CFA L2 Candidates

We've been receiving huge number of requests for help in understanding some challenging Case Studies of CFA Institute core.

Here, we are providing some support (in the form of audio explanation) to help all L2 candidates understand the same. The Case Studies all belong to the CFA Institute—we are just providing some support to help understand the concepts involved.

Hope it helps!

Capital Architecture Partners Case Scenario

Capital Architecture Partners (CAP) is a corporate finance advisory firm based in New York City. Deiondre Brown, a principal at CAP, is reviewing her notes on a project for one of her clients, Red Hill Corp. (Red Hill). The company is considering an aggressive expansion plan that will require new issues of both debt and equity.

Brown recalls that Red Hill's major shareholder, Jordan Jamieson, is a strong proponent of the company's all-equity capital structure. He is concerned that adding debt to the capital structure will increase the cost of equity; increase the risk of default; and, on balance, increase the weighted average cost of capital.

Brown pulls up the current draft of the report for Red Hill. The introduction covers some of the key concepts in corporate finance. It then explains the pecking order theory and its rationale for managers' preferences for various financing methods.

Brown estimates that Red Hill's current cost of capital is 15%, and the company could access debt at a rate of 8% as long as its debt-to-equity (D/E) ratio does not exceed 40%. The corporate tax rate is 22%. As a reference point for the report, she calculates the cost of equity assuming the maximum D/E ratio.

In reviewing the contract details for Red Hill's CEO, who was hired in the prior year, Brown confirms the existence of a five-year noncompete clause. She makes a note that this information should be highlighted in the equity offering documents.

QUESTION 1:

Which of Jamieson's concerns about the effect of changing Red Hill's capital structure is *least* accurate? The concern related to:

A. the cost of equity.
B. the risk of default.
C. the weighted average cost of capital.

Solution:

C is correct.

Jamieson is least accurate with respect to the effect on the weighted average cost of capital. According to the static trade-off theory of capital structure, the tax benefit from the deductibility of interest on debt outweighs the increased costs of both debt and equity that are associated with higher debt levels, up to an optimal point.

A is incorrect. Jamieson is correct that the cost of equity does increase as debt is added to the capital structure because of the higher risk levels associated with higher debt.

B is incorrect. Jamieson is correct that the risk of default increases as debt is added to the capital structure.

QUESTION 2:

The theory explained in the draft report introduction suggests that managers favor financing methods that minimize:

A. risk.
B. cost.
C. information content.

Solution:

C is correct.

The pecking order theory observes that manager behavior is closely scrutinized by investors and that managers prefer to avoid or sidestep this scrutiny by seeking out low information content sources of financing, such as internally generated funds, first.

A is incorrect. Managers may well prefer low-risk financing methods; however, that preference is not addressed by the pecking order theory.

B is incorrect. Managers may well prefer low-cost financing methods; however, that preference is not addressed by the pecking order theory.

Question 3:

The cost of equity that Brown calculates for the report is *closest* to:

A. 12.5%.
B. 17.2%
C. 17.8%

Solution

B is correct.

Brown proposes adding debt to the capital structure, which would increase the cost of equity from its current unlevered cost. Solving for r_e in the cost of levered equity formula,

$$r_e = r_0 + (r_0 - r_d)(1 - t)\left(\frac{D}{E}\right)$$

Where:

r_0 = cost of capital for Red Hill, as an all-equity company = 15%
r_d = before-tax marginal cost of debt capital = 8%
t = tax rate = 22%, and
D/E = debt/equity ratio = 40%

= 15% + (15% – 8%)(1 – 22%)(40%)
= **17.2%**

A is incorrect. This calculation is actually the weighted average cost of capital (r_{wacc}) using the all-equity cost of equity.

$$r_{wacc} = \left(\frac{D}{V}\right) r_d (1 - t) + \left(\frac{E}{V}\right) r_e$$

Where:

D = market value of debt

E = market value of equity

V = value of the company, which is equal to D + E

D/V = 40/(100+40) = 29%

E/V = 100/(100+40) = 71%

r_d = before-tax marginal cost of debt capital = 8%
t = tax rate = 22%, and
r_e = marginal cost of equity capital = 15% (all equity rate)

= 29%(8%)(1 – 22%) + 71%(15%)
= 12.5%

C is incorrect. This calculation uses the cost of levered equity formula, but incorrectly ignores the tax shield on the debt:

$$r_e = r_0 + (r_0 - r_d)\left(\frac{D}{E}\right)$$

Where:

r_0 = cost of capital for Red Hill, as an all-equity company = 15%
r_d = before-tax marginal cost of debt capital = 8%, and
D/E = debt/equity ratio = 40%

= 15% + (15% – 8%)(40%)
= 17.8%

Question 4:

The information Brown wants to highlight in the equity offering documents is *most likely* an example of:

A. bonding costs.
B. residual losses.
C. monitoring costs.

Solution:

A is correct.

The new CEO's noncompete clause is an example of the bonding costs component of the agency costs of equity. It will give the shareholders additional confidence that the CEO's interests are aligned with their own.

B is incorrect. Residual losses are costs (such as excess perquisite consumption by management) incurred despite owners' reasonable efforts to minimize agency costs.

C is incorrect. Monitoring costs are incurred as the manager is performing, not in advance as part of the employment contract.