Executive Summary

The Wrigley case study from Harvard Business School examines the decision of the Wm. Wrigley Jr. to undertake a major recapitalization strategy. Wrigley Company is a well-established and largest manufacturer of chewing gum in the world over 100 years.

The company was confronted with the challenge of a declining share price despite its strong financial performance. In response, the company's management team proposed a recapitalization plan that involved issuing $3 billion in debt and using the amount either to pay a dividend or to repurchase shares.

At the end of 2001, Wrigley's market value of equity was 13.1 billion dollars, total assets owned was worth 1.76 billion dollars, and the company had no debt. The Wrigley Company had 232.441 Million shares, 21% of the outstanding shares and 58% of Class B Common Stock controlled by the Wrigley Family. Blanka Dobrynin, the Managing Partner of Aurora Bourolias LLC, a private hedge fund with almost $3 billion under management is considering investing in Wrigley's and as a result she is supervising her assistant Susan with the due diligence process to evaluate Capital Valuation and the benefit that can be derived as a result of capital restructuring which will help in terms of increasing the company's value as a result improving the share value as taking debt shields cash flows from high rate of taxes. In this case, the value for marginal tax rate under consideration is 40%. The main issue faced by Wrigley was to consider if the debt should be utilized to payout dividends or repurchase shares. In this report, the effects of leveraged recapitalization are being determined to predict the impact. In this report, the effects of leveraged recapitalization are being determined to predict the impact on the company's financial position, capital structure, and shareholder value.

Thus, the case study explores the pros and cons of each option and the potential impact on the company's financial position, capital structure, and shareholder value.

Effects of Share Repurchases

In the report, we will first evaluate the impact of issuing $3 billion of debt and utilizing the proceeds to repurchase the shares. We will analyze its impact primarily on Wrigley's outstanding shares, book value of equity and market value of equity. In order to calculate the impact on outstanding shares, we will

assume that the book value of equity was $1,276,287 (thousands) and market value of equity was $13,102,669 (thousands) before the announcement of issuing the debt. The total number of outstanding shares currently are 232,441,000.

In order to evaluate the impact on Wrigley's outstanding share we will need to conduct prior calculations. Wrigley's current outstanding shares at the end of 2001 are 232,441,000 which are given to us in the excel sheet. Firstly, we would need to calculate the new stock price after issuing the debt. The tax rate is given to us which is 40% and the current stock price is $56.37. Using the formula mentioned below, we determine the new stock price .

New Stock Price = ((Total Debt x Tax Rate)/Common Outstanding* Shares*) + Current Stock Price

New Stock Price = ((3,000,000,000x40%)/232,441,000)+$56.37= $61.53

This adjustment is basically known as the Adjusted Present Value. Assuming that all the factors are discounted in the current stock price we adjust the value for the new debt. Also, assuming debt is perpetual the adjustment would be Debt * Tax Rate. We also need to consider the effect of Financial Distressed Costs and Agency Costs but these metrics are difficult to forecast and calculate.

Once we have determined the stock price, we will then use it to calculate the total number of shares repurchased and we can get the value by dividing the total amount of debt which is $3 Billion by the new stock price. The number of shares repurchases are 48,756,704. Then we will deduct the total outstanding shares with the number of share repurchases and this will lead us to the new total number of outstanding shares which are 183,684,296.

In order to calculate the impact on Wrigley's book value of equity, we first calculate the total number of liabilities, all the existing liabilities we incorporated are listed below in the formula.

Total Liabilities = Total Current Liabilities + Deferred income taxes - noncurrent, other non-current liabilities + the new debt

Total Liabilities = 332,234,000 + 43,206,000 +113,291,000 + 3,000,000,000 = $3488731000

Book Value of Equity (Post-Recapitalization) = Total Assets - Total Liabilities

= 1,765,648,000 - 3488731000 = -1723083000

After the recapitalization, the book value of equity will be negative $1.72 billion because the value of liabilities will significantly increase by $3 billion surpassing the value of total assets of the firm because of the newly acquired debt.

To evaluate the effect on the market value of equity after recapitalization we will use the assumed market value of equity which is given to us and we will add the benefit of tax shield and deduct the market value of debt from it and the new value that we derive is approximately $11.3 Billion. The market value of equity almost decreases by $2 Billion as a result of it but the market value per share would remain 61.53.

R*ecapitalized Market Value of equity = (Market Value of Unlevered firm + Value of tax shield) - Market value of debt*
= (13,102,669,000 + 1200000000 - 3,000,000,000) = 11,302,699,000 or $11.3 Billion
Market value per share = 11,302,699,000 / 183,684,296 = 61.53

Effects of Issuing Dividend

To further use the comparative analysis, we will now conduct due diligence to look in-depth at the impact of issuing debt in the case where the debt is used to issue dividends to the shareholders. We will analyze its impact primarily on Wrigley's outstanding shares, book value of equity and market value of equity.
In this scenario, there will be no effect at all on the number of outstanding shares at all. This is due to the fact that paying dividends has no impact whatsoever on the number of outstanding shares. However, paying dividends can have an impact on the overall financials of the firm because it can impact the cash flow and the capital structure of the firm.
Secondly, technically there is an indirect impact on the book value of equity, as issuing debt will increase the value of total liabilities. In this case, taking the debt will substantially increase the total liabilities by $3 Billion and overall the figure of liabilities will over shadow the amount of total assets resulting in a negative $1.72 Billion debt.

Book Value of Equity (Post-Recapitalization) = (Total Assets - Total Liabilities)
= 1,765,648,000 - 3488731000 = (1723083000)

Thirdly, we will look at the impact on the market value of equity. If Wrigley used the debt to pay dividend it will pay a dividend of 12.09 per share which is calculated as Debt Value / Number of Shares outstanding. However the average dividend per share over the past 3 years was just 0.702 which shows a massive hike in the amount of dividend. This announcement can result to a jump in share price initially as it will signal that the company is doing well. However, after ex dividend date the share price of a company will typically decrease by an amount equal to the dividend payment

It is also worth noting that dividend announcement can have an adverse effect on the stock price as it may miss out on potential growth opportunities due to lack of funds and also signaling to the investors that they have less further investment opportunities.

Pre-Recapitalization WACC

In order to calculate the pre-capitalization WACC, we will first need to calculate the cost of equity. To determine cost of equity we add the Risk-Free Rate which we have taken to be equivalent to the U.S. Treasury yield rate of 20 years is 5.650%. Secondly, we will need the Market Risk premium which is an explicit assumption of 7%. Thirdly, we will need the unlevered beta which is essentially beta deprived from debt. The formula to calculate the cost of equity is stated below with the calculation. According to our calculations, the cost of equity is 10.9%. Since, Wrigley is an all equity financed company prior to re-capitalization, therefore our WACC rate is same as the cost of equity leading us to conclude that the WACC rate is 10.9%.

Cost of equity = Risk free rate + Beta(Market Risk Premium)

= 0.0565 + 0.75(0.07) = 10.9%

Post-Recapitalization WACC

In order to calculate the WACC rate, we will use the unlevered beta and add the value of newly acquired debt to determine the levered beta. This will give us the value of the new beta. The relevant values are stated below for the reference.

Recapitalized Market Value of equity = 11,302,699,000 or $11.3 Billion.

Levered Beta = Unlevered beta x (1+(1-Tax Rate) x (Debt/Equity)

= 0.75(1+(1-0.40)x(3,000,000,000/11,302,699,000) = 0.869 or 0.87

Once we have determined the value of the levered beta we will use that to determine the cost of equity. The post-recapitalization cost of equity is :

Cost of equity = Risk free rate + Beta(Market Risk Premium)

= 0.0565 + 0.87(0.07) = 0.1125 or 11.25%

Cost of Debt = 13.71% which is the average cost of debt between the BB and B rated Corporate bonds since it is expected that wringley would borrow 3 Billion at a rating between BB and B.

WACC = (% of Equity x Cost of Equity) + (% of debt * Cost of Debt) (1-Tax Rate)

WACC = (0.73*0.1125) + (0.27*0.1371)(1-0.35) = 10.6186%

In the case the proceeds from debt are used to repurchase shares, the WACC rate decreases but slightly. Generally the decrease in WACC rate indicates several aspects such as changes in the capital structure, increase in cost of equity but at the same time getting the tax savings on interest. Also one more factor contributing to decrease in the WACC is that issuance of debt can signal to the market that the company is financially stable and capable of meeting its debt obligation which can increase investor confidence. Additionally, Issuing debt can be a way for a company to raise capital without diluting existing shareholders' ownership stake in the company, which can be perceived as a positive by investors and can result in a lower cost of capital.

Hence, from above calculations we can see that issuing debt reduces cost of capital due to several reasons mentioned above. Also, share repurchase is a better option than increasing the amount of dividend as it can have several benefits like offering more flexibility, can be more tax-efficient, and can signal to the market that management believes the shares are undervalued. They can also increase earnings per share by reducing the number of outstanding shares. In contrast, dividends create a precedent and may be perceived as a signal that the company is not investing heavily in growth opportunities.