



Article of the month:

ESG Performance and Disclosure: A Cross-Country Analysis

Florencio Lopez de Silanes, Joseph A. McCahery, and Paul C. Pudschedl (SSRN)

We use a unique dataset to examine the link between ESG disclosure and quality through a cross-country comparison of disclosure requirements and stewardship codes. We find a strong relationship between the extent of ESG disclosure and the quality of a firm's disclosure. Furthermore, we find that ESG is correlated with decreased risk. This result suggests that firms with good ESG scores are simply disclosing more information. Finally, we show that ESG scores have little or no impact on risk-adjusted financial performance. [Read more](#)

Actuarial Models

Fair-value analytical valuation of reset executive stock options consistent with IFRS9 requirements

Otto Konstandatos (Annals of Actuarial Science)

Executive stock options (ESOs) are widely used to reward employees and represent major items of corporate liability. The International Accounting Standards Board IFRS9 financial reporting standard which came into full effect on 1-Jan 2018, along with its Australian implementation AASB9, requires public corporations to report their fair-value cost in financial statements. Reset ESOs are typically issued to re-incentivise employees by allowing the option to be cancelled and re-issued with a lower exercise price or later maturity. We produce a novel analytical Reset ESO valuation consistent with the IFRS9 financial reporting standard incorporating the simultaneous resetting of vesting period, exercise window, reset level and maturity. We allow for voluntary and involuntary exercise. Our analytical result is expressed solely in terms of standardised European binary power option instruments. Using the multi-state mortality model of Hariyanto (2014, Mortality and disability modelling with an application to pricing a reverse mortgage contract, PhD thesis, University of Melbourne), we estimate longitudinal disability and death transition probabilities from cross-sectional data. We determine survival functions for pre-vesting forfeiture or post-vesting involuntary exercise for use with weighted portfolios of our formulae to illustrate the effect of survival on the fair value. We examine the IFRS9 method of valuation using expected time to option exercise and demonstrate a consistent overestimation of fair value of up to 27% for senior executives. [Read More](#)

Ruin probabilities in the Cramér–Lundberg model with temporarily negative capital

Frank Aurzada, Micha Buc (European Actuarial Journal, EAJ)

We study the asymptotics of the ruin probability in the Cramér–Lundberg model with a modified notion of ruin. The modification is as follows. If the portfolio becomes negative, the asset is not immediately declared ruined but may survive due to certain mechanisms. Under a rather general assumption on the mechanism—satisfied by most such modified models from the literature—we study the relation of the asymptotics of the modified ruin probability to the classical ruin

probability. This is done under the Cramér condition as well as for subexponential integrated claim sizes. [Read More](#)

Optimal capital injections and dividends with tax in a risk model in discrete time

Katharina Bata, Hanspeter Schmidli (European Actuarial Journal, EAJ)

On Sept. 5, 2019, DHG hosted a roundtable in Harrisburg, Pa., inviting representatives from several banks actively involved in the current expected credit loss (CECL) implementation process to discuss trending topics for the CECL standard. The new standard replaces the incurred loss impairment methodology in current Generally Accepted Accounting Principles (GAAP) with an expected credit loss methodology and requires consideration of a broader range of information to determine credit loss estimates. [Read More](#)

Investments

Knowledge Management in Asset Management

Eduard Van Gelderen, Ashby H. B. Monk (SSRN)

The idea that superior knowledge is required to drive financial outperformance runs counter to some of the most pervasive theoretical frameworks used by investors today. The Efficient Market Hypothesis and the Capital Asset Pricing Model, for example, posit that capital markets are efficient and that no consistent outperformance can be generated without increasing risk. Active asset managers, however, argue differently and claim that skills and knowledge are critical for capturing excess returns. We agree. In fact, in this paper we argue that knowledge assets and the use of superior knowledge are crucial to the success of all asset managers and, in particular, active managers. And yet, despite its clear importance, very little is known about knowledge management in asset management. This article thus seeks to remedy this by offering insight into the role that knowledge plays in the investment process and, more specifically, into the adoption of knowledge management by asset managers. The paper concludes with a blueprint that offers a way for investors to become knowledge and asset managers. [Read more](#)

Financial Risk

Credit risk – The bank data challenge in frontier markets

Fitch Solutions (Risk.net)

As the regulatory net tightens, banks working in and across frontier regions are under pressure to source and maintain more accurate data in the assessment of counterparty credit risk, but some are investing in tools to tackle the problem. For credit risk analysis to be truly effective, banks need to be able to access the right kind of information to analyse risk and manage exposure to counterparties. However – particularly in frontier markets – it can be a struggle to not only find accurate data, but also ensure it is analysed consistently across the credit risk management function. [Read more](#)

The Dark Side of Digital Financial Transformation: The New Risks of FinTech and the Rise of TechRisk

Ross P. Buckley, Douglas W. Arner, Dirk A. Zetsche, and Eriks Selga (SSRN)

Over the past decade a long-term process of digitization of finance has increasingly combined with datafication and new technologies including cloud computing, blockchain, big data and artificial intelligence in a new era of FinTech (“financial technology”). This process of digitization and datafication combined with new technologies is taking place in developed global markets and at

times even faster in emerging and developing markets. The result: cybersecurity and technological risks are now evolving into major threats to financial stability and national security. In addition, the entry of major technology firms into finance – TechFins – brings two new issues. The first arises in the context of new forms of potentially systemically important infrastructure (such as data and cloud services providers). The second arises because data – like finance – benefits from economies of scope and scale and from network effects and – even more than finance – tends towards monopolistic or oligopolistic outcomes, resulting in the potential for systemic risk from new forms of “Too Big to Fail” and “Too Connected to Fail” phenomena. To conclude, we suggest some basic principles about how such risks can be monitored and addressed, focusing in particular on the role of regulatory technology (“RegTech”). [Read more](#)

Trending topics

The age of ethical algos, but can quants cope?

Rob Mannix (Risk.net)

Investment mandates from the Dutch pension fund APG now come with more than the usual strings attached. Managers must bend strategies that were built to make money into line with the fund’s growing ambition to do good. APG last year reduced the universe of stocks its quant strategies can trade by a sixth, culling about 1,500 stocks that scored badly against a set of APG-crafted environmental, social and governance (ESG) metrics. [Read more](#)

No silver bullet for AI explainability

Mauro Cesa (Risk.net)

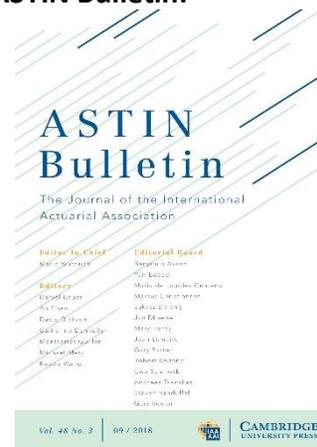
As artificial intelligence becomes more powerful, explaining the outputs of these models also becomes more challenging. Deep learning techniques – and neural networks in particular – are playing an increasingly important role within financial institutions, where they are used to automate everything from options hedging to credit card lending. The outputs of these models are the result of interactions between the hidden layers of the network, which are often difficult to trace, let alone explain. [Read more](#)

Resources (click upon image to access)

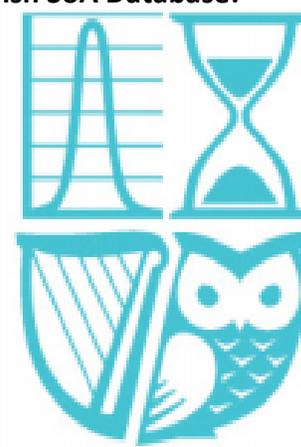
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