

JET2 Financial Analysis

Workbook Version March 2013

Jonathan Horsman

Western Governors University

JET2 Task 3

Course Mentors – Kenneth Cassell, Patricia Cherry, Sankaran Venkateswar

12/07/13

JET2 Task 3

A. Summary Report

A1) Capital Structure:

Capital structure describes how a corporation finances its assets. This structure is usually a combination of several sources of senior debt, mezzanine debt and equity. Wise companies use the right combination of senior debt, mezzanine debt and equity to keep their true cost of capital as low as possible. Depending on how complex the structure, there may in fact be dozens of financing sources included, drawing on funds from a variety of entities in order to generate the complete financing package (What is Capital Structure, 2013).

Here is the Recommended Capital structure approach that maximizes shareholder return.

Competition Bikes wants to expand into Canada. In order to ensure adequate funding and future funding stability, the company must have Capital Structure needs to be in place. The total capital funds expected is to be \$600,000. Competition Bikes has created five different approaches to generate the needed capital for this expansion. **PLEASE NOTE: Workbook states 9% Interest for the Header Columns, but the Workbook Fixed Calculations shows Interest on Bonds is at 12% - I will use 12% for my Analysis.** The first approach is to issue Bonds at 12% for 100% of the financial requirements. The second alternative capital source approach is to issue 50% preferred and 50% common stock. The third is to offer 5 year bonds at 12% for 20% of the capital source and common stock for the remaining 80%. The fourth alternative is to offer 5 year bonds at 12% for 40% of the needed capital combined with the

offering of common stock for 60%. The fifth approach would be 60% for 5 year 12% bonds and 40% for the common stock.

In order for Competition Bikes to maximize return for shareholders, the appropriate course of action is to do an analysis of the EBIT-EPS. Since the company is focused on minimizing shareholder risk, the risk to the company will be overlooked, and only the Earnings Per Share will be evaluated. Below are the EBIT numbers used for the moderate sales by Canada Bikes for the year 9 through 13.

Year	EBIT	EPS				
		(Moderate)	50% Preferred 12% Bonds Only and 50% Common	20% in 12% Bonds and 80% Common Stock	40% in 12% Bonds and 60% Common Stock	60% 12% Bonds and Common Stock
9	75,446	0.002	0.027	0.027	0.023	0.017
10	86,122	0.009	0.032	0.032	0.028	0.023
11	100,387	0.019	0.039	0.038	0.035	0.031
12	118,088	0.031	0.048	0.046	0.043	0.04
13	135,632	0.042	0.057	0.054	0.052	0.049
	Totals	0.103	0.203	0.197	0.181	0.16

The Above Chart shows the Highest EPS by using the EBIT at the Moderate Level for over 5 year period. This chart shows that over the five year period, the company will have a total of (EPS) Earnings Per Share of \$.203 if they were to use the 50% preferred stock and 50% common stock to finance the company's expansion. The other approaches had the following results over the 5 year period: Issuing bonds will only generate .103, 20% bonds and 80% stock show only .197, 40% Bonds and 60% Stock delivers only .181 and lastly 60% Bonds and 40% Stock returns only .16.

A1a) Recommendation - recommendations for the spreadsheet capital structure.

After reviewing each of the five approaches, I would recommend going with the Number 2 by Issuing 50% Preferred Stock (with the 5%, \$50 par) and 50% Common Stock in the interests of maximizing the shareholder's return. Of the five choices, I believe this will give the highest EPS (Earnings Per Share) over the expected EBIT (Earnings Before Interest and Taxes) at the moderate level for over the five year period. This approach of 50% preferred and 50% common stock will give a five year total of .203 in comparison to the .103 if the company was to issue 12% Bonds Only. Even though the 20% Bonds/80% Common Stock appears to be the same for years 9 and 10, Years 11, 12 and 13 lose ground to the 50%Preferred/50% Common stock approach by .006. The other approaches that vary in Bonds and Common Stock percentages show a much lower EPS for each year as well as the overall five year period. The 50% preferred and 50% Common Stock had the highest Earnings Per Share which is also the least risky for the shareholders. Competition Bikes should use the 50% / 50% capital structure source to finance their expansion.

Additional Reasons and considerations for going with the recommended 50% common and 50% preferred stock approach.

- 1) By avoiding the Bonds, you can eliminate paying the Interest on Bonds. All of the other approaches contain Interest on Bonds that could range from as low as \$14,400 in year 9 to as high as 72,000 in year 13 depending on the selected approach.
- 2) The Preferred Stock Dividends is a constant 15,000 annually. This is the only approach that would require this type of payment output.

- 3) The Income Tax (35% Marginal rate) is recommended because it carries the highest income tax payment.

Also, when evaluating the benefits to negatives, the elimination of the Interest on Bonds also creates the largest earnings in regards to (EBT) Income before tax. After reviewing the data for the previous years of 6,7 and 8, it has become apparent that this is an opportune time to expand the company. The Company has improved from year 7 to year 8 in the Cash and Cash Equivalents from 92,376 in year 7 to 414,038 in year 8. In combination with accounts receivables at 609,960 for year 8 down from 717,600 in year 7, this shows that the company has secured and stabilized their current financial position and is ready for expansion.

Here are the reasons why I did not select the other four alternative capital sources and recommend the 50/50 option. These four other capital sources were not maximizing shareholders returns and maximizing the use of the firm's value.

- 1) The capital structure called 9% (really 12%) bonds with its long term debt has the noticeable problem with 'Interest on Bonds'. The Bonds carry an interest amount on bonds of 72,000 which brings down the Income before tax (EBT) to 528,000 on 600,000 EBIT which is lower than all of the other Capital Sources. Even though the Income Tax%(35%margin rate) @ 343,200 is lower than all of the other Capital Sources, the Net Income takes the hardest hit and is the lowest among all of the other Capital Sources. Net Income is an important number to show how profitable the company is over a period of time. This low number has an effect on calculating the earnings per share. This extremely low EPS definitely doesn't benefit the company's Net Income with the lowest Net Income among all of the other Capital Sources. The only benefit I can see in using the 9%(12%) bonds is if the company wants to decrease the

number of Common Stock Shares Outstanding otherwise this would put the company into too much debt when they could be using their equity to leverage themselves into a better EPS situation.

2) The capital structure called 20% 9%(really 12%) bonds and 80% common stock using a 600000 EBIT. In comparison to the 50/50, this source still carries an “Interest on Bonds” of 14,400. Even though the lowest among all of the other Bond offering options, it does offer the highest “Income before Taxes (EBT)”, Income Tax and Net Income in comparison to the other Capital Sources that offer Bonds. While this source offers the highest “total income available for common stock” and the highest number of “Common Stock Share Outstanding”, it the lowest in “Earnings per Common Stock Share” at .262 among all of the other Capital Sources. This low number of .262 could fall below consensus and cause the stock price to drop drastically. Another observation was that 20% / 80% EBIT figures were the same as 50% / 50% for years 9 and 10. However, year 11, 12 and 13 showed that the EPS began to drop. This means that the 20% / 80% could be a good option if this was only for a short term of approx. 2 years but a bad strategy for anything long term.

3) The capital structure called 40% 9%(really 12%) bonds and 60% common stock. This structure requires twice as much on “Interest on Bonds” than the 20% / 80% option. The “income before taxes” is lower but that is because of higher “Interest on the Bonds”. The Net Income drops because the EBT is lower minus the lower Income tax compared to the 20 % bonds / 80% Common Stock. This leads to the second lowest of the Net Income alternative capital resources. This still has a higher Common Stock Shares Outstanding then the 50% / 50% but this 40% / 60% suffers from a lower EPS.

4) The capital structure called 60% 9% (really 12%) bonds and 40% common stock. This Capital Source has the worst performing EPS among all of the Bond/Common Stock combinations. In the Bond/Stock Combination, It has the highest paid Interest on the Bonds and carries the lowest Income before Taxes(EBT). Even though it pays Lowest Income Tax among the Bond/Stock Combination, its Net Income is the lowest. Among the Bond/Combinations it is the lowest performing in Total Income Available for Common Stock. Even with its almost comparable to the Common Stock Shares Outstanding @ 1,215, 000 shares with the 50% / 50% @ 1,275,000 shares, it completely under delivers with an EPS that is the lowest among all Bond/Stock Combinations.

Again, my recommendation is to use the 50% Preferred and 50% Common Stock approach. After reviewing year over year EBIT figures, I did notice that 20% Bonds and Common Stock Structure could be a good option if this was for 2 years at the maximum since they both shared the same EPS for years 9 and 10. However, I really liked how the Net Income increased year over year while maintaining a lower Common Stock Shares Outstanding for the 50% Preferred / 50% Common Stock.

A2) Capital Budget

The process in which a business determines whether projects such as building a new plant or investing in a long-term venture are worth pursuing. Oftentimes, a prospective project's lifetime cash inflows and outflows are assessed in order to determine whether the returns generated meet a sufficient target benchmark (Capital Budgeting, n.d.). Capital budgeting needs to be carefully developed and executed by using the following methods: average rate of return,

cash payback, net present value and the internal rate of return methods.

The Net Present Value (NVP) is a way to look at a project and determine how profitable it will be with its present value of expected future cash flows minus the cost. NVP shows the difference between the present values of cash inflows and cash outflows. If the project's NVP is greater than zero, the project should be accepted. If the NVP is less than zero, it should be rejected (Gitman, 2012).

There are two different scenarios given for the Capital Budgeting for a New Canadian plant. This company has presented a five year projected income, Net Present Value (NVP) and an Internal Rate of Return (IRR).

The company has prepared a NVP with a Low Demand and a Moderate Demand. The NVP for the Low Demand was -26,740, and the NVP for the Moderate Demand is at 2,243. If the company has a Low Demand for their product, the company will not have earned enough to cover the cost of the Capital. If the company meets the Moderate Demand projection, it will exceed the cost of the Capital by 2,243. The concern is that a Low Demand is a strong possibility and a real possible risk. This Low Demand would mean the company would not earn enough to cover the Capital costs. Even with the Moderate Demand, the demand has a positive NVP, but that is still a remarkably low amount of 2,243.

Another area of concern is the IRR (Internal Rate of Return) expected for the company. The internal rate of return on an investment or project is the "annualized effective compounded return rate" or "rate of return" that makes the net present value of all cash flows (both positive and negative) from a particular investment equal to zero (Internal rate of return, 2013). The IRR is a number that can be used to project a company's rate of growth. By using a predetermined

Hurdle number, the company can use the IRR to make the decision to accept or reject the project. The Storyline states that Competition Bikes has a set Hurdle rate of 10%. If the IRR is below the 10%, the company should not accept the project. The IRR for Low Demand is at 8.7%, and the Moderate Demand is at 10.1%. This means that if the company sees a Low Demand for their product, the company will not be able to achieve the required 10% Hurdle rate. This means that the company will not be profitable. If the company sees Moderate Demand, they will just barely reach past the 10% Hurdle rate.

Looking deeper into the Projected Income Statement, it shows a tapering of the Selling and administrative expenses. The main reason for the first year being higher is because of Advertising expenses. This is a smart strategy for advertising to increase the product, brand and company awareness which might help increase the Expected Annual Sales for the New Location. However, the real concern is about the figures for the Net Present Value and the Internal Rate of Return.

After reviewing these areas of concern, it is not recommended that Competition Bikes go forward with the Canadian Plant project. From the information stated for both NVP and IRR if the company sees a Low Demand for their product, the company will not earn enough money to cover the cost of the capital. Even with the Moderate Sales, the NVP and IRR shows that there is barely enough earned to cover the cost of Capital. These numbers are too close to accept the risk for the company to open a plant in Canada.

A3) Working Capital

The following will show how Working Capital can be properly obtained and managed for the

Canadian Expansion. Working Capital is the excess of the current assets of the business over its current liabilities. The working capital is used to pay for business structures, employee salaries and other costs. There many ways of obtain working capital such as bank financing, government loans, lending, asset liquidation, venture capitals, angel investors and even selling additional stock shares. In this situation for an expansion into Canada, the company is already looking forward to raising funds while still maximizing shareholder's returns.

As I have recommended earlier, one way to maximize shareholder return was by the EBIT-EPS approach. That was the mix of 50% Preferred Stock and 50% Common Stock (with 5% dividend interest and \$50 par).

Another strategy is to look into the company for working capital deficiencies. Competition Bikes should be working on managing their Cash Conversion Cycle. The Cash Conversion Cycle management can control the how long and where the company's resources are tied up. This cycle can calculated by subtracting the average payment period from the firm's operating cycle. Competition Bikes needs to determine their operating cycle.

Competition Bikes cash conversion cycle is calculated by adding the (AAI) Average Age of Inventory plus the (ACP) Average Collection Period. Competition Bikes AAI is 25 days, and the ACP is 30 days. This means their operating cycle is 55 days. The operating cycle for Competition Bikes 55 days subtracted by the (APP) average payment period of 15 days yields a cash conversion cycle of 40 days. This means that Competition Bikes has their resources tied up for 40 days. By lowering this number, it will quickly increase the company's working capital because there will be more cash for the company to use.

Another way to manage the company's working capital is by tightening inventory

controls. Through tighter inventory controls, this can lower the cash conversion cycle. These inventory controls would include ABC category system for monitoring priority by their amount of investment, EOQ Economic Order Quantity which is the order quantity that minimizes total inventory holding costs and ordering costs, Just In Time (JIT) system only has work in progress by reducing inventory and inventory costs by having only inventory that is in demand and Materials Requirement Planning(MRP) is a computerized system that can determine what and when inventory is needed and ordered.

With this approach, the company might not have to look for external sources for capitalization. This would include finding strategies to improve Accounts Receivables. The company should to look shorten this time from the approximate 40 days down to 30 days. Encourage those businesses to pay quicker or institute even harsher late penalties for late payments. This also could mean creating credit selection and standards to determine what customers/businesses are most likely to pay and pay on time. This company could also create a credit monitoring system to ensure that customers are paying on time. While at the same time, negotiate with Accounts Payables for longer terms for payments from net 30 days to a floating of 60 days or make payments as slowly as possible without damaging the company's credit rating. Establish longer times to make the payment and this will allow for a longer hold time on capital within the company. Another practice could be to create Cash Concentration within one bank. This will expedite the short-term cash investments without waiting for the Bank to Bank transaction to take place. Cash Concentration practices also include Zero Balance Accounts (ZBA) which means that the company has very little idle cash. The money should be enough to cover that day's expenses and the rest should be sitting in an interest earning account until it is

needed.

The third approach is the Lease vs the Purchase Option. Competition Bikes must determine which option will work best at preserving the most working capital. To make this decision the company has created a Lease vs. Purchase Comparison of Cash Flows. The Lease vs. Buy Decision for Competition Bikes is based on \$200,000 in working capital and \$50,000 down payment that would have to be internally funded. This decision is also based on the assumption that there is 6% PV(present value) factor.

After reviewing the lease and purchase option, it is recommended to go with the Lease Option. Even though the leasing still requires a \$50,000 cash buyout to the total Present Value of Outflows in the amount of 283,752, it is still lower than the cost of purchasing with a Present Value of Outflows total at \$399,774. This translates into choosing the leasing option, the company will be saving \$116,022 over the 5 year period with accepting the buyout.

A4) Merge or Acquire

A Merger is basically, when two companies become one. This decision is usually mutual between both firms (Merger, n.d.). If there is a merger in this given situation, the Canadian Biking would merge with Competition Bikes turning it into one company. This merger of Canadian Biking into Competition Bikes would mean Canadian Biking Stock would be exchanged with Competition Bikes stock on a 3:1 ratio basis.

An Acquisition refers to one company buying the assets and operations of another company and absorbing what is needed while simply discarding duplicated or unnecessary pieces of the acquired business (Business acquisition, 2013). In this situation, Competition Bikes has

the opportunity to purchase Canadian Biking at the prices of \$1.43 per share for the Offered Price of \$286,000.

Competition Bikes needs to pick the most profitable option despite the above capital budget concerns.

In the case of an acquisition, The Net Present Value of Canadian Biking for years 9 through 13 is a total of \$212,138. Even with the total Cash Inflows of \$283,153, this is not a good deal for Competition Bikes when they are getting an Offer Price of \$286,000. If Competition Bikes were to choose this direction, they would be losing money.

In the case of a merger with Canadian Biking, Canadian Biking shares would have to be merged into those of Competition Bikes at a 3:1 ratio. This ultimately means that three of the Canadian Biking Shares will be worth one of the Competition Bikes share.

Considering a Merger, Competition Bikes Earnings per Share (EPS) before the merger is at \$.032. The Earnings per Share (EPS) for Canadian Biking before the merger is at \$.121. If the Canadian Biking were to merge with Competition Bikes, the Earnings per Share (EPS) would be at \$.053. In this situation, this would be a great improvement for Competition Bikes and would make their Shareholders extremely happy.

It should also be noted, Canadian Biking has been increasing sales over the last couple of years with an expected growth rate of 10% per year. This shows that Canadian Bikes has selected a favorable location for their business and has created a desirable product which is growing in demand.

Competition Bikes would see an increased EPS (earnings per share) with the strong possibility of increased sales when they merge with Canadian Biking. Competition Bikes would

have lost money if they had selected an acquisition. With a merger, Competition Bikes will be able to see a profit which the shareholders will like. In addition, Competition Bikes will be able to retain Canadian Biking future success in sales, employees, suppliers, contracts and business strategies. Competition Bikes should select a merger over an acquisition.

References

Business acquisition. (2013, November 1). Retrieved from wikipedia:

http://en.wikipedia.org/wiki/Business_acquisition

Capital Budgeting. (n.d.). Retrieved from investopedia:

<http://www.investopedia.com/terms/c/capitalbudgeting.asp>

Gitman, L. J. (2012). *Principles of Managerial Finance 13th ed.* Retrieved from

[http://menaxhim.files.wordpress.com/:](http://menaxhim.files.wordpress.com/)

<http://menaxhim.files.wordpress.com/2012/03/principles-of-managerial-finance-13th-editionteam-nabantpb.pdf>

Internal rate of return. (2013, November 21). Retrieved from wikipedia:

http://en.wikipedia.org/wiki/Internal_rate_of_return

Merger. (n.d.). Retrieved from Investopedia: <http://www.investopedia.com/terms/m/merger.asp>

What is Capital Structure. (2013, November 29). Retrieved from Structuring Finance:

<http://www.structuringfinance.com/capital-structure/what-is-capital-structure>