



MoSes

Risk and financial modelling software

for life insurers

Towers Watson MoSes

MoSes enables your company to deploy sophisticated analytical calculations based upon realistic economic principles, thereby improving risk and capital management.

Volatile economic conditions, pending regulatory mandates and increasing scrutiny from rating agencies present a challenging proposition for an industry bracing itself for the considerable upheaval that will accompany Solvency II. Insurers are being driven to use more sophisticated financial modelling to support realistic economic-based valuation and risk analytics. MoSes is a financial modelling system with the sophistication to generate this type of information. On this platform, companies can either use standard MoSes applications tailored to their business or create new models to suit their most exacting needs.

Leading insurers and reinsurers around the world use MoSes, including many of the largest life insurers in Europe, Asia and the United States as well as the world's largest global reinsurers. It is also the chosen tool of Towers Watson consultants worldwide.

Why do these companies choose MoSes? It provides the flexibility to tailor sophisticated financial models to their business. Moreover, knowing that MoSes is widely used gives our clients confidence that the software platform and applications have the proven capabilities that they need to measure value, manage risk and safeguard solvency.



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Comprehensive library of applications

Towers Watson has developed standard MoSes applications for several geographies and product type. Our consultants are regularly building and refining applications in the course of their client work and intellectual capital development.

You can use MoSes applications for a variety of tasks, including

- product development
- pricing of guaranteed options

- cash flow testing
- reserving
- value measurement (EEV, MCEV)
- reinsurance optimisation
- economic capital calculation
- stand-alone liability modelling
- integrated asset / liability modelling
- business planning

Standard MoSes applications available from Towers Watson

C-ALM – the Central Asset Liability Model is a detailed, optimised, MoSes ALM application for French, German and Italian products (along with a general version that can be adapted for other countries). C-ALM is designed for the advanced modelling of profit-sharing business. It is already a fully functional application, but its modular design means it can easily be adapted to specific requirements for companies wishing to produce tailored ALM and realistic reporting applications.

Variable Annuity – this recently released VA application has infrastructure designed to handle nested stochastic projection demands efficiently and may be used as the foundation of an internal model of VA business for Solvency II.

Variable Annuity Hedging – calculates point-in-time valuations of variable annuity portfolio economic values, option portfolio sensitivities (“the Greeks”), and financial projections of variable annuity guarantees to enable management of dynamic hedging strategies. Since it projects the hedge assets, this application can be used to both quantify the effectiveness of hedge strategies and support reduced capital and reserve requirements in many domiciles.

Economic Scenario Generator (ESG) – enables you to project market-consistent economic scenarios describing interest rates, corporate bond spreads, stock and property returns and other asset prices.

Other benefits of MoSes

Flexible and adaptable

MoSes offers unmatched flexibility to tailor applications, making it ideal for addressing current and future modelling needs. Authorised users can fully customise the application code to model their business.

The flexibility of the MoSes platform is ideal for modelling complex product designs. The modular design capabilities of MoSes give you the ability to cater to different jurisdictions.

MoSes applications are transparent

Unlike some other financial modelling systems, MoSes applications are completely transparent. You can view all of the application code – no black box here. This openness gives you increased confidence that comes from understanding exactly how the applications model your business. And with controlled access, authorised users can edit their MoSes models.

Usability

Users who develop or modify applications use the Design View, while those who run MoSes financial projections for their work use Task View. You can create user-defined views tailored to provide a simple, purpose-built interface that streamlines workflow. Product development, pricing and corporate modelling actuaries can work with application screens tailored for their tasks. User-defined views can be supplemented with reports and embedded graphs.

MoSes supports distributed processing with Microsoft HPC

Changing times are forcing companies to run more complex financial calculations faster. To meet these challenges, financial services firms are turning to high-performance computing (HPC) solutions like the Microsoft Windows HPC Server 2008. This grid solution is robust, easy to operate and builds on your existing IT investments.

Towers Watson's MoSes HPC integrates MoSes with Microsoft HPC to provide increased scale for your MoSes applications. By splitting calculations into smaller jobs and running them in parallel across a grid, they finish in much less time. This HPC environment also supports 64-bit processing to help you break down memory barriers that constrain the use of complex models with large data sets and long projection periods.

MoSes works with RiskAgility

RiskAgility is Towers Watson's enterprise financial modelling software platform for insurance companies. The RiskAgility platform enables data management, scheduling, distributed processing and audit capabilities in a controlled technology environment. RiskAgility will augment the management of your MoSes models to make running projections more efficient, controlled, reliable and easily repeatable.

Global support

With 14,000 associates in 34 countries, our geographical coverage gives us local knowledge of culture and language in many of the world's leading business centres, which helps us better understand your business issues and needs.

Key features

- Provides unmatched flexibility to tailor applications to fit your business perfectly.
- Uses open, transparent applications to help you confidently understand exactly how the calculations model your business.
- Supports distributed computing with Microsoft Windows HPC Server 2008 and MoSes HPC for increased scalability.
- Works with RiskAgility, a platform that provides enterprise-class management and control capabilities of your financial modelling operations.
- Enables your company to deploy sophisticated analytical calculations based upon realistic economic principles, thereby improving risk and capital management.
- Widely used by leading insurers and Towers Watson consultants.



Software portfolio

Towers Watson provides sophisticated risk, analytics and consulting solutions that help P&C and life insurers meet the rapidly evolving demands of today's market.

The acquisition of EMB in 2011 has added significantly to Towers Watson's software offerings, providing a truly comprehensive portfolio of analytical software. We combine innovative actuarial thinking with software expertise to develop comprehensive solutions that measure value, manage risk and safeguard solvency.

Pricing software

Our software tools enable you to plan, manage and optimise your pricing process. Used independently or with our consultancy services, these tools are powerful additions to your business.

- Emblem
- Pretium
- Classifier
- Rate Assessor
- Optimiser
- Prism

Financial modelling software

Clients in more than 30 countries – leading P&C and life insurance companies, multinationals, pension funds, mutual funds and asset managers – know that enhanced risk and capital management has become a differentiator for success. That is why our systems are an integral part of their business.

- Igloo
- MoSes
- RiskAgility
- Simulum
- TAS Tillinghast Actuarial Software
- Economic Scenario Generators

Reserving and other insurance software

In addition to leading software that helps companies to run the loss reserving process with speed, ease and flexibility, we offer specialist analytical software for insurers and reinsurers.

- ResQ
- Replica
- Repro

Marketing analysis software

Optimise media and advertising spend to defined sales and marketing objectives using granular actuarial techniques.

- MediaOptimiser

About Towers Watson

Towers Watson is a leading global professional services company that helps organisations improve performance through effective people, risk and financial management. With 14,000 associates around the world, we offer solutions in the areas of employee benefits, talent management, rewards, and risk and capital management.

Towers Watson is a leading provider of risk and financial modelling software, with over 400 clients worldwide. We combine the systems expertise of our software professionals with the actuarial knowledge and thought leadership of our insurance consulting business to provide solutions that help clients measure value, manage risk and safeguard solvency.

More information about Towers Watson is available at towerswatson.com

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