

**MOCK TEST PAPER 2**  
**FINAL (OLD) COURSE: GROUP – I**  
**PAPER – 2: STRATEGIC FINANCIAL MANAGEMENT**  
**SUGGESTED ANSWERS/HINTS**

1. (a)

	12 Months	24 Months
1. Total Annual Charges for Loan	Rs. 3,800 X 12 – Rs.40,000 = Rs. 5,600	(Rs. 2,140X24 – Rs. 40,000)/2 = Rs. 5,680
2. Flat Rate of Interest (F)	$\frac{₹5,600}{₹40,000} \times 100 = 14\%$	$\frac{₹5,680}{₹40,000} \times 100 = 14.20\%$
3. Effective Interest Rate	$\frac{n}{n+1} \times 2F = \frac{12}{13} \times 28 = 25.85\%$	$\frac{n}{n+1} \times 2F = \frac{24}{25} \times 28.40 = 27.26\%$

Alternatively

	12 Months	24 Months
(a) Principal to be repaid	Rs.40,000	Rs. 40,000
(b) EMI	Rs.3,800	Rs.2,140
(c) PVAF (a) ÷ (b)	10.5263	18.6916
(d) Per month Interest Rate using Interpolation	2.05+ $\frac{(10.5429-10.5263)}{10.5429-10.5107} \times (0.05)$ = 2.076%	2.10+ $\frac{(18.7014-18.6916)}{18.7014-18.6593} \times (0.02)$ = 2.105%
(e) Effective Interest Rate	$(1.02076)^{12} - 1$ = 1.2796 – 1 = 0.2796 i.e. 27.96%	$(1.02105)^{12} - 1$ = 1.2840 – 1 = 0.2840 i.e. 28.40%
Or	2.076 x 12 = 24.91%	2.105 x 12 = 25.26%

(b)

**A When dividend is paid**

(i) Price per share at the end of year 1

$$100 = \frac{1}{1.10} (₹ 5 + P_1)$$

$$110 = ₹ 5 + P_1$$

$$P_1 = 105$$

(ii) Amount required to be raised from issue of new shares

$$₹ 10,00,000 - (₹ 5,00,000 - ₹ 2,50,000)$$

$$₹ 10,00,000 - ₹ 2,50,000 = ₹ 7,50,000$$

(iii) Number of additional shares to be issued

$$\frac{7,50,000}{105} = \frac{1,50,000}{21} \text{ shares or say 7143 shares}$$

(iv) Value of ABC Ltd.

(Number of shares × Expected Price per share)

i.e.,  $(50,000 + 7,143) \times \text{Rs. } 105 = \text{Rs. } 60,00,015$

#### **B When dividend is not paid**

(i) Price per share at the end of year 1

$$100 = \frac{P_1}{1.10}$$

$$P_1 = 110$$

(ii) Amount required to be raised from issue of new shares

Rs. 10,00,000 – Rs. 5,00,000 = Rs. 5,00,000

(iii) Number of additional shares to be issued

$$\frac{5,00,000}{110} = \frac{50,000}{11} \text{ shares or say 4545 shares.}$$

(iv) Value of ABC Ltd.,

$(50,000 + 4,545) \times \text{Rs. } 110$

= Rs. 59,99,950

Thus, as per M.M. approach the value of firm in both situations will be the same.

**(c) (i) Dirty Price**

= Clean Price + Interest Accrued

$$= 99.42 + 100 \times \frac{10}{100} \times \frac{262}{360} = 106.70$$

**(ii) First Leg (Start Proceed)**

$$= \text{Nominal Value} \times \frac{\text{Dirty Price}}{100} \times \frac{100 - \text{Initial Margin}}{100}$$

$$= \text{Rs. } 8,00,00,000 \times \frac{106.70}{100} \times \frac{100 - 2}{100} = \text{Rs. } 8,36,52,800 \text{ or, rounded off to Rs. } 8,36,53,000$$

$$\text{Second Leg (Repayment at Maturity)} = \text{Start Proceed} \times \left(1 + \text{Repo rate} \times \frac{\text{No. of days}}{360}\right)$$

$$= \text{Rs. } 8,36,53,000 \times \left(1 + 0.0565 \times \frac{14}{360}\right) = \text{Rs. } 8,38,36,804$$

**or**

$$= \text{Rs. } 8,36,52,800 \times \left(1 + 0.0565 \times \frac{14}{360}\right) = \text{Rs. } 8,38,36,604$$

**(d) VALUATION BASED ON MARKET PRICE**

Market Price per share Rs. 400

Thus value of total business is (Rs. 400 × 1.5 Cr.) Rs. 600 Cr.

## VALUATION BASED ON DISCOUNTED CASH FLOW

Present Value of cash flows

$$(\text{Rs. } 250 \text{ cr} \times 0.893) + (\text{Rs. } 300 \text{ cr.} \times 0.797) + (\text{Rs. } 400 \text{ cr.} \times 0.712) = \text{Rs. } 747.15 \text{ Cr.}$$

Value of per share (Rs. 747.15 Cr. / 1.5 Cr) Rs. 498.10 per share

### RANGE OF VALUATION

	Per Share Rs.	Total Rs. Cr.
Minimum	400.00	600.00
Maximum	498.10	747.15

2. (a) Bank will buy from customer at the agreed rate of Rs. 70.40. In addition to the same if bank will charge/ pay swap difference and interest on outlay/inlay in funds.

- (i) Swap Difference

Bank Sells at Spot Rate on 28<sup>th</sup> November 2019 Rs. 70.22

Bank Buys at Forward Rate of 31 December 2019 (70.27 - 0.10) Rs. 70.17

Swap Gain per US\$ Rs. 00.05

Swap Gain for US\$ 1,00,000 Rs. 5,000

- (ii) Interest on Outlay Funds

On 28<sup>th</sup> November Bank sells at Rs. 70.22

It buys from customer at Rs. 70.40

Outlay of Funds per US\$ Rs. 00.18

Interest on Outlay fund for US\$ 1,00,000 for 31 days Rs. 153.00

(US\$100000 x 00.18 x 31/365 x 10%)

- (iii) Gain on early delivery

Swap Gain Rs. 5,000.00

Interest on Outlay fund for US\$ 1,00,000 for 31 days (Rs. 153.00)

Rs. 4,847.00

- (iv) Net Inflow to Mr. X

Amount received on sale (Rs. 70.40 x 1,00,000) Rs. 70,40,000

Add: Gain on early delivery received by bank Rs. 4,847

Rs. 70,44,847

- (b) (i) For finding expected market price first we shall calculate Intrinsic Value of Bond as follows:

PV of Interest + PV of Maturity Value of Bond

Forward rate of interests

1<sup>st</sup> Year 12%

2<sup>nd</sup> Year 11.62%

3<sup>rd</sup> Year 11.33%

4<sup>th</sup> Year 11.06%

5<sup>th</sup> Year 10.80%

$$\text{PV of interest} = \frac{\text{Rs. } 90}{(1+0.12)} + \frac{\text{Rs. } 90}{(1+0.1162)^2} + \frac{\text{Rs. } 90}{(1+0.1133)^3} + \frac{\text{Rs. } 90}{(1+0.1106)^4} + \frac{\text{Rs. } 90}{(1+0.1080)^5}$$

$$\begin{aligned}
&= \text{Rs. } 90 \times 0.8929 + \text{Rs. } 90 \times 0.8026 + \text{Rs. } 90 \times 0.7247 + \text{Rs. } 90 \times 0.6573 + \text{Rs. } 90 \times 0.5988 \\
&= \text{Rs. } 80.36 + \text{Rs. } 72.23 + \text{Rs. } 65.22 + \text{Rs. } 59.16 + \text{Rs. } 53.89 \\
&= \text{Rs. } 330.86
\end{aligned}$$

$$\text{PV of Maturity Value of Bond} = \frac{\text{Rs. } 1000}{(1+0.1080)^5}$$

$$= \text{Rs. } 1,000 \times 0.5988 = \text{Rs. } 598.80$$

$$\text{Intrinsic value of Bond} = \text{Rs. } 330.86 + \text{Rs. } 598.80 = \text{Rs. } 929.66$$

$$\begin{aligned}
\text{Expected Price} &= \text{Intrinsic Value} \times \text{Beta Value} \\
&= \text{Rs. } 929.66 \times 1.10 = \text{Rs. } 1,022.63
\end{aligned}$$

(ii) The given yield curve is inverted yield curve.

The main reason for this shape of curve is expectation for forthcoming recession when investors are more interested in Short-term rates over the long term.

### 3. (a) Working Notes:

#### (i) The Earnings of S Ltd.

	Rs. lakh
Earnings of C Ltd.	10000
Earnings of D Ltd.	5800
	15800
Growth	0.08
Earnings of S Ltd. (15800 X 1.08)	17064

#### (ii) Market Value of S Ltd.

	Rs. lakh
Earnings of S Ltd.	17064
P/E Ratio (10+9)/2	9
Market Value of S Ltd.	153576

#### (iii) No. of shares in S Ltd.

No. of shares of C Ltd.	4000
No. of shares issued to P Ltd.	3000
No. of shares of C Ltd.	7000

#### Gain to Shareholders of P Ltd.

Share of Shareholders of P Ltd. in S Ltd. (3000/7000) x 153576	Rs. 65818.29 lakh
Market Value of P Ltd. before merger (5800 X 10)	Rs. 58000.00 lakh
Gains to Shareholders	Rs. 7818.29 lakh
No. of Shares (before merger)	1000 lakh
Gain Per Share	Rs. 7.82

(b)

Shares	No. of shares	Price	Amount (Rs.)
Nairobi Ltd.	25,000	20.00	5,00,000
Dakar Ltd.	35,000	300.00	1,05,00,000
Senegal Ltd.	29,000	380.00	1,10,20,000
Cairo Ltd.	40,000	500.00	2,00,00,000
			4,20,20,000
Less: Accrued Expenses			2,50,000
Other Liabilities			2,00,000
Total Value			4,15,70,000
No. of Units			10,00,000
NAV per Unit (4,15,70,000/10,00,000)			41.57

4. (a) (i) To compute perfect hedge we shall compute Hedge Ratio ( $\Delta$ ) as follows:

$$\Delta = \frac{C_1 - C_2}{S_1 - S_2} = \frac{150 - 0}{780 - 480} = \frac{150}{300} = 0.50$$

Mr. Dayal should purchase 0.50 share for every 1 call option.

- (ii) Value of Option today

If price of share comes out to be Rs.780 then value of purchased share will be:

Sale Proceeds of Investment (0.50 x Rs. 780)	Rs. 390
Loss on account of Short Position (Rs. 780 – Rs. 630)	Rs. 150
	<u>Rs. 240</u>

If price of share comes out to be Rs. 480 then value of purchased share will be:

Sale Proceeds of Investment (0.50 x Rs. 480)	Rs. 240
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Accordingly, Premium say P shall be computed as follows:

$$(\text{Rs. } 300 - P) 1.025 = \text{Rs. } 240$$

$$P = \text{Rs. } 65.85$$

- (iii) Expected Return on the Option

$$\text{Expected Option Value} = (\text{Rs. } 780 - \text{Rs. } 630) \times 0.60 + \text{Rs. } 0 \times 0.40 = \text{Rs. } 90$$

$$\text{Expected Rate of Return} = \frac{90 - 65.85}{65.85} \times 100 = 36.67\%$$

- (b) (i) Working for calculation of WACC

	Orange	Grape	Apple
Total debt	80,000	50,000	20,000
Post tax Cost of debt	10.40%	8.45%	9.75%
Equity Fund	20,000	50,000	80,000
Cost of equity	26%	22%	20%

**WACC**

Orange:  $(10.40 \times 0.8) + (26 \times 0.2) = 13.52\%$

Grape:  $(8.45 \times 0.5) + (22 \times 0.5) = 15.225\%$

Apple:  $(9.75 \times 0.2) + (20 \times 0.8) = 17.95\%$

	Orange	Grape	Apple
WACC (%)	13.52	15.225	17.95
EVA [EBIT (1-T)-(WACC x Invested Capital)]	3,770	1,350	-1,050

Alternatively, it can also be computed as follows:

	Orange	Grape	Apple
Net Income (Rs.)	8,970	12,350	14,950
Pre Tax Income (Rs.) (A)	13,800	19,000	23,000
Debt Amount (Rs.)	80,000	50,000	20,000
Interest (Rs.) (B)	12,800	6,500	3,000
EBIT (Rs.)	26,600	25,500	26,000
Tax 35% (Rs.)	9,310	8,925	9,100
EAT	17,290	16,575	16,900
Less: WACC X Invested Capital	13,520	15,225	17,950
EVA (Rs.)	3,770	1,350	-1,050

(iii) Orange would be considered as the best investment since the EVA of the company is highest and its weighted average cost of capital is the lowest

(iv) Estimated Price of each company shares

	Orange	Grape	Apple
EBIT (Rs.)	26,600	25,500	26,000
Interest (Rs.)	12,800	6,500	3,000
Taxable Income (Rs.)	13,800	19,000	23,000
Tax 35% (Rs.)	4,830	6,650	8,050
Net Income (Rs.)	8,970	12,350	14,950
Shares	6,100	8,300	10,000
EPS (Rs.)	1.4705	1.488	1.495
Stock Price (EPS x PE Ratio) (Rs.)	16.18	16.37	16.45

Since the three entities have different capital structures they would be exposed to different degrees of financial risk. The PE ratio should therefore be adjusted for the risk factor.

**Alternative Answer**

	Orange	Grape	Apple
Net Income (Given) (Rs.)	8,970	12,350	14,950
Shares	6,100	8,300	10,000
EPS (Rs.)	1.4705	1.488	1.495
Stock Price (EPS x PE Ratio) (Rs.)	16.18	16.37	16.45

(v) **Market Capitalisation**

Estimated Stock Price (Rs.)	16.18	16.37	16.45
No. of shares	6,100	8,300	10,000
Estimated Market Cap (Rs.)	98,698	1,35,871	1,64,500

5. (a) (i) **(a) Borrow and Buy Option**

	Year 0	Year 1	Year 2	Year 3
Purchase Price	Rs. 80,00,000	-	-	-
Maintenance Cost	-	Rs. 4,00,000	Rs. 4,00,000	Rs. 4,00,000
Residual Value	-	-	-	(Rs. 20,00,000)
Total	Rs. 80,00,000	Rs. 4,00,000	Rs. 4,00,000	(Rs. 16,00,000)
PVF@8%	1.00	0.926	0.857	0.794
PV	Rs. 80,00,000	Rs. 3,70,400	Rs. 3,42,800	(Rs. 12,70,400)
Present Value of Outflow				Rs. 74,42,800

**(b) Leasing Option**

PV of Cash Outflow = Rs. 27,50,000 (1 + 0.926 + 0.857) = Rs. 76,53,250

Decision: Since PV of cash outflow is least in case of Borrowing and Buying option it should be acquired by borrowing.

- (ii) To make choice between normal maintenance and upgraded maintenance we shall compute EAC in each of Replacement Cycle.

**(A) 3-year Replacement Cycle – Normal Maintenance**

	Year 0	Year 1	Year 2	Year 3
Initial Cost	Rs. 80,00,000	-	-	-
Maintenance Cost	-	Rs. 4,00,000	Rs. 4,00,000	Rs. 4,00,000
Residual Value	-	-	-	(Rs. 20,00,000)
	Rs. 80,00,000	Rs. 4,00,000	Rs. 4,00,000	(Rs. 16,00,000)
PVF@10%	1	0.909	0.826	0.751
PV	Rs. 80,00,000	Rs. 3,63,600	Rs. 3,30,400	(Rs. 12,01,600)
Total Value of Outflow				Rs. 74,92,400
PVA@10%				2.486
Equivalent Annual Cost (Rs. 74,92,400/2.486)				Rs. 30,13,837

**(B) 4-year Replacement Cycle – Upgraded Maintenance**

	Year 0	Year 1	Year 2	Year 3	Year 4
Initial Cost	Rs. 80,00,000	-	-	-	-
Maintenance Cost	-	Rs. 6,00,000	Rs. 6,00,000	Rs. 6,00,000	Rs. 6,00,000
Residual Value	-	-	-	-	(Rs. 5,50,000)
	Rs. 80,00,000	Rs. 6,00,000	Rs. 6,00,000	Rs. 6,00,000	Rs. 50,000
PVF@10%	1	0.909	0.826	0.751	0.683
PV	Rs. 80,00,000	Rs. 5,45,400	Rs. 4,95,600	Rs. 4,50,600	Rs. 34,150
Total Value of Outflow					Rs. 95,25,750
PVA@10%					3.169
Equivalent Annual Cost (Rs. 95,25,750/3.169)					Rs. 30,05,917

In case machine with upgraded maintenance is bought the EAC will be less and hence same should be opted for.

(b) Net Issue Size = \$15 million

$$\text{Gross Issue} = \frac{\$15 \text{ million}}{0.98} = \$15.306 \text{ million}$$

Issue Price per GDR in Rs. (300 x 3 x 90%) Rs. 810

Issue Price per GDR in \$ (Rs. 810/ Rs. 60) \$13.50

Dividend Per GDR ( $D_1$ ) = Rs. 2 x 3 = Rs. 6

Net Proceeds Per GDR = Rs. 810 x 0.98 = Rs. 793.80

(1) Number of GDR to be issued

$$\frac{\$15.306 \text{ million}}{\$13.50} = 1.1338 \text{ million}$$

(2) Cost of GDR to Odessa Ltd.

$$k_e = \frac{6.00}{793.80} + 0.20 = 20.76\%$$

#### 6. (a) (i) Do Nothing

We shall compute the cross rates in Spot Market on both days and shall compare the amount payable in INR on these two days.

On 1<sup>st</sup> February 2020

Rupee – Dollar selling rate	= Rs. 75.50
Dollar – SKW	= SKW 1190.00
Rupee – SKW cross rate	= Rs. 75.50 / 1190.00
	= Rs. 0.0634

Amount payable to Importer as per above rate (1190 Million x Rs. 0.0634) Rs. 754.4600 Lakh

On 1<sup>st</sup> March 2020

Rupee – Dollar selling rate	= Rs. 75.75
Dollar – SKW	= SKW 1188.00
Rupee – SKW cross rate	= Rs. 75.75 / 1188.00
	= Rs. 0.0638

Amount payable to Importer as per above rate (1190 Million x Rs. 0.0638) Rs. 759.2200 Lakh

Thus, Exchange Rate Loss = (Rs. 759.2200 Lakh - Rs. 754.4600 Lakh) Rs. 4.7600 Lakh

#### (ii) Hedging in NDF

Since company needs SKW after one month it will take long position in SKW at quoted rate of SKW 1190/ USD and after one-month it will reverse its position at fixing rate of SKW 1187/USD. The profit/ loss position will be as follows:



Buy SKW 1190 Million and sell USD (1190 Million/ 1190)	USD 1,000,000
Sell SKW 1190 Million and buy USD at Fixing Rate (1190 Million/ 1185)	USD 1,004,219
Profit	USD 4,219

#### Final Position

Amount Payable in Spot Market (as computed earlier)	Rs. 759.2200 Lakh
Less: Profit form NDF Market USD 4219 x 75.50	Rs. 3.1853 Lakh
	Rs. 756.0347 Lakh

Thus, Exchange Rate Loss = (Rs. 756.0347 Lakh - Rs. 754.4600 Lakh) Rs. 1.5747 Lakh

**Decision:** Since Exchange Loss is less in case of NDF same can be opted for.

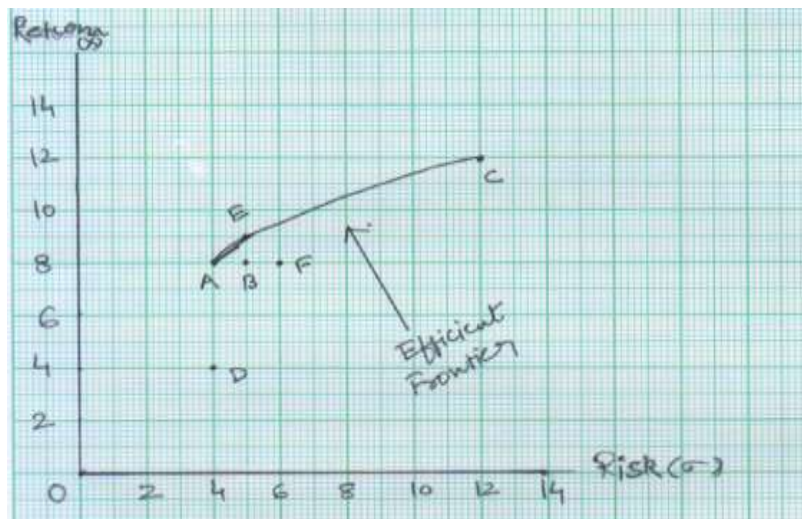
- (b) (i) Security A has a return of 8% for a risk of 4, whereas B and F have a higher risk for the same return. Hence, among them A dominates.

For the same degree of risk 4, security D has only a return of 4%. Hence, D is also dominated by A.

Securities C and E remain in reckoning as they have a higher return though with higher degree of risk.

Hence, the ones to be selected are A, C & E.

Alternatively, three securities can also be found as follows:



Since securities other than A, E and C are not on Efficient Frontier they are rejected.

- (ii) The average values for A and C for a proportion of 3 : 1 will be :

$$\text{Risk} = \frac{(3 \times 4) + (1 \times 12)}{4} = 6\%$$

$$\text{or } \sqrt{(0.75)^2 \times (4)^2 + (0.25)^2 \times (12)^2 + 2 \times 0.75 \times 0.25 \times 4 \times 12 \times 1} = 6\%$$

$$\text{Return} = \frac{(3 \times 8) + (1 \times 12)}{4} = 9\%$$

Therefore:	75% A	E
	25% C	–
Risk	6	5
Return	9%	9%

For the same 9% return the risk is lower in E. Hence, E will be preferable.

7. (a) The given statement is true to a certain extent in reference to Mutual Funds where the concept of Quant Fund is becoming popular day by day.

Quant Fund follows a data-driven approach for stock selection or investment decisions based on a pre-determined rules or parameters using statistics or mathematics based models.

Contrary to an active fund Manager who selects the quantum and timing of investments i.e. entry or exit, this fund completely rely on an automated programme for making decision for quantum of investment as well as its timings.

It does not mean that there is no human intervention at all, the Fund Manager usually focuses on the robustness of the Models in use and also monitors their performance or some modification is required.

Sometime a Quant Fund manager is confused with Index Fund Manager but it is not so as the Index Fund Manager may entirely hands off the investment decision purely based on Index, while Quant Fund Manager often designs and monitors models that throw up the choices.

The main advantage of Quant Fund is that it eliminates the human biasness and subjectivity. Further using model based approach also ensures consistency in strategy across the market conditions.

Also since the Quant Fund normally follows passive strategy, the exposure ratio tends to be lower.

Since Quant Fund uses highly sophisticated strategies investors who well understand Stock Valuation methods, different stock picking styles, the market sentiments and derivatives etc. should invest in the same. Further since Quant Fund are tested on the basis of historical data and past trends though cannot altogether be ignore but also cannot be used blindly as good indicators.

Thus, overall it can be said that whether it is human or a machine it is not easy to beat the market.

- (b) The key decisions falling within the scope of financial strategy include the following:

1. **Financing decisions:** These decisions deal with the mode of financing or mix of equity capital and debt capital.
2. **Investment decisions:** These decisions involve the profitable utilization of firm's funds especially in long-term projects (capital projects). Since the future benefits associated with such projects are not known with certainty, investment decisions necessarily involve risk. The projects are therefore evaluated in relation to their expected return and risk.
3. **Dividend decisions:** These decisions determine the division of earnings between payments to shareholders and reinvestment in the company.
4. **Portfolio decisions:** These decisions involve evaluation of investments based on their contribution to the aggregate performance of the entire corporation rather than on the isolated characteristics of the investments themselves.

- (c) A very important phenomenon witnessed in the Mergers and Acquisitions scene, in recent times is one of buy - outs. A buy-out happens when a person or group of persons gain control of a company by buying all or a majority of its shares. A buyout involves two entities, the acquirer and the target company. The acquirer seeks to gain controlling interest in the company being acquired normally through purchase of shares.

There are two common types of buy-outs: Leveraged Buyouts (LBO) and Management Buy-outs (MBO).

LBO is the purchase of assets or the equity of a company where the buyer uses a significant amount of debt and very little equity capital of his own for payment of the consideration for acquisition.

MBO is the purchase of a business by its management, who when threatened with the sale of its business to third parties or frustrated by the slow growth of the company, step-in and acquire the business from the owners, and run the business for themselves. The majority of buy-outs is management buy-outs and involves the acquisition by incumbent management of the business where they are employed. Typically, the purchase price is met by a small amount of their own funds and the rest from a mix of venture capital and bank debt.

Internationally, the two most common sources of buy-out operations are divestment of parts of larger groups and family companies facing succession problems. Corporate groups may seek to sell subsidiaries as part of a planned strategic disposal programme or more forced reorganisation in the face of parental financing problems. Public companies have, however, increasingly sought to dispose of subsidiaries through an auction process partly to satisfy shareholder pressure for value maximisation.

In recessionary periods, buy-outs play a big part in the restructuring of a failed or failing businesses and in an environment of generally weakened corporate performance often represent the only viable purchasers when parents wish to dispose of subsidiaries.

Buy-outs are one of the most common forms of privatisation, offering opportunities for enhancing the performances of parts of the public sector, widening employee ownership and giving managers and employees incentives to make best use of their expertise in particular sectors.

- (d) **Re-investment Risk:** This risk is again akin to all those securities, which generate intermittent cash flows in the form of periodic coupons. The most prevalent tool deployed to measure returns over a period of time is the Yield-to-Maturity (YTM) method. The YTM calculation assumes that the cash flows generated during the life of a security is reinvested at the rate of YTM. The risk here is that the rate at which the interim cash flows are reinvested may fall thereby affecting the returns.

Thus, reinvestment risk is the risk that future coupons from a bond will not be reinvested at the prevailing interest rate when the bond was initially purchased.

**Default Risk:** The event in which companies or individuals will be unable to make the required payments on their debt obligations. Lenders and investors are exposed to default risk in virtually all forms of credit extensions. To mitigate the impact of default risk, lenders often charge rates of return that correspond the debtor's level of default risk. The higher the risk, the higher the required return, and vice versa. This type of risk in the context of a Government security is always zero.

- (e) It is increasingly realised that commercial evaluation of projects is not enough to justify commitment of funds to a project especially when the project belongs to public utility and irrespective of its financial viability it needs to be implemented in the interest of the society as a whole. Huge amount of funds are committed every year to various public projects of all types— industrial, commercial and those providing basic infrastructure facilities. Analysis of such projects has to be done with reference to the social costs and benefits since they cannot be expected to

yield an adequate commercial rate of return on the funds employed at least during the short period. A social rate of return is more important. The actual costs or revenues do not necessarily reflect the monetary measurement of costs or benefits to the society. This is because the market price of goods and services are often grossly distorted due to various artificial restrictions and controls from authorities, hence a different yardstick has to be adopted for evaluating a particular project of social importance and its costs and benefits are valued at 'opportunity cost' or shadow prices to judge the real impact of their burden as costs to the society. Thus, social cost benefit analysis conducts a monetary assessment of the total cost and revenues or benefits of a project, paying particular attention to the social costs and benefits which do not normally feature in conventional costing.

United Nations Industrial Development Organisation (UNIDO) and Organisation of Economic Cooperation and Development (OECD) have done much work on Social Cost Benefit analysis. A great deal of importance is attached to the social desirability of projects like employment generation potential, value addition, foreign exchange benefit, living standard improvement etc. UNIDO and OECD approaches need a serious consideration in the calculation of benefits and costs to the society. This technique has got more relevance in the developing countries where public capital needs precedence over private capital.