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Numerical Results SLV in Practice Chapter 8: Equity Linked Structured Products General Payoff Category Features of Important Structured Product Categories Barrier Reverse Convertibles Constant Proportion Portfolio Insurance (CPPI) Risks During Retail Issuance Period Chapter 9: Basket Option Analysis Basket Option Risks Copula Pricing Models Historic Basket Volatility Surfaces Implied Basket Volatility Surfaces Copula Applications Part III: Interest Rate Derivatives Chapter 10: Multi-Curve Environment & Yield Curve Stripping Multi-Curve Environment Yield Curve Stripping Collateral Impacts Multi-Curve Multi-Facet Reality Chapter 11: Vanilla Interest Rate Options Martingale Pricing Principle Cap/Floor European Swaption & SABR Risk Sensitivities Chapter 12: Practical Interest Rate Derivative Models Key Model Categories Linear Gauss Markov Model Libor Market Model Extended Cheyette Model Local Volatility Model Chapter 13: CMS Replication and CMS Spread Options CMS Convexity CMS Replication CMS Calibration CMS Spread Option Pricing Framework Copula Pricing With Full Market Marginal Distributions CMS Outlook Chapter 14: Interest Rate Derivative Products Product Design & Product Risks Bermudan Swaption Callable Products Other Important Products Part IV: Real Life Options and Derivatives Chapter 15: Long-Dated FX Volatility and Hybrid Risks FX Volatility Surface Extrapolating FX Volatility Term Structure To Long End Extrapolating FX Volatility Smile To Long End Hybrid Optionality PRDC Hybrid Risks Chapter 16: Portfolio CVA: Efficient Numerical Techniques CVA Valuation Implementation Framework Numerical Techniques in Portfolio CVA Valuation Grid Monte Carlo for CVA GMC Implementation Example GMC in Practice Chapter 17: Contingent Convertibles (CoCo) CoCo Features CoCo Categories CoCo Risk Factors Indirect Modelling Approaches Direct Modelling Approaches Chapter 18: Variable Annuity Products Key VA Product Types Major Risk Factors in VA Products Hybrid Pricing Models for VA Products Practicalities of Handling Long-Dated VA Products Importance of Understanding VA Risks Chapter 19: Interest Rate Optionality in Fixed Rate Mortgage Prepayment Optionality Prepayment Risk Characteristics Early Redemption Charge Applying Option Based Prepayment Technique Chapter 20: Real Estate Derivatives Equity Release Scheme and Related Derivatives Mortality in Derivatives Pricing Reversion Derivatives Products Real Estate Portfolio Derivatives Property Linked Roll Up Mortgage HPI Retail Products Appendix A: Product of Two Calls Decomposition Three Key Integrals Analytical Formula Bibliography .

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## Sommario/riassunto

"Manufacturing and Managing Customer-Driven Derivatives  
Manufacturing and Managing Customer-Driven Derivatives sheds light on customer-driven derivative products and their manufacturing process, which can prove a complicated topic for even experienced financial practitioners. This authoritative text offers up-to-date knowledge and practices across a broad range of topics that address the entire manufacturing, pricing and risk management process, including practical knowledge and industrial best practices. This resource blends quantitative and business perspectives to provide an in-depth understanding of the derivative risk management skills that are necessary to adopt in the competitive financial industry. Manufacturing and managing customer-driven derivative products have become more complex due to macro factors such as the multi-curve environments triggered by the recent financial crises, stricter regulatory requirements of consistent modelling and managing frameworks, and the need for risk/reward optimisation. Explore the fundamental components of the derivatives business, including equity derivatives, interest rates derivatives, real estate derivatives, and real life derivatives, etc. Examine the life cycle of manufacturing derivative

products and practical pricing models. Deep dive into a wide range of customer-driven structured derivative products, their investment or hedging payoff features and associated risk exposures. Examine the implications of changing regulatory standards, which can increase costs in the banking sector. Discover practical yet sophisticated product analysis, quantitative modeling, infrastructure integration, risk analysis, and hedging analysis. Gain insight on how banks should handle complex derivatives products. Manufacturing and Managing Customer-Driven Derivatives is an essential guide for quants, structurers, derivatives traders, risk managers, business executives, insurance industry professionals, hedge fund managers, academic lecturers, and financial math students who are interested in looking at the bigger picture of the manufacturing, pricing and risk management process of customer-driven derivative transactions"--

"This book deals with some of the key derivatives products including equity derivatives, mainly used for creating investment products for retail and private investors, interest rates derivatives, used for creating investment and treasury products, real estate derivatives and hybrid derivatives products"--

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