Universiti Tun Hussein Onn Malaysia

UNIVERSITI TUN HUSSEIN ONN MALAYSIA

FINAL EXAMINATION
SEMESTER I
SESSION 2017/2018

COURSE NAME	:	BUSINESS VALUATION
COURSE CODE	:	BPE 44903
PROGRAMME CODE	:	BPD
EXAMINATION DATE	:	DECEMBER 2017 / JANUARY 2018
DURATION	:	3 HOURS
INSTRUCTION	:	ANSWER **ALL** QUESTIONS

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THIS QUESTION PAPER CONSISTS OF **FOUR (4)** PAGES

Q1 Procter and Gamble (P&G) is one of the leading global consumer product companies, owning some of the most valuable brands in the world. P&G's long history of paying dividends makes it a good candidate for the dividend discount model, and while it is a large company, its brand names and global expansion provide it with a platform to deliver high growth at least for the next few years.

To set the stage, P&G reported $12,736 million in earnings for 2010 and paid out 49.75% of these earnings as dividends; on a per share basis, earnings were $3.82 and dividends were $1.92 in 2010. Firm's beta was 0.90, reflecting the beta of large consumer product companies in 2010, a risk-free rate of 3.50%, a mature market equity risk premium of 5%, and firm's current return on equity is 20.09%.

(Source: Investment Valuation, 2012)

(a) Compute the firm's cost of equity.

(5 marks)

(b) Compute firm expected growth rate for the next 5 years.

(5 marks)

(c) After year 5, it is assumed that the firm will be in stable growth, growing at 3% per year and firm return on equity will reduce to a more sustainable 12% in perpetuity.

Estimate firm value per share.

(15 marks)

Q2 BayuNext Corporation reported earnings per share of $2.02 in 2017, and paid no dividends. These earnings were expected to grow 14% a year for 5 years (2018 to 2022) and 7% a year after that. The firm reported depreciation of $2 million in 2017 and capital spending of $4.20 million, and had 7 million shares outstanding. The working capital was expected to remain at 50% of revenues, which were $106 million in 2017, and were expected to grow 6% year from 2018 to 2022 and 4% a year after that. The firm was expected to finance 10% of its capital expenditures and working capital needs with debt. BayuNext has a beta of 1.2 in 2017, and this beta was expected to drop to 1.10 after 2022. (The treasury bond rate was 7%, and the market risk premium was 5.5%).

(a) Estimate the expected free cash flow to equity from 2018 to 2022, assuming that capital expenditures and depreciation grow at the same rate as earnings.

(10 marks)

(b) Estimate the terminal price per share (at the end of 2022). Stable firm in the same business have capital expenditures that are 150% of revenues, and maintain working capital at 25% of revenues.

(5 marks)

(c) Estimate the value per share today, based on free cash flow to equity model.

(10 marks)

Q3 The following was the result of a regression of PE ratios on growth rates, betas, and payout ratios for stock listed on the Value Line Database in April 2016.

PE = 18.69 + 0.0695 GROWTH – 0.5082 BETA – 0.4262 PAYOUT; R-Squared = 0.35

Thus a stock with an earnings growth rate of 20%, a beta of 1.15, and a payout ratio of 40% would have had an expected PE ratio of:

PE = 18.69 + 0.0695 x 20 – 0.5082(1.15) 0.4262 x 0.40 – 19.33

You are attempting to value a private firm with the following characteristics:

- The firm had net profits of \$10 million. It did not pay dividends, but had depreciation allowances of \$5 million and capital expenditures of \$12 million in the most recent year. Working capital requirements were negligible.
- The earnings had grown 25% over the previous five years, and are expected to grow at the same rate over the next five years.
- The average beta of publicly traded firms, in the same line of business, is 1.15, and the average debt-equity ratio of these firms is 25% (The tax rate is 40%). The private firm is an all-equity-financed firm, with no debt.

(a) Estimate the appropriate PE ratio for this private firm using regression.

(15 marks)

(b) Explain issues related to the use of this regression (**Q3(a)**) in valuation.

(10 marks)

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Q4 Consider that you have done a regression of Price to Book Value (PBV) ratios for all firms listed on the Bursa Malaysia:

PBV = 0.88 + 0.82 Payout + 7.79 Growth – 0.41 Beta + 13.81 ROE R-Squared = 0.75

Where;
Payout = Dividend payout ratio during most recent period
Growth = Projected growth rate in earning over next five years
Beta = Beta of the stock in most current period

To illustrate, a firm with a payout ratio of 40 percent, a beta of 1.25, ROE of 25 percent and expected growth rate of 15 percent would have had a price-book value ratio of:

PBV = 0.88 + 0.82(0.4) + 7.79(0.15) – 0.41(1.25) + 13.81(0.25) = 5.3165

(a) Explain the meaning of R-Squared in the regression with respect to the PBV.

(10 marks)

(b) Assume that you have also run a sector regression on a company and estimated a price-book-value ratio based on that regression.

Justify what might be the reason that the result from the market regression is different from the sector regression.

(15 marks)

-END OF QUESTIONS-