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DEPARTMENT OF STATISTICS AND ACTUARIAL SCIENCE
THE UNIVERSITY OF HONG KONG

Seminar

Dr. Bernard WONG

School of Risk and Actuarial Studies
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Australia

will give a talk

entitled

ON A MEAN REVERTING DIVIDEND STRATEGY WITH BROWNIAN MOTION

Abstract

In actuarial risk theory, the introduction of dividend pay-outs in surplus models goes back to Bruno de Finetti (1957). Dividend strategies that can be found in the literature often yield pay-out patterns that are inconsistent with actual practice, with one issue being the high variability of the dividend payment rates over time. In this talk, we aim at addressing that problem by specifying a dividend strategy that yields stable dividend pay-outs over time.

We model the surplus of a company with a Brownian risk model. Dividends are paid at a constant rate g of the company's modified surplus (after distribution of dividends), which operates as a buffer reservoir to yield a regular flow of shareholders' income. The dividend payment rate reverts around the drift of the original process μ , whereas the modified surplus itself reverts around the level $l = \mu / g$.

We determine the distribution of the present value of dividends when the surplus process is never absorbed. After introducing an absorbing barrier a (inferior to the initial surplus) and stating the Laplace transform of the time of absorption, we derive the expected present value of dividends until absorption. The latter is then also determined if dividends are not paid whenever the surplus is too close to the absorbing barrier. We conclude by comparing both barrier and mean reverting dividend strategies.

on

Wednesday, February 1, 2012

2:00 p.m. – 3:00 p.m.

at

**Room 524, Meng Wah Complex
(behind the Chong Yuet Ming Amenities Centre)**

Visitors Please Note that the University has limited parking space. If you are driving please call the Department at 2859 2466 for parking arrangement.

All interested are welcome