DEBT SECURITIES, SEMESTER 1, 2012 - ADDITIONAL QUESTION FOR TUTORIAL 6

As an analyst for a leading Australian corporate ratings company, you have been assigned the task of determining an appropriate short-term credit rating for Paperlinx Limited for the purposes of pricing an upcoming debt issue. You have obtained the following financial ratios for Paperlinx Limited for the 2009, 2010 and 2011 financial years and comparable firm ratio and credit rating information for 2011:

Ratio	2009	2010	2011
EBIT / Interest expense	-0.019	0.086	-0.108
Current assets / Current liabilities	1.538	1.781	1.822
Cash flow from operations / Total liabilities	-0.004	0.017	0.046
Working capital / Total assets	0.274	0.338	0.360
Retained earnings / Total assets	-0.301	-0.498	-0.661
Total liabilities / Total shareholders' equity	1.319	1.495	1.621
Sales / Total assets	2.137	2.202	2.414
EBIT / Total assets	-0.001	0.002	-0.001
Market value of equity / Total liabilities	0.155	0.271	0.082
Net profit after tax / Sales	-0.127	-0.044	-0.023

Ratio	TFS Corporation Limited Credit rating – B1	Gunns Limited Credit Rating – C2
EBIT / Interest expense	1.932	-0.322
Current assets / Current liabilities	3.656	1.512
Cash flow from operations / Total liabilities	0.280	0.053
Working capital / Total assets	0.278	0.215
Retained earnings / Total assets	0.253	-0.082
Total liabilities / Total shareholders' equity	0.926	0.814
Sales / Total assets	0.216	0.336
EBIT / Total assets	0.093	-0.007
Market value of equity / Total liabilities	1.097	0.267
Net profit after tax / Sales	0.201	-0.554

You plan to apply the original Altman (1968) Z-Score model in formally assessing the financial health of Paperlinx Limited. The Altman Z-score model is:

$$Z = 1.2(X1) + 1.4(X2) + 3.3(X3) + 0.6(X4) + 1.0(X5)$$

where:
X1 = Working capital / Total assets
X2 = Retained earnings / Total assets
X3 = EBIT / Total assets
X4 = Market value of equity / Total liabilities
X5 = Sales / Total assets

A Z-Score of less than 1.80 indicates potential financial distress and a Z-Score greater than 3.00 indicates a financially-healthy firm.

Your initial expectation for the credit rating of Paperlinx Limited is within the speculative grade band of short-term ratings encompassing the B1, B2, B3, C1, C2, and C3 rating levels.

SOLUTION TO ADDITIONAL QUESTION FOR TUTORIAL 6

1) Using the ratio information above, calculate the Altman model Z-scores for Paperlinx Limited for the 2009, 2010 and 2011 years. What are your conclusions regarding the financial health of Paperlinx Limited based on these Z-scores?

The Altman Z-Score model results are as follows:

2009 Z score = 1.2(0.274) + 1.4(-0.301) + 3.3(-0.001) + 0.6(0.155) + 1.0(2.317) = 2.314
2010 Z score = 1.2(0.338) + 1.4(-0.498) + 3.3(0.002) + 0.6(0.271) + 1.0(2.202) = 2.080
2011 Z score = 1.2(0.360) + 1.4(-0.661) + 3.3(-0.001) + 0.6(0.082) + 1.0(2.414) = 1.967

The Z scores for these years began within the grey (or uncertain) zone, and have declined over the period with the 2011 Z-score of 1.967 closing in on the 1.80 lower cut-off indicating potential default (bankruptcy) in the near future. Of most concern is the consistent declining trend in Z-scores over the assessment period, suggesting an ongoing deterioration in the financial health of the company. This would suggest that the credit risk and default probability of the company is relatively high, and would justify a credit rating in the lower-end of the speculative zone.

2) Using the ratio information and peer company information provided and your credit scoring outcomes, provide a recommendation for the appropriate short-term credit rating for Paperlinx Limited.

The credit scoring analysis suggests a declining credit position for Paperlinx Limited. The trends in other ratios not part of the Altman Z-score model are also generally not encouraging, with evidence of consistent operating losses, increasing reliance on debt financing and declining equity contribution to the funding and operation of the company. Contradicting these trends, however, the company has been able to maintain a solid working capital and short-term liquidity position, positive operating cash flows and increasing efficiency in revenue generation and asset turnover. Operating revenue is declining, however, total assets are declining at an increasing rate, which is problematic, and the negative profitability suggests problems with cost management.

This evidence would likely support a negative outlook over the short- and longer-term. Based on the information provided, the best way to determine a representative credit rating for Paperlinx Limited is to compare their ratio performance with the two comparable firms and their current credit ratings. It is clear that Paperlinx Limited is inferior to TFS Corporation Limited based on every ratio indicator except for asset turnover efficiency (Sales / Total assets ratio). In comparison to Gunns Limited, Paperlinx Limited's ratios would indicate that it is poorer in quality in relation to short-term liquidity, cash flow generation, long-term earnings performance, leverage and market valuation, and is only clearly superior in 2011 in terms of asset turnover and profitability (although this is only in terms of superior negative profitability). Given the emphasis placed on leverage, cash flow and liquidity status in assessing credit risk, this would suggest that the financial health of Paperlinx Limited is probably currently inferior to that of Gunns Limited. This would suggest that a suitable credit rating for Paperlinx Limited would be below C2 (the short-term credit rating of Gunns Limited). Based on this assessment and the declining Z-scores observed, a credit rating for Paperlinx Limited of C3 is recommended.