

Darrell Duffie is Dean Witter Distinguished Professor of Finance at the Graduate School of Business, Stanford University. He has been writing about financial markets since 1984. He is a Fellow of the American Academy of Arts and Sciences, a Fellow and member of the Council of the Econometric Society, and a Research Associate of the National Bureau of Economic Research. He is a member of the Financial Advisory Roundtable of the New York Federal Reserve Bank, and a member of the board of directors of Moody's Corporation. Professor Duffie was the President of the American Finance Association until January 2010. In 2003, he was awarded the SunGard/IAFE Financial Engineer of the Year Award from the International Association of Financial Engineers.

'Darrell Duffie has been a leader in the field of credit risk, both its theory and empirical implementation, for over a decade. This book is a brilliant presentation of the methods, many originated by Darrell himself, for estimating corporate default risk. It is a necessary reference for beginners and professionals alike. Anyone interested in measuring default risk should have this book on their bookshelf.'

*Robert Jarrow, Susan E. Lynch Professor of Investment Management,
Johnson Graduate School of Management, Cornell University*

'This book provides a brilliant summary of the numerous works on Corporate Default Risk that Darrell Duffie developed, with several co-authors, over the past decade. A striking feature of this monograph is the equal attention paid to theoretical and applied aspects. On the one hand, advanced probabilistic and statistical tools, like doubly stochastic intensity, censoring, frailty models or MCMC algorithms are presented in a very pedagogic way and, on the other hand, applications to North American corporations, based on rich datasets, are reported in great detail and discussed very carefully. It is a genuine "tour de force".'

Alain Monfort, Professeur CNAM, Centre de Recherche en Économie et Statistique

'Darrell Duffie provides a lucid account of default risk modeling using dynamic intensity models and survival analysis. He covers both the case where the explanatory variables (covariates) are fully observed, and where there are unobserved, dynamic 'frailty' effects. This book will sharpen your modeling and risk management tools and help you selecting relevant covariates. You will also benefit from the author's brilliant sense of how these tools enhance our understanding of credit markets.'

David Lando, Professor of Finance, Copenhagen Business School

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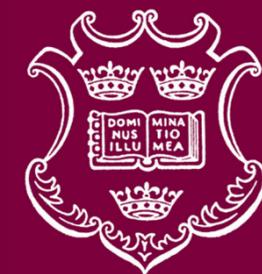


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Duffie

MEASURING CORPORATE DEFAULT RISK

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Darrell Duffie

MEASURING CORPORATE DEFAULT RISK

Clarendon Lectures in Finance

Based on the author's Clarendon Lectures in Finance, *Measuring Corporate Default Risk* examines the empirical behavior of corporate default risk. A new and unified statistical methodology for default prediction, based on stochastic intensity modeling, is explained and implemented with data on U.S. public corporations since 1980. Special attention is given to the measurement of correlation of default risk across firms. The underlying work was developed in a series of collaborations over the past decade with Sanjiv Das, Andreas Eckner, Guillaume Horel, Nikunj Kapadia, Leandro Saita, and Ke Wang. Where possible, the content based on methodology has been separated from the substantive empirical findings, in order to provide access to the latter for those less focused on the mathematical foundations.

A key finding is that corporate defaults are more clustered in time than would be suggested by their exposure to observable common or correlated risk factors. The methodology allows for hidden sources of default correlation, which are particularly important to include when estimating the likelihood that a portfolio of corporate loans will suffer large default losses. The data also reveal that a substantial amount of power for predicting the default of a corporation can be obtained from the firm's 'distance to default', a volatility-adjusted measure of leverage that is the basis of the theoretical models of corporate debt pricing of Black, Scholes, and Merton. The findings are particularly relevant in the aftermath of the financial crisis, which revealed a lack of attention to the proper modeling of correlation of default risk across firms.