



Midterm 2
Finance I
Solutions

1. Key concepts/Cost of capital

- a) Suppose 2 companies have the same asset beta, but different operational leverage. Should they have the same asset cost of capital? Explain your answer (10 pts)

Yes. The asset beta reflects all risks held by the asset, one of them being the operational leverage. Therefore, as the assets cost of capital is calculated using the asset beta and since the asset beta is the same, the cost of capital is the same.

- b) In a world without taxes, what is the effect of increasing the level of debt on the assets risk? Explain your answer (10 pts)

None. The asset beta in a world without taxes is not affected by financial leverage, as it doesn't impact the cashflow of the asset. It does impact however, the equity risk, as it changes the cashflows to equity.

- c) In a world with taxes, how does financial leverage impact the shareholders risk? Explain your answer (10 pts)

Positively. As financial leverage increases, the risk for equity holders increase, as the cashflows are impacted by the level of debt. However, the impact is lower that of the case of a world without taxes, given the tax shield generated by the interests paid.

- d) What is the cost of capital? (5 pts)

Possible definitions:

The highest possible return for assets with the same level of risk

The expected return on a portfolio of all the company's existing securities

2. Working Capital Management

- a) What is the economic order quantity? What is it used for?(5 pts)

Is the inventory order quantity that minimizes unit order cost considering carrying cost and order costs.



- b) Suppose a company has negative working capital. If sales decrease, would the company require additional funds or would it receive additional funds? (10 pts)

It would receive additional funds. Negative working capital implies that current liabilities are larger than current assets. If sales decrease, and assuming the behavior of all accounts remain constant, the company would still have a negative working capital, only smaller. Therefore, the company would receive less, but would still receive and NOT REQUIRE.

Explain 4 policies a company could implement to decrease its working capital requirement. (20 pts)

Several policies can be implemented in each account of the current assets and liabilities. The objective would be to lower current assets or increase current liabilities.

Cash: reduce cash managed by the company

Securities: reduce the level of securities managed by the company

Inventories: reduce the level of inventories, expedite business process to reduce needs of inventories

Account receivables: Improve credit management: reduce terms, reduce uncollectibles by improving credit policy, reduce credit, expedite collection, etc.

Etc. (5 points per explanation)

3. Financial Analysis and Planning

Using the financial statements provided, please compare and analyze the position of each company in terms of financial leverage, liquidity, efficiency and profitability. Assume both belong to the same industry and have identical business models. **Use at least 2 ratios for each attribute and analyze its result, arguing which company is in a better position and explaining the assumptions that led to your conclusion.**

Each section had the possibility to interpret the ratios as favorable to one company or the other, depending of the chosen ratio. If both ratios favor company A, the analysis must be favorable to company A. If ratios conflict, then the explanation should consider the conflict and hopefully use a 3rd ratio to argue which company is in a better position. Calculating ratios with no explanation or conclusion yields 4 points (1 point per ratio per company). If explanations are contrary to ratios, no additional points are awarded. Explanations only yield points IF CONSISTENT with results and must determine WHICH COMPANY IS IN A BETTER POSITION. 6 points for consistent and determining explanations. Spreadsheet is included with possible ratio calculations.



Universidad del Desarrollo
Facultad de Economía y Negocios

Ingeniería Comercial

Must answer 3 of the 4 categories. **NO ADDITIONAL POINTS WILL BE AWARDED IF 4 CATEGORIES WERE ANSWERED.** Answers will be graded in order. If a student answered 4 categories, only the first 3 will be graded.

- a) Financial Leverage. (Show calculation) (10 pts)
- b) Liquidity. (Show calculation) (10 pts)
- c) Efficiency. (Show calculation) (10 pts)
- d) Profitability. (Show calculation) (10 pts)