FM Assignment (10%), 20 MARKS

Deadline: 31st October 2023, 11:59pm

Calculate the Hurdle rate /WACC for a listed firm

Each group is assigned a listed firm and list of comparable firms from similar industry (X nos. where X is no. of group members)

Submit PPT,

Submit Excel solution

AND

Use Google colaboratory for Python –share the link to BITS Pilani University
Anyone in this group with this link can view

Submission: PPT, Python code & Excel file with all comments Please mention all group members' names in the PPT, Python code & Excel file.

Calculate the cost of equity capital: (Use python code – already shared on CMS) – Top down approach

1. Take historical monthly adjusted closing prices for the company from yahoo finance for 3-5 years
2. Calculate the monthly returns Ln(Pt/Pt-1)
3. Take historical monthly adjusted closing prices for market index and calculate monthly returns
4. Run a regression with dependent variable as target company monthly returns and independent variable as market returns
5. The beta (coefficient of market return) is the beta levered for the firm
6. Check for the statistical significance of beta
7. Calculate the cost of equity capital using CAPM model
8. Risk free rate can be taken as ytm of government bond , you can refer to http://www.epwrfits.in/TreeViewSecurity.aspx or http://faculty.iima.ac.in/~iffm/Indian-Fama-French-Momentum/

Calculate the cost of equity capital: (Use python code) – Bottom-up approach - Unlevering and relevering of beta

1. Take comparable companies (3-5 in similar industry)
2. Calculate beta from regression approach to calculate the comparable cos.' Betas – Python code
3. Take market value of debt/market value of equity for comparable cos. (You can assume book value of debt = market value of debt)

4. Calculate the unlevered beta
5. Take the average of unlevered beta
6. Take the Market value of D/E for target company
7. Relever the beta for the target company

Calculate cost of debt:

Calculate EBIT/Interest expense and go to the following link
http://pages.stern.nyu.edu/~adamodar/New_Home_Page/valquestions/syntrating.htm
for credit default spread
Add credit default spread to risk free rate for cost of debt

9. You can assume market value of debt is equal to book value of debt
10. Calculate market value of equity for target company

Calculate the cost of capital for the firm:

11. Calculate WACC using the WACC formula

12. **Submit a Python code, Excel file with all comments in the code and excel file itself. Share the link to the Python code at colab/upload excel file.**

13. **Present your work IN PPT – In addition to WACC, Also provide firm market cap, industry, board of directors, shareholding pattern**