



Uncover the risks you've been missingSM

GEMS[®] - Economic Scenario Generator

Superior technology for modeling the economy

The GEMS Product Suite enables clients to select the ESG that best meets their needs for economic and financial modeling. Below are examples of how each GEMS product can be used.

GEMS Scenario Master

- ◆ General Purpose ESG
- ◆ Solvency II
- ◆ Economic Capital Modeling
- ◆ Market Consistent Embedded Value Calculations
- ◆ Stochastic Liability and Capital Valuation
- ◆ Product Design

GEMS Portfolio Analyzer

- ◆ Multiple Investment Portfolio Management
- ◆ Strategic/Dynamic Asset Allocation
- ◆ Variable Annuity Hedging
- ◆ Pension Management Strategies
- ◆ Risk Attribution

GEMS Enterprise Modeler

- ◆ Financing and Accounting-Driven Decisions
- ◆ Multi-entity Risk Management
- ◆ Risk Diversification Strategies
- ◆ Reverse Stress Testing
- ◆ Investment and Capital Management within Several Accounting/Regulatory Regimes

GEMS Product Suite Features

Feature Highlights	GEMS - Scenario Master	GEMS - Portfolio Analyzer	GEMS - Enterprise Modeler
Economic Models			
• Risk Free Interest Rates	X	X	X
• Corporate Credit Risk	X	X	X
• Equity Markets	X	X	X
• Foreign Exchange	X	X	X
• Price and Wage Inflation	X	X	X
• Gross Domestic Product	X	X	X
• Unemployment Rate	X	X	X
• Swap Rates		X	X
• Implied Volatility Surface		X	X
• Financing Instruments			X
Financial Instruments			
• Equity Indices	X	X	X
• Treasury Securities	X	X	X
• Inflation Linked Bonds (TIPS)	X	X	X
• State General Obligation Bonds	X	X	X
• Corporate Bonds	X	X	X
• Agency Mortgage Backed Securities	X	X	X
• Agency CMOs	X	X	X
• Standard Market Indices	X	X	X
• Floating Rate Notes		X	X
• Interest Rate Swaps		X	X
• Libor Rate Swaps		X	X
• Interest Rate Derivatives		X	X
• Inflation Linked Derivatives		X	X
• Equity Derivatives		X	X
• Custom Market Indices	Optional	Optional	Optional

All GEMS products support both real world and risk neutral calibration measures, include training and validation reports, and one economy. Additional economies are available as options.



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GEMS Product Suite Features (continued)

Feature Highlights	GEMS - Scenario Master	GEMS - Portfolio Analyzer	GEMS - Enterprise Modeler
Asset Aggregation			
• Individual Securities	X	X	X
• Asset Classes	X	X	X
• Tax Lots		X	X
• Portfolios		X	X
• Entities			X
Trading Strategies			
• Constant Allocation	X	X	X
• Market Value Targets	X	X	X
• Dynamic Allocation		X	X
• Dynamic Targets/Strikes		X	X
• Cash Flow/Duration/Convexity Matching		X	X
• Hedging with Derivatives		X	X
• Conditional Trading		X	X
• Daily Trading (e.g., CPPI)		X	X
• Book Value Targets			X
• Accounting Classification			X
• Financing			X
User Customization			
• User-defined Values and Functions	X	X	X
• External Scenarios	X	X	X
• Additional Market Indices		X	X
• External and Dynamic Cash Flows		X	X
• Accounting			X
• Financing			X
Tools			
• Command Line Interface	X	X	X
• Automated and Customized Data Extract	X	X	X
• ODBC Data Access	X	X	X
• Built-in Analytics and Reporting	X	X	X
• Built-in Distributed Processing	X	X	X
• Optimization Analysis	Optional	Optional	Optional
• Recalibration Tool	Optional	Optional	Optional
Services			
• Quarterly Real World Estimation	X	X	X
• Quarterly Risk Neutral Estimation	Optional	Optional	Optional
• Custom Market Indices	Optional	Optional	Optional
• Consultation	Optional	Optional	Optional

For More Information:

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