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THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

Interest rates are at their lowest point in 50 years. Yet the use of debt financing by corporations is declining—this happens anyway in a recession. And some deleveraging is due to strategic changes in an industry, such as technological innovation or other developments that increase business risk. But corporate deleveraging seems to have gone too far. CEOs are missing valuable opportunities to create value for their shareholders. In the extreme case, you have mature firms who use no debt at all! Take William Wrigley Jr. Company, for instance. It has a leading market share in a stable low-technology business—it makes chewing gum—and yet has no debt. I bet that if we could persuade Wrigley's board to do a leveraged recapitalization through a dividend or major share repurchase, we could create significant new value. Susan, please run some numbers on the potential change in value. And get me the names and phone numbers of all of Wrigley's directors.

With those words, Blanka Dobrynin, managing partner of Aurora Borealis LLC, asked Susan Chandler, an associate, to initiate the research for a potential investment in Wrigley. Aurora Borealis was a hedge fund with about $3 billion under management and an investment strategy that focused on distressed companies, merger arbitrage, change-of-control transactions, and recapitalizations. Dobrynin had immigrated to the United States from Russia in 1991, and had risen quickly to become partner at a major Wall Street firm. In 2000, she founded Aurora Borealis to pursue an "active-investor" strategy. Her typical mode of operation was to identify opportunities for a corporation to restructure, invest significantly in the stock of the target firm, and then undertake a process of persuading management and directors to restructure. Now, in June 2002, Dobrynin could look back on the large returns from the use of that strategy.

Chandler noted that Wrigley's market value of common equity was about $13.1 billion. Dobrynin and Chandler discussed the current capital-market conditions and decided to focus on the assumption that Wrigley could borrow $3 billion at a credit rating between BB and B, to yield 13%. Chandler agreed to return soon to discuss the results of her research.

The William Wrigley Jr. Company

Wrigley was the world's largest manufacturer and distributor of chewing gum. The firm's industry, branded consumer foods and candy, was intensely competitive and was dominated by a few large players. **Exhibit 1** gives product profiles of Wrigley and its peers. Over the preceding two years, revenues had grown at an annual compound rate of 10% (earnings at 9%), reflecting the introduction of new products and foreign expansion (**Exhibit 2**). Historically, the firm had been conservatively financed. At the end of 2001, it had total assets of $1.76 billion and no debt (**Exhibit 3**). As **Exhibit 4** shows, Wrigley's stock price had significantly outperformed the S&P 500 Composite Index, and was running slightly ahead of its industry index.

Estimating the Effect of a Leveraged Recapitalization

Under the proposed leveraged recapitalization, Wrigley would borrow $3 billion and use it either to pay an equivalent dividend or to repurchase an equivalent value of shares. Chandler knew that this combination of actions could affect the firm's share value, cost of capital, debt coverage, earnings per share, and voting control. Accordingly, she sought to evaluate the effect of the recapitalization on those areas. She gathered financial data on Wrigley and its peer companies (**Exhibit 5**).

Impact on share value

Chandler recalled that the effect of leverage on a firm could be modeled by using the adjusted present-value formula, which hypothesized that debt increased the value of a firm by means of shielding cash flows from taxes. Thus, the present value of debt tax shields could be added to the value of the unlevered firm to yield the value of the levered enterprise. The marginal tax rate Chandler proposed to use was 40%, reflecting the sum of federal, state, and local taxes.

Impact on debt rating

A key assumption in the analysis would be the debt rating for Wrigley, after assuming $3 billion in debt, and whether the firm could cover the resulting interest payments. Dobrynin had suggested that Chandler should assume Wrigley would borrow $3 billion at a rating between BB and B. Was a rating of BB/B likely? In that regard, Chandler gathered information on the average financial ratios associated with different debt-rating categories (**Exhibit 6**). Dobrynin thought that Wrigley's pretax cost of debt would be around 13%. Chandler sought to check that assumption against the capital-market information given in **Exhibit 7**.

Impact on cost of capital

Chandler knew that the maximum value of the firm was achieved when the weighted average cost of capital (WACC) was minimized. Thus, she intended to estimate what the cost of equity and the WACC might be, if Wrigley pursued this capital-structure change. The projected cost of debt would depend on her assessment of Wrigley's debt rating after recapitalization and on current capital-market rates (summarized in **Exhibit 7**).

The cost of equity (K_E) could be estimated by using the capital asset pricing model. **Exhibit 7** gives yields on U.S. Treasury instruments, which afforded possible estimates of the risk-free rate of return. The practice at Aurora Borealis was to use an equity-market risk premium of 7.0%. Wrigley's beta would also need to be relevered to reflect the projected recapitalization.

Chandler wondered whether her analysis covered everything. Where, for instance, should she take into account potential costs of bankruptcy and distress or the effects of leverage as a signal about future operations? More leverage would also create certain constraints and incentives for management. Where should those be reflected in her analysis?

Impact on reported earnings per share

Chandler intended to estimate the expected effect on earnings per share (EPS) that would occur at different levels of operating income (EBIT) with a change in leverage. The beginnings of an EBIT/EPS analysis are presented in **Exhibit 8**.

Impact on voting control

The William Wrigley Jr. Company had 232.441 million shares outstanding. A repurchase of shares would alter that amount. The Wrigley family controlled 21% of the common shares outstanding and 58% of Class B common stock, which had superior voting rights to the common stock.[1] Assuming the Wrigley family did not sell any shares, how would the share-repurchase alternative affect the family's voting-control position in the company?

Conclusion

Although Susan Chandler's analysis followed a familiar path, each company that she had analyzed differed in important respects from previous firms. Blanka Dobrynin paid her to run numbers and, more importantly, to find the differences wherein hidden threats and opportunities lay. Running the numbers was easy for Chandler; drawing profitable insights from them was not.

[1] Shares of Class B common stock had 10 votes each; ordinary common shares had one vote each. Class B shares were restricted in their sale or transfer and could be converted into ordinary common shares on a 1:1 basis. Thus, for purposes of computing per-share values, the total number of shares outstanding for Wrigley consisted of the sum of common shares (189.8 million) and Class B shares (42.641 million), a total of 232.441 million shares.

Exhibit 1
THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL
Description of Industry Peer Firms

Company	**Description**
Cadbury Schweppes plc	Cadbury Schweppes plc made and distributed confectionary and beverage products worldwide. Sold 51% stake in Coca-Cola and Schweppes Beverages Ltd. in 1997; beverage brands in 160 international markets in 1999. In 1998, owned 40% of American Bottling. Licensed Cadbury to Hershey in U.S. Acquired Dr. Pepper/7Up in ’95; Hawaiian Punch in ’99; and Snapple in ’00. Segment sales/operating profits in ’01: beverages, 43%/61%; confectionary, 57%/39%. Sales by region: U.K., 21%; U.S., 42%; Australia, 10%; other (including Europe), 27%. Had 36,460 employees. Bond rating: BBB/Baa2.
Hershey Foods Corp.	Hershey Foods Corp. was the largest U.S. producer of chocolate and nonchocolate confectionary products (major brands: Hershey’s, Reese’s, Cadbury, Kit Kat, Sweet Escapes, TasteTations, Jolly Rancher, Good & Plenty, and Milk Duds). Sold majority of pasta operations in 1/99. Acquired Cadbury U.S. in 9/88; Henry Heide in 12/95; and Leaf North America in 12/96. Advertising costs: 4.2% of ’01 sales. ’01 depreciation rate: 6.6%. Had 14,400 employees; 40,300 shareholders. Hershey Trust Co. owns 11.5% of common stock and 99.6% of Class B. Bond rating: A+/A1.
Kraft Foods Inc.	Kraft Foods Inc. was the largest branded food and beverage company headquartered in the U.S. and second largest worldwide. The company marketed many of the world’s leading food brands, including Kraft cheese, Maxwell House coffee, Nabisco cookies and crackers, Philadelphia cream cheese, Oscar Mayer meats, and Post cereals. Its products were sold in more than 145 countries. North American sales accounted for 74% of ’01 sales; international, 26%. Acquired Nabisco in 12/00. Had about 14,000 employees. Philip Morris owns 84% of its common stock(3/02 proxy). Bond rating: BBB+/A3.
Tootsie Roll Industries, Inc.	Tootsie Roll Industries, Inc., produced candy. Products include Tootsie Roll, Tootsie Pop, Tootsie Bubble Pop, and Mason Dots. Acquired Brach’s Confections’ Andes Candies in 5/00; Warner-Lambert’s former chocolate/caramel brands (Junior Mints, Sugar Daddy, Charleston Chew, and Pom Poms) in 9/88; Cella Confections in 7/85. Five plants in U.S., one in Mexico. Int’l ops. (Mexico and Canada): 7% of ’01 sales. Had about 1,950 employees. M. J. & E. R. Gordon control 74% of voting power. Bond rating: N/A.
The Wm. Wrigley Jr. Company	The Wm. Wrigley Jr. Company was the world’s largest manufacturer and seller of chewing gums, specialty gums, and gum base. Principal brands: Doublemint, Spearmint, Juicy Fruit, Big Red, WinterFresh, Extra, Orbit, Freedent. Amurol Products subsidiary made novelty gums, including Bubble Tape, Big League Chew; markets Hubba Bubba bubble gum. Foreign sales: 58% of 2001 total, 58% of pretax profit. Had 10,800 employees; 38,701 common shareholders. William Wrigley Jr. owned 21% of common stock and 58% of Class B. Bond rating: N/A.

Sources of information: *Value Line Investment Survey*; Bloomberg LP.

Exhibit 2

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

Income Statements for the Wm. Wrigley Jr. Company

	year ended December 31		
(in thousands, except per-share amounts)	**2001**	**2000**	**1999**
Earnings			
Net sales	**$ 2,429,646**	$ 2,145,706	$ 2,061,602
Cost of sales	**997,054**	904,266	904,183
Gross profit	**1,432,592**	1,241,440	1,157,419
Selling, general and admininstrative expenses	**919,236**	778,197	721,813
Operating income	**513,356**	463,243	435,606
Investment income	**18,553**	19,185	17,636
Other expense	**(4,543)**	(3,116)	(8,812)
Earnings before income taxes	**527,366**	479,312	444,430
Income taxes	**164,380**	150,370	136,247
Net earnings	**$ 362,986**	$ 328,942	$ 308,183
Per-share amounts			
Net earnings per share of common stock	**$ 1.61**	$ 1.45	$ 1.33
Dividends paid per share of common stock	**$ 0.745**	$ 0.70	$ 0.66

Source of data: Company regulatory filings.

Exhibit 3

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

Consolidated Balance Sheets for the Wm. Wrigley Jr. Company

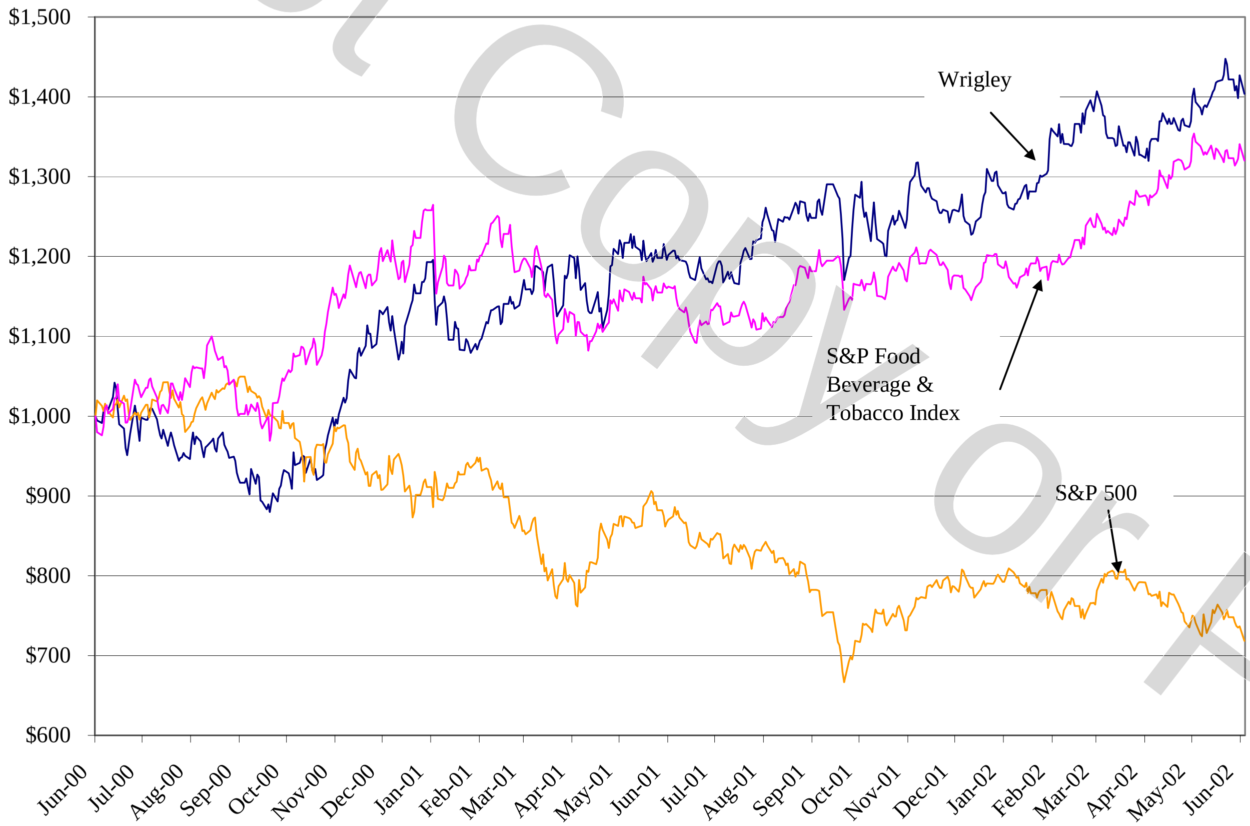
(in thousands of dollars)	2001	2000
ASSETS		
Current assets:		
Cash and equivalents	**$ 307,785**	$ 300,599
Short-term investments, at amortized cost	**25,450**	29,301
Accounts receivable	**239,885**	191,570
Inventories		
Finished goods	**75,693**	64,676
Raw materials and supplies	**203,288**	188,615
	278,981	253,291
Other current assets	**46,896**	39,728
Deferred income taxes - current	**14,846**	14,226
Total current assets	**913,843**	828,715
Marketable equity securities, at fair value	**25,300**	28,535
Deferred charges and other assets	**115,745**	83,713
Deferred income taxes - noncurrent	**26,381**	26,743
Property, plant, and equipment (at cost)		
Land	**39,933**	39,125
Buildings and building equipment	**359,109**	344,457
Machinery and equipment	**857,044**	756,050
	1,256,086	1,139,632
Less accumulated depreciation	**571,717**	532,598
Net property, plant and equipment	**684,379**	607,034
TOTAL ASSETS	**$ 1,765,648**	$ 1,574,740
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	**$ 91,225**	$ 73,129
Accrued expenses	**128,406**	113,779
Dividends payable	**42,711**	39,467
Income and other taxes payable	**68,437**	60,976
Deferred income taxes - current	**1,455**	859
Total current liabilities	**332,234**	288,210
Deferred income taxes - noncurrent	**43,206**	40,144
Other non-current liabilities	**113,921**	113,489
Common stock	**12,646**	12,558
Class B convertible stock	**2,850**	2,938
Additional paid-in capital	**1,153**	346
Retained earnings	**1,684,337**	1,492,547
Treasury stock	**(289,799)**	(256,478)
Accumulated other comprehensive income	**(134,900)**	(119,014)
Total stockholders' equity	**1,276,287**	1,132,897
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	**$ 1,765,648**	$ 1,574,740

Source of data: Company regulatory filings.

Exhibit 4

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

Stock-Price Performance of the Wm. Wrigley Jr. Company
(value of $1,000 investment: June 1, 2000, to June 7, 2002)



Source of data: Datastream, with case writer's analysis.

Exhibit 5

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

Financial Characteristics of Major Confectionary Firms

Company Name	Recent Price	Common Shares Outstanding (millions)	Market Value of Equity (millions)	Book Value of Equity (millions)	Total LT Debt (millions)	LT Debt/ (LT Debt + Book Value of Equity)	LT Debt/ (LT Debt + Mkt Value of Equity)	LT Debt/Book Value of Equity	LT Debt / Mkt Value of Equity
Cadbury Schweppes plc	$ 26.66	502.50	$ 13,397	$ 5,264	$ 2,264	30.07%	14.46%	43.01%	16.90%
Hershey Foods Corp.	$ 65.45	136.63	$ 8,942	$ 2,785	$ 869	23.77%	8.85%	31.18%	9.71%
Kraft Foods	$ 38.82	1,735.00	$ 67,353	$ 39,920	$ 8,548	17.64%	11.26%	21.41%	12.69%
Tootise Roll Industries Inc.	$ 31.17	51.66	$ 1,610	$ 509	$ 8	1.45%	0.46%	1.47%	0.47%
Wm. Wrigley Jr. Co.	$ 56.37	232.44	$ 13,103	$ 1,276	$ -	0.00%	0.00%	0.00%	0.00%
S&P 500 Composite	$ 1,148.08					18.23%	8.76%	24.27%	9.94%

Company Name	Beta	EPS	Price/ Earnings	Cash Dividend	Dividend Payout	Dividend Yield	Interest Coverage Before Tax	Compound Growth of EPS Past 5 Yrs	Firm Value/ EBITDA
Cadbury Schweppes plc	0.60	1.39	15.20	$ 0.67	44.0%	2.50%	4.6x	6.50%	10.3
Hershey Foods Corp.	0.60	2.74	20.40	$ 1.16	41.0%	2.00%	11.1x	6.50%	11.4
Kraft Foods	nmf	1.17	18.70	$ 0.26	12.0%	1.50%	3.4x	nmf	10.1
Tootise Roll Industries Inc.	0.65	1.30	24.00	$ 0.28	22.0%	0.90%	nmf	12.50%	14.6
Wm. Wrigley Jr. Co.	0.75	1.61	29.30	$ 0.75	46.0%	1.50%	nmf	9.00%	22.6
S&P 500 Composite	1.00	18.78	40.55					-49.57%	

Note: nmf = not a meaningful figure.
Source of data: *Value Line Investment Survey*.

Exhibit 6

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

Key Industrial Financial Ratios by Credit Rating

	Investment Grade				Non-Investment Grade	
	AAA	**AA**	**A**	**BBB**	**BB**	**B**
EBIT interest coverage (x)	23.4	13.3	6.3	3.9	2.2	1.0
Funds from operations/total debt (%)	214.2	65.7	42.2	30.6	19.7	10.4
Free operating cash flow/total debt (%)	156.6	33.6	22.3	12.8	7.3	1.5
Return on capital (%)	35.0	26.6	18.1	13.1	11.5	8.0
Operating income/sales (%)	23.4	24.0	18.1	15.5	15.4	14.7
Long-term debt/capital (%)	(1.1)	21.1	33.8	40.3	53.6	72.6
Total debt/capital, incl. short-term debt (%)	5.0	35.9	42.6	47.0	57.7	75.1

Source of data: Standard & Poor's *CreditStats*, September 8, 2003.

Definitions:

EBIT interest coverage divides earnings before interest and taxes (EBIT) by gross interest expense (before subtracting capitalized interest and interest income).

FFO/total debt divides funds from operations (FFO) by total debt. FFO is defined as net income from continuing operations, depreciation and amortization, deferred income taxes, and other noncash items/Long-term debt + current maturities + commercial paper, and other short-term borrowings.

Free operating cash flow/total debt. Free operating cash flow is defined as FFO - capital expenditures - (+) increase (decrease) in working capital (excluding changes in cash, marketable securities, and short-term debt)/Long-term debt + current maturities, commercial paper, and other short-term borrowings.

Total debt/EBITDA. Long-term debt + current maturities, commercial paper, and other short-term borrowings/Adjusted earnings from continuing operations before interest, taxes, and depreciation and amortization.

Return on capital. EBIT/Average of beginning of year and end of year capital, including short-term debt, current maturities, long-term debt, noncurrent deferred taxes, minority interest, and equity (common and preferred stock).

Total debt/capital. Long-term debt + current maturities, commercial paper, and other short-term borrowings/Long-term debt + current maturities, commercial paper, and other short-term borrowings + shareholders' equity (including preferred stock) + minority interest.

Source of data: Standard & Poor's *Corporate Ratings Criteria* (New York: Standard & Poor's, 2005), 42.

Exhibit 7

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

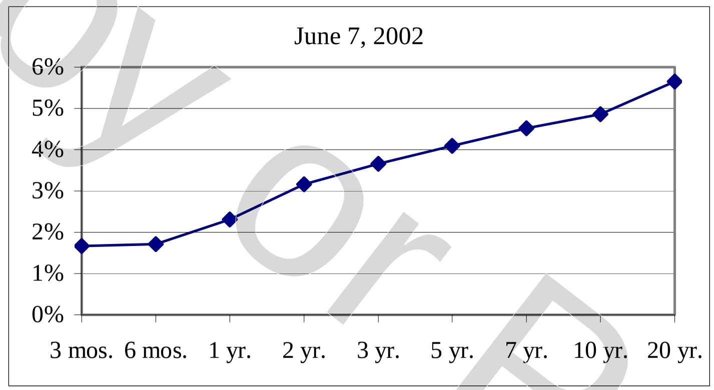
Capital-Market Conditions as of June 7, 2002

U.S. Treasury obligations	Yield
3 mos.	1.670%
6 mos.	1.710%
1 yr.	2.310%
2 yr.	3.160%
3 yr.	3.660%
5 yr.	4.090%
7 yr.	4.520%
10 yr.	4.860%
20 yr.	5.650%

Corporate debt obligations (10 year)	Yield
AAA	9.307%
AA	9.786%
A	10.083%
BBB	10.894%
BB	12.753%
B	14.663%

Other instruments	
U.S. Federal Reserve Bank discount rate	1.730%
LIBOR (1 month)	1.840%
Certificates of deposit (6 month)	1.980%
Prime interest rates	4.750%

U.S. Treasury yield curve



Source of data: Bloomberg LP; Federal Reserve Bank Reports.

Exhibit 8

THE WM. WRIGLEY JR. COMPANY: CAPITAL STRUCTURE, VALUATION, AND COST OF CAPITAL

EPS versus EBIT Analysis

Assumptions	**Before** recapitalization
Interest rate on debt	
Pre-recap debt	
Tax rate	

Before recapitalization	Worst case	Most likely	Best case
Operating income (EBIT)			
Interest expense			
Taxable income			
Taxes			
Net income			
Shares outstanding			
Earnings per share			

Assumptions	**After** recapitalization
Interest rate on debt	
Pre-recap debt	
Tax rate	

After recapitalization	Worst case	Most likely	Best case
Operating income (EBIT)			
Interest expense			
Taxable income			
Taxes			
Net income			
Shares outstanding			
Earnings per share			