

1: Define LIBOR and Prime

- LIBOR (2006) stands for London Interbank Offered Rate. It is the rate of interest at which banks offer to lend money to one another in the wholesale money markets in London, and is a standard financial index used in U.S. capital markets to set the cost of various variable-rate loans. Lenders use the index, which varies, to adjust interest rates as economic conditions change; they then add a certain number of percentage points called a margin, which does not vary, to the index to establish the interest rate the customer must pay. When this index goes up, interest rates on any loans tied to it also go up. Although it is increasingly used for consumer loans, it has traditionally been a reference figure for corporate financial transactions.
- The "Prime Rate" refers to the rate of interest charged by a commercial bank for large loans made to its most credit-worthy business and industrial customers. It is the lowest interest rate charged by a bank, the level of which is determined by how much banks have to pay for the supply of money they purchase, and from which they make loans.

2: Calculate Rock of Ages' weighted cost of capital for its short and long term debt.

- Amounts outstanding as of December 31, 2003 were:
    - Revolving credit facility: $4,751,405 at weighted average interest rate during 2003 of 3.3%
    - Long-term loan: $12,500,000 at 3.16% interest during 2003
- Had the total amounts of the loans been outstanding for the duration of the year, the interest on the short-tem loans would have totaled $156,796 ($4,751,405 x .033); while the interest on long term loans would have totaled $395,000 ($12,500,000 x .0316). According to the company's 2003 Consolidated Statements of Operations, pg iv, the

actual amount of interest expense (including both short- and long-term debt) totaled **$471,105**.

3: Determine the effect on ROA's cost of capital, based on interest rate changes since the end of 2003.

- The **cost of capital** is the average interest rate Rock of Ages must pay on financing. ROA's debt covenants tie its interest cost to a multi-tiered interest rate structure of both LIBOR and prime. The company can elect the interest rate structure under the credit facility based on the prime rate or LIBOR for both the revolving credit facility and the term loan. The incremental rate above or below prime and above LIBOR is based on ROA's Funded Debt to Net Worth Ratio. Since the company substantially exceeded the interim ratio of the sum of earnings before interest, taxes, depreciation and amortization (EBITDA) minimum for the quarter ended December 31, 2003, it was at the most favorable increments available, so the following table shows the LIBOR or Prime rate elections available at that time:
    - Revolving Credit Facility: LIBOR + 1.50% Prime - 0.50%
    - Term Loans: LIBOR + 1.75% Prime - 0.25%
- As of January 2, 2004, ROA's had reduced its revolving credit facility to $0. Its future short-term obligations are forecasted to be:

	2004	**2005-2007**	
Operating Leases	$797,637	$1,124,640	($374,880/yr avg)
Purchase Obligations	$2,250,000	$4,500,000	($1,500,000/yr avg)

- The short-term debt will be funded from a combination of cash flow from operations and existing credit facilities. While it is unknown the extent to which the revolving line of credit will need to be exercised, should working capital be insufficient to fully fund the leases and purchase obligations,

- The interest it would pay on its outstanding long-term debt of $12,500,000 from January 2004 through 2006 is calculated on Table 1, contained on page 4 of this document, with the following assumptions:

  1. The company did not finance any additional short-term debt after January 2, 2004.
  2. ROA maintained its EBITDA minimum during the subsequent periods.
  3. Payments against long-term debt, as depicted on pg 24 of the ROA 2003 Annual Report, would total $37,899 for 2004, and a total of $31,957 during the subsequent two years, to be made in amounts equal to annual totals divided by 12.
  4. The LIBOR and prime interest rates shown on Table 1 for Nov and Dec 2006 are estimated.
  5. LIBOR rates, being lower than those of Prime, would have been the rate of choice for calculating interest during each of the periods.

- As put forth on pg 26, para 4, of the 2003 Operating Statement, the company intends to finance acquisitions through a combination of available cash resources, bank borrowings, and, in appropriate circumstances, the issuance of equity and/or debt securities. Such acquisitions would have a significant effect on the long-term debt calculations.

- Given the calculations contained on Table 1, the accumulated interest on the $12,500,000 long-term debt would be $445,337, $728,365 and $998,291 for the years 2004-2006, respectively, **totaling $2,171,993** for the three-year period.

Table 1

2004	LIBOR % (1)	LIBOR + 1.75%	Prime % (2)	Prime - .5%	Choice	Begin Debt	Accum Int	Pmt	End Bal
jan	1.132	2.882	4	3.5	LIBOR	$12,831,473	$30,817	$3,158	$12,859,132
feb	1.1201	2.8701	4	3.5	LIBOR	$12,859,132	$30,756	$3,158	$12,886,729
mar	1.1107	2.8607	4	3.5	LIBOR	$12,886,729	$30,721	$3,158	$12,914,292
apr	1.1764	2.9264	4	3.5	LIBOR	$12,914,292	$31,494	$3,158	$12,942,627
may	1.3082	3.0582	4	3.5	LIBOR	$12,942,627	$32,984	$3,158	$12,972,453
jun	1.6039	3.3539	4.01	3.51	LIBOR	$12,972,453	$36,257	$3,158	$13,005,552
jul	1.6945	3.4445	4.25	3.75	LIBOR	$13,005,552	$37,331	$3,158	$13,039,725
aug	1.7901	3.5401	4.43	3.93	LIBOR	$13,039,725	$38,468	$3,158	$13,075,035
sep	2.0054	3.7554	4.58	4.08	LIBOR	$13,075,035	$40,918	$3,158	$13,112,795
oct	2.1582	3.9082	4.75	4.25	LIBOR	$13,112,795	$42,706	$3,158	$13,152,343
nov	2.4026	4.1526	4.93	4.43	LIBOR	$13,152,343	$45,514	$3,158	$13,194,699
dec	2.5582	4.3082	5.15	4.65	LIBOR	$13,194,699	$47,371	$3,158	$13,204,171
							$445,337	**$37,899**	

2005									
jan	2.7439	4.4939	5.25	4.75	LIBOR	$13,204,171	$49,449	$1,332	$13,252,288
feb	2.9101	4.6601	5.49	4.99	LIBOR	$13,252,288	$51,464	$1,332	$13,302,420
mar	3.0995	4.8495	5.58	5.08	LIBOR	$13,302,420	$53,758	$1,332	$13,354,847
apr	3.2107	4.9607	5.75	5.25	LIBOR	$13,354,847	$55,208	$1,332	$13,408,723
may	3.3292	5.0792	5.98	5.48	LIBOR	$13,408,723	$56,755	$1,332	$13,464,147
jun	3.5045	5.2545	6.01	5.51	LIBOR	$13,464,147	$58,956	$1,332	$13,521,771
jul	3.6948	5.4448	6.25	5.75	LIBOR	$13,521,771	$61,353	$1,332	$13,581,792
aug	3.872	5.622	6.44	5.94	LIBOR	$13,581,792	$63,631	$1,332	$13,644,092
sep	4.0551	5.8051	6.59	6.09	LIBOR	$13,644,092	$66,004	$1,332	$13,708,764
oct	4.2523	6.0023	6.75	6.25	LIBOR	$13,708,764	$68,570	$1,332	$13,776,003
nov	4.4139	6.1639	7	6.5	LIBOR	$13,776,003	$70,762	$1,332	$13,845,433
dec	4.5298	6.2798	7.15	6.65	LIBOR	$13,845,433	$72,455	$1,332	$13,916,557
							$728,365	**$15,979**	

2006									
jan	4.6795	6.4295	7.26	6.76	LIBOR	$13,916,557	$74,564	$1,332	$13,989,789
feb	4.8192	6.5692	7.5	7	LIBOR	$13,989,789	$76,585	$1,332	$14,065,042
mar	4.9898	6.7398	7.53	7.03	LIBOR	$14,065,042	$78,996	$1,332	$14,142,707
apr	5.1479	6.8979	7.75	7.25	LIBOR	$14,142,707	$81,296	$1,332	$14,222,671
may	5.2335	6.9835	7.93	7.43	LIBOR	$14,222,671	$82,770	$1,332	$14,304,110
jun	5.5085	7.2585	8.02	7.52	LIBOR	$14,304,110	$86,522	$1,332	$14,389,300
jul	5.4889	7.2389	8.25	7.75	LIBOR	$14,389,300	$86,802	$1,332	$14,474,771
aug	5.4014	7.1514	8.25	7.75	LIBOR	$14,474,771	$86,262	$1,332	$14,559,702
sep	5.3725	7.1225	8.25	7.75	LIBOR	$14,559,702	$86,418	$1,332	$14,644,788
oct	5.3729	7.1229	8.25	7.75	LIBOR	$14,644,788	$86,928	$1,332	$14,730,385
nov	5.20141	6.95141	8.25	7.75	LIBOR	$14,730,385	$85,331	$1,333	$14,814,383
dec	5.20141	6.95141	8.25	7.75	LIBOR	$14,814,383	$85,817	$1,334	$14,898,867
							$998,291	**$15,982**	

(1) Fannie Mae 3-Month LIBOR Rate Tables Retrieved 5 November 2006 from http://www.fanniemae.com/tools/libor/2006.jhtml?p=Tools+%26+Resources

(2) FRB Selected Interest Rates Tables of average majority prime rate charged by banks on short-term loans to business, quoted on an investment basis; Retrieved 5 November 2006 from http://www.federalreserve.gov/datadownload/Download.aspx?rel=H15&series=6fa2b8138e0eafe0ad6cde24ba2307f5&filetype=spreadsheetml&label=include&layout=seriescolumn&lastObs=50

REFERENCE:

LIBOR (2006). Definition retrieved 3 November 2006 from
http://www.bankrate.com/brm/ratewatch/3mo-libor.asp