

## SOLUTION FINANCIAL MANAGEMENT NOV 2009

### QUESTION 1

- a) Ways to encourage managers to act a way which is consistent with the objectives of maxing at shareholders' wealth.
1. The first way is for the shareholders to monitor the actions of management. Monitoring devices include:
    - a) the use of independently audited financial statements and additional reporting requirements
    - b) the shadowing of senior managers
    - c) the use of external analyses
  2. Shareholders can also incorporate clauses into managerial contracts which encourage goal ..... such clauses may formalise constrains, incentives and punishment.
  3. Performance – related pay. Managerial remuneration can be linked to performance indicators such as profit earnings per share and return on capital employed.
  4. Executive share option schemes
- b) Corporate governance is concerned with the relationship between company management and its owners and the structure and nature of the mechanism by which owners 'govern' management.

Key elements of good corporate governance principle include:

- honesty
- trust and integrity
- openness
- performance orientation
- responsibility and accountability
- mutual respect
- commitment to the organisation

Commonly acceptable principles of corporate governance include:

- Rights and ..... treatment of shareholders
- Interests of other shareholders
- Role and responsibilities of the board
- Integrity and ethical behaviour
- Disclosure and transparency

- c) i. Dangers of borrowing and investing long
1. If funds are not available to repay the loan when due, the company may have to renegotiate a loan under unfavourable condition.
  2. Also the company may have to sell an asset which is profitable and is needed for the continuity of the business
  3. Payment of interest will be ..... due to cash unavailable
  4. possible of a tougher stand of government on its credit
  5. the company may be forced into a liquidation by a ..... by creditors
- ii. Instances where borrowing short will be acceptable
1. Where interest rates are high but are expected to fall it becomes advantageous to use short term finance which is cheaper than long term, with the hope of replacing it with long term finance at a later date.
  2. Where there is a possibility of gap periods when funds may not be needed, or where there is a possibility of a drop in the requirement of funds.
  3. Where short term finance is an aggregate of diverse short term loans such that the possibility of all providers of the short term funds recalling them or refusing to renew them is remote.
  4. Where there is a lack of knowledge of future fund requirements or fund collections.

## QUESTION 2

- a) An interest rate swap is an agreement between two parties to exchange interest payments in the same currency for specific maturity on an agreed upon notional. The term notional refers to the theoretical principal underlying the swap. A currency swap involves the exchange of principal and interest payments in one currency for equivalent payment in another currency.
- b) i.

Borrower	<u>Fixed Rate dollar</u>	<u>Floating rate cedi</u>
Zenbank Plc	4.5%	Prime rate + 0.30%
Smart Plc	<u>5.2%</u>	Prime rate + <u>0.70%</u>
Difference	0.7%	0.4%

Given the differences in rates between the two markets, the parties can achieve a combined 30 basis point savings through Zenbank borrowing fixed rate cedis at prime + 0.30% and Smart Plc borrowing floating dollar at 5.2% and then swapping the proceeds. Zenbank would be able to borrow fixed rate dollar at 4.20% if all swaps are passed along to it in the swap. This will be achieved by Zenbank providing Smart Plc with floating cedis at Prime + 0.30%. The potential savings range from 0 to 0.30%

- ii. Four factors that facilitate currency and interest rate swaps are:
  - a) Tax differentials
  - b) Regulatory system
  - c) Different perceptions of investors to risk and credit worthiness
  - d) Legal restrictions on foreign exchange transactions
  - e) Exchange rate restrictions
- iii. Translation exposure to the difference between exposed assets and exposed liabilities. A foreign currency asset or liability is exposed if it must be translated at the current exchange rate.

Transaction exposure is the net amount of foreign currency denominated transactions already entered into. Upon settlement, these transactions may give rise to currency gains or losses.

c)

	0	1	2	3	4	5	6
		1	1.25	1.5	1.15(1.12)	1.15(1.12) <sup>2</sup>	1.5(1.12) <sup>2</sup> (1.08)

$$\begin{aligned}
 P_0 &= \frac{1}{1.24} + \frac{1.25}{1.24^2} + \frac{1.5}{1.24^3} + \frac{1.5(1.12)}{1.24^4} + \frac{(1.5)(1.12)^2}{1.24^5} + \frac{(1.5)(1.12)^2(1.08)}{1.24^5(0.24 - 0.08)} \\
 &= 0.8065 + 0.8130 + 0.7868 + 0.7107 + 0.6420 + 4.9526 \\
 &= \underline{8.7116}
 \end{aligned}$$

### QUESTION 3

a)

Current level of debtors is Gh¢4.5m x (50/365) =	GH¢ 616,435
Under the factor, debtors could fall to GH¢4.5m x (30/365)	<u>369,863</u>

The cost of the current policy are as follows:

	GH¢
Cost of financing new debtor through factor:	
(369,863 x 0.8 x 0.14) + (369,863 x 0.2 x 0.13)	51,041
Factor's annual fee: 4.5m x 0.22	99,000
Saved administration cost	<u>(35,000)</u>
	<u>115,041</u>

The cost benefit analysis shows that the factor's saves are more expensive than the current arrangements by GH¢16,904 per year. On financial grounds, the services of the factor should not be accepted.

- b) Pre-Emptive Rights means that the company has an obligation to offer any new issue of shares to the existing shareholders before making a public offer.

The importance to shareholders of pre-emptive rights is that it prevents there being a significant change in the structure of ownership and control of the company, since the shares are offered to existing shareholders in proportion to their existing holdings.

- c) Preference Shares

- Preference shares do not enjoy great popularity because they are less tax efficient than debt.
- They are also riskier than debt, since there is no right to receive a preference dividend, although cumulative preference shares will preserve the right to receive unpaid dividends.
- No collateral backing the debt.

#### QUESTION 4

- a) At 10%

- (i)  $PV = \text{€}50\text{m}$
  - (ii)  $PV = 10\text{m} \times 10\% - 8 \text{ year annuity factor}$   
 $= 10 + 5.3349 = \text{€}53.349\text{m}$
  - (iii)  $PV = \frac{120}{(1.1)^8} = 120 + 0.4665 = 55.98\text{m}$
- Choose option (iii)

At  $r = 12\%$

- (i)  $PV = \text{€}50\text{m}$
  - (ii)  $PV = 10\text{m} + 4.9676 = 49.676$
  - (iii)  $PV = \frac{120}{1.128} = 120 + 0.4039 = 48.48$
- Choose option (i)

- b) In 10 years your investment will grow to  $FV = 100 (1.12)^{10} = 247.6\text{m}$

This must make level payments over 12 years at 12% p.a.

$$\therefore PV = C \times 12 \text{ years} - 12\% \text{ annuity factor}$$

$$= PV = 247.6, \text{ Annuity factor} = 4.9676$$

$$\therefore C = \frac{247.6}{4.9676} = \underline{49.84\text{m}}$$

- c) Political risk, which is the possibility of favourable or adverse political action, has the following features
1. It is increased if the host nation and the multinational company have differing objectives

2. It is increased in areas with political and social notability
3. Measuring political and social instability is difficult.

Possible difficulties arising from political risk include:

1. Exchange controls
2. Currency instructions
3. Instructions on local borrowing
4. Expropriation or ..... of assets
5. Tax discriminations
6. Import controls

**QUESTION 5**

- i) Share price of Gallies will be determined by the capitalized value of existing earnings, since all earnings are distributed as dividends and there is no expected growth

$$\frac{\text{GH}\phi 800,000}{150} = \text{GH}\phi 5,333,333 \text{ i.e GH}\phi 5.33 \text{ per share}$$

Share Price of Pones

$$\frac{D1}{R - q} = \frac{\text{GH}\phi 350,000 \times 0.6 \times 1.1}{0.18 - 0.1} = \frac{231,000}{0.08}$$

2,887,500

- ii) Earnings in year one = GHϕ800,000 (from Gallies) + 350,000 x 1.1 (Pollos)  
 Dividend in year one = GHϕ1,185,000 x 0.6 = 711,000  
 The growth rate per year for the combined company will be 0.4 x 0.2 = 0.8 or 8%  
 Hence the market value of the combined company will be

$$\frac{D1}{R - q} = \frac{\text{GH}\phi 711,000}{0.16 - 0.08} = \frac{711,000}{0.08} = 8,887,500$$

The existing market value of Pollos is 2,887,500

Hence the maximum that Pollos will pay for Gallies is 6,000,000

- iii) Combined market value 8,887,500  
 Agreed price for Gallies 5,550,000  
 New market value of existing shares in Pollos 3,387,500  
 No. of shares in issue 1,000,000  
 No. of shares =  $\frac{5,550,000}{3.3875} = \underline{1,623,616 \text{ shares}}$   
 to the old shareholders in Gallies

- i) Residual theory of dividend  
Dividend may be paid out if the capital investment needs of the company are fully met and there are funds left over. While corporate profits are cyclical, capital investment plans involve long-term commitment, so it follows that dividend may be used to take up the slack.
  
- ii) Clientele effect  
This term refers to the argument that companies attract particular types of shareholder due to their dividend decisions. It states that companies establish a track record for paying a certain level of dividend and that shareholders recognise this. Because of their shareholders' preference, companies find it difficult to change their dividend policies suddenly.
  
- iii) Signaling properties of dividend  
With asymmetry of information, dividends can be seen as signals from the company's managers to shareholders and the financial market. With some exceptions, empirical studies show that dividends convey some new information to the market.
  
- iv) The bird-in-the hand argument  
This arises from the existence of uncertainty. If the futures were certain and there were no transaction costs, potential dividends ..... by a company for the purpose of investment would lead to share price increases reflecting increases in wealth. With certainty, however, risk-averse investors are not indifferent to the division of earnings into dividend and capital gains in the share price.