

# Sum Product

NEWSLETTER #37 - December 2015

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## Now we are three!

Who would have thought that an Excel monthly newsletter would celebrate its third birthday..? But that's just what we've done. And to celebrate, we're running a "semi-clip show" (talk about taking it easy for the festive season) with one or two of our more popular topics that some of our newer readers may have missed.

But that's not all: in this issue, we also look back at last month's Excel MVP Summit in Redmond, provide further information on next year's Excel Summit South, discuss the new Power Pivot update for Excel 2013 and even provide the link to this year's Annual Christmas Quiz sponsored by CIMA.

Until next year.

*Liam Bastick*, Managing Director, SumProduct



## "Best Practice Modelling"

Spreadsheets are often seen as a core skill for accountants, many of whom are reasonably conversant with Excel. However, many would-be modellers frequently forget that the key customers of a spreadsheet model (i.e. the decision makers) are not necessarily sophisticated Excel users and often only see the final output on a printed page, e.g. as an appendix to a Word document or as part of a set of PowerPoint slides.

With this borne in mind, it becomes easier to understand why there have been numerous high profile examples of material spreadsheet errors. I am not saying that well-structured models will ensure no mistakes, but in theory it should *reduce* both the number and the magnitude of these errors.

Modellers should strive to build "Best Practice" models. Here, we want to avoid the semantics of what constitutes 'best' in "Best Practice". There is no set of rules that is applicable for each and every situation. A quick scan of the web will find you various rules such as *Best Practice Spreadsheet Modelling Standards*, *FAST*, *SMART* and *TranspareNCY* amongst others. Each requires modellers to read a large set of rules to learn by heart. Who does this? When was the last time *you* read documentation or instructions? Instead, let's consider the term as a proper noun to reflect the idea that a good model has four key attributes:

- **Consistency:** Formulae should be copied uniformly across ranges, to make it easy to add / remove periods or categories as necessary. Sheet titles and hyperlinks should be consistently positioned to aid navigation and provide details about the content and purpose of the particular worksheet. For forecast spreadsheets incorporating dates, the dates should be consistently positioned (i.e. first period should always be in one particular column), the number of periods should be consistent where possible and the periodicity should be uniform (the model should endeavour to show all sheets monthly or quarterly, etc.). If periodicities must change, they should be in clearly delineated sections of the model;
- **Robustness:** Models should be materially free from error, mathematically accurate and readily auditable. Key output sheets should ensure that error messages such as #DIV/0!, #VALUE!, #REF! etc. cannot occur (ideally, these error messages should not occur anywhere);
- **Flexibility:** When building a model, the user should consider what inputs should be variable and how they should be able to vary. This may force the model builder to consider how assumptions should be entered; and
- **Transparency:** Most Excel users are familiar with keeping inputs / assumptions away from calculations away from outputs. However, this concept can be extended: if most decision-makers see models printed out or on slides, the spreadsheets should be understandable without sight of the formula bar.

i.e. "CRaFT". If your model adheres to these four standards, you are most likely in possession of a "Best Practice" model.

For a more detailed discussion on the above, please see <http://www.sumproduct.com/thought/model-construction-tips>.

## Keeping Interest in Debt Simple

Over the years, we have seen various forms of business and project financing, including equity, shareholder loans, senior debt, mezzanine finance, hire purchase, bonds, convertibles, warrants and so on. Prima facie, this myriad of financial instruments can obfuscate the uninitiated, but like this last phrase, the jargon can be simplified.

No matter what the financial instrument, the mechanics essentially boil down to two key elements:

- **Return on finance:** the yield to investors or the costs of capital to the recipient of capital (e.g. interest, dividends); *and*
- **Return of finance:** repayments (or conversion) of original capital issued / drawn down.

And it really is as simple as that. The logic behind how the calculations may vary, such as when capital and returns are paid or rolled up, what order it is paid in and so on, but the computations may be summarised by two control accounts (i.e. summaries that show / reconcile how the Balance Sheet varies from one period to the next):

## Returns of Finance

Opening Balance (e.g. Debt / Equity) b/f	XX	Previous period Balance Sheet item
Additions (e.g. drawdowns / issuances / conversions)	X	Typically in Cash Flow Statement
Returns on finance rolled up (e.g. "interest capitalised")	X	Usually a Balance Sheet movement
Deductions (e.g. repayments / buybacks / conversions)	(X)	Typically in Cash Flow Statement
Closing Balance (e.g. Debt / Equity) c/f	<u>XX</u>	Current period Balance Sheet item

## Returns of Finance

Opening Return Payable (e.g. Interest Payable) b/f	XX	Previous period Balance Sheet item
Return Accrued (e.g. Interest Expense)	X	Income Statement or Balance Sheet movement
Return Paid (e.g. Interest Paid)	(X)	Cash Flow Statement
Closing Return Payable (e.g. Interest Payable)c/f	<u>XX</u>	Current period Balance Sheet item

## The 3 R's of Debt Modelling

When both businesses and lenders consider debt they look at two key aspects: risk and return. These are important for credit risk modelling / portfolio analysis, etc. However, when undertaking financial modelling, it is the third 'R' that is often the most important.

In a financial model, risk and return are usually modelled via simple inputs and occasional what-if analysis. Ranking, on the other hand, affects the entire financial structure of the model:

1. Debt Cascade												
	Date 1	Date 2	Date 3	Date 4	Date 5	Date 6	Date 7	Date 8	Date 9	Date 10	Date 11	Date 12
Cashflow Before Funding	(16.0)	(0.2)	(0.5)	(0.5)	(0.5)	4.3	6.7	6.8	6.8	7.1	7.3	7.4
Funding	16.0	-	-	-	-	-	-	-	-	-	-	-
Cashflow After Funding	-	(0.2)	(0.5)	(0.5)	(0.5)	4.3	6.7	6.8	6.8	7.1	7.3	7.4
Tax	-	-	-	-	-	-	-	-	-	-	-	-
Cashflow Available before WC Funding	-	(0.2)	(0.5)	(0.5)	(0.5)	4.3	6.7	6.8	6.8	7.1	7.3	7.4
Working Capital Facility Funding	-	0.2	0.5	0.5	0.5	-	-	-	-	-	-	-
Cash Flow Available for Debt Service (CFADS)	-	-	-	-	-	4.3	6.7	6.8	6.8	7.1	7.3	7.4
Senior Debt Service	-	(0.4)	(0.4)	(0.4)	(0.4)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)	(1.7)
Cashflow Available for Debt Service Reserve Account	-	(0.4)	(0.4)	(0.4)	(0.4)	2.6	5.0	5.1	5.1	5.4	5.6	5.7
Debt Service Reserve Account	-	4.0	0.0	-	-	(2.6)	(0.8)	0.0	0.0	(0.0)	(0.0)	0.0
Cashflow Available for Mezzanine	-	3.6	(0.4)	(0.4)	(0.4)	-	4.2	5.1	5.1	5.4	5.6	5.7
Mezzanine Debt Service	-	(2.7)	-	-	-	-	(3.1)	(3.8)	(3.8)	(4.1)	(4.2)	(4.3)
Cashflow Available for WC Facility	-	0.9	(0.4)	(0.4)	(0.4)	-	1.0	1.3	1.3	1.4	1.4	1.4
Working Capital Facility	-	(0.2)	(0.0)	(0.0)	(0.0)	-	(1.0)	(0.5)	-	-	-	-
Cashflow Available for Equity	-	0.7	(0.4)	(0.4)	(0.5)	-	-	0.7	1.3	1.4	1.4	1.4
Dividends	-	5.3	5.2	5.2	5.3	(2.0)	(2.0)	(2.2)	(2.3)	(3.0)	(3.1)	(3.4)
Net Cashflow	-	5.9	4.7	4.8	4.8	(2.0)	(2.0)	(1.4)	(1.0)	(1.6)	(1.7)	(1.9)
Cash Balance B/f	-	-	5.9	10.7	15.4	20.2	18.3	16.2	14.8	13.8	12.1	10.4
Cash Balance C/f	-	5.9	10.7	15.4	20.2	18.3	16.2	14.8	13.8	12.1	10.4	8.4

As the above graphic shows, if the order of service repaying capital changes, the entire logic will change. This may affect interest / debt service cover ratios (see below). It is important in scoping any such model that the order is understood and how it will be affected by such factors as:

- Breach of covenants
- Conversion of financial instruments
- Breach of covenants or other ratios
- Liquidation / insolvency.

It is not correct to assume that the order of financing will never change.

For specific queries, please do not hesitate to contact us at [contact@sumproduct.com](mailto:contact@sumproduct.com).

## Capitalised vs. Rolled Up

There is confusion between the jargon used by the banking industry and accountants when considering debt mechanics:

Scenario	Banking term	Accounting term
Interest is not paid (either by agreement or due to insufficient funds) and is added to the outstanding principal for future interest calculations	Interest capitalised	Interest rolled-up
Interest is not added to the balance but is paid (although there may be a slight timing issue)	Interest amortised (principal is amortised similarly)	When accrued: interest expense When paid: interest paid

Regardless of whether paid or not in reality, interest meets the criteria specified in the relevant accounting standards to be held in the Balance Sheet	n/a	Interest capitalised
When capitalised under accounting rules, the interest charge is released to the P&L over the life of a project on some agreed equitable basis	n/a	Interest amortised

When holding conversations with financiers, be sure you are on the same page before building interest into a financial model!

## Summit To See



**MVPs together (left to right):** Ken Puls, Brad Yundt, Ingeborg Hawighorst, Ron Coderre, SumProduct's Liam Bastick, Roger Govier, Vijay Agarwal, Mynda Treacy, Jon Acampora, Bob Umlas, Oz du Soleil, Kevin Jones, Cindy Meister, Tom Ogilvy, Frederic le Guen, Jamil Mohammad, Jon Peltier, Bill Manville, Sophie Marchand, Chris Smith, SumProduct adviser Zack Barresse, Charles Williams and Mike Alexander.

Early November saw nearly 2,000 MVPs descend on Microsoft HQ to discuss software issues, receive previews of up and coming features and discuss some of the concerns of our clients, readers and colleagues. Approximately 30 Excel MVPs showed up and – analogous to herding cats – we even managed to get 23 of them in one picture!

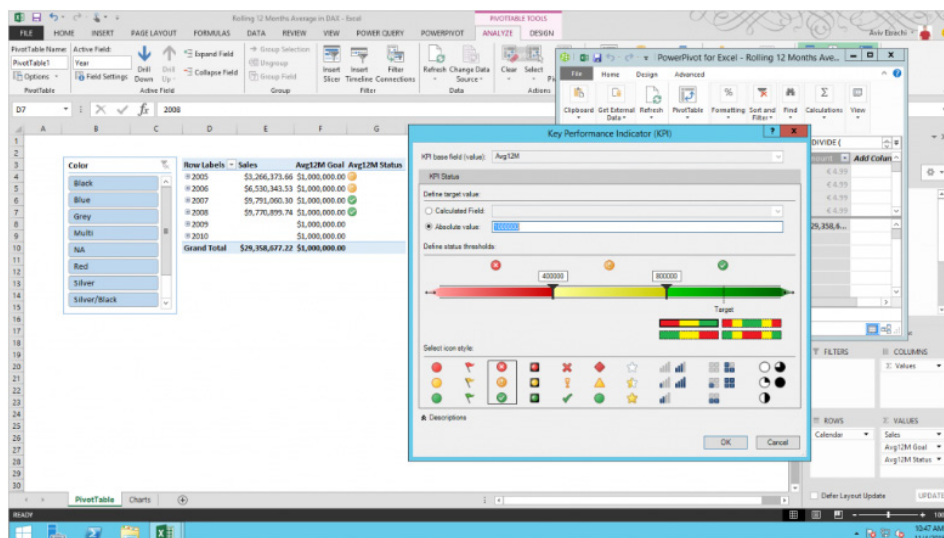
Whilst the matters discussed at the summit have to remain confidential for the time being, we can reveal there are several new updates being rolled out to Excel users in the very near future. Once public, you can be assured that we will discuss them in detail on the SumProduct website ([www.sumproduct.com](http://www.sumproduct.com)) and here in the newsletter too.

## Power Pivot in Excel 2013 Updated

The recently released November Power Pivot for Excel 2013 updates make changes to how Power Query interacts with Power Pivot as well as providing support for Key Performance Indicators (KPI).

For data in Power Pivot that has been added through Power Query, the following operations can now only be done through Power Query, which resolves conflicts previously seen in Power Pivot:

- Edit Table Properties
- Column-level changes: Rename, Data type change, Delete
- Table-level changes: Rename, Delete



For more information, please refer to <https://blogs.office.com/2015/11/10/power-pivot-in-excel-2013-november-2015-customer-update/>.

## Excel Summit South



By the time of this newsletter going to press, registrations for Excel Summit South should be well and truly open. For the first time ever the world's leading authorities on Excel and spreadsheet modelling are coming together to share their knowledge. There are over 20 topics covered over three two-day sessions in Auckland, Sydney and Melbourne.

Sponsored by PwC and the Chartered Accountants of Australia and New Zealand, this is a unique opportunity to learn from some of the world's leading Excel MVPs as they discuss relevant topics. Furthermore, industry-leading speakers will be coming from around the world to give you their views on financial modelling Best Practice, Standards

and spreadsheet risks. It has also been confirmed that members of the Microsoft Excel Development Team will also be in attendance allowing you the opportunity to discuss the future of Excel with them.

With two Panel discussions and a ModelOff evening event (separate registration required) there's plenty of opportunities to mingle, learn from your peers, talk to the speakers and have fun. And register before the end of the month to enjoy a 20% discount off the two-day sessions! For more information and registration, please go to <https://excelsummitsouth.wordpress.com/>.

## Office Insiders Program

Microsoft has announced the next wave of innovations for Office 365 subscribers, at home and at work, on its Office blog website, <https://blogs.office.com/>. Along with various feature updates, a new ongoing programme, **Office Insider**, for consumer Office subscribers (Office 365 Home, Personal, and University subscribers) has been launched. This isn't just for Excel, but we think it's worth noting anyway.

To participate, go to <https://blogs.office.com/2012/10/11/join-the-microsoft-office-insiders-program/> and register your interest. Be quick though: spaces for the programme are genuinely limited.

For O365 Business or Pro-Plus users (including E3 volume licences), users will get the equivalent experience with **First Release** (<https://support.office.com/en-us/article/Office-365-release-options-3B3ADFA4-1777-4FF0-B606-FB8732101F47>) to get the same early access to new features.



SumProduct, in conjunction with the Chartered Institute of Management Accountants (CIMA), is pleased to announce the annual Xmas quiz. It's open to everyone, not just accountants. Check out the Excel challenge – with prizes – in the December issue of Insight at <http://www.cimaglobal.com/Thought-leadership/Newsletters/Insight-e-magazine/Insight-2015/Insight-December-2015/Spreadsheet-skills-Christmas-quiz/> (please be aware that if you are a fast reader of the newsletter this link may not as yet have gone live!).

Good luck!

## Upcoming SumProduct Training Courses

Location	Course	Date	Duration
London	Financial Modelling for Financial Analysis	3rd - 4th Dec 2015	2 days
Dubai	Strategic Planning, Forecasting and Budgeting	8th - 10th Dec 2015	3 days
Sydney	Excel Tips & Tricks	27th Jan 2016	1 day
Sydney	Financial Modelling	28th - 29th Jan 2016	2 days
Sydney	Power of Power Pivot	1st - 2nd Feb 2016	2 days
Perth	Excel Tips & Tricks	15th Feb 2016	1 day
Perth	Financial Modelling	16th - 17th Feb 2016	2 days
Melbourne	Excel Tips & Tricks	22nd Feb 2016	1 day
Melbourne	Financial Modelling	23rd - 24th Feb 2016	2 days

Melbourne	Introduction to Forecasting	25th Feb 2016	1 day
Melbourne	Valuations Modelling	26th Feb 2016	1 day
Sydney	Excel Tips & Tricks	18th Apr 2016	1 day
Sydney	Financial Modelling	19th - 20th Apr 2016	2 days
Sydney	Mergers & Acquisitions Modelling	21st - 22nd Apr 2016	2 days
Brisbane	Excel Tips & Tricks	16th May 2016	1 day
Brisbane	Financial Modelling	17th - 18th May 2016	2 days
Singapore	Excel Tips & Tricks	23rd May 2016	1 day
Singapore	Financial Modelling	24th - 25th May 2016	2 days
Singapore	Power of Power Pivot	26th - 27th May 2016	2 days
Melbourne	Excel Tips & Tricks	6th Jun 2016	1 day
Melbourne	Financial Modelling	7th - 8th Jun 2016	2 days
Melbourne	Mergers & Acquisitions Modelling	9th - 10th Jun 2016	2 days
Melbourne	Power of Power Pivot	14th - 15th Jun 2016	2 days
Auckland	Excel Tips & Tricks	20th Jun 2016	1 day
Auckland	Financial Modelling	21st - 22nd Jun 2016	2 days

## Key Strokes

Each newsletter, we'd like to introduce you to several useful keystrokes you may or may not be aware of. This month we look at quick-fire number formatting:

Keystroke	What it does
CTRL + SHIFT + 1	Format as a number (comma separated) to two decimal places
CTRL + SHIFT + 2	Format as a time
CTRL + SHIFT + 3	Format as a date
CTRL + SHIFT + 4	Format as a currency
CTRL + SHIFT + 5	Format as a percentage
CTRL + SHIFT + 6	Format in scientific (exponential) notation

There are over 540 keyboard shortcuts in Excel. For a comprehensive list, please download our Excel file at <https://www.sumproduct.com/thought/keyboard-shortcuts>. Also, check out our new daily **Excel Tip of the Day** feature on the [www.sumproduct.com](http://www.sumproduct.com) homepage.

## Our Services

We have undertaken a vast array of assignments over the years, including:

- **Business planning**
- **Building three-way integrated financial statement projections**
- **Independent expert reviews**
- **Key driver analysis**
- **Model reviews / audits for internal and external purposes**
- **M&A work**
- **Model scoping**
- **Project finance**
- **Real options analysis**
- **Refinancing / restructuring**
- **Strategic modelling**
- **Valuations**
- **Working capital management**

If you require modelling assistance of any kind, please do not hesitate to contact us at [contact@sumproduct.com](mailto:contact@sumproduct.com).

## Link to Others

These newsletters are not intended to be closely guarded secrets. Please feel free to forward this newsletter to anyone you think might be interested in converting to "the SumProduct way".

If you have received a forwarded newsletter and would like to receive future editions automatically, please subscribe by completing our newsletter registration process found at the foot of any [www.sumproduct.com](http://www.sumproduct.com) web page.

## Any Questions?

If you have any tips, comments or queries for future newsletters, we'd be delighted to hear from you. Please drop us a line at [newsletter@sumproduct.com](mailto:newsletter@sumproduct.com).

## Training

SumProduct offers a wide range of training courses, aimed at finance professionals and budding Excel experts. Courses include Excel Tricks & Tips, Financial Modelling 101, Introduction to Forecasting and M&A Modelling.

Check out our more popular courses in our training brochure:



Drop us a line at [training@sumproduct.com](mailto:training@sumproduct.com) for a copy of the brochure or download it directly from <http://www.sumproduct.com/training>.

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