

**U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE AND TECHNOLOGY
SUBCOMMITTEE ON INVESTIGATIONS AND OVERSIGHT**

Hearing on

The Science of Insolvency

May 19, 2008

Thank you Mr. Chairman.

Let me welcome the witnesses here today and thank them for appearing.

Today's hearing on "The Science of Insolvency" may seem like foreign territory for our Committee. Terms like Derivatives, Credit Default Swaps, Collateralized Debt Obligations, and Interest Rate Swap aren't used in this room as much as Propellant Mass Fraction, Albedo Effects, and TeraFLOPS.

That being said, there are some similarities. Over the last 30 years Wall Street has increasingly leveraged mathematics, physics, and science to better inform their decisions. Even before the Black-Scholes Model and the Gaussian Copula were developed to determine value and analyze and mitigate risk, bankers and economists were looking for a silver bullet to help them beat the market.

Despite the pursuit of a scientific panacea for financial decisions, models are simply tools employed by decision-makers and managers. They add another layer of insight, but are not crystal balls. Leveraging a position too heavily or assuming future solvency based on modeling data alone is hazardous to say the least.

This is a theme this Committee has addressed several times in the past. Whether it is in regard to climate change modeling, regulating chemical exposures, determining spacecraft survivability, predicting future bank solvency, or attempting to value complex financial instruments, models are only as good as the data and assumptions that go into them. Ultimately, decisions have to be made based on a number of variables, which certainly include models involving science, but as a witness at a previous hearing stated "science describes, it does not prescribe."

This Committee struggles with the complexities of modeling, risk assessment, and risk management regarding physical sciences. Attempting to adapt those concepts to finance is even more complex. As AEI Resident Fellow Alex Pollock recently wrote

"The transcendent mathematical genius, Isaac Newton, having first made a lot and then lost even more of his own money in the collapse of the South Sea Bubble, wrote in disgust, 'I can calculate the motions of the heavenly bodies, but not the madness of people.' You can apply math to finance, but that does not make it a science."

With that, Mr. Chairman, I would like to add a statement from Mr. Pollock to the hearing record by attaching it to my statement. I look forward to the witnesses' testimony on the science underlying asset valuation and the methodologies behind the recent "stress tests."

Thank you.

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