Episode 2: GOES Further

In episode 2 of the Everything GOES podcast, Daniel Finn and Casey Pursley discuss the GOES options for insurers who want to go beyond the basic data set to perform more advanced analysis.

SEGMENT 1—OPENING

[Joe Golaszewski] Hi and welcome back to the Everything GOES podcast. I'm your host, Joe Golaszewski. Once again, if you're checking out this podcast, you're probably already aware that the NAIC has instituted a new committee to switch from the existing Academy Interest Rate Generator to a customized version of Conning's GEMS Economic Scenario Generator scenarios. And of course, that committee is called Generator of Economic Scenarios or GOES. Now, many insurers are wondering what this means to them and their process, and the goal of this podcast is to help answer some of those questions. In our first episode, we focused on some of the basics of this transition, including a discussion of the free basic data set that Conning will be producing.

Now, Conning recognizes that many companies have additional needs beyond what that data can provide; for example, they may want to model additional asset classes, or they may want to be able to perform stress tests to better understand how their reserves and capital requirements may change over time. So, in today's episode, we're going to be discussing a number of options that Conning is making available.

Once again, to aid in that discussion, we're welcoming back the two people that have been coordinating Conning's work on this project: Dan Finn and Casey Pursley. Dan is a Managing Director at Conning, where he is head of the group responsible for generating all these new scenarios. Casey is a Director in that same group, and she's been working closely with Dan on this project since she joined Conning in 2022.

SEGMENT 2—SOFTWARE OPTIONS (1:50)

[JG] So, let's dive in. Dan, can you tell us about some of the software options that Conning is going to offer?

[Dan Finn] Sure. So, I think it's first important to note that while there have been some customizations, those are mostly around things like calibration, and all of those are now built into Conning's standard software, which we call GEMS. That's a product that we've been licensing to life and P&C insurers for over 25 years now. It's a platform that allows for advanced modeling, simulation, extracting of pretty much any economic variable that companies are interested in—obviously all the ones in the basic set that we've talked about in previous episode, but some additional ones we'll talk about today, and even things that companies might be interested in the future. On top of that, the model has some very powerful calibration capabilities which really allow you to use that model in both customized real world as well as, potentially for those companies that are subject to it, risk neutral for applications like LDTI.

So, with the GEMS software license, companies will be able to install that software on their machines, work up a process to be able to generate their own scenarios—obviously ones consistent with the NAIC GOES requirements—but they'd also have access to other calibrations, like our Conning Expert View, which takes more of a historically based view and not necessarily one purely from a regulatory standpoint. And they'd even be able to develop their own calibrations; if your company has a view of how the economy is going to work, you'd be able to take that same model structure that you built out for your regulatory purposes, overlay your own calibration, and then generate scenarios consistent with that for other internal purposes.

[JG] OK, thanks. But let's suppose that I'm only concerned about the regulatory or GOES calibration. What are some examples of things I can do with the software?

[Casey Pursley] A few things come to mind. Some companies may want to generate returns for additional asset classes or market indices beyond what's included with the basic data set. If you license the software, then you can model those custom asset classes directly to incorporate them into your simulations and your scenario sets. Many companies are talking to us about sensitivity or shock scenario sets. So, what happens if the treasury curve shifts up 50 basis points or down 100 basis points?

[DF] Yeah. Another thing that can be very useful to companies is the ability to go even beyond that—you know, think about things like volatility-controlled funds or derivatives that you might need to hedge some of your risk. With the software license, you're able

to bring those all in in a consistent manner so that they line up with the underlying GOES scenarios and really allow you to fill out the suite of economic variables that you're interested in.

SEGMENT 3—SCENARIOS "ON THE FLY" (5:05)

[JG] OK. That's all good for generating larger or just different scenario sets, but I know that there's also a lot of talk about generating scenarios on the fly. So what does that mean? And does the GEMS software accommodate that?

[CP] The term "on the fly"—or sometimes it's "on demand"—means that the scenario data is generated when another modeling tool requires that data. So, depending on the model purpose, the calling application may need different types of information. So, if we think about … it could be as simple as one discrete step result—that is, you know, a single data point for a specific path at one specific point in time that it's going to produce when it needs it. It may be a whole new scenario set, a stochastic set of results based on a projected future economic environment. It could even be multiple sets of stochastic results; if you think about an actuarial calculation that requires you to shock a result, for example, and each of those results could require its own stochastic calculation.

[DF] Yeah. And that's really where the GEMS API is going to come into play in most cases. Here, 'API' stands for an application programming interface. Unlike the standard software, where it's designed to produce things like the giant basic data set, the API is going to allow you to tailor it to those needs. So if, as Casey mentioned, you want to produce a discrete step result, you can call it for just that micro component. It's the same code base, it's just being factored differently. So, companies will be able to develop that and, in addition, Conning has committed to working with third-party software vendors—think your cash-flow modeling tools that you use for your actuarial work on either pricing or reserving. We're going to work with them to incorporate this API directly into their cash-flow modeling projections, so that as you're generating your cash flow, the system would be able to go out and generate a single step or a full path in complete detail, the sort of information that's needed, rather than having to strip apart a big text file … and really useful when you start getting into these really complex calculations, like nested stochastic where they're probably going to be built across a cloud. Being able to tailor down to generate just what you need on demand, we feel is going to make this a much easier integration for your cash-flow modeling platforms.

SEGMENT 4—ROBUST DATA SET (8:00)

[JG] Thanks Dan. Now, I'm sure another question that might be on our listeners' minds is, what if I need more data than what's in the basic set, but I don't want to deal with software?

[DF] Yeah, so one of the things that we committed to, you know, back when we started this process with the NAIC is something we called the "robust data set," and the idea of the robust data set is we're going to take what's in the basic data set and extend it to include additional items that companies are interested in. So, one that some of the companies have looked at with the field test will be—you will notice not in the beta data set, for instance—is the AIRG volatility. This is an estimate of how GEMS would generate something similar to what you can get currently out of the equity models in the AIRG, which is an estimate of the volatility going forward. That's now going to be in the robust data set. This is going to allow companies who don't want to license the software to have access to this broader set of components. So, if you need additional simulation output, things like credit spreads or some of those additional asset classes, we're going to be building out a list of this and producing this on a regular basis for companies. And that's, you know, part of the package that we will be delivering on a monthly and quarterly basis.

[JG] Is there anything else I can get with these extensions?

[CP] Well, all of the options that we've talked about so far—the GEMS software, the GEMS API, the robust data set—these are all things that were planned from the start. When Conning contracted with the NAIC back in 2020, we committed to the NAIC that these things would be available to the end users, and we even agreed to lock our pricing in for a five-year period that ends in September of this year. Listeners who are interested can find a copy of that price sheet on the naic.connning.com/scenariofiles website.

[DF] Yeah, but something that we didn't anticipate in those early years of developing these was this need for additional shock scenarios. We had focused mostly on people running one set of data with the starting conditions and running it through to calculate their reserves, and that's where the basic data set came from. But, we now realize that a number of companies are doing sensitivity, as Casey mentioned. What if I wanted to move interest rates up 50 or 100 basis points? Or, with the new model, if I want to move corporate spreads or some of the calibration brought the targets on things like equity. Companies that license the software will be able to generate those themselves. But we're now looking at potentially offering some sort of package of those to companies on an ongoing basis, where Conning would generate that for the companies.

[CP] Yes, for companies that don't have the resources to learn and manage a whole new software product, Conning does offer a scenario file delivery service. And we can work with individual companies who want to define a custom package of shock scenarios and deliver it at a frequency that works for you monthly, quarterly, semiannually or annually. But as Dan mentioned, we're also giving some thought to putting together a sensitivity bundle—so, if there's a common set of shocks that would be useful to multiple subscribers, put that together as a package.

SEGMENT 5—CLOSING (11:42)

[CP] Podcasts aren't exactly conducive to audience participation, but this is a point where we do welcome your input. If you want to drop us an e-mail, you can send it to naicscenarios@conning.com. Include your recommendations or any input you have on shocks that would be helpful to your business. And that e-mail address again is NAIC scenarios, plural, at conning.com.

[JG] Yes, please reach out to us. We do hope to hear from people, that's going to help ensure that we have a successful transition for everyone.

So, in this episode, we've talked about all the options for insurers who are looking for something more than just the basic data set. In our next episode, we're going to go a little deeper. We're going to move into the economic models underlying the scenario sets, starting with the treasury model. Tune in to learn everything you'll want to know from the initial curve fitting process, to the modeling methodology, to the NAIC's dynamic generalized fractional flooring mechanism. Until then, thanks for listening and keep on modeling!

About Conning

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