

The Case for Fully Integrated Models of Economic Capital

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Economic capital models are potentially powerful tools for enterprise risk management (ERM), and for the supervisory review process (Pillar 2) of the Basel II and Solvency II regulatory capital frameworks. We argue that, to fulfill this potential, economic capital models need to be fully integrated and to go beyond the more modular approaches that dominate Pillar 1 methodology. In a modular approach capital is determined at business-unit or risk category level (e.g. market, credit and liquidity risk separately) and aggregated ex post by simple summation or correlation-adjusted summation; in a fully integrated approach aggregation occurs implicitly by relating all risks to a common set of fundamental risk drivers.

[The paper] explain(s) how calibrated economic scenario generation lies at the heart of a fully integrated approach to modelling the risks on the asset side of a firm's balance sheet and discuss how stochastic scenario generation gives the ideal framework for exploring the diversification benefits that different units or asset classes bring to an enterprise. We explain how this approach allows us to understand the sources of tail risk and gives us a platform for integrated stress testing, sensitivity analysis, and the allocation of capital to business units for risk-adjusted performance comparisons.

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