

WACC Calculation Exercise



WACC Calculation Exercise

- ❖ In this Exercise I want you to calculate the Weighted Average Cost of Capital for a fictional situation
- ❖ To do this I have prepared a small spreadsheet which you can download and use
- ❖ The Spreadsheet is attached to the Resources Section of this lecture

WACC Calculation Exercise

- ❖ This is what the spreadsheet looks like
- ❖ Your task is to correctly enter the Cost of Debt, Equity and the Tax Rate into the Green Squares
- ❖ Understand the result which will be calculated in the Pink Square

Weighted Average Cost of Capital				
WACC Formula	$WACC = (K_e \cdot E / (E + D) + K_d(1 - t) \cdot D / (E + D))$			
Capital Employed				
Debt	D	43,400		
Equity	E	27,250		
Book Value of Capital	E+D	70,650		
Blended Cost of Debt	Kd	7.2%		
Cost of Equity	Ke	16.5%		
Tax Rate	t	27.00%		
Cost of Capital			Pre Tax	After Tax
Debt	Kd			0%
Equity	Ke			0.00%
Weighted Average	Kw		0.00%	
Tax Rate				

WACC Calculation Exercise

- ❖ Let us start with the WACC formula and talk through its components
- ❖ Note that $K_d(1-t)$ is the tax shield of the debt which we include in the calculation
- ❖ The Equity of course has no such tax shelter.
- ❖
$$WACC = (K_e * E / (E+D)) + K_d(1-t) * D / (E+D)$$

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- ❖ WACC = Weighted Average Cost of Capital
 - ❖ K_e = Cost of Equity
 - ❖ E = Equity
 - ❖ K_d = Cost of Debt
 - ❖ D = Debt
 - ❖ t = Tax Rate
 - ❖ $E / (E+D)$ = Weighting of Equity
 - ❖ $D / (E+D)$ = Weighting of Debt
- ❖
$$WACC = (K_e * E / (E+D)) + K_d(1-t) * D / (E+D)$$

WACC Calculation Exercise

- ❖ You simply have to download the spreadsheet and input the correct numbers into the three green squares
- ❖ Think about what the calculation is doing
- ❖ Look at the formulas in the spreadsheet if you wish

WACC Calculation Exercise

- ❖ Do this now and input the figures
- ❖ Pause this video while you do this
- ❖ Then hit play and I will show you the solution
- ❖ Pause Now...

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- ❖ This is what your spreadsheet should show...
- ❖ The Weighted Cost of Debt after the tax shield is added to the Weighted Cost of Equity (no tax shield)
- ❖ The Weighted Average Cost of Capital is 9.59%

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Cost of Equity	Ke	16.5%		
Tax Rate	t	27.00%		
		Pre Tax	After Tax	Weighting
Cost of Capital				
Debt	Kd	7.2%	5.256%	61.43%
Equity	Ke	16.50%	16.50%	38.57%
Weighted Average	Kw	9.59%		
Tax Rate		27%		

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- ❖ You can keep this spreadsheet and use it as a simple calculator for WACC calculations going forward
- ❖ You will need to input your own figures in the top half of the spreadsheet

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