AFIN2053 Tutorial 6, Week 8 Questions

Questions: 16.20, 16.23, 16.24, 16.32, 16.37, 16.43, 16.44, 16.46, 16.48, 16.49

16.20 M&M Proposition 1: A company financed completely with equity currently has a cost of capital equal to 18 per cent. If Modigliani and Miller's Proposition 1 holds and the company is thinking about changing its capital structure to 50 per cent debt and 50 per cent equity, what will be the cost of equity after the change if the cost of debt is 8 per cent?

16.23 Interest tax shield benefit: White Ltd has $550 million of debt outstanding at an interest rate of 10 per cent. What is the amount of the tax shield on that debt, just for this year, if White Ltd is subject to a 34 per cent company tax rate?

16.24 Interest tax shield benefit: Munich Ltd has $507 million of debt outstanding at an interest rate of 7 per cent. What is the present value of the tax shield on that debt if it has no maturity and if Munich Ltd is subject to a 34 per cent company tax rate?

16.32 M&M Proposition 2: Organic Foods is currently valued at $589 million. Organic Foods will be repurchasing $159 million of its equity by issuing a non-maturing debt issue at a 10 per cent annual interest rate. Organic Foods is subject to a 33 per cent company tax rate. Given all of the Modigliani and Miller assumptions, except the assumption that there is no tax, what value will Organic Foods have after the recapitalisation?

16.37 Two theories of capital structure: Use the following table to make a suggestion for the recommended proportion of debt that the company should utilise for its capital structure.

Benefit or (cost)	**No debt**	**25% debt**	**50% debt**	**75% debt**
Tax shield	**$ 0**	**$10**	**$20**	**$30**
Agency cost	**−$10**	**−$ 5**	**−$ 5**	**−$20**
Financial distress cost	**−$ 1**	**−$ 3**	**−$10**	**−$10**

16.43 Delhi Ltd has $350 million of debt outstanding at an interest rate of 10 per cent. What is the present value of the debt tax shield if the debt will mature in 5 years (and no new debt will replace the old debt), assuming that Delhi is subject to a 30 per cent company tax rate?

16.44 Phoenix Ltd is currently valued at $800 million, but management wants to completely pay off its perpetual debt of $400 million. Phoenix is subject to a 30 per cent corporate tax rate. If Phoenix pays off its debt, what will be the total value of its equity?

16.46 Holmes Ltd has an abundant cash flow. It is so high that the managers take Fridays off for a weekly luncheon in Coolangatta using the corporate jet. Describe how altering the company's capital structure might make the management of this

company stay in the office on Fridays in order to work on new positive NPV projects.

16.48 According to the pecking order theory:
- **a. new debt is preferable to new equity.**
- **b. new equity is preferable to internally generated funds.**
- **c. new debt is preferable to internally generated funds.**
- **d. new equity is always preferable to other sources of capital.**

16.49 According to the static trade-off theory,
- **a. the amount of debt a company has is irrelevant.**
- **b. debt should be used only as a last resort.**
- **c. debt will not be used if a company's tax rate is high.**
- **d. companies have an optimal level of debt.**