

FIN325 - Homework 1
Due : September 17

Problem 1 (20pts)

A corporation has the option to prepay (call) a bond with 4 years to maturity, \$50M in remaining principal, a 10% yearly rate, fixed and monthly payments. It can replace this bond with a 4 year bond with the same remaining payment structure. Prepayment penalties are \$750,000. How low must the yearly rate on the new bond be to justify calling the old bond (ignoring the option value of waiting to refi)?

Problem 2 (20pts)

Company XYZ just reported the following balance sheet and income statement for the past year:

Income statement		Assets		Liabilities and equity	
Sales	6M	Cash	2M	Current liabilities (oper.)	2M
COGS	2M	Other current assets	5M	ST Debt	5M
SG&A	1M	PP&E	10M	LT Debt	10M
Depreciation	2M	Intangible Assets	7M	Preferred equity	2M
Interest paid	1M			Common equity	5M
Net Income before taxes	0M				
Taxes on net income	0M				
Net Income	0M				

1. Calculate and report the company's EBIT and EBITDA
2. The company is trading at a trailing EBITDA multiple of 10. The market value of its liabilities equals their book value. All current assets other than cash are operating, as are all current liabilities. What is the market value of its common equity?

Problem 3 (30pts)

This problem's goal is to compare and contrast the EBITDA multiples of Facebook (FB) and Boston Properties (BXP).

1. Report the most recent EBITDA multiple computed by Yahoo finance for both companies
2. Calculate EBIT and EBITDA (ttm). Report the details of your calculations.
3. Using Yahoo's estimate of enterprise value for each company and your EBITDA calculation, compute each company's EBITDA multiple.
4. Provide plausible explanations for why these very different corporations both trade at high EBITDA multiples. (No more than 5 sentences.)

Problem 4 (30pts)

Download the 3-statement projection assignment dataset from my webpage. Fill-up all 3 statements for 2020 and 2021 given the assumptions and conventions provided at the top of the file. I strongly recommend you use the supporting schedule template provided at the bottom of the file as part of your calculations. In your printed answer, only show your completed statements.