



GUY CARPENTER  
STRATEGIC ADVISORY<sup>SM</sup>  
GROWTH | CAPITAL | RISK | INSIGHT

# CAPITAL MODELING SOLUTIONS





# A complete range of Flexible Economic Capital


No two insurance companies are alike. But every company — whether it's a less complex organization or a major multi-national — can utilize capital modeling to more effectively assess key risks, benchmark risk profiles, inform risk tolerances, allocate capital, meet regulatory and rating agency requirements and strategize for the future. Guy Carpenter understands that capital modeling is not one size fits all and provides a complete range of economic capital modeling solutions that can be tailored to your resources and preferences for customization and risk-based decision support.

Companies of every type — big or small, a recent start-up or an industry veteran — can benefit from Guy Carpenter's solutions.

- **For less complex companies new to capital modeling, our GC Financial Planning Tool™ helps with financial projections, stress testing and rating agency evaluations.**
- **Many small and medium-sized companies benefit from BenchmaRQ®, a service providing standardized capital modeling results for individual and peer companies. Clients can add customized enhancements with BenchmaRQ® +.**
- **Those companies developing their own more sophisticated models use MetaRisk®, the industry's leading timeline-based capital modeling software, and MetaRisk® Reserve™, which measures reserve risk.**
- **Insurers with existing models in other platforms turn to Guy Carpenter for model validation to fulfill ORSA requirements and for reporting to board committees responsible for ERM governance.**

Effective capital modeling is critical for today's insurers to address the ever-increasing expectations of all stakeholders, from regulators and rating agencies to board members and policyholders. Guy Carpenter's full range of solutions, in-depth industry knowledge and experience, and unparalleled support as a trusted advisor can help your company further develop and customize your capital model to assist with important risk-based decisions.

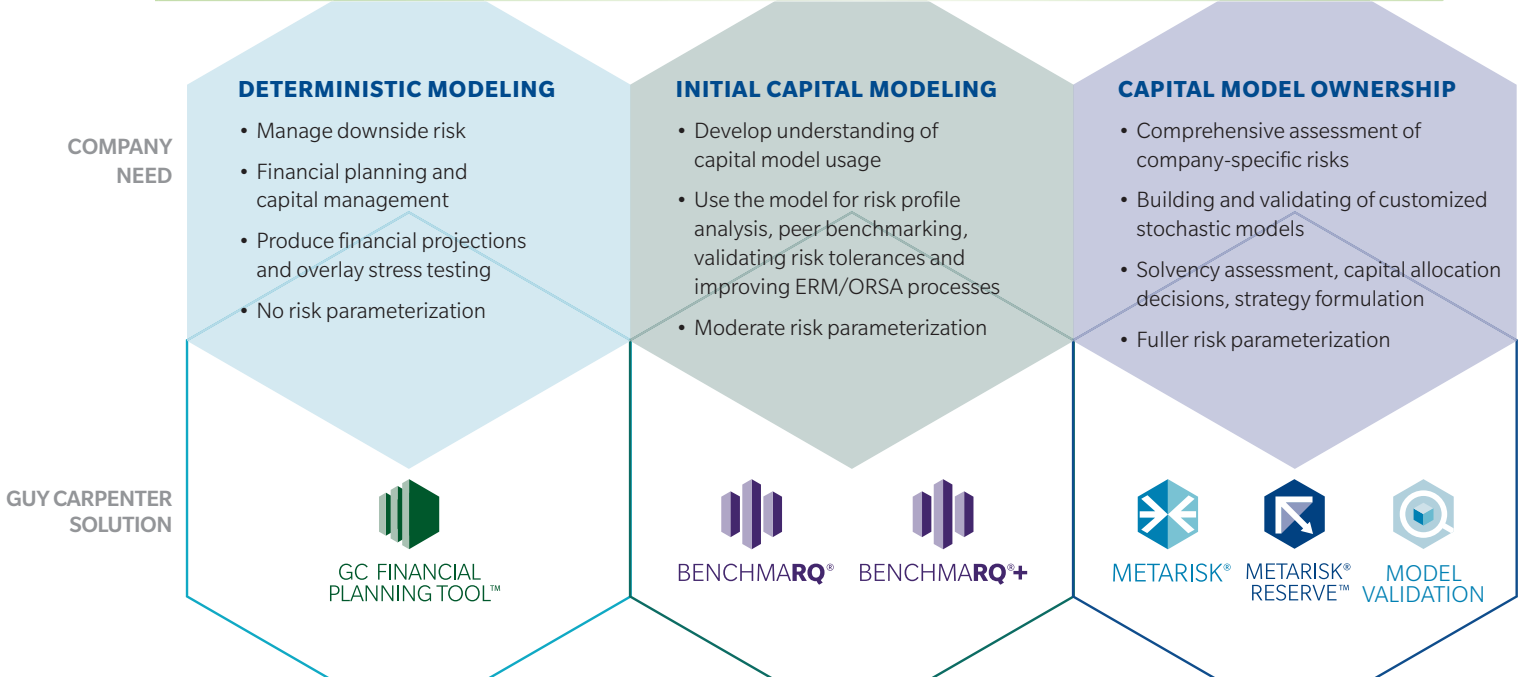
Guy Carpenter's capital modeling solutions are designed to meet the needs of a wide spectrum of insurers. Whether your firm's needs are less complex and you are new to the process or you represent a large company with a fully developed in-house model, Guy Carpenter can work with you to customize and implement the solution that best serves your unique needs.











# Modeling Solutions

Capital Modeling Solutions for the Full Spectrum of Insurance Company Needs



# A Complete Range of Solutions to Fit Your Needs

Solution		Key Benefit	User Profile
 GC FINANCIAL PLANNING TOOL™	Deterministic multi-year model that projects financials and provides insights into key metrics to assist with business planning, stress testing and rating agency evaluations.	Traditional financial planning tool with stress testing overlay and direct links to BCAR results to enhance capital management and interactions with rating agencies.	Smaller regional insurers with less complex modeling needs seeking to manage their risk downside using deterministic assumptions and with limited resources to run the model.
 BENCHMARQ®	Standardized pre-built stochastic model using industry data and proprietary risk models. Simulates one year of company performance and provides financial statements associated with various outcomes.	Benchmarks risk profile relative to peers, features user-friendly reports and graphics and informs risk tolerance setting.	Mid-sized companies that desire substantial risk-based information and a better understanding of using stochastic capital models but do not have resources to build one at this time. Also, companies with internal models that want to compare modeling outcomes.
 BENCHMARQ®+	Customized version of BenchmaRQ that includes company-specific enhancements.	Provides single or multi-year stochastic projections. Helps with underwriting planning, managing reserve risk and non-cat reinsurance purchasing.	Companies that need specific, customized enhancements in their modeling, yet are not prepared to own and maintain an in-house model.
 METARISK®	Customized single or multi-year stochastic model that assists clients in building a fully parameterized model that provides a comprehensive assessment of risks. Powerful software application for capital modeling, in addition to reinsurance evaluation, catastrophe management, assumed reinsurance pricing, capital allocation and curve-fitting.	The industry's leading timeline-based capital modeling software, fully customized with fuller risk parameterization. Full-time access to support from capital modeling experts.	Primarily large companies, but also smaller and medium-sized ones, that typically have internal modeling capabilities and seek comprehensive assessment of company-specific risks.
 METARISK® RESERVE™	Stochastic reserving software that enables companies to quantify reserves and measure reserve risk through generalized linear modeling. Integrates seamlessly with MetaRisk or can be used on a standalone basis.	Incorporates inflationary effects into reserve risk assessments. Outputs can be used with any capital model.	Companies seeking a clearer picture of their reserve risk and variability.
 MODEL VALIDATION	Independent evaluation of a company's existing capital model by comparing it to a parallel model developed by Guy Carpenter.	Parallel models developed by industry-leading developers and actuaries. Capital modeling experts provide evaluation and consultation.	Companies with fully developed internal models that require validation and consulting services.

## Contacts

To learn more about our Economic Capital Modeling Solutions, contact your local Guy Carpenter representative or one of these specialists:

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#### About Guy Carpenter

Guy Carpenter & Company, LLC is a global leader in providing risk and reinsurance intermediary services. With over 50 offices worldwide, Guy Carpenter creates and executes reinsurance solutions and delivers capital market solutions\* for clients across the globe. The firm's full breadth of services includes line-of-business expertise in agriculture; aviation; casualty clash; construction and engineering; cyber solutions; excess and umbrella; excess and surplus lines; healthcare & life; marine and energy; mutual insurance companies; political risk and trade credit; professional liability; property; public sector; retrocessional reinsurance; surety; terrorism and workers compensation. GC Fac® is Guy Carpenter's dedicated global facultative reinsurance unit that provides placement strategies, timely market access and centralized management of facultative reinsurance solutions. In addition, GC Analytics®\*\* utilizes industry-leading quantitative skills and modelling tools that optimize the reinsurance decision-making process and help make the firm's clients more successful. For more information, visit [www.guycarp.com](http://www.guycarp.com) and follow Guy Carpenter on Twitter @GuyCarpenter.

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