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Get In or Get Out Of The Way

by Van Beach

The financial modeling process is set to dramatically change as new regulations become effective and enterprise products begin to hit the market.

Over the last 20 years, the advances enabled by financial modeling are impressive. Insurers have made improvements in risk management, capital optimization, product development and other important aspects of their business with the help of financial models. Regulators, rating agencies, analysts, etc. all utilize disclosures based on financial models for their analysis so the need to manage, measure and report risk continues to grow. Now with principle-based reserves becoming a reality at the end of 2009, the critical importance of financial models has never been more evident. Most will admit, however, that keeping pace with the volume of these demands is becoming increasingly difficult.

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The picture that comes to mind is the farmer who brings his products to town using his horse and wagon. Over time, the farm becomes more productive, but demand increases as well. The load gets bigger, the farmer needs to get to town faster, and he's making more frequent trips. The farmer considers his options: Add more horses? Train the horses to get stronger and faster? Get a bigger wagon?

The farmer should be getting a truck.

The horses of the past—financial modeling systems that are coded and deployed in desktop environments—are struggling to keep up. As an example, AG 42 (VA-CARVM) will require stochastic analysis and company-specific assumptions in an auditable, compliant process. No longer just a formulaic calculation, the principle-based reserve will require deterministic and stochastic calculations, a wide array of assumptions and inputs that need to be audited, controlled and documented. More calculations, more data, more assumptions, more iterations, etc.—the size of the process will be significantly larger. Added to the burden, reproducibility, traceability and version control will be essential. The load is heavy.

The good news is that later this year, a new generation of enterprise financial modeling products will start hitting the market. These products will utilize current technology and are designed specifically for the production-style processes, tight timelines, and heavy volumes of models, data, users, iterations, etc., demanded by principle-based reserves and other key modeling-based calculations. These systems will allow server deployment for collaborative, centralized modeling. Security, controls, automation and integration will ensure that the results generated are valid, timely and of high quality. Sequenced processes will allow movement analysis and other orchestrated calculations to be performed automatically. Actuaries will be more productive as technology will provide an automated, managed environment for creating a more sophisticated financial modeling process. Speed, power, control, automation, integration, collaboration—all at levels well beyond what is available today. Yes, these systems are a bit more than legacy desktop applications. These are trucks!

Insurers will need to embrace organizational changes as well. Actuaries will be asked to relinquish some control of the modeling systems and process to IT departments as these systems become more closely linked with other key enterprise IT components. In many cases this will involve a major shift in mindset as actuaries have traditionally owned the entire financial modeling realm. IT will take on increased responsibility for development, testing, deployment and integration of modeling systems. Model development will become more centralized and controlled to comply with Sarbanes-Oxley and other governance requirements. Driving is not the same as riding.

The benefits are real. Insurers that embrace this step-change in technology will be able to meet the increased modeling demands with greater confidence and fewer resources. Reserves and regulatory capital levels will be reduced. Regulatory compliance will be more easily demonstrated and audit costs will be smaller. Processes will be more stable, repeatable and automated resulting in less risk of error and lower staffing costs. The product design and implementation processes will be improved as collaboration, process memory and access to computation resources are all enhanced. The partnership between IT and actuaries will allow each to do what they do best—IT will be managing the technology; actuaries will be managing risk. The technology will be enabling. These are NOT horses!

It is time to get in a truck. Financial models are central to competitive advantage and new solutions are here. And for those insurers that stick with their horses, their legacy desktop environments, make sure you mount a slow-moving vehicle sign on the back of your wagon and stay to the side of the road!

Van Beach, FSA, MAAA, is a senior consultant at Towers Perrin. He can be contacted at van.beach@towersperrin.com.