



## Variable Annuities: A Global Perspective

Edited by Tigran Kalberer and Kannoo Ravindran

Published in October 2009, Variable Annuities is the practitioner's guide to managing risks in this trillion-dollar global market.

This new book provides, for the first time, a comprehensive analysis of the variable annuity marketplace, the use of these products and the challenges associated with the risk-management of these products that have been compounded by the recent financial crisis.

In Variable Annuities more than 25 leading market experts reveal how industry tools are changing, how strategies are being reshaped; and how techniques are being enhanced.

Written by practitioners for practitioners, detailed chapters explore:

- Identifying and quantifying risks: including methods for tackling actuarial/policyholder risks, basis risk, market risk, valuation of contracts and guarantees
- **Risk management strategies:** the use of product design to manage risks and reduce unhedgeable exposure, reinsurance contracts and OTC instruments
- Hedging: measuring hedge efficiency and effectiveness, lessons of the crisis
- Product types and markets: North America, Japan, Europe and Asia-Pacific
- Accounting and regulation: the challenges of IFRS and GAAP

With over 25 leading expert contributors, Variable Annuities covers all aspects of this expanding market and will be the definitive guide for:

CFOs/CEOs/CROs Investment bankers Accountants/auditors

Risk managers Stock/credit Analysts Consultants

Actuaries Regulators Software developers for risk-management solutions

## **About the Editors**

**Tigran Kalberer** has pioneered the application of market-consistent valuation and risk-based capital techniques in life insurance during the last 20 years. He has applied risk management and notably ALM techniques for life insurance companies in a wide variety of situations. He has supported several companies in developing VA products, ensuring that the policyholder behaviour risks, volatility risks and basis risks are well under control. Tigran is a partner in the actuarial practice of KPMG.

**Kannoo Ravindran (Ravi).** Since pioneering the use of derivatives to manage market risks embedded in variable annuities at a time when writers of such risks used only traditional reinsurance/retrocession or took on the risks naked, Ravi has been working on all aspects of variable annuity risk-management (including managing such risks on a total account value exceeding US\$100 billion) and product development. He currently also chairs the Equity Based Insurance Guarantee Conference Series held annually by the Society of Actuaries globally. Ravi is also a visiting professor at Haskolinn Reykjavik.

## **Authors include:**

Darin Arita | Jay Blumenstein | Naveed Choudri | Pin Chung | Rajeev Dutt | Stefan Engelander | Kirk Evans | Mark Evans | Sam Gutterman | Dan Heyer | Vinay Kalro | Mike Kaster | Mun Kurup | Yves Lehman | Warren Manners | Hubert Mueller | Tze Ping Chng | Marianne Purushotham | Scott Robinson | Jorg Sauren | Adam Stolz | Edward Tom | Michael Winkler | Matt Wion | Joe Zhao | Lukas Ziewer

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