Financial Accounting

Part 1.a

Preparing Cash Flow Statements for Highlow Engineering Co. Ltd.

Cash Flow Statements were prepared for Highlow Engineering Company Limited for years ending March 31, 2002 and March 31, 2003. The statements conformed to the requirements of FRS1 (revised December 1996). Highlow Engineering Co. Ltd. cash flow statements list the cash flows for the periods under consideration using the following headings:

1. Operating activities (derived using the indirect method)
2. Returns on Investments and servicing of Finance
3. Taxation
4. Capital Expenditure
5. Equity dividends paid
6. Financing
7. Change in Cash

'Management of liquid resources' which was a required heading for the revised FRS1 was not used since there were no such readily disposable investments to manage. The company's treasury bills were convertible into cash within 24 hours so they were treated as cash.

Based on the requirements of FRS1 (revised 1996), accompanying ***notes to the cash flow statements are provided in the excel spreadsheet***. **These notes included**:

1. Reconciliation of the operating profit to the operating cash flow. The cash flow from operating activities was obtained by adjusting the operating profits by depreciation charged on the company's fixed assets, profit and loss obtained from the disposal of equipment and motor vehicle during the period and the changes in working capital. In 2002, 49% of funds from operations were used to increase working capital while in 2003, the working capital increased by using approximately 57%.

2. Taxes Paid: Since there were no deferred taxes, the balance owed at the beginning of the year plus the taxes charged for the current year, less the balance at the end of the year was used to derive the amount paid. The amount paid in 2002 was £0.762 million while £1.114 million was paid in 2003. Please see accompanying excel document.

3. Dividends paid, the company had taken a position to pay dividend half way through each financial year, This is accounted for in calculating the preference dividends

paid each year and its treatment is explained in Note 3 in the excel document. The total dividends paid each year were calculated using the same method as was used to calculate taxes paid.

4. Capital Expenditure: The company had acquired and disposed ofsome assets during the period so the details of these transactions are shown in note 4 in the excel spreadsheet.

Part 1b. Cash flow analysis of Highlow Engineering Company Ltd.

In appraising the cash flow statements the following observations were made.

The net cash flow from operating activities in 2003 was very good. The company started in each year with good operating profits although 2003 started with approximately £2 million more than the previous year. After adjustments were made for depreciation and profit or loss on fixed assets, the company's earnings before interest, tax depreciation and amortisation (EBIDA) was very attractive particularly for 2003, which had an EBITDA of £10.63 million. At £6.03 million, the operating cash flow, derived by adjusting EBITDA with changes in working capital, was approximately 63% better than for the previous year, which was £3.71 million. The operating cash flow was sufficient to cover taxes, interest and preference dividend in both periods. The sum of these payments was £2,064,000 and £2,741,000 for 2002 and 2003 respectively. There was a 36% decline in preference dividends paid in 2003.

Since the company had acquired and disposed of some assets during the period there was a major net outflow of cash for capital expenditure from acquiring and disposal of fixed assets. These had the net effect of depleting the cash flows for both years. Significantly more was spent in 2003 to acquire fixed assets than was spent in 2002. This is because in 2002 the company bought no property and spent approximately 80% less on the purchase of motor vehicle. The net effect of purchasing and selling assets were an outflow of £9.8 million in 2003 compared to £7.2 million for 2002. Property was also revalued at £1,000,000.

The 2002 cash expenditure for capital expenditure was 300% greater than the depreciation charges and approximately 317% for 2003. This indicated a possible increase in productive capacity since a large percent of this was spent on equipment and motor vehicle.

Dividends were paid to ordinary shareholders in both years although the company, at that stage, was realising a negative cash flow. The dividend paid in 2003 was 36.8% higher than that paid the previous year.

It was interesting to see that there was a major outflow of capital to repay 8% bonds, which would become due in 2007 while at the same time there was a larger inflow of capital from a 10% bond. It appears that Highlow Engineering was refinancing and it was costing more to do so. Also of interest, is the fact that it went from a position of no bank overdraft at the start of 2002 to £3.6 million at the end of 2002 and to £9.0 million a year later.

The financing section of the cash flow statement, showed that, for both years, there was a net positive effect of the financing strategies employed although it was not sufficient to cover the negative cash flow created by the acquisition of fixed assets. From the cash flow statement the company seems to be having a liquidity problem. It had a negative overall cash flow, which seemed to have worsened from 2002 to 2003. It was heavily relying on loans in the form of bonds as explained earlier.

Ratios	**2003**		**2002**	
Cash Flow Ratios		Unit		Unit
1. Cash Margin on Sales	14.2%		9.5%	
2. Interest Cover (on a Real Cash basis)	3.77	times	2.94	times
3. Free Cash Flow per unit Share Capital	21.22	pence	10.97	pence
4. Dividend Cover (on Real Cash Basis)	2.44	times	1.67	times
5. Cash Flow From Operations to Current Liability (CFO)	34%		29%	
6. Cash Recovery Rate	11%		8.1%	
7. Capital Expenditure Per Share	0.63	£	0.48	£
8. Debt Service Coverage Ratio	4.09		3.37	
9. Operating Cash Flow / PBIT *100%	86%		99%	

Traditional Financial Ratios	**2003**	**2002**
1. PBIT / Sales x 100	16.5%	12.9%
2. PBIT / Interest	4.39 times	3.98 times
PBIT / Net Capital Employed x100%	19.0%	15.2%
Net Profit after Tax & Pref Dividends / Ordinary share holders funds	15.6%	11.7%
Net Profit after Tax & Pref. Div / Ordinary Div paid and Proposed	2.55 times	2.23 times

The Cash margin on sales ratio expresses the company's operating cash in relation to sales made for the period. Examining the cash flow ratio there was a 4.5% increase in the ratio moving from 9.5% to 14% in 2003. This could be as a result in an increase in the profit from operating activities, which was not matched, by an equal increase in sales for the period, although sales did increase but by a smaller proportion. The traditional returns on sales ratio showed a similar trend, giving an increase from 12.9% in 2002 to 16.5 in 2003.
The amount of profit available to cover the interest payable (the interest cover on a real cash basis) was 2.94 and 3.77 times for 2002 and 2003 respectively. Although there was on the increase in 2003 I do not consider this at a high or comfortable level. It appears that even a small fall in profit could increase the risk and affect the firm's ability to pay interest on its loans. This may also make the company appear more risky to potential investors and drive up cost of capital. In my opinion, based on this ratio the company is just not making enough profit to comfortably cover the interest on its numerous loan. That is it may be over gearing for the type of profit it is making. The interest cover ratio based on the P & L account gives a slightly higher coverage of 3.98 and 4.39 times in 2003. This indicates that the profit is higher because it includes non-cash items as profit. This fact that the company is speedily paying off a 7% loan basically using a 10% loan will contribute to higher interest needs thus a larger cover would be better.

The free cash flow per share capital for Highlow Engineering showed a magnificent increase of over 90% in 2003. This was as a result of doing business during this year that resulted in operating cash flows after tax and preference dividends, which was approximately twice as much as the previous year. There was a significant amount of depreciated fixed asset in 2003, which were non- cash items, which aided the EBITDA, and by extension the operating cash flow. Most companies will invest some of this available cash in fixed assets, as Highlow did, however this ratio should be encouraging to shareholders.

The amount of earnings available for dividends covers the amount paid 1.67 times in 2002 and 2.44 times in 2003. This shows an improvement in the dividends cover of approximately 46%. Despite the fact that the company paid more dividends to ordinary shareholders in 2003 than it did in 2002 the ratio continued to improve. This was as a result of the operating cash position, which the company was in after tax and preference dividends. It had approximately twice as much cash as it had in 2002. The traditional dividend cover

ratio also indicated that the earnings available for dividends covered the amount paid however, the coverage was lower. They were 2.23 times and 2.55 times for 2002 and 2003 respectively. This would have indicated a lower coverage because this takes into account dividends, which were proposed as well as those paid while the CF ratio takes into account only what is paid. The net profit after tax and preference dividends was also materially lower than in the case of the CF cover since all expenses incurred would have been deducted from the earnings while only cash flow is used for the cash flow dividend cover. If the company is expanding, which I think Highlow is doing they may choose to retain more of the earnings and pay low dividends hence showing a higher dividend cover ratio.

The **operating cash flow to current liability ratio** was a good indicator of how liquid or of Highlow Engineering ability to use cash generated from operating activities to cover its liabilities, which are due in short term. The ratio showed an 18% increase in 2003 from ratios of 0.29 times to 0.34 times in 2003. These are very low ratios and indicate that the firm may not be able to honour its short-term debts. The current ratio, which also indicates the firm's ability to meet short-term debts, was found to be decreasing from a ratio of 2.75:1 in 2001 to a ratio of 1.6:1 in 2003. This indicated a downward trend in the extent to which the current liabilities were covered by those assets expected to be converted to cash in the near future. Further examination of the financial statements gave an insight to possible reasons for these trend observed. It appears that there was a significant increase in the firm's current liabilities moving from £8000 in the year ending 2001 to over £17,000 in the year ending 2003. Such a decline in the ratio could be as a result of the company paying its bills more slowly or was borrowing more in the form of overdrafts to pays its bills. A significant portion of the increase in current liability was as a result of a 250% increase in the bank overdraft between year-end 2002 and 2003.

The **cash recovery rate** showed an increase from 8% to 11% in 2003. This was an indication that the firm was taking longer to recover its investment in fixed assets. It is possible that fix assets such as plant equipment were not immediately put into service or they were not operated at their maximum capacity hence efficiency losses and reduced revenue recognition.

The **capex per share ratio** indicated an increase in capital expenditure in 2003. the ratio moved from a 48 pence per share for 2002 to 63 pence per share for 2003.This is a 31% increase and this is because in 2003 the company spend a proximately £9.8 million on purchasing fixed assets compared to approximately £8 million in 2002. The moment in the number of share was nearly constant.

The ratio that measured how well the firm can **service its debt from earnings before interest, tax, depreciation and amortisation** showed a 21 % increase in 2003. This shows that the cash available (EBITDA) would be able to service debts including interest 4 and 3.4 times in 2003 and 2002 respectively. These are not particularly large coverage since the company does have a large debt obligation therefore if expected earnings were not recognised the company could easily fail to meet its debt servicing obligations.

Part 2.a

Financial Appraisal of Highlow Co. Ltd.

A number of financial ratios were calculated and analysed to obtain a balanced view of Highlow Engineering Co. Ltd. These ratios fall under different heading according to the factors they are measuring.

The Profitability Ratios express each of the gross profit, net profit and various overhead costs as a percentage of sales used, as an indication of how well the company was controlling its costs.

The gross profit ratio, which represents the amount of gross profit Highlow Engineering made for every £100 of sales revenue, showed a 2 % increase from 2001 to 2002 and a 3.2 % increase from 2002 to 2003. For 2001 the company made £27.80 gross profit for every £100 of sales while in 2002 it made £29.80 and in 2003 it made £33.00. This trend indicated that the company was improving its profitability from year to year. Further analysis showed that this occurred as a result of increasing both its sales and its gross profit each year.

Overheads to sales ratios

The **distribution cost to sales ratio** showed a small increase each year from 2001 to 2003. This was as a result of an increase in 11 and 29% increase in the distribution cost for 2002 and 2003 respectively will only a corresponding increase of 7 and 9.5% increase in sales. Given that there was a 3% inflation per annum, when this is considered as shown below there is still an increase in actual sales.

Administration cost to sales was constant in 2001 and 2002 but decreased by 1.6 percentage points in 2003. The changes in the administration cost which was approximately 6% increase was proportional to the increase in sales for the period, while there was a 5.8% decrease in administration cost and a 9.5% increase in sales hence the decrease in the ratio for 2003.

The Employee cost per sale ratio showed a trend of constant improvement moving from 37.5% in 2001 to 36.1 in 2002 and 34.7% in 2003. The increase in sales appears to be the helping factor in reducing this ratio since the wage cost was constantly rising.

As mentioned earlier **the returns on sales** trend showed an increase from 11% in 2001 to 13% in 2002 to 16.5% in 2003. The fact that this increased despite the increase in sales indicated that the increase in the PBIT was significantly more than the growth in sales. The increase in this ratio also mirrors the increase in the gross profit margin, which showed that the handling and control of expenses were consistent.

Year	Sales + 3% Infat'n	Actual Sales	Sales Growth
2001	£34,608,000	£36,200,000	£1,592,000
2002	£37,286,000	£38,900,000	£1,614,000
2003	£40,067,000	£42,600,000	£2,533,000

Returns on Investment ratio shows the profit as a percentage of the total capital employed, where the capital employed used was the fixed assets plus the current assets minus current liabilities. The return on investment showed improvement each year. There was an increase 1.2% in 2002 and an increase of approximately 4% in 2003. It appears that the firm is getting more efficient at using its resources and if this trend continues they may attract investors if they so desire.

Asset or Investment Turnover Ratios: These are used to indicate how efficiently the company used its fixed assets. Efficient use of assets should yield higher rates of return.
Sales to fixed assets ratio measures the turnover of the firm's fixed assets, that is, how much each £1 invested in fixed assets generates in sales. The firm had fix assets in the form of vehicle, equipment and property and its sales to fixed asset ratio decreased from 2.55 to 1.96 to 1.64 from 2001 to 2003. This could have been because the company was not generating enough sales/business in terms of volume from its assets after such major investments as discussed earlier. It could also be that the company is fairly new hence large capital expenditure to properly set up the business before realising the requisite returns. If this is not the case Highlow will need to find ways of increasing its sales or it should disposed some assets or do a calculated combination of both.

Working Capital Ratios:

The stock to cost of goods sold ratio showed a 16% decrease to 47 days in 2002 and then a 69% increase in 2003 to 79 days. It is desirable that the stock turnover days are low since less money gets tied up in stock that way. If the company were able to convert this stock into cash quicker it would help its cash flow position. The nature of the business, the company being an Engineering company might have influenced the stock turnover since goods make take extended time to be manufactured or long lead time for procurement hence there is a need to keep high inventory so as not to lose sales.

Debtors Days or Days sales Outstanding indicated the number of days sales that were tied up in receivables and represented an average length of time that Highlow Engineering must wait after making a sale to receive payment. A traditional year of 365 days was used in these calculations. The debtors days trend shown an increase, for 2001 was 121 as opposed to 146 days to 2002 and 154 for 2003. This was not a desirable result because it meant that debtors were taking progressively longer to pay their debts and the company will eventually run into cash flow problems and potentially even bankruptcy it this continues. Like most company Highlow Engineering might have had a sales term, a common one being payment due within 30 or 40 days. Since the debtors days was significantly greater than 40 days then customers an average were not paying their bills on time. If prolonged this will deprive the company of funds, which it could use to invest in useful assets. If the trend continues to rise steps should be taken to enforce collection of outstanding debts.

For **Creditors Days** ratio I choose not to include the advance payment by customers in the creditors numbers since it is not really trade credit given by the suppliers. This ratio indicated the average number of days that Highlow Engineering took to pay its suppliers for goods purchased on credit. The trend showed a increase in the ratio from 84 days in 2001 to 87 days 2002 and then an decrease to 72 days in 2003. Examining this and the debtors ratio showed that an average the firm was paying its creditors within 3 months of crediting the supplies but was paid by its debtors up to 5 months after selling the goods. This will lead to cash flow problems in the short-term and could have more serious impact in the long run.

The net working assets to sale ratio reflects what is seen in the working capital ratios. It showed a constant increase of 8 percentage points between each year from 2001 to 2003. Stock and debtors were increasing while creditors were decreasing. Effects of this explained earlier.

The Liquidity Ratios examined were the current ratio and the quick or acid test ratio. **The current ratio**, which indicates the firm's ability to meet short-term debts, was found to be

decreasing from a ratio of 2.75:1 in 2001 to a ratio of 1.6:1 in 2003. As explained earlier, this indicated a downward trend in the extent to which the current liabilities were covered by those assets expected to be converted to cash in the near future. Further examination of the financial statements gave an insight to possible reasons for the trend observed. It appears that there was a significant increase in the firm's current liabilities moving from £8000 in the year ending 2001 to over £17,000 in the year ending 2003. Such a decline in the ratio could be as a result of the company paying its bills more slowly or is borrowing more in the form of overdrafts to pays its bills. A significant portion of the increase in current liability was as a result of a 150% increase in the bank overdraft between year-end 2002 and 2003. During the same period there were only small increases in the current assets of the company.

With a current ratio of 2.75:1 in year 2001 Highlow Engineering could liquidate current assets at 1/ 2.75 = 36.4% of book value and would still be able to pay off creditors in full. With the 2002 ratio of 2.04:1, they could liquidate current assets at 49% and still pay creditors in full. At 1.6:1 in 2003 they would have to liquidate at 62.5% of book value to pay off all the creditors in full.

The Quick or Acid Test Ratio showed the ability of Highlow Engineering to pay off its short-term obligations without relying on the sale of its inventory, since in practice inventory is the least liquid of the company's current assets. Like the current ratio this ratio is also showing a trend of decline from 2.25:1 in 2001 to 1.28:1 in 2003. This ratio of 1.28 in 2003 is very low and is a cause for concern, unless the company can collect from the debtors since the outstanding debt is significant and would be able to pay off their liability.

Risk Ratios:

Interest cover ratio is an indication of the firm's ability to meet its annual interest payment. There was a constant increase in the interest cover ratios calculated for Highlow Engineering Company from 3.67 times in 2001 to 3.98 to 4.39 times in 2003. This meant that the operating income would be able to cover the interest charges better in 2003 than in the previous years. In 2002 the operating income would have to decline 3.98 times before Highlow becomes unable to meet its annual interest payment. When profits are low, maybe because of increased expenses such as wages and overheads then the firm might notbe able to cover its interest charges or might cover by a low margin and would have difficulty borrowing further funds.

Gearing ratio showed a decline by 3.5 percentage points in 2002 and a further deduction 2 percentage point in 2003. It also indicated that for these 3 years approximately 40% of the firm is funded by long-term debts.

The Debt to Equity and the Debt ratios both varied together from approximately 40% in 2001 to 53% in 2002 and increasing further to 70% in 2003. This is showing what was explained earlier that the company is taking on a significant increase in debts

Shareholders Ratios:

Investors and potential investors would be pleased with the trend seen for the **earnings per share**, which showed a growth from 16 pence in 2001 to 18 in 2002 to a high of 27 pence per share in 2003.

The **dividend yield** of the company was 5.6 %. If the investors can get a higher return elsewhere on their investment they may choose not to reinvest in Highlow Engineering Company.

The **dividend cover** ratio indicates how much of the available profit is distributed to shareholders and how much is retained to be used within the firm. There was a small increase in Highlow dividend cover from 2.08 in 2001 to a high of 2.55 in 2003. For every £2.08 made in 2001 £1 was distributed to the shareholder.

The **return on equity** showed the returns highlow was earning on the owners investments. Earnings on equity for 2001 and 2002 were low at 11% however there was an increase to 15.6% in 2003. Therefore for each £1 that was invested 15 pence of assets were created in 2003 whereas only 11 pence of asset was created in previous years.

References

1. Financial Accounting for Non-Specialists, third edition: Peter Atrill & Eddie McLaney
2. Financial Accounting & Reporting, seventh edition: Barry Elliott & Jamie Elliott
3. Fundamentals of Financial Management, ninth edition: Eugene F. Brigham & Joel F. Houston.
4. Business Accounting 1, ninth Edition: Frank Wood & Alan Sangster
5. Readings for Financial Accounting (Compilation of extracts)