

BROKERS & INSURERS

FM Global relies on engineers to assess risk

By Mark A. Hofmann

For FM Global, off-the-shelf catastrophe models are no substitute for an engineer.

"FM Global is a different company, in that we very much rely on our engineering process," said Jeffrey Beauman, vice president of all risk underwriting for the Johnston, R.I.-based commercial property insurer. "We have engineering personnel located around the world to help our underwriters assess risk."

That doesn't mean FM Global eschews modeling, though, said Mr. Beauman. "Our use is at a corporate level to help us manage our capital," he said.

"FM Global's use of models goes back almost 20 years," he said. "We use AIR (Worldwide), although we've had relationships with all the major modelers. We use them as a starting point."

FM Global also uses models because three outside constituencies want information the standardized modeling platforms provide about the insurer. The first consists of rating agencies such as A.M. Best Co. Inc., which asks insurers about aggregation using models, he said. The second constituency consists of domestic and international regulators. "Insurance regulators all over the globe are asking insurance companies about their modeled loss," he said.

"The third constituency would be reinsurers. The reinsurance markets in Bermuda, in particular, are very much interested in FM Global's model information," said Mr. Beauman.

He said models provide input to FM Global on a relative basis, such as comparing exposures in different regions. But "on an absolute basis, commercial models overstate the amount of damage FM Global actually sees," he said. "Commercial models can't represent the good loss prevention work that our clients do to protect their risks."

"They're not a good substitute for an engineer. I have much more confidence in what my engineering assessments give me," he said. "Models are also not helpful for us in underwriting individual clients."

For corporate use, "we will start with the commercial model's results, and from there we focus our energies based on the input that we get from our own engineers."



FM Global uses catastrophe models at a corporate level, but relies on its engineering personnel located around the world to help the company's underwriters assess risk.

"When you're thinking about understanding what the potential impact to an insurer's surplus might be, there are really two areas where commercial models just are not adequate," said Mr. Beauman.

He said that by definition, a model has to use the law of large numbers, which "tends to cause results to aggregate around the average," he said. But Mr. Beauman said the clients FM Global writes for are "anything but average — they have to be better than their competitors."

"When a very well-run business tries to manage its risk, it emphasizes the physical integrity of their buildings, their contingency planning and ability to react to different scenarios," and models cannot differentiate that, he said.

The second arena where commercial models are not enough is in type of coverages. "Models focus on direct damage and the consequences through business interruption, but all of the data used in business interruption is historical in nature," said Mr. Beauman. "Assumptions made about a business being down a day or a week because of a hurricane — those assumptions are based on the curves of the model, but the financial impact is based on historical claims data. A lot of that estimate about the business interruption impact is really faulty because it does not reflect how compressed the business cycle has become in many industries."

For example, models say that if a business isn't damaged, it will be running the next day "but if the business doesn't have electricity, the model doesn't know that," he said. He also noted that contingent time element also isn't being modeled.

"We start with models, but load back into it our estimates of coverage that aren't being modeled," said Mr. Beauman. "We use model results as an input to our corporate process; our underwriting process does not use a model in any way. An FM Global underwriter is really unaware of how cat models affect the business: They are focused solely on clients' needs and assessments by FM Global engineers."