

# GEMS<sup>®</sup> Economic Scenario Generator

RISK SOLUTIONS | PRODUCT SHEET

*An economic scenario generator (ESG) enables financial services companies to model future states of the global economy and capital markets for the purposes of portfolio and risk management. The analysis of a stochastic distribution of possible economic futures—a distribution which includes unexpected but plausible outcomes—is critical for testing a business model under a wide variety of economic conditions.*

**Conning's GEMS<sup>®</sup> Economic Scenario Generator is an award-winning,\* state-of-the-art stochastic economic scenario generator with leading-edge economic and financial models, including alternative assets and a wide range of derivatives. GEMS<sup>®</sup> provides a comprehensive analysis of the risks that firms face, the relationship between those risks, and the potential rewards in retaining them.**

## Advanced Asset Models

GEMS<sup>®</sup> Economic Scenario Generator ("GEMS<sup>®</sup>") offers both real-world and risk-neutral functionality and supports integrated economies and capital markets in North and South America, Europe, Asia, and Australia. GEMS<sup>®</sup> comes with a comprehensive set of parameterized asset classes that is unrivaled by other ESGs, and further asset classes can easily be added through built-in system functionality.

GEMS<sup>®</sup> is distinguished by its ability to simulate **realistic tail risk events** due to the structure of the stochastic models and the methodology used to calibrate the models. Additionally, the modeled correlation between variables within GEMS<sup>®</sup> means that its simulations are robust and consistent within economies, across economies, and over multiple time horizons.

## Supports a Wide Range of Applications

GEMS<sup>®</sup> can be deployed as a desktop application or via the cloud. The software incorporates automation workflow tools which allow easy integration of the software into a wide range of business processes, including strategic asset allocation, economic capital modeling, stress testing, market-consistent valuation, and hedging strategy.

## Cloud-Based Application

GEMS<sup>®</sup> is now offered as software-as-a-service (SaaS), with the entire process delivered through a web browser. Nothing to download, nothing to install—simply log on and get started. In addition, this new version scales to meet your needs. Want to run 1,000,000 scenarios or explore dozens of different shocks? Conning's GEMS<sup>®</sup> SaaS platform will automatically scale up as needed. Best of all, there's no need to maintain a room full of unused servers: you only pay for what you use.

## Financial Instruments

Government Bonds
Defaultable Sovereigns
Inflation-Linked Bonds (TIPS)
Municipal Bonds
Corporate Bonds
Mortgage-Backed Securities
Equity Indices
Real Estate
Customized Indices
30+ Types of Derivatives

\*Chartis 2025 Quantitative Analytics50 solution category winner: Economic Scenario Generation. InsuranceERM Americas Awards 2026: Economic Scenario Generator of the Year, Stress Scenario Software of the Year, Risk Markets Technology Awards 2026: Market Scenario Generator of the Year. Awards, rankings, and other forms of recognition are not a guarantee of Conning's future performance. Awards may not be representative of any one client's experience. For more information and disclosures regarding our industry recognition, please visit <https://www.conning.com/about-us/industry-recognition>.

## Robust Model Calibration

GEMS® calibrations combine the quantitative expertise of financial engineers with the market views of investment professionals. Some of the world's largest insurance companies use GEMS® on a day-to-day basis to help drive strategic decisions; their feedback ensures the model parameterization is robust and meets a variety of business needs.

Our historical database includes highly stressed environments such as 1929, 1987, 1998, 2008, and 2020, so our calibrations are capable of not only reproducing similar events but also generating never-before-seen crises of similar and greater magnitude. Additionally, a full range of integrated calibration and target parameterization tools allow clients to alter the base calibration to meet their internal management views or perform stress testing using the model.

## GEMS® Economic Scenario Generator Is Distinguished By:

- » Default-free interest rate models which produce fully integrated nominal and real term structures
- » Corporate and municipal bond credit models that permit the simulation of stochastic rating transitions, defaults, and recovery
- » Comprehensive documentation library featuring user guides, model documentation, and validation reports
- » Ability to model asset prices and cash flows at the security level
- » FX model which provides consistent inter-economy behavior, including the ability to model currency pegs
- » Comprehensive interest rate, equity, credit, inflation, and FX derivative modeling
- » Best-of-breed market-consistent fits to the widest range of data points across interest rate curves, credit spread curves, and other implied volatility surfaces
- » Powerful built-in query tool which can extract simulation output and generate dozens of charts and summary views



Market scenario generator  
of the year  
Conning



ESG (Economic  
Scenario Generator)  
software of the year



Stress scenarios  
software of the year



Conning  
Economic Scenario  
Generation

## Conning Allocation Optimizer®

Available as an option for all our software platforms, the Conning Allocation Optimizer® is a fully integrated, risk/reward, efficient-frontier optimization application. It assists you in performing Strategic Asset Allocations to balance your financial goals relative to your risk appetite, taking into account any combination of assets, liabilities, and capital, from either an asset-based or full-enterprise perspective.

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## About Conning

Conning ([www.conning.com](http://www.conning.com)) is a leading investment management firm with a long history of serving the insurance industry. Conning supports institutional investors, including insurers and pension plans, with investment solutions, risk modeling software, and industry research. Conning's risk management software platform provides deeper insights for decision making, regulatory and rating agency compliance, strategic asset allocation, and capital management. Founded in 1912, Conning has investment centers in Asia, Europe and North America.

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