


**Learn more with WSP!**

- Open boot camps
- Self study programs
- Corporate & university training

- Financial Statement Modeling
- DCF, LBO, M&A Modeling
- Comparables Modeling
- Advanced Financial Modeling
- Industry-specific modeling
- Accounting & FSA
- Advanced Excel
- PowerPoint

CTRL Shortcuts		Formatting Shortcuts		Navigation and Data Editing	
CTRL + A	Select All	ALT + `	Display style	Arrow keys 	Move to new cells
CTRL + B	Bold	CTRL + I	Format Box	ALT + ↓	Display a drop-down list
CTRL + C	Copy	SHIFT + CTRL + ~	General format	ALT + Tab	Switch programs
CTRL + C, ALT E+S	Paste Special	SHIFT + CTRL + !	Number format	CTRL + Pg Up/Down	Switch worksheets
CTRL + D	Fill Down	SHIFT + CTRL + @	Time format	CTRL + Tab	Switch workbooks
CTRL + F	Find	SHIFT + CTRL + #	Date format	CTRL + Arrow keys	Go to end of contiguous range
CTRL + G	Go to	SHIFT + CTRL + \$	Currency format	SHIFT + Arrow keys	Select a cell range
CTRL + H	Replace	SHIFT + CTRL + %	Percentage format	SHIFT + CTRL + Arrow keys	Highlight contiguous range
CTRL + I	Italic	SHIFT + CTRL + ^	Exponential format	Home	Move to beginning of row
CTRL + K	Insert Hyperlink	SHIFT + CTRL + &	Outline border	CTRL + Home	Move to cell "A1"
CTRL + N	New Workbook	SHIFT + CTRL + _	Remove border	F5	"Go to"
CTRL + O	Open File	SHIFT + CTRL + *	Select region	ENTER	Move to cell below
CTRL + P	Print	Tools > Customize > Options	Show full menus	SHIFT + ENTER	Move to cell above
CTRL + R	Fill right			TAB	Move to cell to the right
CTRL + S	Save workbook			SHIFT + TAB	Move to cell to the left
CTRL + U	Underline			BACKSPACE	Delete cell and get inside
CTRL + V	Paste			DELETE	Delete cell/selection
CTRL + W	Close window			F2	Edit/ highlight dependent cells
CTRL + X	Cut				
CTRL + Y	Repeat				
CTRL + Z	Undo				
CTRL + 1	Format Box				
CTRL + 5	Strike-through				
CTRL + 7	Hide/show toolbar				
CTRL + 9	Hide row				
SHIFT + CTRL + 9	Unhide row				
CTRL + 0	Hide column				
SHIFT + CTRL + 0	Unhide column				
CTRL + ~	Show formulas/values				
CTRL + `	Copy above formula				
CTRL + ;	Display date				
SHIFT + CTRL + :	Display time				
CTRL + [	Precedents				
CTRL + ]	Dependents				
CTRL + Enter	Fill selection w/ entry				
ALT Shortcuts		Columns and Rows			
ALT + Tab	Switch program	SHIFT + Spacebar	Highlight row		
ALT + `	Display style	CTRL + Spacebar	Highlight column		
ALT + T + O	Options Menu	SHIFT + ALT + →	Group rows/columns		
ALT + T + I	Add-Ins Menu	SHIFT + ALT + ←	Ungroup rows/columns		
ALT + E + S	Paste special box	CTRL + Minus sign	Delete selected cells		
ALT + E + S + T	Paste format only	SHIFT + CTRL + Plus Sign	Insert blank cells		
ALT + W + S	(Un)split panes				
ALT + W + F	(Un)freeze windows				
ALT + E + M	Move/ Copy a sheet				
ALT + E + L	Delete worksheet				
ALT + V + Z	Change view sizing				
ALT + O + C + A	Fit column width				
ALT + O + H + R	Change tab name				
ALT + E + A	Clears cell				
ALT + F + V	Print preview				
ALT + F4	Close program				
ALT + F8	Macro box				
ALT + F11	Visual basic editor				
		Function Key Shortcuts			
		F1	Excel Help Menu		
		F2	Edit cells		
		F3	Paste Name		
		F4	Repeat or anchor cells		
		F5	"Go to"		
		F6	Next pane in split mode		
		F7	Spell check		
		F8	Anchor to highlight		
		F9	Recalculate workbooks		
		F10	Activate menu bar		
		F11	New chart		
		F12	Save as		
		SHIFT + F2	Insert a comment		
		SHIFT + F3	"Insert Function" Box		
		SHIFT + F4	Find Next		
		SHIFT + F5	Find		
		SHIFT + F6	Previous pane		
		SHIFT + F8	Add to selection		
		SHIFT + F9	Calculate active sheet		
		SHIFT + F10	Display shortcut menu		
		SHIFT + F11	New worksheet		
		CTRL + F3	Name a cell		
		CTRL + F4	Close window		
		CTRL + F9	Minimize workbook		
		CTRL + F10	Maximize window		
		CTRL + F12	Open File		
		Windows Flag + D	Minimize program		
		Windows Flag + E	Windows explorer		
				Formulas and Auditing	
				= (equals sign)	Start a formula
				SHIFT + F3	Display "Insert Function" box
				ALT + "="	Insert AutoSum formula
				CTRL + ' (apostrophe)	Copy formula from above cell
				SHIFT + CTRL + " (quote)	Copy value from above cell
				CTRL + ~	Show formulas/values
				F9	Recalculate all workbooks
				Auditing formulas...	
				ALT + T + U + T	Trace immediate precedents
				ALT + T + U + D	Trace immediate dependents
				ALT + T + U + A	Remove tracing arrows
				CTRL + [	Go to precedent cells
				CTRL + ]	Go to dependent cells
				SHIFT + CTRL + {	Trace <u>all</u> precedents (indirect)
				SHIFT + CTRL + }	Trace <u>all</u> dependents (indirect)
				F5 + Enter	Go back to original cell

## Frequently Used Formulas

### Perpetuity Formula

$$\text{Perpetuity} = \frac{\text{Cash Flow}_{t+1}}{(\text{Cost of Capital} - \text{Growth Rate})}$$

### Discounting (PV) of a Cash Flow

$$\text{DCF} = \frac{\text{Cash Flow}_t}{(1 + i)^{(\text{period } t)}}$$

### Cost of Equity

$$\text{Cost (K)}_{\text{Equity}} = R_f + \beta(\text{Risk Premium}_{\text{Market}})$$

### Weighted Average Cost of Capital

$$\text{WACC} = K_{\text{Debt}} * (1 - \text{Tax Rate}) * \frac{D}{D + E} + K_{\text{Equity}} * \frac{E}{D + E}$$

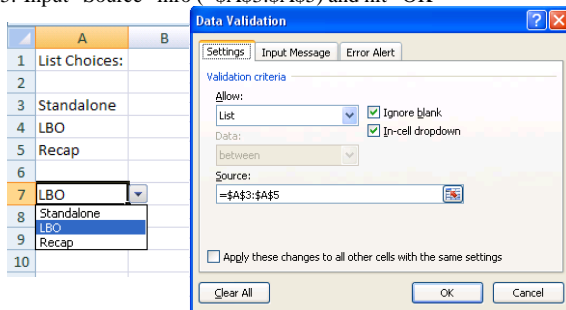
### Compound Annual Growth Rate (CAGR)

$$\text{CAGR} = \frac{\text{Ending Value}}{\text{Beginning Value}}^{(1/\text{No. of Periods})} - 1$$

## Data Validation

**Example:** Create a list

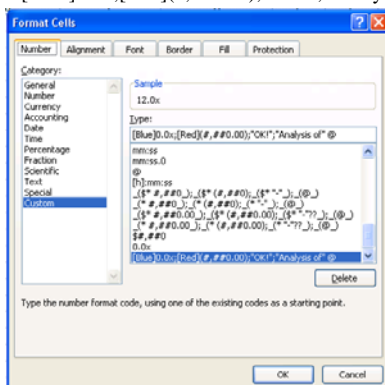
1. Enter data to be in list (A3:A5)
2. Go to cell to be validated (A7)
3. Type Alt d l (Data → Validation)
4. Click the Settings tab to specify "List"
5. Input "Source" info (=A\$3:A\$5) and hit "OK"



## Customizing a Number Format

Custom formatting defines the format for positive numbers, negative numbers, zero values, and text, in that order: <Positive>;<Negative>;<Zero>;<Text>

**Example:** [Blue]0.0x;[Red](#,##0.00);"OK!";"Analysis of" @

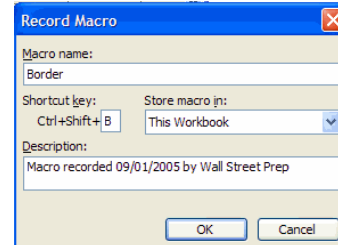


Enter or Result:	Values:	Displayed:	Application:
12	If positive, then...	12.0x	Showing multiples
-1000	If negative, then...	(1,000.00)	Expenses
0	If zero, then...	OK!	Balance Sheet Check
Colgate	If typed text, then...	Analysis of Colgate	Model Heading

## Recording a Macro

**Example:** Create a macro to insert borders at the bottom of cells

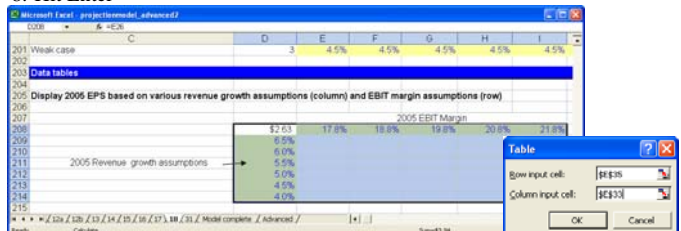
1. Place the cursor in the desired cell.
2. Hit **Alt t m r** (Tools → Macros → Record Macro)
3. Input macro name ('Border') and shortcut key (Ctrl Shift B). As soon as you hit 'OK', you are starting to record this macro.
4. When finished inserting a bottom border (using **Ctrl 1**) in the desired cell, hit **Alt t m r** to 'Stop Recording' the macro.
5. Try going to any cell or a range of cells and hitting **Ctrl Shift B**



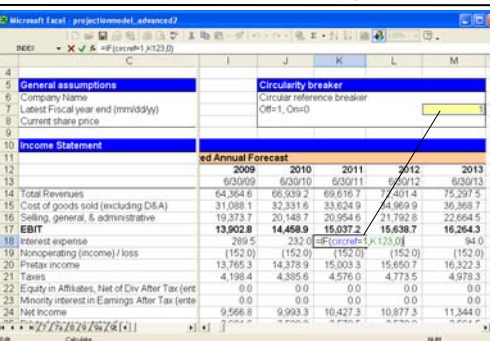
## Data Table

**Example:** Create a data table that will output 2005 EPS based on a range of 2005 revenue growth and EBIT margin assumptions

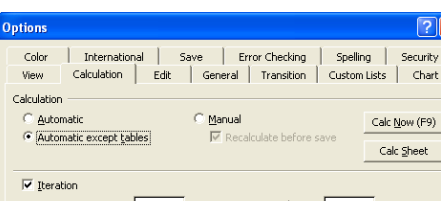
1. Input a range of revenue growth rates in a column (as pictured)
2. Input a range of EBIT margins in a row (as pictured)
3. Reference 2005 EPS (the output variable) from model into the cell between the input row and input column as illustrated below
4. Highlight the matrix
5. Type **Alt d t** (Data → Table)
6. Reference the row input variable from the model (2005 EBIT margin is the row input variable)
7. Reference the column input variable from the model (2005 revenue growth is the column input variable)
8. Hit Enter



## Iterations and Circularity



**Example:** Inserting a circularity breaker toggle in a model; Insert an IF statement to modify the interest expense formula to incorporate the circularity breaker, such that if it is turned on, the interest expense becomes zero, breaking the circularity



Go to: Tools > Options (Alt t o) > Calculation tab

Ensure the 'Iteration' box is checked for 100 iterations as illustrated.