

Conning Economic Scenario Pricing for Insurers

July 2024

RISK SOLUTIONS | PRICING SHEET

Introduction

Conning will provide a standard scenario file (the Basic Data Set) to insurers free of charge as part of its agreement with the NAIC. The Basic Data Set will be available online for download on a monthly basis and will contain stochastic scenarios from the GEMS® Economic Scenario Generator (ESG). The Basic Data Set is a small subset of a broader stochastic modeling system which is optionally available to insurers for an additional fee.

This document summarizes the Basic and Robust Data Sets and the range of optional add-ons.

Basic Data Set — No Fee

The Basic Data Set contains stochastic scenarios for real-world interest rates, equity returns, and bond fund returns. The scope of the data produced will be similar to that generated by the American Academy of Actuaries' ESG. The Basic Data Set will reflect any modifications adopted by regulators and is intended to be prescribed for the calculation of life and annuity Statutory reserves according to the Valuation Manual (e.g., VM-20, VM-21) and the calculation of capital under the NAIC RBC requirements (e.g., C3 Phase 1, C3 Phase 2).

A range of tools and features are included as part of this service, including:

- » A scenario-reduction tool to allow companies to choose a specific number of representative scenarios (e.g., 100, 500, 1000, etc.) from a universe of 10,000 scenarios
- » A tool to generate scenarios for the VM-20 Stochastic Exclusion Ratio Test
- » A tool to generate VM-21 Company-specific Market Path method scenarios
- » A tool to generate statistics on the output of the scenarios
- » Full documentation of scenario file specifications, calibrations and tools

Robust Data Set — \$20,000/year if provided monthly, \$15,000/year if provided quarterly

The Robust Data Set will produce the same interest rate, equity, and bond fund return scenarios as the Basic Data Set, but will additionally include, on a consistent basis, stochastic scenarios for credit spreads, additional equity indices, and returns on alternative investments and other asset classes and types.

Risk-Neutral Scenario Files — \$30,000/year if provided monthly, \$25,000/year if provided quarterly

Delivery of risk-neutral scenario files is available for MCEV calculation, including best-of-breed market-consistent fits to the widest range of data points across interest rate curves, credit spread curves, and derivative surfaces.

GEMS® API — \$10,000/year

The GEMS API (Application Programming Interface) will offer companies an alternative way to generate data in either the Basic or Robust Data Sets. The API code can be incorporated directly into third-party software to allow for faster processing of the data and a more tailored workflow. This will allow users more flexibility in the number of scenarios and projection length in their simulation process. Conning can also be available to assist with implementation of the GEMS® API for a one-time fee of \$15,000.

In addition to custom implementations of Conning's API, Conning has committed to working with interested third-party software developers to incorporate this code into their modeling platforms, as part of its agreement with the NAIC.

GEMS® Economic Scenario Generator Software — \$70,000/year

A full license to the GEMS® Economic Scenario Generator software includes updates of the GEMS® Expert View and NAIC calibrations, along with the ability to generate both the Basic and Robust Data Sets. The GEMS® API will be provided as part of this package. Also included is access to the U.S. real-world Economy.

Subscribers to the GEMS® ESG software may also choose from a range of add-on functionality for an additional annual license fee:

- » **Additional Real-world Economies** — Over 20 economies are modeled and parameterized as part of the standard GEMS® ESG quarterly parameterization process.
- » **Risk-neutral Economies** — The GEMS® ESG can be run in risk-neutral mode and used for the market-consistent valuation of liabilities.
- » **Real-world and Risk-neutral Recalibration Tools** — A range of tools are available to calibrate the initial conditions and the future distributional properties of the real-world models to a user's own view of the future state of financial variables. Tools are also available to calibrate risk-neutral models to the market prices and implied volatility of derivatives.
- » **Derivatives Modeling** — GEMS® ESG natively models and prices a wide range of derivatives covering fixed income, equity, inflation, and foreign exchange.
- » **Inner-Loop Projections** — GEMS® ESG allows users to create stochastic-on-stochastic scenarios with the inner loops being either real world or risk neutral. Life insurers can use these to help estimate future reserves and economic capital.
- » **Workflow Automation Tools** — Tools to help automate batch processes such as risk neutral calibration are available.

Full access to the GEMS® ESG enables insurers to have greater control over the input, output and granularity of their stochastic modeling process.

GEMS® Economic Scenario Generator Software-as-a-Service (SaaS) — \$35,000/year

The GEMS® Economic Scenario Generator can also be accessed through a cloud-based platform. Conning's first offering of GEMS® ESG Software-as-a-Service will be available in the second half of 2025 and will enable insurers to generate both the Basic and Robust Data Sets, as well as to perform a deeper dive of the data using a web-based query tool. This does not include the full functionality of GEMS® as described above. Additional components will be made available over time at an additional cost.

All prices valid through September 30, 2025.

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About Conning

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

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