsheet-crunching skills - come from countries such as China, Japan, France and India. A lot of them are now going back there, he said, noting that fewer are getting jobs on Wall Street. Those hired are more likely to be in risk prevention than in financial engineering roles, he said.

When asked if experiments in neuroscience could improve financial and risk modeling, Derman turns curmudgeonly. "I hate that stuff," said Derman. "It's a good way to get grant money to study something. But it's still a pipe dream...I think it's one of those trendy things that won't lead to anywhere."