

### Method of EVA Analysis

Steps in EVA analysis:

- (i) The market value of the company in the year just prior to the Merger or Acquisition being affected is taken as  $MV_0$ .
- (ii) Then the Current Operations Value COV is determined. For this purpose Capex (Book capital) is taken as net worth plus interest bearing debt in the year 0 i.e.; in the year prior to the merger or acquisition. Then EVA for the year 0 is determined, capitalized at the weighted average cost of capital of that year and the resulting figure is then added to Capex to get COV

$$\text{Therefore COV} = \text{Capex} + (\text{EVA}_0 / k)$$

- (iii) Then the Future Growth Value FGV of the company, i.e.; expectational component (or the expectations of the investors) is calculated as  $\text{FGV} = (\text{MV}_0 - \text{Capex})$

(iv) The actual EVA is then calculated for each year post M&A for which data is available. The year to year improvement in EVA (or  $\Delta\text{EVA}$ ) are calculated and the Present Value of these improvements is determined using the weighted cost of capital. The present value of EVA improvements is then capitalized to perpetuity by multiplying with a factor of  $(1+k) / k$  and this is equal to the Actual FGV achieved post deal.

- (v) The last step is to compare the Actual FGV obtained in step (iv) with the expected FGV calculated in step (iii). If the actual FGV is greater than the

expected FGV it can be concluded that the Merger or Acquisition has resulted in an addition to shareholder's wealth.

Definition of the terms used:

Post tax cost of debt  $k_d = \text{Interest} / \text{debt} (1-t)$

Weighted Average Cost of Capital =  $k_d * (\text{debt} / \text{capital}) + k_e * (\text{net worth} / \text{capital})$

$k_e = \text{Cost of equity}$  ( $k_e$  has been arrived at similar to WAI computations)

Actual FGV =  $(1+k) / k * \sum [(\Delta \text{EVA} / (1+k/100)^t)]$

## DATA SHEET: IOCL

IOCL	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	778.7	778.7	778.7	778.7	1168.0
Reserves & Surpluses	13286.1	15192.3	14532.4	18149.3	21879.4
<b>Net Worth</b>	14064.8	15971.0	15311.1	18928.0	23047.4
<b>Loan Funds :</b>					
Secured Loans	3850.6	4713.3	4617.0	4701.1	3175.2
Unsecured Loans	10866.8	15922.5	14453.0	9794.0	9003.4
<b>Total Debt</b>	14717.4	20635.8	19070.0	14495.1	12178.6
<b>Total Capital Employed</b>	28782.2	36606.8	34381.1	33423.1	35226.0
<b>Total Assets</b>	28782.0	36607.0	37786.0	37296.0	39509.
<b>Income :</b>					
Net sales/Turnover	94141.0	117371.0	114864.0	105036.6	113698.4
<b>Total income</b>	95824.0	122433.8	115716.50	112977.3	119175.3
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	89853.0	116573.8	108193.1	102144.5	107157.5
<b>PBDIT(Profit Before Depreciation Interest &amp; Tax)</b>	5971.0	5860.0	7523.4	10832.8	12017.8
<b>Depreciation</b>	1994.6	1223.4	1379.6	1656.3	1873.8
<b>PBIT</b>	3976.4	4636.6	6143.8	9176.5	10144.0
Interest	1006.0	1674.0	1544.4	762.5	452.7
<b>PBT( Profit Before Tax)</b>	2970.4	2962.6	4599.4	8414.0	9691.3
Taxes	527.2	242.3	1714.7	2299.1	2686.4
<b>PAT (Profit After Tax)</b>	2443.4	2720.3	2884.7	6114.9	7004.8
<b>Dividends</b>	584.0	739.7	856.5	2258.2	2452.8
<b>EPS</b>	20.92	23.29	24.70	52.35	59.97
<b>GPM</b>	6.3	5.0	6.6	10.3	10.6
<b>NPM</b>	2.6	2.32	2.5	5.8	6.2
<b>ROCE</b>	13.8	12.7	17.9	27.5	28.8
<b>D/E</b>	1.05	1.29	1.25	0.76	0.53
<b>Market capitalization</b>	NA	108.1	60.2	264.6	3164.5

### DATA SHEET: IBP

IBP	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	22.15	22.15	22.15	22.15	22.15
Reserves & Surpluses	317.1	346.94	423.88	476.71	603.86
<b>Net Worth</b>	339.25	369.09	446.03	498.86	626.01
<b>Loan Funds :</b>					
Secured Loans	41.85	68.99	0.00	0.00	0.00
Unsecured Loans	580.02	371.89	0.00	0.00	0.00
<b>Total Debt</b>	621.87	440.88	0.00	0.00	0.00
<b>Total Capital Employed</b>	961.12	809.97	446.03	498.86	626.01
<b>Total Assets</b>	961.12	809.97	510.41	575.06	709.57
<b>Income :</b>					
Net sales/Turnover	6322.5	8079.7	8039.23	8358.8	10148.19
<b>Total income</b>	6360.2	8362.13	8045.17	8723.3	10233.01
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	6210.0	8171.3	7690.81	8537.6	9858.47
<b>PBDIT(Profit Before Depreciation Interest &amp; Tax)</b>	150.1	190.8	354.36	185.7	374.54
<b>Depreciation</b>	22.1	40.95	34.87	44.4	41.27
<b>PBIT</b>	128.0	149.84	319.5	141.3	333.3
Interest	81.0	88.62	29.54	0.5	0.68
<b>PBT( Profit Before Tax)</b>	47.0	61.22	289.95	140.8	332.6
Taxes	6.0	7.0	94.16	52.99	117.94
<b>PAT (Profit After Tax)</b>	41.7	54.22	195.79	87.81	214.6
<b>Dividends</b>	10.2	24.41	22.15	31.0	77.52
<b>EPS</b>	18.83	24.48	42.82	39.62	96.92
<b>GPM</b>	2.4	2.4	4.4	2.2	3.7
<b>NPM</b>	0.66	0.70	2.4	1.05	2.1
<b>ROCE</b>	13.3	18.5	71.6	28.3	53.2
<b>D/E</b>	1.83	1.19	0.0	0.00	0.00
<b>Market capitalization</b>	NA	34.9	92.8	199.2	489.8

## DATA SHEET: ONGC Ltd.

ONGC Ltd.	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	1425.93	1425.93	1425.93	1425.93	1425.93
Reserves & Surpluses	25384.32	28885.36	28296.25	34313.03	39117.17
<b>Net Worth</b>	26810.25	30311.29	29722.18	35738.96	40543.09
<b>Loan Funds :</b>					
Secured Loans	368.13	208.5	0.00	0.00	0.00
Unsecured Loans	6727.14	4271.24	3510.84	800.23	3378.59
<b>Total Debt</b>	7095.27	4479.74	3510.84	800.23	3378.59
<b>Total Capital Employed</b>	33905.52	34791.02	33233.02	36539.19	43921.68
<b>Total Assets</b>	34005.20	34791.02	3858.08	41774.03	57792.94
<b>Income :</b>					
Net sales/Turnover	19992.03	23179.10	22528.42	34229.53	32076.01
<b>Total income</b>	20090.64	25215.98	24558.70	36288.27	33597.32
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	9278.17	10476.62	10291.50	13796.15	14215.92
PBDIT(Profit Before Depreciation Interest & Tax)	10812.47	14739.36	14267.20	22492.12	19381.41
<b>Depreciation</b>	4252.3	5059.12	4127.23	6262.34	5695.04
<b>PBIT</b>	6560.17	9680.24	10139.97	16229.78	13117.03
Interest	600.3	523.4	284.74	146.59	47.96
<b>PBT( Profit Before Tax)</b>	5959.87	9156.85	9855.23	16083.19	13609.07
Taxes	2330.4	3928.07	3657.35	5594.52	4944.62
<b>PAT (Profit After Tax)</b>	3629.47	5228.78	6197.88	10529.33	8664.45
<b>Dividends</b>	926.86	1568.53	1996.31	427.80	3422.24
<b>EPS</b>	25.45	36.67	43.47	73.84	60.76
<b>GPM</b>	54.0	63.6	63.3	65.70	60.4
<b>NPM</b>	18.2	22.6	27.5	30.8	27.01
<b>ROCE</b>	19.35	27.8	30.51	44.4	31.1
<b>D/E</b>	0.26	0.15	0.12	0.02	0.28
<b>Market capitalization</b>	NA	NA	145	1802	13321

### DATA SHEET: MRPL

MRPL	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	792.15	792.53	792.16	1759.60	1752.61
Reserves & Surpluses	173.76	-(11.29)	(-325.69)	(-737.50)	(-278.08)
<b>Net Worth</b>	965.91	780.86	466.47	1022.10	1474.53
<b>Loan Funds :</b>					
Secured Loans	5015.72	4995.03	4990.67	4431.04	1782.09
Unsecured Loans	392.58	56.63	753.45	964.14	3062.21
<b>Total Debt</b>	5408.30	5051.65	5744.12	5395.18	4844.30
<b>Total Capital Employed</b>	6374.21	5832.51	6210.59	6417.29	6318.83
<b>Total Assets</b>	6374.21	5832.51	7009.73	7601.79	6955.15
<b>Income :</b>					
Net sales/Turnover	3216.02	2883.59	5353.91	8058.77	11390.64
<b>Total income</b>	2971.86	2896.15	5505.29	8204.58	11998.67
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	2846.42	2773.72	5248.56	7916.54	10672.56
<b>PBDIT(Profit Before Depreciation Interest &amp; Tax)</b>	125.44	122.43	256.73	288.04	1326.11
<b>Depreciation</b>	99.57	162.70	363.35	373.74	378.19
<b>PBIT</b>	25.87	(-40.27)	(-106.62)	(-85.70)	947.92
Interest	325.55	237.83	672.29	567.07	373.19
<b>PBT( Profit Before Tax)</b>	(-299.68)	(-278.10)	(-778.91)	(-652.77)	574.50
Taxes	0.024	0.034	0.00	0.00	115.09
<b>PAT (Profit After Tax)</b>	(-299.70)	(-278.13)	(-492.48)	(-411.81)	459.41
<b>Dividends</b>	0.00	0.00	0.00	0.00	0.00
<b>EPS</b>	(-3.78)	(-2.34)	(-6.20)	(-5.15)	1.44
<b>GPM</b>	3.9	4.25	4.8	3.57	11.64
<b>NPM</b>	(-9.32)	(-9.65)	(-9.20)	(-5.11)	4.03
<b>ROCE</b>	0.40	(-0.70)	(-1.72)	(-1.34)	15.0
<b>D/E</b>	5.6	6.47	12.31	5.34	3.29
<b>Market capitalization</b>	NA	NA	4.1	19.8	927.20

### DATA SHEET: RIL

RIL	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	1053.0	1053.0	1054.0	1396.0	1396.0
Reserves & Surpluses	12636.0	13712.0	26416.0	28978.49	33056.50
<b>Net Worth</b>	13689.0	14765.0	27470.0	30374.49	34452.50
<b>Loan Funds :</b>					
Secured Loans	5988.11	4068.4	14189.0	11776.86	11451.14
Unsecured Loans	5532.13	6067.39	4739.6	7981.45	9493.52
<b>Total Debt</b>	11520.24	10135.79	18928.6	19758.31	20944.66
<b>Total Capital Employed</b>	25209.24	24900.79	46398.6	50132.80	55397.16
<b>Total Assets</b>	25209.24	24900.79	46398.60	52817.54	58871.93
<b>Income :</b>					
Net sales/Turnover	17849.9	25429.3	42122.0	45897.79	51801.53
<b>Total income</b>	20988.0	28391.0	57902.0	49334.49	52334.17
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	16242.0	22829.0	49244.0	39968.03	41351.29
<b>PBDIT(Profit Before Depreciation Interest &amp; Tax)</b>	4746.00	5562.0	8658.0	9366.46	10982.88
<b>Depreciation</b>	1278.0	1565.0	2816.0	2837.09	3247.02
<b>PBIT</b>	3468.0	3997.0	5842.0	6529.37	7735.86
Interest	1003.75	1211.50	1407.0	1555.16	1434.72
<b>PBT( Profit Before Tax)</b>	2464.25	2785.5	4435.0	4974.21	6301.14
Taxes	61.0	139.50	1192.0	869.0	1141.00
<b>PAT (Profit After Tax)</b>	2403.25	2646.00	3243.0	4104.31	5160.14
<b>Dividends</b>	384.08	447.85	663.28	698.19	733.10
<b>EPS</b>	22.47	25.10	23.40	29.25	36.79
<b>GPM</b>	26.6	21.9	20.6	20.4	21.2
<b>NPM</b>	13.5	10.4	7.7	8.9	9.96
<b>ROCE</b>	13.8	16.1	12.6	13.02	14.0
<b>D/E</b>	0.82	0.69	0.64	0.60	0.56
<b>Market capitalization</b>	NA	45984	15045	12420	34218

### DATA SHEET: IPCL

IPCL	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	249.05	249.05	249.05	249.05	249.05
Reserves & Surpluses	2783.50	2946.13	2578.24	2036.07	2023.07
<b>Net Worth</b>	3032.55	3195.18	2827.29	2285.12	2272.12
<b>Loan Funds :</b>					
Secured Loans	1448.56	994.09	1984.84	1720.13	1190.03
Unsecured Loans	3297.82	3281.67	1731.45	1607.13	976.02
<b>Total Debt</b>	4746.38	4275.76	3716.29	3327.26	2166.05
<b>Total Capital Employed</b>	7778.93	7470.94	6543.58	5612.38	4438.17
<b>Total Assets</b>	7778.93	7470.94	6732.00	7087.51	5933.31
<b>Income :</b>					
Net sales/Turnover	4060.04	5005.97	4739.9	5028.99	8097.82
<b>Total income</b>	3991.61	5025.00	4793.08	5411.43	8069.52
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	3015.52	3845.30	4039.01	4325.48	6962.13
<b>PBDIT (Profit Before Depreciation Interest &amp; Tax)</b>	976.09	1179.70	754.07	1085.95	1107.39
<b>Depreciation</b>	316.57	416.71	185.03	454.34	471.59
<b>PBIT</b>	659.52	762.99	569.04	631.61	635.80
Interest	387.55	490.95	373.67	368.97	299.24
<b>PBT (Profit Before Tax)</b>	271.97	272.04	195.37	262.64	336.56
Taxes	83.12	23.13	87.90	58.47	63.0
<b>PAT (Profit After Tax)</b>	188.85	248.91	107.47	204.17	273.56
<b>Dividends</b>	49.65	74.47	49.65	55.85	62.05
<b>EPS</b>	7.61	10.00	4.33	8.23	11.02
<b>GPM</b>	24.04	23.57	15.91	21.6	13.7
<b>NPM</b>	4.65	5.0	2.27	4.1	3.4
<b>ROCE</b>	8.5	10.22	8.7	11.25	14.33
<b>D/E</b>	1.56	1.34	1.31	1.46	0.95
<b>Market capitalization</b>	NA	NA	515	1785	2478

### DATA SHEET: BPCL

BPCL	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	150.0	300.0	300.0	300.0	300.0
Reserves & Surpluses	3344.70	3779.40	3697.40	4447.43	5549.72
<b>Net Worth</b>	3494.70	4079.40	3997.40	4747.43	5849.72
<b>Loan Funds :</b>					
Secured Loans	1512.80	2478.71	2242.32	2442.53	1973.74
Unsecured Loans	1079.87	1679.43	1606.42	843.33	715.98
<b>Total Debt</b>	2592.67	4158.14	3848.74	3285.86	2689.72
<b>Total Capital Employed</b>	6087.37	8237.54	7846.14	8033.23	8539.44
<b>Total Assets</b>	6087.40	8237.5	8545.0	8779.80	9361.80
<b>Income :</b>					
Net sales/Turnover	33384.70	45932.10	39829.5	43569.46	48254.31
<b>Total income</b>	34866.70	48935.1	42483.5	45382.68	48437.12
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	33129.0	46901.9	40369.1	42662.27	45135.48
<b>PBDIT(Profit Before Depreciation Interest &amp; Tax)</b>	1737.7	2033.2	2114.4	2720.41	3301.64
<b>Depreciation</b>	615.4	664.5	481.0	480.92	561.16
<b>PBIT</b>	1122.30	1368.70	1633.40	2239.48	2740.49
Interest	185.4	255.60	306.6	245.95	104.97
<b>PBT( Profit Before Tax)</b>	936.9	1113.10	1326.8	1993.54	2635.52
Taxes	235.2	280.40	477.0	743.51	940.95
<b>PAT (Profit After Tax)</b>	701.7	832.70	849.8	1250.03	1694.57
<b>Dividends</b>	187.5	225.0	330.0	450.0	525.0
<b>EPS</b>	23.29	27.76	28.33	41.67	56.49
<b>GPM</b>	5.20	4.43	5.30	6.24	6.84
<b>NPM</b>	2.10	1.81	2.10	2.90	3.5
<b>ROCE</b>	18.40	16.6	20.8	27.90	32.1
<b>D/E</b>	0.70	1.02	0.96	0.69	0.46
<b>Market capitalization</b>	993	971	1691	4843	4044

### DATA SHEET: KRL

KRL	1999-00	2000-01	2001-02	2002-03	2003-04
<b>Shareholder's funds :</b>					
Equity share capital	68.94	138.47	138.47	138.47	138.47
Reserves & Surpluses	1209.73	1223.46	999.43	1299.24	1666.87
<b>Net Worth</b>	1278.67	1361.93	1137.90	1437.71	1805.34
<b>Loan Funds :</b>					
Secured Loans	62.73	17.75	68.02	81.39	60.91
Unsecured Loans	744.66	864.21	845.17	936.17	519.52
<b>Total Debt</b>	807.39	881.97	913.19	1017.56	580.43
<b>Total Capital Employed</b>	2086.06	2243.90	2051.09	2455.26	2385.77
<b>Total Assets</b>	2086.06	2243.90	2051.09	2455.26	2385.77
<b>Income :</b>					
Net sales/Turnover	5768.33	7135.75	5812.74	10489.50	9858.30
<b>Total income</b>	5868.63	7246.15	5839.92	10523.70	9857.31
<b>Expenditure :</b>					
<b>Cost of Production/sales</b>	5484.22	6932.21	5495.44	9616.90	8793.54
<b>PBDIT(Profit Before Depreciation Interest &amp; Tax)</b>	384.41	313.84	344.48	906.80	1063.77
<b>Depreciation</b>	62.72	101.46	110.54	115.40	114.24
<b>PBIT</b>	321.70	212.39	233.94	791.40	949.53
Interest	38.78	109.93	114.79	94.90	39.77
<b>PBT( Profit Before Tax)</b>	282.92	102.46	119.15	696.50	909.76
Taxes	48.50	8.50	31.00	240.50	354.70
<b>PAT (Profit After Tax)</b>	235.21	109.46	87.58	456.00	555.09
<b>Dividends</b>	129.90	31.98	30.53	138.47	166.16
<b>EPS</b>	NA	NA	NA	32.93	40.09
<b>GPM</b>	9.5	4.4	5.9	8.6	10.8
<b>NPM</b>	4.1	1.5	1.5	4.3	5.6
<b>ROCE</b>	15.4	9.5	11.4	32.3	39.8
<b>D/E</b>	0.63	0.65	0.80	0.71	0.32
<b>Market capitalization</b>	NA	NA	NA	NA	NA

### Annexure-3

Cost of Equity  
BSE market rates of returns for the period 2000-2004  
Year 2000-01

Sl.no	Date(week ended)	BSE Sensex	Weekly Return %	Monthly return %	Sl no	Date(week ended)	BSE Sensex	Weekly return %	Monthly return %
1	07-4-00	5219	NA	NA	27	06-10-00	4092	0.05	-8.83
2	13-4-00	5172	-0.9		28	13-10-00	3739	-8.63	
3	20-4-00	4657	-9.96		29	20-10-00	3693	-1.23	
4	28-4-00	4658	0.02		30	27-10-00	3729	0.98	
5	05-5-00	4694	0.77	-12.3	31	03-11-00	3936	5.55	3.73
6	12-5-00	4107	-12.5		32	10-11-00	3941	0.12	
7	19-5-00	4069	-0.93		33	17-11-00	3906	-0.88	
8	26-5-00	4085	0.39		34	24-11-00	3868	-0.97	
9	02-6-00	4453	9.0	16.25	35	01-12-00	4032	4.24	2.69
10	09-6-00	4730	6.22		36	08-12-00	4156	3.07	
11	16-6-00	4765	0.74		37	15-12-00	4137	-0.46	
12	23-6-00	4722	-0.9		38	22-12-00	3906	-5.58	
13	30-6-00	4749	0.57		39	29-12-00	3972	1.69	
14	07-7-00	4906	3.30	-9.94	40	05-01-01	4184	5.34	9.01
15	14-7-00	4857	-1.0		41	12-01-01	4037	-3.51	
16	21-7-00	4464	-8.09		42	19-01-01	4194	3.89	
17	28-7-00	4277	-4.2		43	25-01-01	4330	3.24	
18	04-8-00	4186	-2.13	4.68	44	02-02-01	4352	0.51	-4.80
19	11-8-00	4192	0.14		45	09-02-01	4397	1.03	
20	18-8-00	4347	3.4		46	16-02-01	4330	-1.52	
21	25-8-00	4417	1.6		47	23-02-01	4122	-4.80	
22	31-8-00	4477	1.4		48	02-3-01	4095	-0.66	
23	08-9-00	4668	3.82	-8.64	49	09-3-01	3882	-5.2	-12.57
24	15-9-00	4562	-2.27		50	16-3-01	3746	-3.5	
25	22-9-00	4032	-11.6		51	23-3-01	3635	-0.03	
26	29-9-00	4090	1.44		52	30-3-01	3604	-0.85	

Yearly return for 2000-01 = -22.8 %

Cost of Equity  
BSE market rates of returns for the period 2000-2004  
Year 2001-02

Sl.no	Date(week ended)	BSE sensex	Weekly Return %	Monthly return %	Sl no	Date(week ended)	BSE Sensex	Weekly return %	Monthly return %
1	06-4-01	3576	-0.78	-5.02	27	05-10-01	2813	0.03	7.47
2	12-4-01	3184	-10.96		28	12-10-01	2959	5.19	
3	20-4-01	3583	12.53		29	19-10-01	3017	1.96	
4	27-4-01	3423	-4.41		30	25-10-01	3022	0.17	
5	04-5-01	3515	2.60	6.92	31	02-11-01	3053	1.03	8.80
6	11-5-01	3560	1.28		32	09-11-01	3080	0.88	
7	18-5-04	3655	2.67		33	15-11-01	3180	3.25	
8	25-5-01	3660	0.14		34	23-11-01	3252	2.26	
9	01-6-01	3558	-2.79	-5.55	35	29-11-01	3288	1.11	-0.79
10	08-6-01	3496	-1.74		36	07-12-01	3436	4.50	
11	15-6-01	3373	-3.52		37	14-12-01	3354	-2.39	
12	22-6-01	3382	0.27		38	21-12-01	3235	-3.55	
13	29-6-01	3457	2.22	-5.93	39	28-12-01	3184	-1.58	2.15
14	06-7-01	3306	-4.37		40	31-12-01	3262	2.50	
15	13-7-01	3454	4.48		41	04-01-02	3376	3.49	
16	20-7-01	3341	-3.27		42	11-01-02	3363	-0.39	
17	27-7-01	3252	-2.66	-0.22	43	18-01-02	3377	0.42	8.16
18	03-8-01	3325	2.25		44	25-01-02	3332	-1.33	
19	10-8-01`	3316	-0.27		45	01-02-02	3334	0.06	
20	17-8-01	3297	-0.57		46	08-02-02	3494	4.80	
21	24-8-01	3306	0.27	-13.34	47	15-02-02	3602	3.09	-3.75
22	31-8-01	3245	-1.85		48	22-02-02	3604	0.55	
23	07-9-01	3198	-1.45		49	01-3-02	3679	2.08	
24	14-9-01	2830	-11.51		50	08-3-02	3657	-0.60	
25	21-9-01	2600	-8.13		51	15-3-02	3618	-1.06	
26	28-9-01	28123	8.15		52	22-3-02	3516	-2.82	
					53	28-3-02	3469	-1.34	

Yearly return for the year 2001-02 = -3.75

Cost of Equity  
BSE market rates of returns for the period 2000-2004  
Year 2002-03

Sl.no	Date(week ended)	BSE sensex	Weekly Return %	Monthly return %	Sl no	Date(week ended)	BSE Sensex	Weekly return %	Monthly return %
1	05-4-02	3501	0.92	-2.80	27	04-10-02	2931	-3.49	-5.30
2	12-4-02	3511	0.29		28	11-10-02	2996	2.22	
3	19-4-02	3364	-4.18		29	18-10-02	3010	0.47	
4	26-4-02	3372	0.24		30	25-10-02	2876	-4.45	
5	03-5-02	3381	0.27	-7.30	31	01-11-02	2951	2.61	12.27
6	10-5-02	3431	1.48		32	08-11-02	2957	0.20	
7	17-5-02	3334	-2.83		33	15-11-02	3034	2.60	
8	24-5-02	3256	-2.34		34	22-11-02	3142	3.56	
9	31-5-02	3126	-4.0		35	29-11-02	3229	2.77	
10	07-6-02	3218	2.94	3.81	36	06-12-02	3306	2.38	4.58
11	14-6-02	3312	2.92		37	13-12-02	3343	1.11	
12	21-6-02	3243	-2.08		38	20-12-02	3337	-0.18	
13	28-6-02	3245	0.06		39	27-12-02	3398	1.83	
14	05-7-02	3331	2.65	-6.81	40	31-12-02	3377	-0.62	-3.76
15	12-7-02	336	-0.75		41	03-01-03	3358	-0.56	
16	19-7-02	3230	-2.30		42	10-01-03	3359	0.03	
17	26-7-02	3024	-6.38		43	17-01-03	3370	0.33	
18	02-8-02	2985	-1.29	5.19	44	24-01-03	3288	-2.43	1.05
19	09-8-02	2976	-0.30		45	31-01-03	3250	-1.16	
20	16-8-02	3066	3.02		46	07-02-03	3280	0.92	
21	23-8-02	3119	1.73		47	14-02-03	3233	-1.74	
22	30-8-02	3181	1.99	-4.53	48	21-02-03	3307	2.60	-5.15
23	06-9-02	3141	-1.26		49	28-02-03	3284	-0.69	
24	13-9-02	3099	-1.34		50	07-3-03	3153	-3.99	
25	20-9-04	3024	-2.42		51	13-3-03	3108	-1.43	
26	27-9-02	3037	0.43		52	22-3-03	3219	3.57	
					53	28-3-03	3115	-3.23	

Yearly return for the year 2002-03 = -10.20

Cost of Equity  
BSE market rates of returns for the period 2000-2004  
Year 2003-04

Sl.no	Date(week ended)	BSE sensex	Weekly Return %	Monthly return %	Sl no	Date(week ended)	BSE Sensex	Weekly return %	Monthly return %
1	04-4-03	3168	1.70	-6.13	27	03-10-03	4553	3.88	11.96
2	11-4-03	2998	-5.40		28	10-10-03	4769	4.74	
3	17-4-03	2985	-0.43		29	17-10-03	4931	3.39	
4	25-4-03	2924	-2.04		30	25-10-03	4802	-2.62	
5	02-5-03	2967	1.47	8.79	31	31-10-03	4907	2.19	2.81
6	09-5-03	2950	-0.57		32	07-11-03	4972	1.32	
7	16-5-03	3057	3.63		33	15-11-03	4912	-1.21	
8	23-5-03	3050	-0.23		34	21-11-03	4839	-1.49	
9	30-5-03	3181	4.29		35	28-11-03	5045	4.26	
10	06-6-03	3303	3.84	12.64	36	05-12-03	5132	1.72	15.74
11	13-6-03	3354	1.54		37	12-12-03	5316	3.56	
12	20-6-03	3500	4.35		38	19-12-03	5541	4.23	
13	27-6-03	3583	2.37		39	26-12-03	5699	2.85	
14	04-7-03	3622	1.09	3.99	40	31-12-03	5839	2.46	-2.45
15	11-7-03	3676	1.49		41	02-01-04	6027	3.22	
16	18-7-03	3485	-5.19		42	09-01-04	6120	1.54	
17	25-7-03	3726	6.91		43	16-01-04	596	-2.84	
18	01-8-03	3815	2.39	13.93	44	23-01-04	5816	-2.19	-0.49
19	08-8-03	3884	1.81		45	30-01-04	5696	-2.06	
20	14-8-03	3921	0.95		46	06-02-04	5786	1.58	
21	22-8-03	4125	5.20		47	13-02-04	6012	3.91	
22	29-8-03	4245	2.91	3.25	48	20-02-04	5851	-2.68	-2.45
23	05-9-03	4369	2.92		49	27-02-04	5668	-3.13	
24	12-9-03	4306	-1.44		50	05-03-04	5880	3.74	
25	19-9-03	4217	-2.07		51	12-03-04	5700	-3.06	
26	26-9-03	4383	3.94		52	19-03-04	5443	-4.51	
					53	26-03-04	5529	1.58	

Yearly return for the year 2003-04 = 77.5 %

## Critical values of *t* for two-tailed tests

Significance level (α)

Degrees of freedom ( <i>df</i> )	.2	.15	.1	.05	.025	.01	.005	.001
1	3.078	4.165	6.314	12.706	25.452	63.657	127.321	636.619
2	1.886	2.282	2.920	4.303	6.205	9.925	14.068	31.588
3	1.638	1.924	2.353	3.182	4.177	5.841	7.453	12.924
4	1.533	1.778	2.132	2.776	3.495	4.604	5.598	8.610
5	1.476	1.699	2.015	2.571	3.163	4.032	4.773	6.889
6	1.440	1.650	1.943	2.447	2.969	3.707	4.317	6.388
7	1.415	1.617	1.895	2.365	2.841	3.499	4.029	5.908
8	1.397	1.592	1.860	2.306	2.752	3.355	3.833	5.581
9	1.383	1.574	1.833	2.262	2.685	3.250	3.690	5.317
10	1.372	1.559	1.812	2.228	2.634	3.168	3.581	5.101
11	1.363	1.548	1.796	2.201	2.593	3.106	3.497	4.937
12	1.356	1.536	1.782	2.179	2.560	3.055	3.428	4.818
13	1.350	1.530	1.771	2.160	2.533	3.012	3.372	4.721
14	1.345	1.523	1.761	2.145	2.510	2.977	3.326	4.640
15	1.341	1.517	1.753	2.131	2.490	2.947	3.286	4.573
16	1.337	1.512	1.746	2.120	2.473	2.921	3.252	4.515
17	1.333	1.508	1.740	2.110	2.458	2.898	3.222	4.465
18	1.330	1.504	1.734	2.101	2.445	2.878	3.197	4.422
19	1.328	1.500	1.729	2.093	2.433	2.861	3.174	4.383
20	1.325	1.497	1.725	2.086	2.423	2.845	3.153	4.350
21	1.323	1.494	1.721	2.080	2.414	2.831	3.135	4.319
22	1.321	1.492	1.717	2.074	2.405	2.819	3.119	4.292
23	1.319	1.489	1.714	2.069	2.398	2.807	3.104	4.268
24	1.318	1.487	1.711	2.064	2.391	2.797	3.091	4.245
25	1.316	1.485	1.708	2.060	2.385	2.787	3.078	4.225
26	1.315	1.483	1.706	2.056	2.379	2.779	3.067	4.207
27	1.314	1.482	1.703	2.052	2.373	2.771	3.057	4.190
28	1.313	1.480	1.701	2.048	2.368	2.763	3.047	4.174
29	1.311	1.479	1.699	2.045	2.364	2.758	3.038	4.159
30	1.310	1.477	1.697	2.042	2.360	2.750	3.030	4.146
40	1.303	1.468	1.684	2.021	2.329	2.704	2.971	3.551
50	1.299	1.462	1.676	2.009	2.311	2.678	2.937	3.496
60	1.296	1.458	1.671	2.000	2.299	2.660	2.915	3.465
70	1.294	1.456	1.667	1.994	2.291	2.648	2.899	3.435
80	1.292	1.453	1.664	1.990	2.284	2.639	2.887	3.416
100	1.290	1.461	1.660	1.984	2.276	2.626	2.871	3.390
1000	1.282	1.441	1.646	1.984	2.245	2.581	2.833	3.300
Infinite	1.282	1.440	1.645	1.984	2.241	2.576	2.807	3.291