When you sit ‘CA2 Model documentation, analysis and reporting’, you may be surprised to find that much of the core reading consists of three Board for Actuarial Standards (BAS) standards: TAS D, TAS M and TAS R (Technical Actuarial Standards relating to Data, Modelling and Reporting of Actuarial Information respectively). Why? What is the relevance of TASs to modelling? Indeed, what is the relevance of CA2 to the modelling work you do?

These two questions have the same answer. Both CA2 and the TASs are directed towards making the models that you build useful and worthwhile. This is good because many students spend nearly all their time working on models of one kind or another, and would want to feel that the work is worthwhile.

“All models are wrong, but some are useful” — the modeller’s motto, first stated by George Box in 1979. The point is that models, by their nature, are simplifications of the real world. As simplifications, they inevitably leave things out and get other things wrong. But, if well designed, they get some things right as well, and they are useful in as much as they get the important things right.

What is important depends on what the model is being used for, of course. A model might be useful for one purpose but not another: it depends on what its limitations are. And it is important that you, the person building the model and providing its results to others, know what it’s useful for, and that the person using the
results also understands that. Which is why both CA2 and TAS M emphasise the need to document the model and to report on what it does, including its limitations.

So what makes a useful model? First of all it’s got to be modelling something of interest, that’s relevant to the problem at hand. Then it’s got to be modelling it in a reasonable way. And the data that it’s using has to be reasonable. If there are problems in any of these areas, then the model is less useful than it could be, and you — and people relying on its results — need to be aware of its limitations. These are exactly the points that are picked up in TAS M and TAS D, which require that you perform checks on the model and the data to assess their fitness for purpose, and TAS R, which sets out reporting requirements.

There is more explanation of the reasoning behind the principles in the TASs in the accompanying Significant Considerations documents, which are available on the BAS website. I’m sure you feel you have enough reading to do anyway, but these documents really help set the scene for the TASs.

Why does all this matter to you, though? Well, most actuarial students spend a great deal of their time working on models. You create spreadsheets to solve problems or to explore issues, you run big modelling systems, and more or less everything in-between. As a member of the Institute and Faculty of Actuaries, you must comply with the TASs if the work you are doing is within scope. Some work is already within scope, and more will be after April (in pensions) and October (in insurance).

Although you may probably report to other actuaries, rather than directly to clients or non-actuaries, the information you generate is likely to eventually reach other people in some form or another. It’s important that those who make use of it understand where it’s coming from and, of course, the actuary with overall responsibility for the work must ensure that it complies with the TASs.

So CA2, which addresses how to make models useful, should help you make a positive contribution to your team. Now that can’t be a bad thing.

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