

ATLAS – the Variable Annuity Solution

The current financial turmoil and resulting uncertainty have only served to reinforce the benefits to customers of insurance products that combine access to investment markets with guarantees. In particular, Variable Annuities (VAs), which offer the transparency of a unit-linked product, together with flexible guarantees, have grown in popularity with providers and customers alike, and are now forming a core part of many insurers' portfolios. Competition in this market is intense, and to succeed, insurers must leverage their unique ability to hold and manage risk, by offering product features that meet customers' needs for long-term protection.

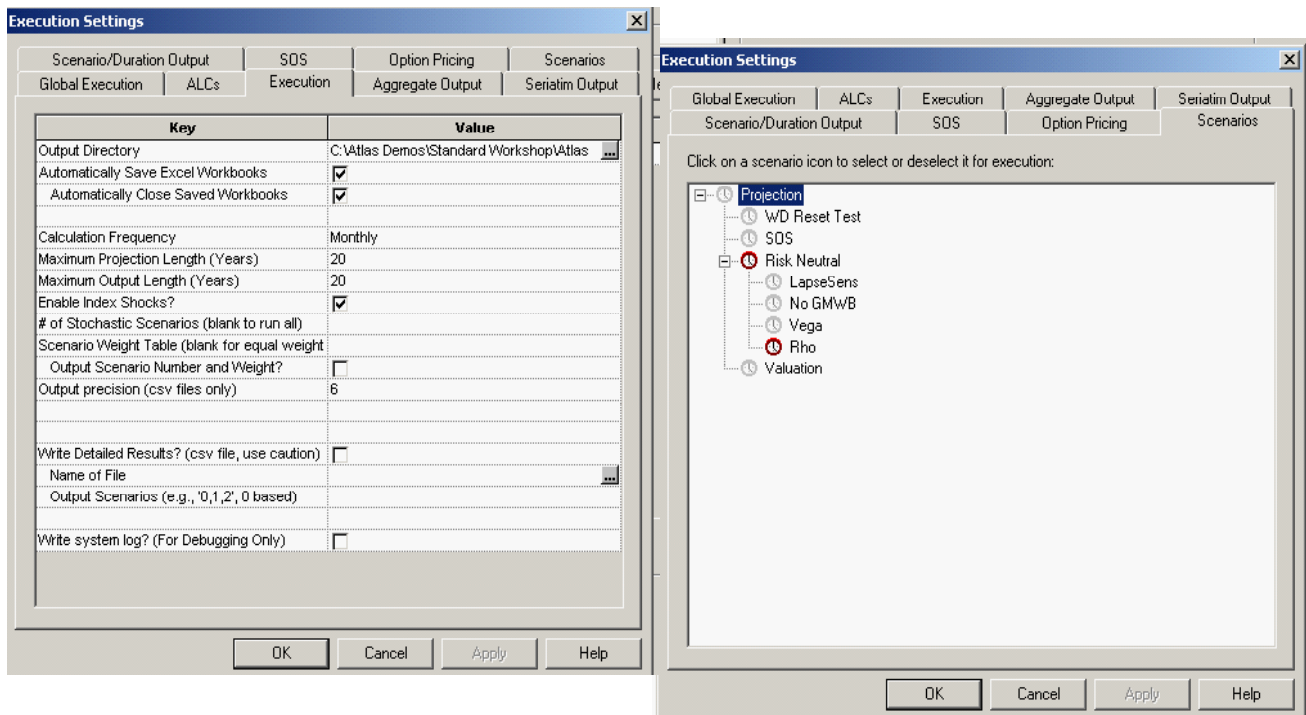
However, innovative VAs require significantly more sophisticated risk management tools than insurers have traditionally used. Oliver Wyman's ATLAS platform – a suite of tools for the risk modelling and management of variable annuities – has been specifically engineered to meet the requirements of speed, flexibility and stability. Over many years, leading VA manufacturers in North America have relied on ATLAS for their analytical needs, and Oliver Wyman is now launching ATLAS for our European clients, to give them the same access to its unparalleled risk management capabilities.

Why ATLAS?

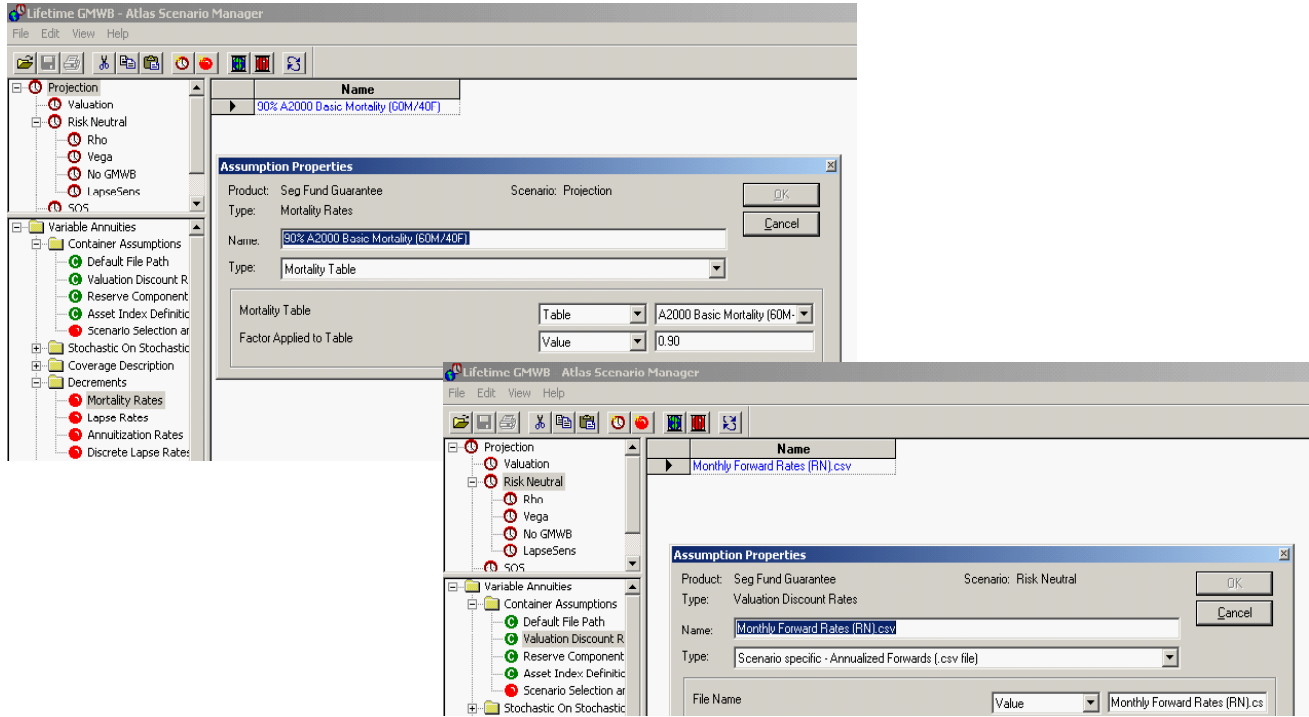
- **Complete analytical tool box.** ATLAS is a variable annuity risk management platform, not just a hedging platform. Insurers are therefore assured of true integration across pricing, inforce management, ALM strategy formulation and hedge execution
- **Superior functionality.** ATLAS provides all the core VA product functionality 'out of the box' so users are up and running quickly. The suite of purpose-built modelling tools and output templates can serve as a foundation for any additional, in-house, tailored development
- **Extremely fast execution.** Insurers avoid the monumental speed problems associated with traditional actuarial software, thanks to proprietary stochastic projection methods
- **Ready to use 'plug in framework'.** Users avoid any heavy investment in technology. ATLAS runs under existing hardware and software configurations, and links into production databases. The system is highly scalable without loss of efficiency, so it will keep pace with the demands of a growing business

Examples of user interface and functionality

Projections in ATLAS are controlled through a set of structured entry forms



The set of scenarios which ATLAS calculates in any session can be managed through a structured screen...



ATLAS produces in each session a complete file of outputs for each policy, scenario and time step, which can then be further processed...

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	// <RunID=459806>												
2	// Created on 2007-03-08 at 11:57 AM using session 'Lifetime GMWB' and version '2007-03-05' of Atlas												
3	// Atlas Database [C:\Atlas Demos\Standard Workshop\Atlas Model\Atlas AssumptionDB] -- Inforce Database [C:\Atlas Demos\Standard Workshop\Atlas Model\Atlas AssumptionDB]												
4	// Model Period: 0 months												

Session Control

Session: Lifetime GMWB Batch: <none>
 SessionID: 1 BatchID: <none>

Execution Monitor:

```

Creating Assumption Cache
2 Scenarios Selected for Execution
Executing Records...
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\monthly
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\vea500
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\vea500
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\vea500
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\rho\mor
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\rho\veaf
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\rho\veaf
Reading File [c:\atlas demos\standard workshop\atlas model\scenarios\riskneutral\rho\us c
Writing Results to Excel...
Saving Results to Database...
Execution of product "Seg Fund Guarantee" completed successfully.
Elapsed time for execution of product "Seg Fund Guarantee": 0 days 00 hours 00 minutes 3
Total records succeeded: 50. Records per second: 1.35
        
```

Records processed: 50
 Records succeeded: 50
 Records failed: 0

Terminate Clear Close

3Cost, PV_GMABCost, PV_GMWBCost, PV_GMIBCost, PV_TotalCost, PV_M
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ral, 2, 20085.2605522452, 0.0000000000, 76908.1417555972, 0.0000000000, 96993.40
ral, 3, 20099.2057444565, 0.0000000000, 76520.2499016285, 0.0000000000, 96619.45
ral, 4, 20089.7114590910, 0.0000000000, 76777.6740593047, 0.0000000000, 96867.38
ral, 5, 20095.5755435671, 0.0000000000, 76607.3391553162, 0.0000000000, 96702.91
ral, 6, 20093.3596441963, 0.0000000000, 76673.3766753270, 0.0000000000, 96766.73
ral, 7, 20096.1823759685, 0.0000000000, 76579.1790546975, 0.0000000000, 96675.36
ral, 8, 20092.6843200001, 0.0000000000, 76707.3775418249, 0.0000000000, 96800.06
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OLIVER WYMAN

Oliver Wyman is an international management consulting firm that combines deep industry knowledge with specialised expertise in strategy, operations, risk management, organisational transformation, and leadership development.

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