Top models

There are many different types of business modelling so you need to understand what you want to achieve before you open up Excel, advises Mark Robson

Financial modelling comes in a great many different guises, each demanding different inputs and requiring the application of different skills and technology. So what are the different styles favoured by modelling practitioners working in Microsoft Excel and how do they vary according to the modeller's commercial objectives?

The data crunchers

The Excel data crunchers aren't really doing financial modelling at all; they focus on the historic or forecast key performance indicators of the business. For example, a fund analyst crunches thousands of lines in Excel around investment positions and returns. The data crunchers' Excel spreadsheets might be a patch for inadequate internal management systems, and they face particular issues with workbook size. They may at some stage want to talk to their boss about whether this job is really done best in Excel or whether the work should be transferred to a database that's not going to skip a beat when it's thrown thousands of lines of data.

Meet the modellers: three case studies showing how it can be done

Chris Sheasby, CFO, Ark Schools

Ark Schools is a charity with 34 schools across the UK that aim to transform young lives through education.

The schools bring in income of around £150m. They have more than 2,000 staff, a great number of students and huge data flows.

To cope with the data volumes, Ark implemented a proprietary management information system, with a finance specialist focused on running numbers for each of the 34 schools. This system helps ensure consistency, but Sheasby asked his team to use Excel to look at a number of 'what if' scenarios across Ark's schools. Inevitably, there are still a few finance managers at the schools who maintain a lingering love affair with their old Excel spreadsheets.

Ark's forecast models include a full balance sheet, starting from the individual school and consolidating up. According to Sheasby, modelling the balance sheet at the operating unit level is essential: 'It's your check. It provides the link to cashflow.'

Modelling style Integrated financial statements with full balance sheet.

Excel tip 'Learn keyboard shortcuts. They make you so much faster.'

Phillip Jarman, private equity fund manager

Freshly armed with an MBA, and with a background in investment banking at UBS, Jarman has teamed with pan-Africa data services company Anglo African Enterprises to establish its inhouse venture capital firm. In three months he has surrounded himself with a high-profile board; crunched through his market research and established a large pipeline of potential investments; partnered with Barclays bank to establish the first in a chain of start-up incubators for Africa; and cut a deal with his first startup business and lined up another.

Modelling style Data cruncher one minute, cashflow modeller the next. Jarman has been using Excel to crunch through market data and establish the pipeline of deal opportunities for his private equity business. That makes him a data cruncher some of the time. He's also developed a cashflow model for his private equity business, so some days he's a cash flow modeller.

Excel tip 'Get into Excel and do it just as soon as you can. Even if it's just the basics – they're so important. The best way to learn it is just to do it.'

Hannah Robertson, strategy analyst, RES

Renewable Energy Systems (RES) is intent on making the world a better place with clean renewable energy. Internationally it has developed a renewable electricity generation portfolio with capacity of around 10GW, equivalent to approximately 15% of the UK's total.

Robertson works in RES's strategy team, looking at how new technologies could be applied in new markets. RES takes Robertson's initiatives very seriously, with her team reporting its findings direct to the main board.

Modelling style Data cruncher and cashflow modeller. Robertson spends part of her time evaluating new technologies and new markets, looking at data for electricity prices and technology costs – during those periods, she's a data cruncher. At other times she is a cashflow modeler – for example, when she is evaluating whether a new technology can be applied to a new market.

Excel tip 'I use the formula auditing a lot and love a couple of the shortcuts: Alt > M > P to trace precedents, then F5 followed by "Enter" to jump back.'

The Excel modellers

They define an Excel model as one that produces some kind of profit forecast.

The profit forecasters

The profit forecaster for a business unit may forecast down to gross or operating profit – that is, earnings before interest and tax – and happily stop there. From the business unit leader's perspective, as long as they deliver enough operating profit, subsequent line items such as interest and tax should be taken care of at a higher level within the company. If the exercise has been about producing targets and holding managers accountable, a fuller financial model isn't needed.

The straight-to-cashflow modellers

Cash is king. So if you want a complete picture, you will need to include the difference between profits and cashflows. Project models or investment appraisal models typically concentrate on the principal differences between profits and cashflow – around working capital, say – but they don't feel obliged to forecast a full balance sheet.

The integrated modellers

These are the people who model a full set of profit and loss, balance sheet and cashflow statements. Perhaps their project has moved on and is being developed as a real business. Perhaps someone around the project such as a bank or investor wants to see a forecast for full financial statements and crunch some of the key ratios. Perhaps the modeller realises that cashflow depends on the balance sheet interactions, so it's not much extra trouble to produce three financial statements. The cashflow modellers and the integrated financial statement modellers should be doing the same thing. Both need to consider the cashflow implications of balance sheet movements, such as customers not paying or suppliers wanting to be paid quickly.

Case studies

See the panel above for some case studies of different projects and the models that suited them best. Whichever style of modelling you adopt, think carefully about your needs before starting. ■

Mark Robson is a trainer with financialtrainingassociates.com

> The Excel spreadsheets of 'data crunchers' might be a patch for inadequate internal management systems