



## CASE STUDY – APS X2 – General – this was used for the Webinar

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You have been working on developing a new modelling tool designed to provide advice to clients who are wanting to make medium-to-long-term plans to bring a specific batch of their liabilities (closed to new business for several years) into a position in which all these liabilities can be discharged by transfer to another party. The team that has been working on this model is also a client-facing team with responsibility for providing a full range of actuarial advice to a handful of different clients and comprises:

- You, an experienced actuary (involved in this type of work for ten years since qualification)
- Your closest working colleague (Colin), also reasonably well-experienced (involved in this type of work for five years since qualification)
- A newly-qualified actuary (Quentin), who passed all the exams very quickly
- Five support staff, including three actuarial trainees one of whom (affectionately known as 'Techo') is very experienced and highly proficient in software development

The conceptual design of the model is the product of extensive collaboration of thought between you and Colin, although you have also received substantial specialist input from an investment expert (Ivor) and a corporate covenant expert (Cody), both employees in your firm. 'Techo' has been responsible for all the programming, with a limited amount of help from some of the other support staff in the team. The output from the software will need to be interpreted and honed – probably involving some fiddly arithmetic (but not advanced mathematics) – in order for it to be used in the advice.

our biggest client wants to be the first user of this model as soon as it is ready (which it expects to be within the next month). The client's parent organisation urgently wants to see a clear 'journey plan' for this legacy business put in place because it anticipates that such a plan would help with some proposed corporate activity. (So the advice emanating from this model would be used in actual decisions, albeit that these decisions would be subject to regular monitoring and, where necessary, refinement.) As an extra issue to think about, there are three new key stakeholders at the client who, you have been told, do not have your language (the one the report will be written in) as their first language, and you have also been informed that the opportunity for oral presentation of your advice to all these stakeholders is likely to be very limited in the short timescale available before an initial decision on the journey plan is intended to be made.

**What 'work review' would you judge to be appropriate before the model is 'signed off' and you provide the advice (based upon it) to your client? Who might be asked to carry out which aspects of review and (in particular) do you think that any 'independent peer review' would be appropriate?**

## Points for consideration

### The new modelling tool

- Bearing in mind the way in which the conceptual design has evolved from the joint thinking of Colin and you, is some 'independent peer review' (from a suitably-experienced actuary outside this team) required to ensure genuine scrutiny of these key concepts?
- Do Ivor and Cody need to review the way you/Colin have reflected their input in the model, and does their input need review from another investment/corporate covenant expert?
- What checks have been done on the software programming? To the extent that these have been done within the team (e.g. by the two other actuarial trainees and/or Quentin), are the checkers/reviewers sufficiently software-savvy to be able to provide appropriate challenge to Techo (the whizz-kid in this area)?

### Using the model for this client

- Choice of assumptions/inputs and interpreting the output – is Colin OK to review this, or is his 'mind' on this potentially too close to yours for this to be sufficiently objective?
- The practical 'realisation' (in TAS M parlance) of the model in this case – is this best done/reviewed by someone heavily involved in the model development or not?
- The checking of the 'fiddly arithmetic' – how (and by whom) might this best be done to minimise the chance of the checker not picking up a doer's error?

### Presenting the advice to the client

- The report to the client – is Colin OK to review this, or is his 'mind' on this potentially too close to yours for this to be sufficiently objective?
- The new stakeholders who are not natural speakers of your language – is there any additional review of the report which might be appropriate to meet their needs?

### Some general points

- Extent/nature of review might depend on financial significance of work (and importance to client) – the intention is that in this example the stakes are quite high (from the point of view of both your firm and the client, and also potentially from a public interest perspective)
- To what extent might tight timescales affect the amount and nature of the review of work?
- As you are the senior member of the team here (and possibly the line manager for many/all of its members), the role that team members can play in reviewing the work might depend on the 'culture' as regards questioning of seniors' work