Comprehensive, rounded analysis and well-structured report. The analyses are clearly presented with clear recommendation. Well done.

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Case Bed, Bath & Beyond: The Capital Structure Decision (Group 2)

Introduction:

Bed Bath & Beyond's (BBBY) capital structure approach faced challenges due to its focus on using cash for minor acquisitions and store expansions, while avoiding dividends and share repurchases. This strategy, driven by management's preference for liquidity over debt and concerns about debt's adverse impacts and potential credit rating downgrades, led to substantial cash accumulation and a consequent negative effect on the company's return on equity (ROE). Moreover, the excessive cash reserves yielded relatively low returns, with an interest income rate of 1.18% per annum. Consequently, investors expressed dissatisfaction, believing that BBBY was not effectively deploying its cash for optimal investments, exploring other growth opportunities or returning it back to shareholders.

From a lender's perspective, BBBY was seen as an attractive candidate due to its solid performance, evidenced by strong profitability and the capacity to pay interest, as indicated in **Exhibit 1**. Additionally, the average credit ratings of its profitable peers fall within the investment-grade category. Good summary.

Effect of leveraged recapitalization on EPS and ROE (Exhibit 2):

If BBBY opts for a 40% debt-to-capital ratio, it will need to secure USD 636 million in borrowing. Utilizing this debt alongside its excess cash of USD 400 million, the company can repurchase 28 million shares. This action would elevate its EPS and ROE from USD 1.35 and 20.1% to USD 1.41 and 39.7%, respectively in FY2003. If the firm chooses to pay a special one-time dividend, then its EPS will decrease to USD 1.28 and ROE will increase to 39.7%. In contrast, achieving an 80% debt-to-capital structure requires borrowing USD 1,273 million. Following the repurchase of 45.2 million shares under this scenario, BBBY's EPS and ROE would increase to USD 1.44 and 113.6% in FY 2003. It is not feasible for the firm to pay a special one-time dividend because it will exceed the firm's retained earnings in FY 2003.

Effect of leveraged recapitalization on firm value:

Firm value_levered = Firm value_unlevered + PV(tax shield) - PV(financial distress cost)

According to Modigliani and Miller's Proposition 1 (MM1), a firm's value is not affected by its capital structure in the absence of frictions e.g. corporate tax. However, when corporate tax is considered, the firm benefits from a tax shield through borrowing. To calculate the present value of this tax shield, we assume the firm's debt and the cost of debt are constant and perpetual. This leads to a present value (PV) of the tax shield calculated as Tax rate*Debt, which amounts to USD 245 million for 40% leverage and USD 490 million for 80% leverage, as shown in **Exhibit 2**. An increase in the firm's debt corresponds to a rise in the PV of the tax shield.

Good. How does this affect repurchase price?

Does BBBY face high indirect distress cost? BBBY's business model can be analyzed to provide qualitative insights.

Nonetheless, the trade-off theory suggests that the costs of financial distress can adversely impact a levered firm's value. In this case, calculating the present value (PV) of financial distress costs is challenging due to the need for more information about indirect and direct financial distress costs. The case provides Standard and Poor's three-year median key industrial financial ratios along with corresponding credit ratings **(Exhibit 3)**. Our calculations indicate that BBBY's credit rating would be downgraded with increased debt levels in each scenario. Notably, the default rate for investment-grade stocks is significantly lower than for non-investment-grade stocks. Therefore, we believe that the financial distress costs associated with borrowing up to an 80% debt-to-capital ratio could adversely affect the firm's value, surpassing the benefits of the tax shield.

Concern regarding future lease payments (Exhibit 4):

Future lease payments can be capitalized and considered as debt. The case presents the obligated cash outflow for future lease payments. In this case, we use a 4.5% discount rate to reflect the cost the firm would incur if it chose to borrow debt for purchasing real estate, rather than leasing. This results in lease liabilities of USD 1,904 million. Including these lease liabilities, the firm's debt-to-capital ratio increases to 48.9% even without additional borrowing, indicating that the firm cannot be considered entirely equity-financed. Moreover, its lease payment will increase by 53.3% y-o-y in FY 2004 due to its store expansions. Consequently, the firm faces default risk if it fails to meet lease payments on time, suggesting that excessive borrowing would not be recommended for BBBY.

Good discussion.

Recommendation:

We advise BBBY to undertake a strategic realignment of its capital structure to effectively leverage its considerable excess cash reserves. In light of the prevailing low-interest rate environment at the time, it is prudent for the company to contemplate issuing debt at an advantageous blended interest rate of approximately 4.5%. This action is anticipated to yield a tax shield, thereby augmenting the firm's overall value. Nevertheless, it is crucial to maintain the debt issuance within a moderate threshold, specifically at 40% of the total capital. Exceeding this limit to 80% could potentially result in adverse outcomes, such as a diminution in the firm's value, outweighing the benefits of the tax shield. Proceeds garnered from this debt issuance, combined with the existing cash reserves, should ideally be allocated towards initiating a share repurchase program. This strategy is predicated on the favorable tax implications of capital gains over dividend distributions for shareholders. Moreover, a share repurchase initiative is poised to substantially enhance the company's return on equity (ROE) and earnings per share (EPS) through a reduction in outstanding shares. It also serves as a market signal of the undervaluation of the company's stock, potentially bolstering investor confidence, elevating the stock price, and consequently, augmenting shareholder value. In parallel, the company should also explore reinvesting its cash reserves in expansion opportunities, particularly in new geographical locations with promising growth prospects, to achieve higher investment returns.

Appendix

Exhibit 1: BBBY's Financial ratios FY 2001 - FY 2003

Fiscal Year End:	FY2001	FY2002	FY2003
Current ratio	2.40	2.34	2.56
Quick ratio	1.40	1.34	1.56
Net Profit Margin	7.50%	8.24%	8.92%
Return on Assets (ROA)	13.33%	13.81%	13.94%
Return on Equity (ROE)	20.07%	20.81%	20.07%
Days Inventory Outstanding (DIO)	43.8	42.7	38.9
Days Sales Outstanding (DSO)	-	-	-
Days Payable Outstanding (DPO)	15.7	16.9	15.3
Cash Conversion Cycle (CCC)	28.1	25.7	23.6
	FY2001	FY2002	FY2003
Merchandise inventories	753,972	915,671	1,012,334
Accounts payable	270,917	362,965	398,650
Cost of sales	1,720,396	2,146,617	2,601,317
Total current assets	1,226,717	1,594,391	1,969,286
Total current liabilities	511,278	680,171	769,534
Net earnings	**219,599**	**302,179**	**399,470**
Total assets	**1,647,517**	**2,188,842**	**2,865,023**
Net sales	2,927,962	3,665,164	4,477,981
Total shareholders' equity	1,094,350	1,451,921	1,990,820

Exhibit 2: Pro Forma FY 2003 Results for Alternative Capital Structures

	Share repurchase				Special dividend	
	Exclude Lease Liabilities			Include Lease Liabilities	Exclude Lease Liabilities	
	Actual 2003	Pro Forma 2003 40% Debt To Total Capital	Pro Forma 2003 80% Debt To Total Capital	Actual 2003	Actual 2003	Pro Forma 2003 40% Debt To Total Capital
Sales	4,477,981	4,477,981	4,477,981	4,477,981	4,477,981	4,477,981
Add back: lease payments				178,700		
Operating profit	639,343	639,343	639,343	818,043	639,343	639,343
Interest income (interest rate @1.18% p.a.)	10,202	5,493	5,493	10,202	10,202	5,493
EBIT	649,545	644,836	644,836	828,245	649,545	644,836
Interest expense (interest rate @ 4.5% p.a.)	-	28,635	57,270	-	-	28,635
Profit before taxes	649,545	616,201	587,566	828,245	649,545	616,201
Taxes	250,075	237,237	226,213	318,874	250,075	237,237
Profit after tax	399,470	378,964	361,353	509,371	399,470	378,964
PV of Tax shield (= Tax rate*Debt)	-	244,986	489,973	-	-	244,986
EPS—basic	1.35	1.41	1.44	1.35	1.35	1.28
EPS—diluted	1.31	1.37	1.39	1.31	1.31	1.24
Return on equity (ROE)	20.1%	39.7%	113.6%	25.6%	20.1%	39.7%
Average shares outstanding—basic	296,854	268,845	251,647	296,854	296,854	296,854
Average shares outstanding—diluted	304,690	276,681	259,483	304,690	304,690	304,690
Cash and equivalents	866,595	466,595	466,595	866,595	866,595	466,595
Total capital	1,990,820	1,590,820	1,590,820	3,894,446	1,990,820	1,590,820
Lease liabilities	-	-	-	1,903,626	-	-
Total debt	-	636,328	1,272,656	-	-	636,328
Debt-to-capital ratio	0.0%	40.0%	80.0%	48.9%	0.0%	40.0%
Total repurchase amount or dividend	-	1,036,328	1,672,656	-	-	1,036,328
Shareholders' equity	1,990,820	954,492	318,164	1,990,820	1,990,820	954,492
Common stock price (4/30/04)	37	-	-	37	37	-
Market value of common stock	10,983,598	-	-	10,983,598	10,983,598	-
Shares repurchased	-	28,009	45,207	-		

Note: Pro forma 2003 for 80% debt-to-capital for special dividend is not feasible as the dividend exceeds the firm's retained earnings. Good observation.

We assume that the share repurchase price is USD 37. Also, we assume the interest income from the amount of cash and equivalent time interest income rate of 1.18% p.a., which comes from the interest income rate without leverage scenario. Moreover, we assume that the interest expense rate stays the same at 4.5% p.a. for all scenarios. Besides, the corporate tax rate for all cases is 38.5%. In addition, we assume according to the case that the firm has excess cash of USD 400 million, which can be used to repurchase shares or pay dividends.

Good to make these assumptions explicit.
In reality, these will likely change.

Exhibit 3: Standard and Poor's three-year median key industrial financial ratios, 2000–2002, and estimated credit ratings for BBBY after leveraged recapitalization

	AAA	AA	A	BBB	BB	B	CCC
EBIT interest coverage (x)	23.4	13.3	6.3	3.9	2.2	1.0	0.1
EBITDA interest coverage (x)	25.3	16.9	8.5	5.4	3.2	1.7	0.7
FFO/total debt (%)	214.2	65.7	42.2	30.6	19.7	10.4	3.2
Free operating cash flow/total debt (%)	156.6	33.6	22.3	12.8	7.3	1.5	(2.8)
Return on capital (%)	35.0	26.6	18.1	13.1	11.5	8.0	1.2
Operating income/sales (%)	23.4	24.0	18.1	15.5	15.4	14.7	8.8
Long-term debt/capital (%)	(1.1)	21.1	33.8	40.3	53.6	72.6	78.3
Total debt/capital (%)	5.0	35.9	42.6	47.0	57.7	75.1	91.7
Number of companies	6.0	20.0	121.0	224.0	279.0	264.0	56.0
Average default rate, past 15 years	0.52%	1.31%	2.32%	6.64%	19.52%	35.76%	54.38%

	BBBY's Financial Ratios		BBBY's Estimated Credit Rating	
	40% Debt-to-Capital	80% Debt-to-Capital	40% Debt-to-Capital	80% Debt-to-Capital
EBIT interest coverage (x)	22.52	11.26	AA	A
EBITDA interest coverage (x)	25.48	12.74	AAA	A
FFO/total debt (%)	82.75%	39.99%	AA	BBB
Free operating cash flow/total debt (%)	48.47%	24.23%	AA	A
Return on capital (%)	42.39%	42.39%	AAA	AAA
Operating income/sales (%)	16.17%	16.17%	BBB	BBB
Long-term debt/capital (%)	N/A	N/A	N/A	N/A
Total debt/capital (%)	40.00%	80.00%	A	B

Exhibit 4: BBBY's operating lease payments (FY 2001 - FY 2029F)

Fiscal Year	Amount (in thousands)
2001	251000
2002	219800
2003	178700
2004	273,934
2005	285,298
2006	283,051
2007	274,325
2008	265,991
Thereafter	1,344,563
Total future minimum lease payments	2,727,162
PV of total lease payment	**1,903,626**

Note: We use 4.5% p.a. as discount rate