Chapter 4 & 10

Rebuilding an Inherited Model

Quite often you need to go into somebody else's model and take it apart and try and work
out what they meant or why they've created it, a certain way. We'll look at building our
financial model using best practice, using the best, most concise, best practice formulas but
there is a bit of a skill to taking somebody else's model apart.

There is an example file and there is a bit of detail on this in the book, it is in chapter 4 and it
shows you how or just an example of how a formula can be really long and a couple of tips
on how to take it apart. If you open up the file called long formulas, you don't have to do
anything to it, it is just an example of a file that's been created and the formulas are really a
lot longer than it needs to be.

Here we have got months going up for 12 months, you have got forecast number of
customers, and you can sort of take a look of that and see have its been calculated, it's
growing out over 12 months, you have got your forecast number of calls per day, it is a
telecommunication product and it is a customer driven, we need to know number of
customers, number of calls in order to calculate revenue. It is really straight forward and you
should be able to see how that's been calculated. We are then going to apply some
seasonality to the number of calls that they make depending on the time of year. We then
can calculate the number of calls per day, so you can trace back and see on the assumptions
page that, that depends on the number of seasonality, the number of calls, the number of
working days in that month and from that you can calculate the number of calls per month
and then we can calculate our revenue.

You can see that we actually laid it out very simplistically how we have come up with it or
you could do the whole thing in one formula. We actually don't need all of that detail
behind it, so if I just hide that, I've used a grouping tool which is a much better practice way
of hiding rather than just going in and hide. If you go in and it's actually there using the

grouping tool which is a much better than just hiding, so you can see that there is some hidden rows in there.

If you come along and had a look at this model and you see it, just looking like that where you have all of the revenue calculated in one cell, it takes quite a bit of work to work out what or to audit it and try to work out how it's been calculated. Some people might thing that is more concise, it's a superior way of doing it because you are using up less rows. It is a much more concise model and therefore it is better, not necessarily.

The first way I explained it was a much better way practice way of doing it because you could see exactly, you could trace through every single step and see how it's been calculated, rather than doing the whole thing in one cell, which makes it really hard for someone else to come along and take a part.

If you are the unfortunate person who has to take apart that formula, let's look at a couple of tricks that might help you out with that, obviously you guys would never create a formula that looks like that but you may have to audit one. Let's take a look at how you would go in and take that apart.

The first thing I do is use Trace Precedents which is really useful and there are some instructions on how to use all of these tools in chapter 10 in your book. If you hit Trace Precedents you can see there, it shows you where the data coming from, you can double click on that dotted line and then again double click and it will take you there. That's one way of doing it, if you are trying to take a part and work out where something is coming from. The other trick that I quite like is stepping into the formula, the evaluate formula can help you with that. You can click on that and it can evaluate and you can step in it will take you through and help you to take a part that formula. You can actually go in and break up the formula, you can go in and copy sections of it and try to work out what each is doing, preferably to put them on to separate lines which would be a much better way of doing it.

I actually like using that stepping thing but actually doing it manually, here is a little bit of trick for you. I am not sure if this is going to work on my laptop but I will give it a go. If you highlight a section of a formula that makes sense in its own right and then hit the F9, it actually give you the hard coded value, if you then hit Escape it will take it away, if you then hit Enter it will paste the value. So don't press Enter. So if you go in and highlight a section of the formula that make sense and then hit F9, you can actually step through and work out what each section of the formula is doing.

If you are the poor person who has to take that apart, those are the sort of tool that you can use. But I would prefer to take it apart and then actually lay it out step by step. Rows are free; it doesn't cost you any more to have more rows in your model. It just makes your model so much easier to understand if you have lots and lots of rows in there.

Lastly just a couple of other little tricks that you might like, hitting the Control Back Square Bracket, will jump back, that's another one you might like to use. Just a couple of little tools that can help you to take apart somebody else's model.