

EXHIBIT 4
(concluded)

The shipment estimates include the \$2,100,000 order for the General Aircraft Corporation. We are now scheduled to ship against this order as follows: September, \$840,000; October, \$840,000; November, \$420,000. Since we obtained a \$1,566,000 advance from General Aircraft on this order, we will be due nothing on these shipments until their \$1,566,000 credit with us is exhausted.

You will note the decline in our accrued expenses. As I mentioned to you last month when you visited us, we have been paying off commissions due to our three principal sales people (who are also large stockholders in the company). Last year when we needed funds to redeem part of our capital stock, these people agreed to defer their commissions until the funds could be more easily spared. In August, we paid off the last of these back commissions. This has been the principal cause of the decline in accruals, which, like prepaid expenses, normally do not change much from month to month. Assuming accruals will stay about the same as on August 31, our monthly outlay for all expenses other than interest and raw materials purchases should be around \$400,000 per month.

Due to poor economic conditions and our desire to conserve cash, we have spent very little on new equipment in the last several years, and this has contributed somewhat to the difficulties we have had in maintaining production at a capacity rate this year. We feel that we should not further postpone replacing certain essential equipment if we are to avoid a possible major breakdown at an inconvenient time. Therefore, we think it necessary to purchase additional equipment costing \$350,000 in October to maintain production efficiency. The proceeds from the additional loan we have requested will be used at the end of October to pay for this equipment. This equipment has an estimated life of eight years, an estimated net salvage value of zero, and the \$350,000 purchase price will be depreciated on a straight-line basis.

Our tax people tell us that the equipment will qualify for a 10% investment tax credit (ITC). However, the tax savings of \$35,000 will not affect our scheduled tax payments this year. We are scheduled to pay \$181,000 in taxes on September 15 and to make another payment of the same amount on December 15. As I understand it, the ITC savings of \$35,000 will reduce both our tax liability and the taxes payable on our balance sheet as well as increase reported earnings. However, the cash-flow impact of this savings will not be felt until March 1980 when we make our final settlement with the government on 1979 taxes.

Despite temporary bottlenecks that reduced shipments, our profits for the year to date have been quite satisfactory. With raw materials and components supply assured and the efficiency provided by the new equipment we plan to purchase, we feel confident we can meet our shipment forecasts for the rest of the year. Furthermore, the business that we expect to ship in the next four months is on our books on profitable terms. While our profit, as you know, varies with the item involved, our engineering estimates indicate that we expect to earn a profit before taxes and interest of about 23% of sales on these shipments. Even after taking into account our tax rate of 48% and the interest we must pay on our notes, 1979 looks like a very good year. Because of these good results and in view of our conservative dividend policy during the last several years of economic uncertainty, we plan to pay a dividend to our stockholders. Our dividend disbursements in 1979 have continued to be quite modest, and we want to be sure that those stockholders who stood by us last December have no cause to regret their action. Under the circumstances, we feel that a dividend of \$150,000 payable in December is the least we can do in view of our high earnings and our stockholders' patient support.

If there is anything further you need to know, please do not hesitate to write or phone.

Sincerely yours,
(Signed) B. G. Cowins
President

Debt Policy and Long-Term Capital Structure, Long-Term Financing, and Risk Management

Part 2

looked back on two decades of turbulence in the firm's operations. Difficulties in the 1970s and the mega-merger with Conoco had led the company to abandon its long-held policy of an all-equity capital structure. Following the Conoco acquisition in 1981, Du Pont's ratio of debt to total capital had peaked at 42%—the highest in the firm's history. The rapid escalation in financial leverage had cost Du Pont its cherished AAA bond rating. Du Pont had not regained the top rating despite a reduction in debt to 36% of capital by the end of 1982.

The operations of Du Pont had changed dramatically in the past 20 years. With the task of digesting Conoco under way, management faced an important financial policy decision—determining a capital structure policy appropriate for Du Pont in the 1980s. This decision would have implications for Du Pont's financial performance and possibly for its competitive position as well.

E. I. du Pont de Nemours and Company was founded in 1802 to manufacture gunpowder. By 1900, Du Pont had begun to expand rapidly through research and acquisitions. A technological leader in chemicals and fibers, the firm grew to be the largest U.S. chemical manufacturer. At the end of 1980, the firm ranked fifteenth on the Fortune 500 list of U.S. industrials. The 1981 merger with Conoco, Inc., a major oil company, elevated Du Pont to seventh place on the list of U.S. industrials.

Capital Structure Policy, 1965–1982

Historically, Du Pont had been well known for its policy of extreme financial conservatism. The company's low debt ratio was feasible in part because of its success in its product markets. Du Pont's high level of profitability allowed it to finance its needs through internally generated funds (see Exhibits 1 and 2 for selected financial data). In fact, financial leverage was actually negative between 1965 and 1970, since Du Pont's cash balance exceeded its total debt. Du Pont's conservative use of debt combined with its profitability and technological leadership in the chemical industry had made the company one of the few AAA-rated manufacturers. Du Pont's low-debt policy maximized its financial flexibility and insulated its operations from financing constraints.

In the late 1960s, competitive conditions in Du Pont's fibers and plastics businesses began to exert pressure on the firm's financial policy. Between 1965 and 1970, increases in industry capacity outstripped demand growth, resulting in substantial price declines.

Debt Policy and Long-Term Financing

E. I. du Pont de Nemours and Company (1983)

In early 1983, the management of E. I. du Pont de Nemours and Company (Du Pont) looked back on two decades of turbulence in the firm's operations. Difficulties in the 1970s and the mega-merger with Conoco had led the company to abandon its long-held policy of an all-equity capital structure. Following the Conoco acquisition in 1981, Du Pont's ratio of debt to total capital had peaked at 42%—the highest in the firm's history. The rapid escalation in financial leverage had cost Du Pont its cherished AAA bond rating. Du Pont had not regained the top rating despite a reduction in debt to 36% of capital by the end of 1982.

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In the late 1960s, competitive conditions in Du Pont's fibers and plastics businesses began to exert pressure on the firm's financial policy. Between 1965 and 1970, increases in industry capacity outstripped demand growth, resulting in substantial price declines.

As a result, Du Pont experienced decreases in gross margins and return on capital. Despite continued sales growth, net income fell by 19% between 1965 and 1970.

Three factors combined to intensify the pressure on Du Pont's financing policy in the mid-1970s. In response to competitive pressures, Du Pont in the early 1970s embarked on a major capital spending program designed to restore its cost position. The escalation of inflation ballooned the cost of the program to more than 50% over budget by 1974. Since capital spending was critical to maintaining and improving its competitive position, Du Pont was reluctant to reduce or postpone these expenditures. Second, the rapid increase in oil prices in 1973 pushed up Du Pont's feedstock costs and increased required inventory investment, while oil shortages disrupted production. Du Pont experienced the full impact of the oil shock in 1974; its revenues rose by 16% and costs jumped by 30%, causing net income to fall by 31%. Finally, the recession in 1975 had a dramatic impact on Du Pont's fiber business. Between the second quarter of 1974 and the second quarter of 1975, Du Pont's fiber shipments dropped by 50% on a volume basis. Net income fell by 33% in 1975. Over the period 1973–1975, Du Pont's net income, return on total capital, and earnings per share all fell by more than 50%.

Severe financing pressures resulted from the combination of inflation's impact on needed capital expenditures, cost increases driven by the escalation in oil prices, and recessionary conditions in the fiber business. The required investment in working capital and capital expenditures increased dramatically at a time when internally generated funds were shrinking. Du Pont responded to the financing shortfall by cutting its dividend in 1974 and 1975 and slashing working capital investment.

Since these measures were insufficient to meet the entire financing requirement, Du Pont turned to debt financing. With no short-term debt outstanding in 1972, the firm's short-term debt rose to \$540 million by the end of 1975. In addition, in 1974, Du Pont floated a \$350 million 30-year bond issue and a \$150 million issue of 7-year notes. The former was Du Pont's first public long-term debt issue in the United States since the 1920s. As a result, Du Pont's debt ratio rose from 7% in 1972 to 27% in 1975, while interest coverage collapsed from 38.4 to 4.6 over the same period. Despite concern that the rapid increase in the company's debt ratio might result in a downgrading, Du Pont retained its AAA bond rating during this period. Had Du Pont abandoned its policy of financial conservatism, or was this a temporary departure from that policy forced by extraordinary financing pressures? In December 1974, Du Pont CEO Irving Shapiro stated, "We expect to use prudent debt financing over the long term."

Nonetheless, Du Pont moved quickly to reduce its debt ratio. Between 1976 and 1979, financing pressures eased. Capital expenditures declined from their 1975 peak as the spending program initiated in the early 1970s neared completion. Net income more than tripled during the period 1975–1979, helped by relatively moderate energy price increases and the economywide recovery from the 1974–1975 recession. Du Pont reduced the dollar value of its total debt in 1977, 1978, and 1979. By the end of 1979, Du Pont's debt had been pared to about 20% of total capital, and interest coverage had rebounded to 11.5 from 4.6 in 1975. Once again, the firm was well within the AAA-rated range. However, it was not apparent that the firm would return to the zero-debt policy of the past. In 1978, Richard Heckert, a Du Pont senior vice president, noted, "While we presently anticipate some further reduction in borrowings, we have considerable borrowing capacity and hence considerable flexibility."

An abrupt departure from maximum financial flexibility occurred in the summer of 1981. In July, Du Pont entered a bidding contest for Conoco, Inc., a major oil company and the fourteenth largest U.S. industrial. After a brief but frenetic battle, Du Pont succeeded in buying Conoco in August 1981. The price of almost \$8 billion made the merger the largest in U.S. history and represented a premium of 77% above Conoco's

preacquisition market value. With the acquisition, Du Pont virtually doubled its size and significantly increased its orientation toward undifferentiated commodity products. Both Du Pont's stock price and industry analysts responded negatively to the acquisition. Major concerns included the high price Du Pont had paid and the question of how Conoco would contribute to Du Pont's strategic objectives.

To finance the purchase of Conoco, Du Pont issued \$3.9 billion in common stock and \$3.85 billion in floating-rate debt. In addition, Du Pont assumed \$1.9 billion of outstanding Conoco debt. The acquisition propelled Du Pont's debt ratio to nearly 40% from slightly over 20% at the end of 1980. Du Pont's bond rating was downgraded to AA, marking the first time in its history that the firm had fallen below the top rating.

The first year after the merger was a difficult one for Du Pont. Conoco's performance was hampered by declining oil prices in 1982, while an economic recession plagued the chemical industry. Although Du Pont's 1982 revenues were 2½ times 1979 sales, net income in 1982 fell below 1979 results; return on total capital was cut in half during this period, and earnings per share fell by 40%.

As Du Pont's management worked to frame and implement a coherent strategy for the merged company, they also got to work to repair the firm's extended financial condition. To reduce interest rate exposure, Du Pont refunded most of the firm's floating-rate debt with fixed-rate, long-term debt issues. Plans to reduce debt with the proceeds from the sale of \$2 billion in Conoco coal and oil assets were frustrated by depressed energy prices. One analyst complained, "Du Pont managed to acquire Conoco at the peak of the oil cycle, and now they are looking at a tremendous glut of coal assets for sale that is going to make it very difficult to sell coal properties." Nevertheless, by the end of 1982, Du Pont had pared its debt ratio to 36% from the postmerger peak of 42%. Poor earnings in 1982 held interest coverage down to a near record low of 4.8. The firm retained its AA bond rating.

The increase in debt ratio accompanying the Conoco merger marked the second time in 10 years that Du Pont departed from its traditional capital structure policy. This, plus the fundamental changes in Du Pont's businesses, mandated the determination of a capital structure policy that would be feasible and appropriate for the years ahead.

Future Capital Structure Policy

Du Pont's financing policy had always been predicated on the notion of maximizing financial flexibility. This ensured that financing constraints did not interfere with the firm's competitive strategy. However, competitors differed widely from Du Pont and each other in their use of financial leverage (see Exhibit 3). Why should not Du Pont, like Dow Chemical and Celanese, reap the benefits of aggressive debt financing even if this resulted in a further reduction in its bond rating? (See Exhibit 4 for bond rating data.) Of course, electric utilities and telephone companies maintained high bond ratings despite aggressive use of debt (see Exhibit 4). While Du Pont's performance was more volatile than a company like AT&T, it was less volatile than many competitors and other industrial firms (see Exhibit 5).

In framing a debt policy, a key concern was how risky Du Pont's businesses were. The degree of business risk would help determine how much debt Du Pont could safely employ in its capital structure without unduly constraining its competitive strategy. The last 20 years had documented the increased volatility of Du Pont's basic businesses. Du Pont's competitive position and profitability had declined in many product lines. In many businesses, products were close to being undifferentiated commodities, and intense competition was common. Excess capacity and the economics

of high-fixed-cost businesses pressured prices and profits. Moreover, Conoco competed in a volatile commodity business, a business in which Du Pont's management had little experience. The increased risk of Du Pont's operations argued for a relatively conservative capital structure.

Nonetheless, several factors suggested that the firm could pursue an aggressive debt policy. Du Pont was still the nation's largest chemical manufacturer, and large-scale economies were a common characteristic of chemical production processes. The firm remained the technological leader in the industry, and its success at R&D was second to none. Du Pont was pursuing capital spending programs designed to reduce costs in all business segments. The firm was widely diversified in terms of products and markets. In the past, Du Pont's economic muscle had often been constrained by aggressive antitrust policy, but the near-term future held some promise of a more benign regulatory environment. As for the impact of Conoco on Du Pont's business risk, some analysts thought the major diversification move would dampen the volatility of the firm's earnings. Edward Jefferson, who succeeded Irving Shapiro as Du Pont's chief executive officer, agreed, reasoning that the merger would "reduce the exposure of the combined companies to fluctuations in the price of energy."

Even with a recovery in gross margins, strong sales growth, and successful sales of Conoco assets, Du Pont would be forced to seek external financing each year from 1983 to 1987 (see Exhibit 6 for projections). The major reason was the need for a continued high level of capital expenditures. Capital spending was viewed as critical to Du Pont's future success because it was the key to minimizing the firm's cost position in existing products and launching new products swiftly and efficiently. In view of its importance, capital spending was essentially nondeferrable and often had to be increased rather than cut in bad times in order to redress the causes of poor performance.

Because of its large, nondeferrable financing needs, Du Pont was concerned about the cost and availability of financing (see Exhibit 7 for data on financing costs and volumes). Companies with high debt ratios and low bond ratings appeared to have some difficulty in obtaining debt financing in some years. However, firms rated A and above appeared to have little difficulty in raising funds. But compared with AAA-rated firms, the cost of debt financing was higher for A-rated firms, and the spread between A and AAA rates widened in high-interest-rate environments. In view of the importance and magnitude of Du Pont's projected financing needs, the firm was concerned about how the cost and availability of debt might affect its ability to pursue capital spending programs critical to its competitive position.

Capital Structure Policy Alternatives

One alternative for Du Pont was to restore its historical financial strength and AAA rating. Given Du Pont's substantial projected capital spending requirements, a return to zero debt was infeasible. A target ratio of debt to capital of 25% should be sufficient to ensure a high degree of financial flexibility and insulate Du Pont's competitive strategy from capital market conditions. However, achieving this debt ratio would not be easy (see Exhibit 8 for data on policy alternatives). Reducing the debt ratio from 36% in 1982 to 25% by the end of 1986 would require large equity issues in each year. Maintaining the target of 25% debt in 1987 would require additional large equity infusions. As of the end of 1982, Du Pont's stock price had yet to recover from the market's negative reaction to the Conoco merger, reinforced by the continuing recession. This raised questions concerning the terms and availability of the substantial new equity financing required to achieve a 25% debt ratio (see Exhibit 7 for equity issue data).

Although a conservative capital structure policy had the force of tradition, it was not clear that conservatism was appropriate for Du Pont in the 1980s. The cost of conservatism was clear (see Exhibit 8). Were Du Pont to abandon forever its historical conservatism and maintain a 40% target debt ratio, many measures of financial performance would benefit. For the recovery scenario projected in Exhibits 6 and 8, a high-debt policy generated higher projected earnings per share, dividends per share, and return on equity. No equity issues would be required through 1985. Equity issues in 1986 and 1987 would be much smaller than projected for the low-debt policy and thus might be more easily timed to take advantage of favorable market conditions. However, with higher financial leverage comes higher risk. In a pessimistic scenario (e.g., a recession), earnings per share and return on equity would suffer more severe declines with the high-debt policy. Other concerns were the availability of funds in all economic conditions with the high-debt alternative and the constraints limited availability might place on Du Pont's operations.

The Decision

The two decades drawing to a close in 1982 brought fundamental changes in Du Pont's businesses, culminating in the historic acquisition of Conoco. This acquisition also forced a dramatic departure from Du Pont's long-held capital structure policy. These changes both mandated and provided the opportunity for a fundamental reassessment of Du Pont's financing policy. In view of the escalation in Du Pont's debt ratio, the downgrading of its bond rating, and the negative stock market response to the Conoco merger, there was a considerable degree of uncertainty concerning Du Pont's financial policy. This underscored the importance of determining, committing to, and communicating a capital structure policy in the near future.

EXHIBIT 3 Financial Data for Selected Chemical Companies, 1980 and 1982 (millions of dollars)

Source: Moody's Investors Service.

	Du Pont		Dow Chemical		Monsanto		Celanese	
	1980	1982	1980	1982	1980	1982	1980	1982
Sales.....	\$13,652	\$33,331	\$10,626	\$10,618	\$6,574	\$6,325	\$3,348	\$3,062
10-year compound annual sales growth rate.....	14.2%	22.5%	18.7%	16.0%	12.8%	11.0%	12.4%	7.4%
10-year compound annual EPS growth rate.....	7.5%	2.9%	19.9%	5.7%	8.3%	9.9%	8.9%	7.3% ^a
Net income.....	\$ 744	\$ 894	\$ 805	\$ 399	\$ 149	\$ 352	\$ 122	\$ (34)
Net income/Sales.....	5.4%	2.7%	7.6%	3.8%	2.3%	5.6%	3.6%	(1.1)%
Return on total capital.....	10.9%	6.6%	7.2%	7.9%	5.3%	8.3%	9.3%	(.3)%
Return on equity.....	13.1%	8.2%	18.1%	9.6%	5.5%	10.1%	11.2%	(1.2)%
Dividend payout.....	58.1%	64.0%	36.2%	101.7%	86.6%	45.2%	42.7%	42.7% ^a
Stock price/EPS ^b	8.4	9.9	7.6	13.7	13.7	8.3	6.3	6.7 ^a
Market value/Book value ^b	109%	82.9%	138%	93.4%	72%	84.7%	67%	75.7%
Debt/Total capital.....	20.4%	35.7%	48.5%	42.7%	33.4%	24.5%	40.7%	42.9%
Interest coverage.....	10.9	4.8	2.2	1.6	2.8	7.1	4.5	3.8 ^a
Bond rating (senior debt).....	AAA	AA	A	A	AA	AA	A	BBB

^aCelanese 10-year compound annual EPS growth rate, dividend payout ratio, stock price/EPS, and interest coverage use 1981 instead of 1982.

^bMarket value/book value and stock price/EPS are based on average of year's high and low stock prices.

EXHIBIT 4 Bond Rating Medians for 1979-1981

Source: Standard and Poor's Corporation.

	AAA	AA	A	BBB	BB	B
<i>Industrial Corporations</i>						
Interest coverage.....	18.25	8.57	6.56	3.82	3.27	1.76
Total debt/Capitalization.....	17.04%	23.70%	30.41%	38.62%	48.07%	58.77%
<i>Electric Utilities</i>						
Interest coverage.....	>4.00	3.25-4.25	2.50-3.50	<3.00	—	—
Total debt/Capitalization.....	<45%	42-47%	45-55%	>55%	—	—
<i>Telephone Companies</i>						
Interest coverage.....	>4.50	3.70-4.70	2.80-4.00	<3.00	—	—
Total debt/Capitalization.....	<40%	40-48%	48-58%	58-64%	—	—

EXHIBIT 5 Return on Total Capital

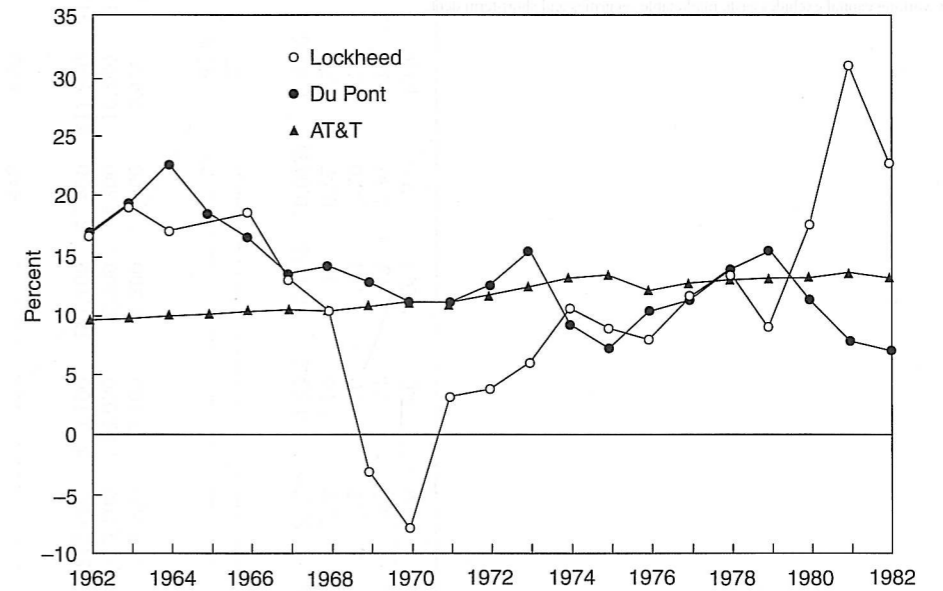


EXHIBIT 6 Financial Projections, 1983-1987 (millions of dollars)

Sources: Analysts' forecasts and casewriter's estimates.

	1983	1984	1985	1986	1987
<i>Sources of Funds</i>					
Net income.....	\$1,009	\$1,196	\$1,444	\$1,591	\$1,753
Depreciation.....	2,101	2,111	2,212	2,396	2,667
Funds from operations.....	3,110	3,307	3,656	3,987	4,420
Assets sold.....	600	600	600	0	0
Decrease in cash.....	199	(200)	(200)	(150)	(150)
Other sources.....	74	135	135	135	135
Sources before new financing.....	\$3,983	\$3,842	\$4,191	\$3,972	\$4,405
<i>Uses of Funds</i>					
Dividends.....	\$ 571	\$ 658	\$ 794	\$ 896	\$ 964
Capital expenditures.....	2,767	3,386	4,039	4,202	4,667
Increase in net working capital ^a	973	414	594	587	650
Other.....	10	10	10	10	10
Total uses.....	\$4,321	\$4,468	\$5,437	\$5,695	\$6,291
Net financing requirement.....	\$ 338	\$ 626	\$1,246	\$1,723	\$1,886

Note: Assumptions are as follows: Sales are average of analysts' forecasts; average annual sales growth rate is 10%. EBIT recovers to 8.1% of sales by 1985. Net working capital (excluding cash) equals 13% of sales. Dividend payout ratio is 55%, and no dividend reductions are allowed. Net fixed assets equal 40% of sales. Depreciation is 15% of net fixed assets in the previous year.

a. Net working capital excludes cash, marketable securities and short-term debt.

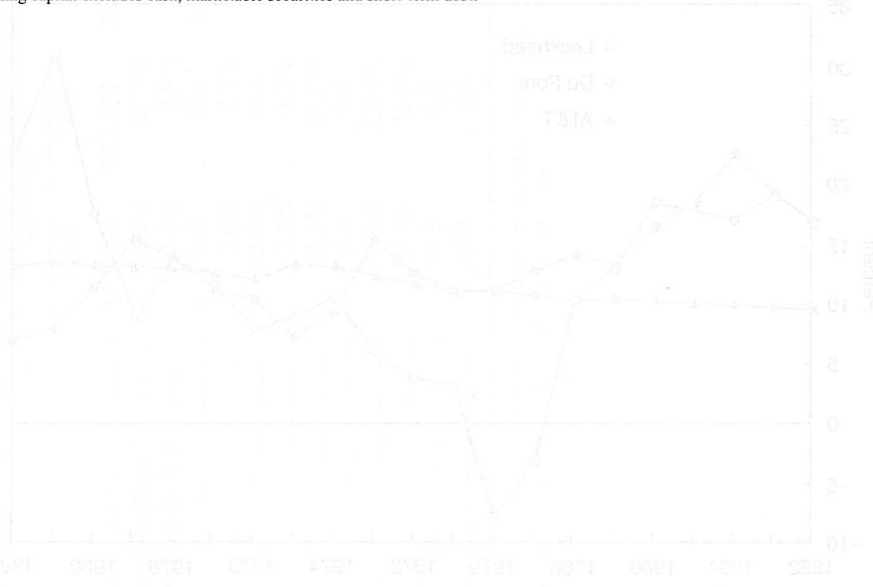


EXHIBIT 7 Debt Financing Costs and Volumes, 1970-1982 (millions of dollars)

Sources: Salomon Brothers Inc., Bankers Trust Company, and Standard and Poor's Corporation.

	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
<i>Gross New Bond Issues by Industrials</i>													
AAA debt.....					\$1,650	\$ 2,875	\$ 700	\$ 800	\$ 275	\$ 1,550	\$ 1,750	\$ 1,852	\$ 543
AA debt.....					2,415	3,310	2,030	1,125	700	1,800	2,900	2,458	3,347
A debt.....					2,060	5,355	2,205	960	1,310	1,500	4,220	3,887	3,075
BBB debt.....					440	420	1,010	445	210	0	345	0	1,357
<i>Common and Preferred Stock Issues</i>													
Cash offerings	\$9,200	\$13,000	\$13,100	\$11,100	\$7,400	\$11,900	\$13,300	\$14,100	\$14,600	\$17,100	\$28,600	\$34,400	\$38,700
Net ^a	6,800	13,500	13,000	9,100	4,300	10,500	10,300	6,800	(1,400)	(1,900)	18,200	12,000	16,400
Cash offerings by industrials	3,500	3,200	3,100	1,500	1,000	2,400	2,800	2,300	2,900	3,600	10,400	11,900	9,600
<i>Maturity Distribution of New Debt Issues</i>													
Medium-term.....						43%	30%	16%	21%	30%	44%	55%	62%
Long-term.....						57	70	84	79	70	56	45	38
<i>Interest Rates</i>													
90-day commercial paper	7.89%	5.12%	4.63%	8.11%	10.06%	6.41%	5.28%	5.45%	7.73%	10.72%	12.37%	15.15%	11.91%
New issue AAA debt	8.39	7.39	7.10	7.42	8.57	8.70	8.15	7.88	8.63	9.39	11.74	14.30	14.14
New issue AAA-AA spread	.26	.12	.10	.10	.20	.27	.17	.09	.14	.22	.44	.50	.38
New issue AAA-BBB spread	1.35	1.07	.71	.75	1.67	2.57	1.44	.79	.81	1.12	1.95	2.09	1.87
S&P 500 price/earnings ratio	16.5	18.0	18.0	13.4	9.4	10.8	10.4	9.6	8.2	7.1	8.4	8.5	10.4

^aStock offerings less stock repurchases.

EXHIBIT 8 Projected Financial Results under Two Financial Policy Alternatives, 1983–1987
 (millions of dollars except per share data)

Sources: Analysts' forecasts and casewriter's estimates, based on assumptions of Exhibit 6.

	1983	1984	1985	1986	1987	1987 with 20% Lower EBIT
<i>40% Debt Scenario</i>						
Debt/Total capitalization.....	36.0%	37.1%	39.7%	40.0%	40.0%	40.0
Interest coverage ^a	3.67	3.88	3.95	3.89	3.86	3.09
Earnings per share.....	\$4.20	\$4.98	\$6.02	\$6.31	\$6.62	\$4.83
Dividends per share.....	\$2.38	\$2.74	\$3.31	\$3.56	\$3.64	—
Return on total capital.....	7.9%	8.6%	9.3%	9.3%	9.2%	7.4%
Return on equity.....	9.0%	10.1%	11.5%	11.5%	11.4%	8.3%
New equity issues.....	\$0	\$0	\$0	\$704	\$816	\$816
Millions of shares sold ^b	0	0	0	11.7	13.0	13.0
<i>25% Debt Scenario</i>						
Debt/Total capitalization.....	33.8%	31.4%	28.2%	25.0%	25.0%	25.0%
Interest coverage ^a	3.91	4.60	5.57	6.23	6.17	4.94
Earnings per share.....	\$4.13	\$4.77	\$5.41	\$5.46	\$5.60	\$4.27
Dividends per share.....	\$2.29	\$2.49	\$2.71	\$2.72	\$2.72	—
Return on total capital.....	7.9%	8.6%	9.3%	9.3%	9.2%	7.4
Return on equity.....	8.8%	9.8%	10.7%	10.4%	10.2%	7.8%
New equity issues.....	\$398	\$686	\$1,306	\$1,783	\$1,271	\$1,271
Millions of shares sold ^b	9.5	14.3	28.8	36.2	25.2	25.2

^aInterest coverage is defined as EBIT/interest.^bAssumes new shares sold at a price-earnings ratio of 10.

Williams, 2002

"Tough times require tough decisions."

—Steven J. Malcolm, Williams Companies¹

Steven J. Malcolm, the recently appointed president, chairman, and chief executive officer of Williams (The Williams Companies, Inc.) found himself making a number of tough decisions since taking the helm of Williams in early 2002. The Tulsa, Oklahoma, based Williams engaged in energy related businesses, including exploration and production, pipelines, energy trading, and for a while, telecommunications. The collapse of its telecommunications business, softness in the energy markets, and ongoing inquiries from regulators about its reporting and energy trading had put Williams under financial stress. Over the past six months, Williams had cut back on capital spending, planned more than a billion dollars of assets sales, slashed the firm's dividend by 95%, and raised financing in a variety of forms. Williams' priority was acknowledged to be "raising cash and access to cash."² In the summer of 2002, Malcolm was considering the latest in a series of decisions facing the beleaguered firm: whether to accept a secured credit agreement from Lehman Brothers and Berkshire Hathaway. Lehman Brothers was Williams' long-time financial advisor, and Berkshire Hathaway, run by the fabled investor Warren Buffett, had earlier bought pipeline assets from Williams and purchased \$275 million of Williams' convertible preferred stock. The new agreement would provide Williams with funding of \$900 million for one year. This one-year funding was backed by the assets of the former Barrett Resources Corporation, a company Williams had acquired in 2001, and was subject to a number of conditions. Exhibit 1 summarizes the terms of the proposed financing. Malcolm reflected on the proposed transaction and his first seven months as head of Williams.

Background on Williams

Williams had been a part of the Tulsa community since 1918, when Miller and David Williams relocated their pipeline construction business there from Arkansas. The company grew impressively from its beginnings, and many residents of Tulsa owed their fortunes to the performance of the company.³ Williams engaged in many different types of energy activities, including the purchase, sale, transportation, and transmission

¹Eileen O'Grady, "Williams Cos Gets \$3.4 Bln from Asset Sales, Loans," *Bloomberg News*, August 1, 2002.

²Mark Johnson, "Williams Cos Debt Rating Is Reduced to Junk by S&P," *Bloomberg News*, July 23, 2002.

³Chip Cummins and Elliot Spagat, "Boom and Bust: At Williams Cos., Two Trendy Bets Yield Snake Eyes—Pipeline Concern Saw Future in Telecom, Energy Trades; Tulsa Is Burned but Loyal—Bake Goodies for the Bankers," *The Wall Street Journal*, September 5, 2002.

Post-doctoral fellow Robin Greenwood prepared this case under the supervision of Professors Joshua Coval and Peter Tufano. This case was developed from public sources. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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of energy-related commodities (natural gas and liquids, crude oil, refined products, and electricity). It was also involved in exploration and refining, with several direct investments in international energy projects located in South America and Lithuania. More recently, the company had developed a large Energy Marketing and Trading business, which bought and sold a host of energy products and financial contracts on these products. This unit posted high profits between 1998 and early 2001, and as late as January 2001—before the collapse of its rival, Enron—Williams confidently predicted that this marketing and trading subsidiary would generate a minimum of \$500 million in profits “under most market conditions.”⁴

Part of Williams’ growth during the 1990s could be attributed to the profitability of its telecommunications business. This business began in 1985, when Williams started to run optical fiber through old natural gas pipelines to deliver telecommunications services. Within a few years, they built one of the largest networks in the United States, and became the first firm to sell capacity to other phone companies. Williams sold this network in 1995 for \$2.5 billion in cash to LDDS Worldcom. The remaining units formed the basis of WilTel Technology Ventures, which was later combined with other assets to form the Williams Communication Group (WCG). In October 1999, Williams listed WCG in an initial public offering (IPO) that raised approximately \$680 million, in addition to \$725 million raised through placements to private investors. Concurrent with the IPO, WCG raised \$2.3 billion in debt, which was rated BB and BB-.⁵ Finally, in early 2001, the Williams board approved the distribution of the remaining 398.5 million shares of WCG to Williams shareholders in the form of a tax-free dividend.

Exhibit 2 shows summary financial information for Williams and some of its rivals. Exhibit 3 shows financial information for the firm over the period from 1990 to mid-2002.

The Unfolding Situation in 2000–2001

Williams’ problems began soon after the spinoff of WCG. The communications business had not fared well in the economic downturn, resulting in a well-publicized shake-out in the telecom sector. The biggest problem in the industry was oversupply: it was estimated that only 2 to 5% of the fiber optic lines in the United States were lit and carrying traffic—there were simply “too many people chasing too little business.”⁶ Bandwidth prices plummeted, with the monthly lease price of a T1 line between New York and London falling by more than 90% between 1998 and 2002.⁷ Many firms reduced investment and laid off workers. For example, the telecom firms Nortel and Lucent cut

⁴“Williams Companies Sees Meeting, Exceeding ‘01 Estimate,” Dow Jones News Service, January 3, 2001.

⁵Gracian Mack, “Williams Fiber Could Have Long-Term Glow,” Redherring.com, October 2, 1999. Moody’s, Standard & Poor’s, and Fitch are three investment rating agencies. They evaluate the creditworthiness of bonds by judging the likelihood that a bondholder will receive the promised interest and principal payments. Bonds with high credit ratings are judged to have a high capacity to meet financial commitments. Lower ratings on bonds reflect a judgment that the investor runs the risk of failing to receive required payments of interest and principal. The top four classes of ratings (AAA/Aaa, AA/Aa, A/A, and BBB/Baa) are called “investment grade”; bonds rated below this (BB/Ba, B/B, CCC/Caa, etc.) are called speculative grade, non-investment grade, or sometimes “junk” bonds. The three firms use slightly different ratings symbols, with S&P and Fitch using ratings like BBB, and Moody’s denoting these as Baa. Numbers following the rating (like B1 or B3) represent differences within grade, with 3s representing lower ratings than 1s.

⁶“Interview: Adam Quinton, Merrill Lynch, and Ivan Seidenberg, Verizon, Discuss the Telecom Industry,” CNBC: *Market Week with Maria Bartiromo*, March 23, 2001 (Factiva).

⁷For example, the monthly leasing price of a DS-3 line between New York and London fell from over \$80,000 to below \$5,000 between January 1999 and June 2002 (source: Telegeography, <http://www.telegeography.com>).

more than half of their staff between 2001 and 2002, and telecommunications giant WorldCom filed for bankruptcy protection in July 2002. During the first nine months of 2001, defaults in the telecommunications sector comprised the bulk of defaults in the speculative-grade bond market.⁸ It became uncertain whether the newly independent, and debt-laden, Williams Communications could survive on its own under these conditions, and Williams took steps to support its former subsidiary.

Prior to the spinoff, Williams acknowledged that WCG’s debt burden might prevent it from raising new funds. In March 2001, to strengthen WCG’s capital structure, Williams converted a \$975 million promissory note from WCG into 24.3 million newly issued shares of WCG equity, essentially replacing a debt investment in WCG with an additional equity state. Keith Bailey, then chairman of Williams Companies, Inc., stated that this would “enable Williams Communications to obtain the capital to fully execute its business strategy” and strengthen the balance sheet of the newly independent company.⁹ Howard Janzen, Williams Communications president and CEO, said the agreement was a “key step” in preparation for the spinoff.¹⁰ In addition, Williams provided indirect “credit support” for \$1.4 billion of WCG’s debt. These guarantees required Williams to make available proceeds of an equity issuance in the event of a WCG default or WCG’s inability to raise financing to replace maturing debt. Under accounting rules, these obligations were treated as “off balance sheet,” because they were contingent on actions by WCG, and thus did not appear as a liability on the firm’s balance sheet. Williams would only be expected to perform on these obligations if WCG faced problems, which it soon did.

Financial conditions worsened in 2001, as news about problems in Enron Corporation’s broadband unit and Global Crossing exposed significant weaknesses in the telecom sector. Although WCG had made the required interest payments, its inability to meet certain covenants constituted a breach of its lending agreements with its secured creditors.¹¹ On July 19, 2001, Moody’s Investor Service downgraded WCG’s unsecured debt rating from B2 to Caa1. In August, Standard & Poor’s rating agency lowered WCG’s corporate credit rating from BB- to B, reflecting “weakness in recent financial performance, lack of forward visibility, and exposure to customers whose risks are increasing.”¹²

Following a disclosure by WCG that it might seek to reorganize under the U.S. bankruptcy code, Williams wrote off its investment in WCG in the third and fourth quarters of 2001. In addition, Williams took a one-time accounting charge of \$1.3 billion related to guarantees and payment obligations it would be required to fulfill due to lingering ties to WCG.¹³

Ties to its former telecommunications subsidiary were not Williams’ only problem. Following the collapse of Enron in late 2000 and early 2001, the future of energy trading was uncertain as market participants assessed their exposure to the former trading firm. In May 2002, one of Williams’ competitors, El Paso Corp., announced it would curtail investment in, and exposure to, energy trading and instead concentrate on its natural gas business. Reliant Resources, another rival, said it would scale back its energy

⁸Quoted in Elizabeth Mooney, “Telecom Defaults Cramp Wireless Funding Options,” *RCR Wireless News*, February 4, 2002. “Speculative grade” (also known as high-yield, non-investment grade or “junk”) bonds are those with the weakest bond ratings, in particular, bonds with ratings of BB/Ba or worse.

⁹“Williams Makes Asset Pact,” *The Journal Record*, March 1, 2001.

¹⁰Ibid.

¹¹Ibid.

¹²“S&P—Williams Comm. Group Cut to ‘B’—Outlook negative,” *Market News International*, August 17, 2001.

¹³Estimated losses of \$1,839 million attributable to WCG performance guarantees were partially offset by a \$797.4 million benefit for income taxes. Williams reported a net loss from discontinued operations of \$1,313 million in 2001.

trading after admitting impropriety in its trading practices. In June, Aquila Inc. dismissed its entire staff of 1,290 people in merchant wholesale energy.

In the second quarter of 2002, Williams Energy Marketing and Trading recorded its first loss in three years. Bill Hobbs, head of this unit, attributed the loss to a “curve shift” and the write-off of certain assets, although he admitted that business was getting more difficult: “We are operating in a mode where cash takes priority over earnings.”¹⁴

Reflecting the firm’s financial health, Moody’s and Standard & Poor’s downgraded the credit rating on Williams bonds three times, from Baa2 to B1.¹⁵ In late July 2002, the yields on some of Williams’ publicly traded bonds skyrocketed (see Exhibit 4). The deteriorating credit ratings and rising yields on Williams debt reflected the financial stress that the business was under. Williams executives had earlier claimed that if its credit ratings were to decline below investment grade (BBB or above), Williams’ ability to participate in the energy marketing and trading business would be further limited. Hobbs, the CEO of Williams’ trading unit, commented, “We have to get this credit issue resolved, otherwise we’re just in a cash trading mode,” i.e., the firm’s traders would not be able to obtain credit from counterparties.¹⁶ Obtaining credit was especially important when trading long-dated positions, such as “pre-pays” where counterparties pay in advance for energy products to be delivered sometimes years into the future.

Other challenges surfaced when on April 3, 2002, *The Wall Street Journal* reported that Williams Companies was facing an inquiry by the SEC about its financial reporting. State securities regulators opened a broad ranging investigation into the collapse of WCG.

Reflecting these troubles, Williams’ stock price had also plummeted more than 90% in the past year, and was trading for \$2.95 per share in late July 2002 (see Exhibit 5).

Despite Williams’ many difficulties, its asset-based businesses, including its interstate natural gas pipelines, midstream operations, exploration, and production, all continued to meet performance expectations.¹⁷ Between 2000 and 2001, Williams’ revenues had increased \$1.4 billion, due to higher gas and electric power trading margins, higher petroleum products revenues, and higher natural gas sales prices.

Time for Tough Decisions

Steven Malcolm, 53, was named CEO of the firm on January 21, 2002, and became chairman of the board in May. Malcolm was not new to Williams; he had joined the firm in 1984 and had previously served as its president and chief operating officer. He replaced the prior CEO and chairman, Keith Bailey, 59, who was retiring. On the day of Malcolm’s announcement as CEO, Williams announced a regular dividend of \$0.20 per share, with the press release noting that the company had paid a common stock dividend every quarter since 1974. This was the eighth dividend increase in 10 years, a streak that would soon be broken.

To raise cash, Williams made a number of important operating and financial decisions. Malcolm had a “four-pronged” plan that involved selling assets, reaching a resolution for its energy and trading book, managing and monitoring cash and businesses, and “right-sizing” Williams to reflect the new scope of operations. This plan was part

¹⁴Quoted in Williams Companies Conference Call, July 22, 2002. Financial Disclosure Wire.

¹⁵Moody’s had downgraded Williams from Baa2 to B1 between May and July 2002. Standard & Poor’s downgraded Williams from BBB to B+ between May and July 2002.

¹⁶Steven D. Jones, “Williams Cos. Finds Asset Sales Are Hard,” *Dow Jones News Service*, May 31, 2002.

¹⁷Quoting Williams CEO Steve Malcolm in Williams teleconference call, July 22, 2002.

of Williams’ broad self-described strategy to “live within its means.”¹⁸ This strategy was carried out throughout 2002.

One element of Williams’ strategy was an aggressive program of asset sales. In December 2001, the firm announced that it would sell between \$250 million and \$750 million in assets during 2002. Actual asset sales outstripped this early estimate, and by May 2002, the firm had completed transactions selling \$1.7 billion in assets, and announced its intention to sell an additional \$1.5 to \$3.0 billion over the next 12 months.¹⁹ The day after announcing the extra planned asset sales, Williams’ stock fell 10.6%. As examples of these sales, in July 2002, Williams announced plans to sell refineries in Tennessee and Alaska for an estimated \$1 billion. Williams planned to sell other non-core assets, including all of its TravelCenters and its ethanol business. Williams even decided to sell its 123 piece corporate art collection, started by John Williams in the late 1960s.²⁰ Planned and completed asset sales are summarized in Exhibit 6.

Capital expenditures were a major use of Williams’ cash, and their reduction was another part of Williams’ plan. In December 2001, Williams announced that it planned to cut its 2002 capital spending by 25%, or \$1 billion, to a total of \$3 billion. Williams management aimed to cut its capital expenditure budget for 2003 from about \$1.5–\$2 billion to about \$700 million per year.²¹ Cutting investment was challenging, since much of it had been planned in the previous year, and some was required to maintain Williams’ many assets. Nevertheless, Williams was able to reduce its capital expenditure needs in conjunction with its asset sales. For example, by selling its Kern River facility, Williams not only received cash and off-loaded some of its debt, but also shed responsibility for more than \$1 billion in planned capital expenditures.

Third, Williams was in need of new financing. On December 19, 2001, *The Wall Street Journal* reported that Williams would be taking steps to bolster its balance sheet, which involved issuing \$1 billion of equity-linked security called FELINE PACS. Issued in January 2002, these complicated securities consisted of a package consisting of senior debt securities (notes) and “equity purchase contracts.” The notes had a nominal term of five years and paid 9% per annum in quarterly payments. The “equity purchase contract” element of the securities effectively required the holder to pay \$25 to Williams in three years—probably by surrendering their notes—and to receive a number of shares of Williams’ stock determined by the contract.²² In a separate transaction, Williams sold preferred stock to Berkshire Hathaway, as described below.

Another part of Williams’ strategy to raise cash was to reach “resolution” on its Williams Energy Marketing and Trading division, estimated by Williams to be worth \$2.2 billion.²³ Williams publicly stated that it hoped to find a joint venture partner in the business; however, the complexity of negotiating and managing joint ventures made this difficult to accomplish.

As a final measure, in July 2002 Williams announced that it would cut its dividend by 95%, from 20 cents to 1 cent per share. The cut was expected to save the company

¹⁸“Williams CEO: Asset Sales Needed to Reach Solvency in Two Years,” Inside F.E.R.C.’s Gas Market Report, September 27, 2002.

¹⁹“Round Two: Williams to Cut Costs, Sell Assets,” *Gas Daily*, May 29, 2002.

²⁰Tom Droege, “Embattled Tulsa, Okla.-Based Energy Company to Auction Its Art,” *Tulsa World*, August 30, 2002.

²¹Williams Companies Conference Call, July 22, 2002, Financial Disclosure Wire.

²²The holder would receive one share if the Williams share price was \$41.25 or less in three years, but a smaller number of shares if the price of Williams was above \$41.25.

²³Williams estimate. Quoted in Williams Companies Conference Call, July 22, 2002. Financial Disclosure Wire.

about \$95 million in the third quarter.²⁴ CEO Steve Malcolm explained, “Reducing our common stock dividend is one of a series of prudent and realistic steps we have taken and are taking to address our current business environment.”²⁵

Warren Buffett and Berkshire Hathaway

Billionaire Warren Buffett, the legendary “Oracle from Omaha,” was the CEO of the insurance and holding company, Berkshire Hathaway (see Exhibit 7). A student of Benjamin Graham—the so-called father of value investing—Buffett had made a career buying assets at rock-bottom prices and holding them until they paid off. Oftentimes, he provided a “lifeline” to companies experiencing financial distress, such as the once bankrupt Fruit of the Loom. Most of his investments were long-term—Buffett claimed that he would not purchase a company for which he could not forecast the balance sheet in ten or twenty years. He summarized his investment strategy at an annual meeting: “Work out how much it will pay out from now until Judgment Day, then discount it back and buy it cheaper.”²⁶

Between 1997 and 2000, while many investors were pouring money into Internet stocks, Berkshire Hathaway stuck to more traditional businesses such as timber and insurance, claiming that the value of technology stocks had become “decoupled from the values of the businesses that underlay them.”²⁷ Following the collapse of the Internet bubble, Buffett, who was flush with cash, began purchasing assets in the troubled energy industry. Buffett publicly announced that he might spend as much as \$15 billion in this sector over the next few years.²⁸ Credit-crunched energy companies seeking cash found a ready buyer in Buffett when other alternatives were scarce. This was felt to be ideal for Buffett, who was said to like to be the “only buyer in the fire-sale.”²⁹ Buffett started acquiring energy assets in 2000, when he took a controlling stake in Iowa based MidAmerican Energy for \$1.24 billion.

In March 2002, MidAmerican purchased the 926 mile Kern River pipeline from Williams for \$960 million in cash and debt, or approximately 8 times the expected cash flow of \$120 million in 2002.³⁰ MidAmerican paid \$450 million in cash to Williams and assumed debt of \$510 million. The pipeline carried gas from Wyoming to California and was undergoing a massive expansion project aimed at doubling its capacity. As the new owner of the pipeline, MidAmerican would assume responsibility for a projected \$1.26 billion in capital expenditures. Commenting on the deal, Buffett said “Williams has all the fundamentals in place—solid assets, strong demand for its products and a reputation for excellent customer service.”³¹ Malcolm said that the transaction with Berkshire would allow Williams to “reduce debt and increase cash

²⁴Russel Ray, “Williams Cos. Credit Rating Is Downgraded to Junk Status,” *Tulsa World*, July 23, 2002.

²⁵Williams Conference Call, July 22, 2002.

²⁶Berkshire Hathaway annual meeting, May 2002.

²⁷Quoted from Warren Buffett’s annual letter to shareholders of Berkshire Hathaway, 2000.

²⁸Dan Moreau, “Buffett Uses Depressed Market to Mine Energy and Telecom Fields. Should You Try too?” *Investors Business Daily*, September 24, 2002.

²⁹John Olson, energy analyst with Sanders Morris Harris Group. Quoted in Schlegel, Darrin, “Buffett Again Stirs Up Street; Energy Sector Full of Dry Holes? Not for This Billionaire,” *Houston Chronicle*, November 15, 2002.

³⁰Analyst estimate of \$120 million from CSFB. Source: Williams Companies Company Update, Credit Suisse Equity Research, March 8, 2002.

³¹Ibid.

flow. [. . .] The sale of our Kern River system is an important building block in achieving the financial flexibility to expand our business now and in the future.”³²

Buffett also invested directly in Williams in early 2002. On March 17, 2002, one of Mid American’s subsidiaries bought 1.47 million shares of Williams convertible preferred stock for \$275 million, or \$187.50 per share. The preferred stock paid a dividend of 9.875% per annum. The terms of the preferred stock allowed the holder to convert one share of preferred stock into 10 shares of Williams common stock at any time. (On March 27, the date the deal was closed, the price of Williams stock closed at \$23.41 per share.) Commenting on the deal, Williams chairman Keith Bailey called it a “strong endorsement of our strategy and our future prospects for solid business performance.”³³

The Proposed Lehman-Berkshire Hathaway Deal

Williams had substantial amounts of short-term and long-term debt maturing in the second half of 2002 (see Exhibit 8). In addition, its credit and commercial paper facilities (firms held in reserve to raise additional short-term financing as needed) would need to be renewed (and presumably renegotiated) later in the year. On July 22, Williams identified cash on hand of about \$450 million and one undrawn revolving credit facility (with a three-year term) for \$700 million.³⁴

One possible source of funding was the deal offered by a group of investors led by Warren Buffett’s Berkshire Hathaway and by Lehman Brothers. Berkshire and Lehman offered to provide Williams with a one-year \$900 million loan, which would provide temporary relief, and would result in a greater chance of Williams being able to secure a credit facility of \$800 million.³⁵

Under the proposal, Buffett and a subsidiary of Lehman Brothers would each advance Williams \$450 million for a period of one year. The funds would go to Williams Production RMT (RMT), a wholly-owned subsidiary of Williams. The loan was guaranteed by Williams, Williams Production Holdings LLC, and certain RMT subsidiaries. RMT’s major assets were the natural gas properties in the Rocky Mountain region, held by the former Barrett Resources Corporation, which Williams acquired in 2001 in a deal estimated to be worth \$2.8 billion.

In addition to repayment of the principal in one year, Williams would be required to make a number of payments (see Exhibit 1). These included interest of about 5.8%, payable quarterly. An additional payment of 14% of the principal was to be paid in cash at maturity. Finally, the loan included a “deferred set-up fee” of at least 15%. If Williams did not sell the Barrett assets, it would owe 15% of the loan balance as part of this fee. If Williams were to sell its assets in Barrett, the fee would be increased to the larger of 15% of the loan balance or 15%–21% of the net sale price. The one-year loan also had a number of other terms. Accepting the terms of the deal would be another step to restoring liquidity at Williams. But the financing was not cheap. Malcolm pondered whether it was worth it.

³²“The Williams Companies Announced Sale of Kern River Pipeline to MidAmerican Energy and of Midwestern Petroleum Pipeline to Its Energy Partners Subsidiary,” Foster Natural Gas Report #2377, March 7, 2002.

³³Quoted in “Williams Raises \$275 Million in Sale of Cumulative Convertible Preferred Stock to Berkshire Hathaway Unit,” *PR Newswire*, March 7, 2002.

³⁴Williams Companies Conference Call, July 22, 2002, Financial Disclosure Wire.

³⁵Howald, Gordon A. and Eric Cheng, “U.S. Equity Investment Research Comments,” Credit Lyonnais Securities Inc., July 30, 2002.

EXHIBIT 1
Terms of the
Proposed Short-
Term Credit
Agreement

Source: Summarized by casewriter from Williams Companies 10Q, September 30, 2002, and other public filings.

Lender:	Lehman Brothers, Inc. and Berkshire Hathaway.
Borrower:	Williams Production RMT Company (RMT), a subsidiary of Williams.
Maturity:	July 25, 2003
Initial Principal:	\$900 million
Guaranties/Security:	The loan is guaranteed by Williams Companies as well as by certain subsidiaries. It is also secured by the capital stock and assets of RMT, which primarily consist of the oil and gas properties of Barrett Resources, which Williams acquired in 2001 for \$2.8 billion. ^a
Required payments:	In addition to the repayment of principal, the borrower was required to make the following payments: (a) Williams owes cash interest payable quarterly at the Eurodollar rate plus 4% per annum, or about 5.8%. (b) Williams owes additional interest of 14% per annum, which is accrued and added to the principal balance, but not paid in cash until maturity. (c) Williams owes a "deferred set-up fee." This fee is equal to 15% of the loan amount if the majority of RMT's assets are not sold by the maturity date. If there is a sale, the fee would be the larger of 15% of the loan amount or 15%–21% of the purchase price less the indebtedness of RMT. (The latter percentage begins at 15% and steps up by 1% each 60 days to a maximum of 21%.)
Covenants:	Williams must: (1) maintain interest coverage ratio ^b of greater than 1.5 to 1; (2) maintain a fixed charge coverage ratio ^c of at least 1.15 to 1; (3) limit certain restricted payments, including redemption of capital stock of Williams; (4) limit capital expenditures in excess of \$300 million (except for capital expenditures of borrower, RMT); (5) give the lenders attendance rights to all of its board of directors meetings, as well as any meetings of any committees of the board; (6) limit intercompany indebtedness, and (7) maintain parent liquidity ^d of at least \$600 million, stepping up to \$750 million over the year. If a default were to occur with respect to parent liquidity, Williams would have to, within two days, retain Lehman Brothers to sell RMT, with such a sale to be completed within 75 days. Liquidity projections to be provided weekly until the maturity date [. . .] In the event of a company sale, the loan was required to be prepaid in full.
Other pre-conditions to closing:	(1) On the Closing Date, Parent was required to borrow at least \$5,000,000 under its \$700,000,000 revolving credit facility. (2) The Chief Financial Officer of Williams had to certify that the Company was solvent and would continue to be solvent after giving effect to this loan.

^aA secured loan is a loan backed by the assets of the borrower. The assets can be forfeited to the lender if the borrower fails to make payments on the loan, or meet other prespecified conditions.

^bInterest coverage is the ratio of earnings before interest and taxes to interest expense.

^cFixed charge ratio is the ratio of earnings before interest and taxes, plus fixed charges before tax, divided by the fixed charges plus interest. The ratio indicates a firm's ability to satisfy fixed financing expenses, such as leases.

^dLiquidity indicates the availability of cash and other short-term assets.

EXHIBIT 2 Selected Financial Data on the Williams Companies and Its Competitors (\$ millions)

Source: Compustat

	The Williams Companies				Dyneegy ^a				Dominion Resources				Murphy Oil			
	1998	1999	2000	2001	1998	1999	2000	2001	1998	1999	2000	2001	1998	1999	2000	2001
Revenue	7,452	8,593	10,110	11,035	14,258	15,430	29,445	42,242	6,086	5,520	9,260	10,558	1,694	2,037	4,614	4,467
EBITDA	1,481	1,619	2,673	3,389	243	343	1,130	1,517	1,825	2,027	2,705	3,030	218	398	684	769
Depreciation and amortization	646	742	832	798	113	129	389	454	734	716	1,176	1,245	213	215	228	255
Non-operating income and special items	(72)	107	583	(271)	128	124	331	153	426	91	95	126	5	24	38	32
Interest expense	515	668	1,010	787	83	95	281	279	612	574	1,024	997	18	28	30	39
Income tax expense	110	161	554	630	50	75	261	269	306	259	183	370	6	59	160	175
Minority interest and preferred dividends	(3)	(4)	(12)	68	17	17	64	25	63	18	2	0	0	0	0	0
Net income	140	159	873	835	108	151	466	643	536	551	415	544	-14	120	306	331
Extraordinary items	(19)	60	(349)	(1,313) ^b	0	0	0	2	0	-255	21	0	0	0	-9	0
Net income after extraordinary items	120	219	524	(478)	108	151	466	645	536	296	436	544	-14	120	297	331
Cash and marketable securities	503	2,527	1,606	1,301	28	45	86	218	426	280	360	730	28	34	133	83
Total current assets	3,532	6,517	15,477	12,938	2,117	2,805	10,150	9,507	2,285	2,192	5,866	5,354	437	593	817	599
Total assets	18,647	25,289	40,197	38,906	5,264	6,525	21,406	24,874	17,517	17,747	29,348	34,369	2,164	2,446	3,134	3,259
Current liabilities	4,439	5,772	16,804	13,495	2,026	2,539	9,405	8,555	3,519	2,999	7,592	7,478	381	488	745	560
Debt in current liabilities ^c	1,443	1,575	3,710	2,461	135	192	116	402	1,924	1,406	3,573	3,213	8	0	37	48
Deferred taxes	2,061	2,582	2,828	3,690	318	335	1,426	1,608	2,014	1,845	2,967	3,940	125	154	230	303
Long-term debt	6,366	9,235	10,342	9,501	1,247	1,534	3,733	4,324	5,456	7,321	10,486	13,251	333	393	525	521
Other liabilities	1,524	1,938	4,141	6,177	545	808	3,244	4,165	524	321	802	948	347	333	375	377
Total liabilities	1,725	2,508	3,581	3,134	4,136	5,216	17,808	18,652	11,512	12,486	21,847	25,617	1,186	1,388	1,875	1,761
Total shareholders' equity	4,257	5,761	6,082	6,044	1,128	1,309	3,598	6,222	6,005	5,261	7,501	8,752	978	1,057	1,260	1,498
Market value of equity	13,341	13,287	17,573	13,152	N/A ^a	N/A ^a	13,306	6,105	9,133	7,489	15,939	15,792	1,855	2,580	2,723	3,808
Cash flow from operations	613	1,534	594	1,783	251	9	438	811	1,207	1,255	1,343	2,414	321	369	748	636
Cash flow from investing activity	(2,040)	(1,970)	(2,337)	(3,543)	(295)	(319)	(1,304)	(3,413)	(650)	(1,542)	(2,597)	(4,193)	(381)	(349)	(619)	(642)
Capital expenditures	1,708	1,795	1,513	1,922	299	365	769	1,845	624	737	1,385	2,168	389	387	512	814
Cash flow from financing activity	1,809	880	2,012	2,047	50	327	907	2,734	(453)	141	1,334	1,905	65	(13)	(25)	(41)
Long-term debt/EBITDA	4.30	5.70	3.87	2.80	5.13	4.47	3.30	2.85	2.99	3.61	3.88	4.37	1.53	0.99	0.77	0.68
EBITDA interest coverage	2.88	2.42	2.65	4.31	41.03	2.56	1.22	4.05	2.48	3.18	1.98	2.71	167.50	7.76	13.30	17.42
LT Debt/(LT Debt + Equity)	0.32	0.41	0.37	0.42	N/A	N/A	0.22	0.41	0.37	0.49	0.40	0.46	0.15	0.13	0.16	0.12
Standard & Poor's Long-term issuer Rating	BBB-	BBB	BBB	BBB+	BBB+	BBB+	BBB+	BBB+	A-	A-	BBB+	BBB+	A-	A-	A-	A-

^aOn June 4, 1998, NCC Corporation announced it changed its name to Dyneegy. Dyneegy merged with Illinova Corp on February 2, 2000.

^bWilliams recorded a write-off of \$1.31 billion at the end of 2001. This includes a loss before income taxes of \$271 million, estimated losses attributable to probable performance on WCG guarantee obligations of \$1,839 million, and a benefit for income taxes of \$797 million.

^cDebt in current liabilities is the sum of short-term debt and the portion of long-term debt maturing within one year.

EXHIBIT 3 Williams Operating History and Capital Structure (\$ millions)

Source: Compustat (1992-2001) and casewriter summary of June 30, 2002, 10-Q statement.

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	Year to Date June 30, 2002
Revenue	\$2,448	\$2,438	\$1,751	\$2,856	\$3,531	\$4,410	\$7,452	\$8,593	\$10,110	\$11,035	\$4,414
EBITDA	452	584	465	1,002	1,271	1,425	1,481	1,619	2,673	3,389	666
Depreciation and amortization	184	211	150	369	411	500	646	742	832	798	0
Non-operating income	66	170	78	50	45	22	(72)	107	583	(271)	490
Interest expense	162	166	146	278	360	405	515	668	1,010	787	483
Income tax expense	44	145	82	102	183	178	110	161	554	630	(81)
Minority interest and preferred	15	12	9	19	10	24	(3)	(4)	(12)	68	77
Net income	114	220	156	284	352	341	140	159	873	835	(302)
Extraordinary items	10	0	82	1,019	0	(79)	(19)	60	(349)	(1,313)	(16)
Net income after extraordinary items	124	220	238	1,303	352	262	120	219	524	(478)	(318)
Cash and equivalents	212	64	36	90	115	81	503	2,527	1,606	1,301	773
Total current assets	743	627	1,457	1,344	1,890	2,256	3,532	6,517	15,477	12,938	12,374
Total assets	4,982	5,020	5,226	10,495	12,419	13,879	18,647	25,289	40,197	39,906	37,566
Current liabilities	978	733	1,474	2,050	2,199	3,027	4,439	5,772	16,804	13,495	12,493
Debt due within 1 year	165	54	890	320	329	734	1,443	1,575	3,710	2,461	2,347
Deferred taxes	571	625	663	1,568	1,627	1,719	2,061	2,582	2,828	3,690	3,421
Long-term debt	1,683	1,605	1,308	2,874	4,377	4,565	6,366	9,235	10,342	9,501	11,972
Other liabilities	232	334	276	816	795	996	1,524	1,938	4,141	6,177	4,062
Total liabilities	3,464	3,296	3,721	7,308	8,998	10,307	14,390	19,528	34,115	32,862	31,947
Total shareholder equity	1,518	1,724	1,506	3,187	3,421	3,572	4,257	5,761	6,082	6,044	5,618
Mkt value equity	1,802	2,506	2,276	4,456	5,887	9,109	13,341	13,287	17,573	13,152	1,524
Number of common shares (x1,000)	45,922	102,790	90,605	101,561	156,982	319,618	427,772	434,734	440,015	515,362	516,512
Cash flow from operations	254	350	368	829	710	920	613	1,488	506	1,694	(872)
Income before extraordinary	128	232	165	299	362	351	147	162	873	835	(226)
Change in working capital	(47)	(35)	(136)	91	(64)	122	(212)	34	(248)	232	(647) ^a
Extraordinary items	0	0	179	0	0	(171)	(9)	0	(32)	(89)	(507) ^b
Depreciation, amortization, & other	173	153	160	438	412	618	687	1,292	(87)	715	508
Cash flow from investing	(511)	(277)	(427)	585	(1,420)	(1,271)	(2,040)	(5,276)	(4,165)	(4,994)	(717)
Net change in investments	(19)	0	81	75	(77)	(134)	(470)	(696)	(506)	(574)	(290)
Capital expenditure	(586)	(529)	(326)	(828)	(819)	(1,162)	(1,708)	(3,513)	(4,904)	(1,922)	(936)
Acquisitions and divestments	30	295	(55)	(831)	(306)	13	34	(88)	(726)	(1,343)	551
Other	64	(44)	(127)	2,168	(218)	13	105	455	620	(1,155)	(41)
Cash flow from financing	421	(220)	31	(1,359)	734	317	1,809	4,377	3,789	3,391	1,061
Net change in common stock	242	63	(387)	74	20	63	78	1,609	75	1,411	25
Net change in debt	264	(192)	152	(610)	609	453	1,681	2,886	3,262	1,095	840
Dividends	(83)	(89)	(94)	(119)	(158)	(182)	(261)	(264)	(266)	(341)	(207)
Other	(2)	(2)	360	(704)	263	(18)	310	146	717	1,226	403
Standard & Poor's long-term credit rating	BB+	BB+	BB+	BBB-	BBB-	BBB-	BBB-	BBB	BBB	BBB+	BBB

^aIncludes a decline in cash of \$567 million due to an increase in accounts and notes receivable, and a decline in cash of \$170 million due to increases in restricted cash, cash required to be on deposit by lenders. Payment obligations to Williams Communications Group, net of estimated tax loss.

EXHIBIT 4 Williams Bond Yields and Credit Ratings

Source: Datastream. The figure shows the yield on Williams 7% debt issued in 1999 and maturing in 2019.

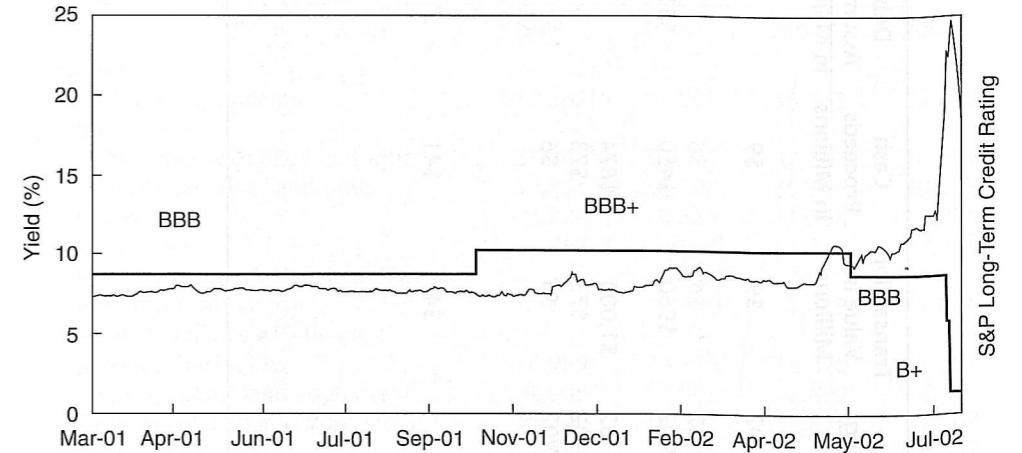
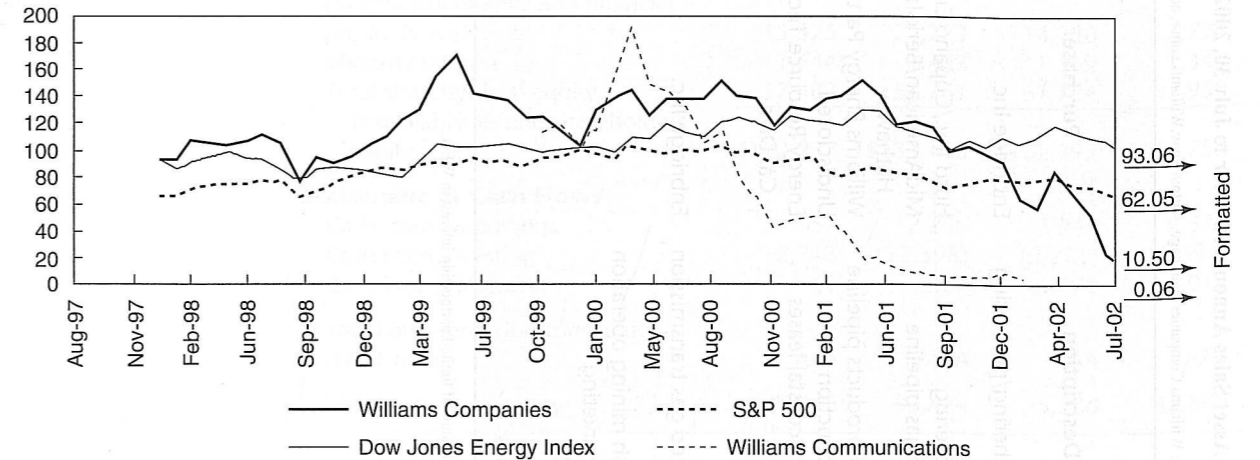


EXHIBIT 5 Williams Stock Price History (All Series Scaled to December 1999=100)

Source: Center for Research in Securities Prices (CRSP).



Notes: In dollars, Williams Companies closed at \$2.95 on July 31, 2002. The graph shows the series scaled to December 1999=100. Williams Communications closed at \$0.01. Relative values on July 31, 2002: (a)Dow Jones Energy Index=93.06, (b)S&P 500=62.05, (c)Williams=10.50, (d)Williams Communications=.06.

EXHIBIT 6 Williams Companies Asset Sales Announced Prior to July 30, 2002 (\$ millions)

Source: Compiled by casewriter from listings on The Williams Companies Web page, <http://www.Williams.com>, accessed in October 2002.

Asset	Description	Purchaser	Date Announced	Closing Date	Transaction Value in Millions	Cash Proceeds in Millions	Debt Assumed in Millions
Completed: South Texas Gas Assets	Gas gathering/processing	Enbridge Inc.	10/11/01	01/04/02	\$9	\$9	
South Texas Gathering Systems	Gas gathering	Hurd Inv./Copano Energy	01/31/02	01/31/02	\$6	\$6	
Kern River Pipeline	Natural gas pipeline	MidAmerican/Berkshire Hathaway	03/07/02	03/27/02	\$960	\$450	\$510
Williams Pipeline ^a	Refined products pipeline	Williams Energy Partners	03/08/02	04/11/02	\$1,000	\$674	
Wind River Reserves	Gas production	Undisclosed	04/01/02	04/01/02	\$73	\$73	
Gulf Properties	Offshore coastal leases	Energy Resource Tech/Cal Dive	06/17/02	06/17/02	\$6	\$6	
Announced but not closed: South Texas Gas Assets	Regulated gas transmission	Enbridge Inc.	10/11/01		\$41	\$41	
Intention announced: Soda Ash	Soda ash mining operation		03/22/02				
Travel Centers	Retail marketing		05/22/02				
Bio-energy	Ethanol		05/22/02				
Memphis and Alaska refineries	Refineries		06/18/02				

^aRemaining value of \$326 million received in Class B units of limited partnership interest in WEG.

**EXHIBIT 7
Financial Statements
of Berkshire Hathaway, Inc.
(\$ millions)**

Source: Berkshire Hathaway annual reports.

	1998	1999	2000	2001
Assets				
Cash and equivalents	\$13,582	\$3,835	\$5,263	\$5,313
Investments:				
Securities with fixed maturities	21,246	30,222	32,567	36,509
Equity securities and other	39,761	39,508	39,256	30,649
Receivables	7,224	8,558	11,764	11,926
Inventories	767	844	1,275	2,213
Investments in MidAmerican Energy Holdings Company	0	0	1,719	1,826
Assets of finance and financial products businesses	16,989	24,229	16,829	41,591
Property, plant, and equipment	1,509	1,903	2,699	4,776
Goodwill of acquired businesses	18,570	18,281	18,875	21,407
Other assets	2,589	4,036	5,545	6,542
Total assets	\$122,237	\$131,416	\$135,792	\$162,752
Liabilities and Shareholders' Equity				
Losses and loss adjustment expense	23,012	26,802	30,022	40,716
Unearned premiums	3,324	3,718	3,885	4,814
Accounts payable, accruals, and other liabilities	7,182	7,458	8,374	9,626
Income taxes	11,762	9,566	10,125	7,021
Borrowings under investment agreements and other debt	2,385	2,465	2,663	3,485
Liabilities of finance and financial products businesses	15,525	22,223	14,730	37,791
Minority interest	1,644	1,423	1,269	1,349
Total shareholders' equity	57,403	57,761	61,724	57,950
Total liabilities and shareholders equity	\$122,237	\$131,416	\$132,792	\$162,752
Statement of Cash Flows				
Cash from Operations	657	2,200	2,947	6,574
Cash from Investing	12,713	(12,598)	(2,271)	(11,694)
Cash From Financing	61	367	470	6,014
S&P Long-term domestic issuer credit rating	AAA	AAA	AAA	AAA
Market value of equity	100,246	95,424	75,286	82,880

EXHIBIT 8
Williams Debt Obligations Circa June 30, 2002 (\$ millions)

Maturity	Long-Term Debt	Short-Term Debt ^a
July 2002–June 2003	\$1,636 ^b	\$711 ^c
July 2003–December 2003	\$434	
2004	\$1,905	
2005	\$255	
2006	\$1,129	
2007	\$1,520	
2008–2010	\$491	
2011–2015	\$2,119	
2016–2022	\$1,608	
2023–2032	\$2,513	
Total	\$11,972	\$711

Source: Williams 10Q Statement, June 30, 2002.

^aWilliams also had access to an unused revolving credit facility of \$700 million. This was a short-term debt facility that Williams had not yet accessed.

^bA total of \$500 million was expected to mature on July 31 and August 1, 2002.

^c\$300 million of this balance matured on July 31, 2002, with the remainder maturing in October.

EXHIBIT 9A Market Conditions: Monthly Issuance of Debt (\$ billions) by Credit Rating, January 1997–July 2002

Source: Securities Data Corporation. Represents the proceeds of public debt offerings. For example, the dark line represents the monthly issuance volume of bonds rates BB.

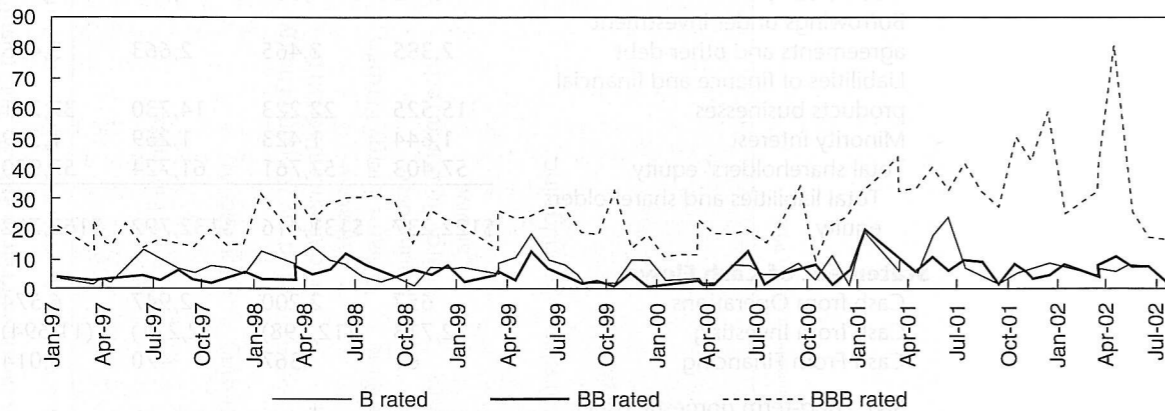
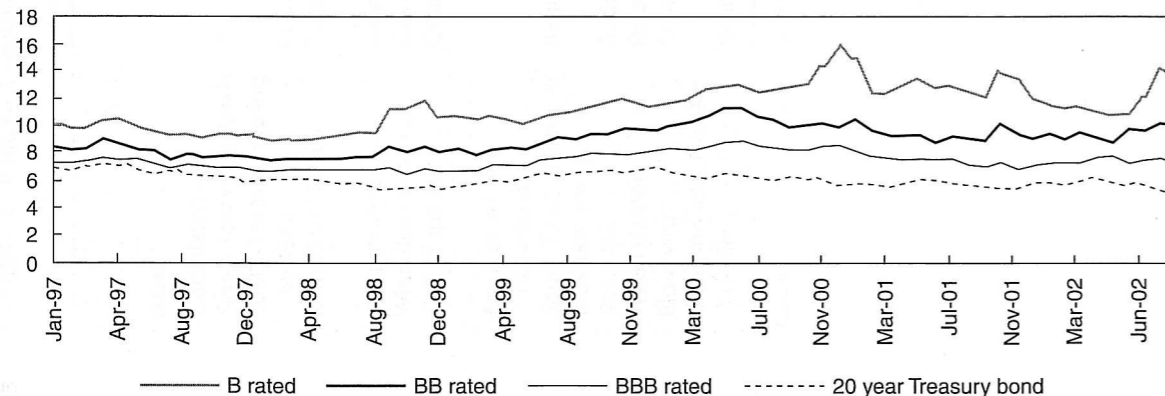


EXHIBIT 9B Interest Rates (in percent) for Long-Maturity Bonds, January 1997–July 2002

Source: Casewriter calculations from Lehman Brothers bond database and Federal Reserve Board.



The Loewen Group, Inc. (Abridged)

In March 1999, John Lacey and the management team at the Loewen Group, Inc., had to decide what course of action to take in light of the company's imminent financial difficulties. On January 22, 1999, Lacey, a renowned turnaround specialist, was appointed chairman of Loewen, the second largest death care company in North America. Headquartered in Burnaby, British Columbia, Loewen owned over 1,100 funeral homes and more than 400 cemeteries in the U.S. and Canada; it also owned 32 funeral homes in the United Kingdom. The company had come a long way since its modest beginnings in Canada, where Ray Loewen, the founder (and, until recently, chairman and CEO), started out helping his father run the family funeral business in the late 1950s. During the last two decades, Loewen Group had grown explosively, mainly by acquiring small independent funeral homes and cemeteries in densely populated urban markets; in recent years the company had also acquired several large established funeral chains. Over the last five years alone, consolidated revenues had grown by nearly 30 percent a year, on average, from \$303 million to over \$1.1 billion.

Despite its impressive growth, the company faced a major financial crisis. It lost \$599 million for 1998, compared to earning \$43 million the previous year. Loewen's ongoing acquisitions program had been aggressively financed with debt. At year-end 1998, total debt stood at more than \$2.3 billion—more than seven times the amount outstanding five years earlier. Loewen's common stock, which was simultaneously traded on the New York, Toronto, and Montreal stock exchanges, had ended the year at around \$8 in New York, down from roughly \$40 at the end of 1996.

Confronted with the company's mounting difficulties, in October 1998 the Board of Directors replaced Ray Loewen as CEO; soon thereafter, with the appointment of John Lacey, he was also replaced as chairman. The company also took some steps to raise profitability and cash flows. It consolidated various administrative functions at corporate headquarters and cut management overhead. It reviewed its pricing policies. Finally, it hired investment bankers to explore various financing options, including asset sales, strategic partnerships, and outside capital investments in the company. However, the company's situation continued to worsen, and in mid-February 1999 Standard & Poor's downgraded Loewen's public bonds from B+ to B-, its fourth downgrade in less than a year. Loewen's stock price dropped 38% that day. In addition, Loewen would almost surely violate certain covenants in its bank debt as a result of the company's 1998 financial performance, making it necessary to restructure the debt. Overall, in the twelve months prior to February 1999, Loewen's stock price fell by about 92%, to \$1.93, and its bond prices fell by 30%.

This is an abridged version of an earlier case, The Loewen Group, Inc., HBS No. 201-062, which Professor Stuart Gilson prepared with the assistance of Research Associate Jose Camacho as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. Material in this case and in the original comes from published sources (public company documents and the general business press) and draws on research by David Gallo, Ian Reynolds, and Collin Roche (all HBS Class of 2000), as reported in their paper, "The Loewen Group: An Autopsy of a Chapter 11 Death Care Company."

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