FNCE20005 CORPORATE FINANCIAL DECISION MAKING 2021

TUTORIAL 9: Corporate Takeovers & Restructuring - Part 3
Answers to Section B questions to be submitted on Canvas by 10am on Monday, October 11th

SECTION A

Question 1

Yam Ltd (Y) has been evaluating the acquisition of Xavier Ltd (X). The current annual expected cash flows of Y and X are, respectively, \$1.16 million per annum in perpetuity and \$640 000 per annum in perpetuity. These cash flows are expected to be unaffected by the takeover. The systematic risk (beta) of Y is 0.75 and of X is 1.0. The risk-free interest rate is 10 per cent and the market risk premium is 6 per cent.

(a) Calculate the price at which X represents a zero net present value investment. Is it likely that Y's shareholders will benefit from the takeover?

(b) Assume the information in part (a), except that the post-takeover cash flow of the merged entity is expected to be \$1.95 million per annum in perpetuity – with the additional cash flows attributable to realising cost efficiencies in the management of the assets previously owned by Xavier Ltd. There is no change to the systematic risk of those cash flows. What is the value of the benefit to Yam Ltd shareholders from the acquisition assuming a \$500,000 control premium was paid to Xavier shareholders?

Answer 1

(a) Using the CAPM:

$$k_X = 0.10 + 1.0\,(0.06)$$
$$= 0.16$$

$$V_X = \frac{\$0.64\text{m}}{0.16}$$
$$= \$4\text{m}$$

(b) The extra \$150,000 is being generated by assets whose systematic risk is unchanged – and hence can be discounted at 16%.

$$\text{Gain} = \frac{\$150000}{0.16} = \$937\,500$$

NPV_{YAM} = \$937,500 - \$500,000 = \$437,500