Capital Structure (General)

Question 1

What is the debt:equity ratio for the following UK company?

Assets			
	Fixed assets		120
	Current assets		
	Stock	50	
	Debtors	80	
			250
Liabilities			
	Creditors due in less than 1 year		
	Revolving loans		50
	Creditors and accruals		50
	Creditors due in more than 1 year		
	Bank loans		50
	Shareholders funds		100
			250

(a) 50%
(b) 100%
(c) 33%
(d) 40%
(e) Don't know.

Answer

The right answer is (b) 100%.

Debt = 100
Equity = 100.
Gearing =Debt/Equity
=100%.

Answer (a) could result from either only considering long term debt; revolving facilities must also be included, or using the US equivalent measure of leverage, debt/(debt + equity).

Answer (c) calculates the US equivalent measure using only debt due in more than one year.

Manual II Ch 1, Manual VI Ch 1

Question 2

Modigliani and Miller's series of propositions ultimately predicted which of the following in practice?

(a) Capital structure doesn't matter
(b) Maximum debt gives the lowest cost of capital
(c) There is an optimal mix of debt and equity
(d) Debt should be repaid as fast as possible

(e) Don't know.

Answer

The right answer is (c).
The tax shield on debt initially reduces cost of capital as debt is increased. However the cost of distress becomes significant above "acceptable" levels of debt and therefore the debt cost starts to rise and increases the cost of capital.

Answer (a) was the initial finding, given no taxes.
Answer (b) was the intermediate finding, before including the effect of financial distress.

Manual VI Ch 2, Manual VII Ch 3

Question 3

How should levels of debt and equity be measured according to Modigliani and Miller?

(a) Gross debt outstanding and shareholders' funds
(b) Net debt outstanding and shareholders' funds
(c) Net debt outstanding and net tangible assets

(d) Market value of debt and market value of equity
(e) Don't know.

Answer

The right answer is (d).

There could be a debate over net or gross debt, but there is no debate regarding book values versus market values. Investors can only invest at market values.

Manual VI Ch 2, Manual VII Ch 3

Question 4

ABC Plc has a debt:equity ratio of 50:50. Its equity beta has recently been measured as 1:0. Assuming a **zero tax rate**, what is its ungeared, or asset, beta?

(a) 0.6
(b) 0.5
(c) 1.7
(d) 2.0
(e) Don't know.

Answer

The right answer is (b) 0.5

Using the formula $\beta_u = \beta_g * 1/(1+(1-t)*(D/E))$
where t = *tax rate*
D = *proportion of debt*
E = *proportion of equity*
β_g =*geared beta*

If $t = 0$ *and* $D/E = 1$, *then* $\beta_u = 0.5$

Answer (a) assumes a tax rate of 30%.
Answer (c) and (d) would be the geared beta if the ungeared beta was 1.0, with tax rates of 30% and zero respectively.

Manual VI Ch 2, Manual VII Ch 2

Question 5

You are attempting to structure the financing for an LBO. The company is unlikely to make significant taxable profits over the next few years due to its heavy capital expenditure programme.

Which of the following would you expect to be the most desirable form of finance?

(a) Senior debt
(b) Subordinated debt
(c) Leasing
(d) Asset-backed securites
(e) Don't know.

Answer

The right answer is (c)

Leasing should be the cheapest form of finance because lease payments are determined after the lessor has claimed capital allowances for the asset purchase. Much of this tax benefit should be passed on to the lessee who is not in a position to benefit directly from this tax advantage. However it should be noted that in 2006 legislation is being introduced so that for finance leases over 5 years the tax allowance goes to the lessee.
Senior debt will carry a pre-tax cost, as will unsecured, or subordinated debt.
Asset-backed securities would be inappropriate for such a high-risk situation; they would be very difficult, if not impossible to issue

Manual VI Ch 9, Manual VII Ch 8, Manual VIII Ch 2

Question 6

XYZ Plc is considering borrowing to buy back some of its equity. Which of the following conditions would be appropriate as a decision rule for proceeding?

(a) Dividend yield less than interest rates
(b) Dividend yield greater then interest rates

(c) Earnings yield greater then interest rates
(d) None of the above
(e) Don’t know.

Answer

The right answer is (d) none of the above

The key issue here is the relative after-tax costs of debt and equity now versus the same costs given the new structure. No analysis can be correct unless it accounts for the revised cost of equity given the revised gearing.

Manual VI Ch 6, Manual VII Ch 3

Question 7

You have been asked to comment on the proposed capital structure of an advertising agency. Over recent years, their pre-tax profit has been around £2 million per annum. A recent takeover bid of £16 million has been rejected.

They have read that equity is more expensive than debt and that shareholder value can be enhanced by raising large amounts of debt. They are therefore planning to raise £8 million debt and pay a dividend covering the last four years' profits. This would result in an interest cover of 5 and a cash flow interest cover of just over 5. The agency does not own its own property, in fact its total net assets are £1.5 million including all of the company's cars.

What would you recommend?

(a) Raise the debt to reduce the agency's tax bill
(b) Raise the debt to enhance the shareholder value of the agency
(c) Raise more debt to give an interest cover between 3 and 4 and maximise tax efficiency
(d) Raise doubts about whether the debt can be raised
(e) don't know

Answer

The right answer is (d) Raise doubts about whether the debt can be raised

The earnings of an advertising agency are notoriously fickle, depending on the specific contracts obtained. Earnings are entirely dependent on the quality of *staff rather than a sustainable market position or efficient manufacture. Earnings can therefore change quickly. Given that there is no asset cover for the lender, it is unlikely that this amount of debt could be raised.*

Manual V Ch 11, Manual VII Ch 3, Manual VIII Ch 2

Question 8

from e

The interest rate on your corporate debt is 6% and the relevant effective tax rate is 29%. Your company's gearing has been 30% debt and 70% equity for some time.

In recent years your dividend payments have grown by an average of 2% p.a. to their latest level of 14.1 p / share. This growth is expected to continue in order to maintain the current share price of 384p

What is your post-tax WACC?

a – 4.8%
b – 5.3 %
c – 6.6%
d – 8.2%
e – don't know

Answer

The right answer is (b)

Find the cost of equity by solving the dividend discount valuation model using the formula: $v = r * (1+ g) / (ke – g)$

where *v = value in pence*
r = return in pence/share
ke = cost of capital
and *g = long-term growth rate*

Cost of equity:
*next divi = r * (1+ g) = 14.1*1.02 = 14.38p*
Share price = 384p

Ke = (14.38 / 384) + 2% = 5.75%

*Post tax Kd =6 * (1 - .29) =4.26%*

*Post-tax WACC = %Debt *Kd + % Equity *Ke*

*(30% * 4.26%) + (70% * 5.75%) = 5.3%*

Manual VI Ch 2

Question 9

The propositions of Modigliani and Miller, which have shaped much of the current thinking on capital structure, are based upon which one of the following?

(a) equity being riskier than debt
(b) debt being cheaper than equity
(c) capital structure is irrelevant
(d) risk transference between equity and debt
(e) don't know

Answer

The right answer is (d) risk transference between equity and debt

Equity is riskier than debt from the investor's point of view; debt is riskier than equity from the company's perspective. Neither is core to the propositions. The core is that risk is transferred between the two as proportions of debt and equity change.

Manual VI Ch 2; Manual VII Ch 3

Question 10

In calculating the cost of capital, a company's gearing level is an important consideration. Which measure of equity should be used in a measure of gearing appropriate for this purpose?

(a) net worth plus minority interests
(b) tangible net worth
(c) shareholders funds
(d) market capitalisation
(e) don't know

Answer

The right answer is (d) market capitalisation

Again, for finance applications, book values are not important, market values are. On a broader note, the treasurer has to be aware that analysts will look at the company using book measures and market measures. When calculating cost of capital market values are the only important values, but analysts do look at the company from a variety of perspectives where other values are important.

Manual VI Ch 2