ADVANCED FINANCIAL MANAGEMENT

CHANGES IN NEW STUDY MATERIAL RELEASED BY ICAI

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Chapter 1 – Financial Policy and Corporate Strategy

External Funding Requirement:

- To grow a business, it's crucial to increase **both current and non-current assets**. The Sustainable Growth Rate (SGR) represents the maximum sales growth achievable based on **profitability, asset utilization, dividend payout, and debt ratios**.
- If management is concerned about the Debt-to-Equity Ratio or Current Ratio, determining the External Funding Requirement (EFR) becomes essential. The following approaches can be used to calculate the required funding and its type:

Analytical Approach:

In this approach, **we begin by analyzing each item on the balance sheet** in relation to changes in sales and determine their amounts while considering prescribed conditions, such as maintaining specific Debt-to-Equity or Current Ratios, among others.

Formula Based Approach:

$$EFR = \left[\frac{\text{Total Assets} - \text{Payables and Liabilities}}{\text{Sales}} \text{ x Change in sales}\right] - [\text{Net profit x } (1 - d]$$

- d = Dividend Payout Ratio

Example [Not a new question – This was Jan 2021 exam question and now added in new Study Material]

The Balance Sheet of M/s. Sundry Ltd. as on 31-03-2020 is follows:

Liabilities	Amount (in lacs)	Assets	Amount (in lacs)
Share capital	300	Fixed assets	600
Reserves	200	Inventory	500
Long term loan	400	Receivables	240
Short term loan	300	Cash	60
Payables and provisions	200		
Total	**1,400**	**Total**	**1,400**

Sales for the year was Rs. 600 lakhs. The sales are expected to grow by 20% during the year. The profit margin and dividend pay-out ratio are expected to be 4% and 50% respectively. The company further desires that during the current year Sales to Short Term Loan and Payables and Provision should be in the ratio of 4:3. Ratio of fixed assets to Long Term Loans should be 1.5. Debt Equity Ratio should not exceed 1.5.

You are required to determine:

(i) The amount of External Fund Requirement (EFR)

(ii) The amount to be raised from Short Term, Long Term and Equity funds.

Answer:

WN 1: Computation of external fund requirement:

Particulars	Calculation	Amount (in lacs)
Sales of next year	600 + 20%	720.00
Profit	720 x 4%	28.80
Less: Dividend	28.80 x 50%	-14.40
Retained earnings		**14.40**
Fund required for growth of 20%	[1,400 – 200] x 20%	240.00
Balance funds to be met from external sources	**240.00 – 14.40**	**225.60**

Note:

- The company plans to grow 20 percent in current year. In order to support growth, working capital will grow by 20% and fixed assets will also increase by 20%
- Fixed assets + Working capital = 1,400 lacs – 200 lacs = 1,200 lacs

WN 2: Amount to be raised from short-term, long-term and equity funds:

Amount raised as short-term loan:

Particulars	Calculation	Amount (in lacs)
Sales of next year		720.00
Target short-term loans and payables	$720 \times \frac{3}{4}$	540.00
Less: Payables	200 + 20%	-240.00
Target short-term loan		300.00
Existing short-term loan		300.00
New short-term loan raised		**0.00**

Amount raised as long-term loan:

Particulars	Calculation	Amount (in lacs)
Fixed assets of next year	600 + 20%	720.00
Target long-term loan	$\frac{720}{1.50}$	480.00
Less: Existing long-term loan		400.00
New long-term loan to be raised		**80.00**

Amount raised as external equity:

Particulars	Calculation	Amount (in lacs)
Total external funds required	WN 1	225.60
Less: New short-term loan		0.00
Less: New long-term loan		80.00
Fresh issue of equity shares		**145.60**

Check on debt-equity ratio:

Particulars	Calculation	Amount (in lacs)
Closing equity	300 + 200 + 145.60 + 14.40	660.00
Closing debt	480 + 300	780.00
Debt-equity ratio	780/660	1.18

Conclusion:

- Debt-equity ratio does not exceed 1.50 times and hence the funds will be raised as:
  - External equity = 145.60
  - Retained earnings = 14.40
  - Long-term loan = 80.00
  - Short-term loan = 0.00

Chapter 6 – Portfolio Management

Question No.1 [Question was already there in old SM of ICAI but observation part is changed by ICAI]

The following information are available with respect of Krishna Limited:

Year	Krishna Limited Average Price	Dividend Per Share	Average Market Index	Dividend Yield	Return on Govt bonds
2012	245	20	2013	4%	7%
2013	253	22	2130	5%	6%
2014	310	25	2350	6%	6%
2015	330	30	2580	7%	6%

Compute Beta Value of the Krishna Limited at the end of 2015 and state your observation.

Answer:

WN 1: Computation of return of security 2013, 2014 and 2015:

Year	Krishna Limited Average Price	Capital Appreciation	Dividend Per Share	Total return	Return in % [Total return/Last year price]
2012	245	NA	20	NA	NA
2013	253	8	22	30	12.24% [30/245]
2014	310	57	25	82	32.41% [82/253]
2015	330	20	30	50	16.13% [50/310]

WN 2: Computation of return of market for 2013, 2014 and 2015:

Year	Average Market Index	Capital appreciation	Capital appreciation %	Dividend Yield	Total return %
2012	2013	NA	NA	4%	NA
2013	2130	117	5.81% [117/2130]	5%	10.81%
2014	2350	220	10.33% [220/2130]	6%	16.33%
2015	2580	230	9.79% [230/2350]	7%	16.79%

WN 3: Computation of Beta:

Year	Security return [X]	Market Index [Y]	XY	Y^2
2012-13	12.24	10.81	132.31	116.86
2013-14	32.41	16.33	529.25	266.67
2014-15	16.13	16.79	270.82	281.90
Total	**60.78**	**43.93**	**932.38**	**665.43**
Average	**20.26**	**14.64**		

$$\text{Beta} = \frac{(\sum XY - n\bar{X}\bar{Y})}{\sum Y^2 - n(\bar{Y})^2} = \frac{932.38 - 3 \text{ x } 20.26 \text{ x } 14.64}{665.43 - 3 \text{ x } 14.64^2} = 1.897$$

Earlier Observation:

Year	Expected return	Actual Return	Action
2012-13	6% + 1.897(10.81% - 6%) = 15.12%	12.24%	Sell
2013-14	6% + 1.897(16.33% - 6%) = 25.60%	32.41%	Buy
2014-15	6% + 1.897(16.79% - 6%) = 26.47%	16.13%	Sell

New Observation:

Based on the beta value of the company and the analysis of returns, it can be concluded that changes in the return on share of Krishna Ltd. are more affected by changes in market returns as the Beta is more than 1 Time

Question No.2 [Alternate Solution given by ICAI to the illogical question which was there in Portfolio Chapter]

Your client is holding the following securities:

Securities	Cost Rs.	Dividends/ Interest Rs.	Market price Rs.	Beta
Equity Shares:				
Gold Ltd.	10,000	1,725	9,800	0.6
Silver Ltd.	15,000	1,000	16,200	0.8
Bronze Ltd.	14,000	700	20,000	0.6
PSU Bonds	36,000	3,600	34,500	0.01

Average return on the portfolio is 15.7%. Calculate
(i) Expected rate of return in each, using the Capital Asset Pricing Model (CAPM)
(ii) Risk free rate of return

Author's Note:

- This question lacks accuracy and we will be making lots of contradictory assumption. However, this is frequently tested in exam and hence students should not ignore this problem

WN 1: Computation of Return of Market:

- Let us assume market comprises of 1 share of Gold Limited, Silver Limited, Bronze Limited and 1 PSU Bonds

Security	Cost	Market price	Capital Appreciation	Dividends	Total return
Gold Ltd	10,000	9,800	-200	1,725	1,525
Silver Ltd	15,000	16,200	1,200	1,000	2,200
Bronze Ltd	14,000	20,000	6,000	700	6,700
PSU Bonds	36,000	34,500	-1,500	3,600	2,100
Total	**75,000**				**12,525**

$$\textbf{Return of market} = \frac{\mathbf{12,525}}{\mathbf{75,000}} \mathbf{x\ 100} = \mathbf{16.70\%}$$

WN 2: Computation of Risk-free rate:

- Let us now consider the given portfolio as our portfolio and compute average Beta (Average is taken as simple average; weighted average can also be done)

$$\text{Beta of Portfolio} = \frac{0.6 + 0.8 + 0.6 + 0.01}{4} = 0.50 \text{ Times}$$

$$\text{Return of Portfolio} = R_f + \text{Beta x } (R_m - R_f)$$

$$15.70 = R_f + 0.50 \text{ x } (16.70 - R_f)$$

$$15.70 = R_f + 8.35 - 0.5R_f)$$

$$7.35 = 0.50R_f; \mathbf{R_f} = \frac{\mathbf{7.35}}{\mathbf{0.50}} = \mathbf{14.70\%}$$

WN 3: Computation of expected rate of return for each security:

Particulars	Calculation	Amount
1. Gold Limited	Rf + Beta x (Rm – Rf) 14.70 + 0.6 x (16.70 – 14.70)	15.90%
2. Silver Limited	14.70 + 0.8 x (16.70 – 14.70)	16.30%
3. Bronze Limited	14.70 + 0.6 x (16.70 – 14.70)	15.90%
4. PSU Bonds	14.70 + 0.01 x (16.70 – 14.70)	14.72%

Alternate Logical Solution given by ICAI [This is in line with a question which came in May 2024 MTP]

WN 1: Computation of Risk-free Return

$$\text{Risk free return (GOI Bonds)} = \frac{34,500 - 36,000 + 3,600}{36,000} \text{x } 100 = 5.83\%$$

WN 2: Computation of Portfolio Beta:

Security	Market Price	Beta	Product
Gold Ltd	9,800	0.6	5,880
Silver Ltd	16,200	0.8	12,960
Bronze Ltd	20,000	0.6	12,000
PSU Bonds	34,500	0.01	345
Total	**80,500**	**0.387**	**31,185**

Note:

- ICAI solution has computed Beta on the basis of market price in this question. We normally compute this on the basis of cost price. Technically both approaches are fine and it is similar to computing WACC based on book value and market value weights.

WN 3: Computation of Market Return:

Portfolio Return $= R_f + \text{Beta x } (R_m - R_f)$

$15.70 = 5.83 + 0.387 \text{ x } (R_m - 5.83)$

$9.87 = 0.387R_m - 2.256; 0.387R_m = 12.126$

$R_m = \frac{12.126}{0.387} = 31.333\%$

WN 4: Computation of expected return of each security:

Particulars	Calculation	Amount
1. Gold Limited	Rf + Beta x (Rm – Rf) 5.83 + 0.6 x (31.333 – 5.83)	21.13%
2. Silver Limited	5.83 + 0.8 x (31.333 – 5.83)	26.23%
3. Bronze Limited	5.83 + 0.6 x (31.333 – 5.83)	21.13%

Chapter 10 – Foreign Exchange Exposure and Risk Management

Mistake corrected in Illustration – No changes in solution

Earlier Question:

Suppose you are a banker and one of your export customer has booked a USD 1,00,000 forward sale contract for 2 months with you at the rate of Rs.62.5200 and simultaneously you covered yourself in the interbank market at Rs.62.5900. However on due date, after 2 months your customer comes to you and requests for cancellation of the contract and also requests for extension of the contract by one month. On this date quotation for USD in the market was as follows:

- Spot rate = Rs.62.7200/62.6800
- 1 month forward = Rs.62.6400/62.7400

Determine the extension charges payable by the customer assuming exchange margin of 0.10% on buying as well as selling.

New Question:

- Spot rate = 62.6800/62.7200

Chapter 13 – Business Valuation

Mistake corrected in question

Earlier Question:

Constant Engineering Ltd. has developed a high tech product which has reduced the Carbon emission from the burning of the fossil fuel. The product is in high demand. The product has been patented and has a market value of Rs. 100 Crore, which is not recorded in the books. The Net Worth (NW) of Constant Engineering Ltd. is Rs. 200 Crore. Long term debt is Rs. 400 Crore. The product generates a revenue of Rs. 84 Crore. The rate on 365 days Government bond is 10 percent per annum. Market portfolio generates a return of 12 percent per annum. The stock of the company moves in tandem with the market. Calculate Economic Value added of the company

New Question:

The product generates a Net Operating Profit after Tax of Rs. 84 Crore