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BENNINGER PACKAGING, INC.

Tom Hanes of Benninger Packaging, Inc. had just finished reviewing the materials for the new joint venture with Shiken, Inc., a Japanese printing firm. The proposal was for the development of a new packaging and printing plant to be built in Henderson, North Carolina. Even though the company had always used a weighted average cost of capital (WACC) approach to evaluate capital-budgeting projects, Hanes was concerned that the analysis might not capture all of the nuances of the proposal. His concerns centered on the fact that the project would not be paying taxes for the first six years. In addition, he had some questions concerning how much value to attribute to the industrial revenue bond (IRB) financing that was being used to finance the project. Benninger need to make a decision by May 15, 2004. It was already May 1, so Hanes knew he had very little time to complete his review.

The Company

Benninger Packaging had been founded by John and Karen Benninger in 1967 in Medford, Massachusetts. John had worked for 20 years at Federal Paperboard, Inc. By 1965, he had begun to believe that Federal was not taking full advantage of the availability of technology, and in 1967, he and his wife started their own company with the aim of fully integrating technology into what had been up to that point a relatively labor-intensive process. The result was that sales had grown from about $100,000 in 1967 to over $50 million today. Benninger operated five plants that produced packaging and paper products for a number of large consumer-products companies. See Exhibits 1 and 2 for recent financial information on Benninger.

From its earliest beginnings, the company had been on the leading edge of technology. It had introduced a number of applications that later became standards for the industry. The company's history as an innovator was the reason that Benninger was approached by a large Japanese paper-products firm, Shiken, Inc., in early 2003 as a potential partner in a proposed joint venture.

The Proposal

This was the first joint venture that Benninger had ever considered. The proposal was that the two companies would set up a separate corporation in which Shiken would have a 49 percent share and Benninger a 51 percent share. The primary purpose of this subsidiary would be to build and operate a plant in Henderson. The plant would be designed to incorporate a new process that produced high-quality paper, which would then be used for packaging. The paper's main advantage was that it could accept high-quality printing, which resulted in more attractive packaging. Shiken had developed and used the process successfully in Japanese plants for two years.

Based on the costs experiences in Japan, importing the process directly from Japan would not be cost effective in the highly competitive U.S. market. Shiken believed, however, that Benninger's experience and some of its existing technology could be used to reduce significantly the costs of using the process. The key to success would be to design a new facility from scratch. Thus, the negotiations during the past year had centered on the arrangements for building the new plant and the manner in which it would be operated.

The forecasted cost of the project was $3 million, including all equipment. Construction was scheduled to begin in September 2004, with completion targeted for June 2005. It was estimated that the plant could be at least partially operational by September 2005. After completion, the first three years of operation would focus on developing experience running the new operation and working on establishing the market for what the partners hoped would be a revolutionary new product. Exhibits 3 and 4 provide projected financial statements for the new corporation[1] and include income statements and balance sheets. Exhibit 5 shows the projected tax accounting statements[2] and Exhibit 6 shows some financial information on the firms in the paper-products industry.

Shiken and Benninger planned to finance the project with about 50 percent debt. Although the debt load was slightly higher than that of other firms in the industry, both parties agreed that it was the

[1] The financial statements reflect the assumption that the new company will borrow 50 percent of the cost at market rates of 7%.

[2] Benninger uses straight-line depreciation for both the financial statements and for tax accounting purposes.

appropriate capital structure for this enterprise. The financing would be straight debt. The mix between long-term and short-term debt would be allowed to vary, but Hanes estimated that because a large part of the permanent financing would come from industrial revenue bonds, the overall cost would be around 5.5 percent. Right now the 30-year U.S. Treasury rate was around 4.5 percent. If for some reason the partners could not use the IRB, the cost would be closer to 7.0 percent.

Issues

Hanes was expected to come up with a recommendation by the end of the week. In his mind, the key question was what approach to use in valuing the proposal. In most cases, he used the weighted average cost of capital approach, but he thought that many of the assumptions in the WACC might not be appropriate in this situation. One of his major concerns was how the fact that the company would not be paying taxes for the first six years of operation would impact on the value estimate if he used the WACC. In addition, he was not sure how to account for the effect of the IRB. He knew that his boss, Jeanne Bennett, was expecting a WACC approach. In order to satisfy her expectations, he had to do a WACC valuation, but he also felt that another approach to valuing the company might reveal some of the problems with using WACC in this instance.

One approach that he had studied was the adjusted present-value approach, APV. As he understood it, using APV, he would value the firm as if it were all equity, and then add the present value of the debt tax shields on the interest costs. In his mind, APV seemed more appropriate than WACC, but he wondered if it really would make a great difference in this case. In any event, he knew what he had to do.

Exhibit 1

BENNINGER PACKAGING, INC.

Income Statements 2001-2003
(in thousands)

Year End	***2003***	***2002***	***2001***
Net Sales/ Revenue	$51,055	$50,996	$48,751
Cost of Goods Sold	33,696	33,657	32,176
Gross Profit	17,359	17,339	16,575
Admin. & Sales Expense	10,211	10,199	9,750
Deprec. & Amort.	2,022	2,591	2,516
Other Income	(56)	11	143
EBIT	5,182	4,537	4,166
Interest Expense	1,920	1,920	1,920
Taxable Income	3,262	2,617	2,246
Taxes	1,272	1,021	876
Net Income	$ 1,990	$1,597	$1,370

Exhibit 2

BENNINGER PACKAGING, INC.

Balance Sheet for 2003 and 2002
(in thousands)

		2003		2002
Assets				
Cash	$	73	$	66
Accounts Receivable		9,527		7,314
Inventory		11,341		13,942
Total Current Assets		20,941		21,322
Net Property and Equip.		37,395		38,751
Intangibles		20,479		18,732
Other Assets		993		668
Total Assets	$	79,808	$	79,473
Liabilities and Net Worth				
Bank Debt	$	1,858	$	5,202
Payables		4,348		4,760
Deferred Taxes		4,193		4,038
Other Liabilities		7,916		7,180
Total Current Liabilities		18,315		21,180
Long-Term Debt		31,888		30,675
Common Stock		50		43
Capital Surplus		29,555		27,575
Total Liab. and Net Worth	$	79,808	$	79,473

Exhibit 3

BENNINGER PACKAGING, INC.

New Plant's Projected Income Statements
(in thousands)

Projected Income Statement	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sales	-	$ 850	$ 925	$ 975	$ 1,975	$ 2,305	$ 2,575	$ 2,704	$ 3,001	$ 3,151	$ 3,309
Cost of Goods Sold	-	638	694	731	1,481	1,728	1,931	2,028	2,251	2,363	2,481
Gross Profit	-	212	231	244	494	577	644	676	750	788	828
Selling & Admin. Exp.	-	99	99	99	99	115	129	135	150	158	165
Depreciation	-	110	125	125	125	125	125	125	125	125	125
EBIT	-	3	7	20	270	337	390	416	475	505	537
Interest Exp.	-	105	127	140	154	169	166	155	157	159	158
Profit Before Tax	-	(102)	(120)	(120)	116	168	224	260	318	347	380
Taxable income		(102)	(120)	(120)	116	168	224	260	318	347	380
Taxes (34%)	-	(35)	(41)	(41)	39	57	76	88	108	118	129
Net Profit After Tax	-	(67)	(79)	(79)	76	111	148	172	210	229	251
Dividend	-	-	-	-	-	-	-	55	65	65	75
Additions to Retained Earnings	$ -	$ (67)	$ (79)	$ (79)	$ 76	$ 111	$ 148	$ 117	$ 145	$ 164	$ 176

Exhibit 4

BENNINGER PACKAGING, INC.

New Plant's Projected Balance Sheets
(in thousands)

Projected Balance Sheet	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Assets											
Cash	$ -	$ 20	$ 20	$ 20	$ 20	$ 23	$ 26	$ 27	$ 30	$ 32	$ 33
Accounts Rec.	-	128	139	146	296	346	386	406	450	473	496
Inventory	-	187	204	215	435	507	567	595	660	693	728
Total Current Ass.	-	335	363	381	750	876	978	1,028	1,140	1,198	1,257
Deferred tax asset		35	76	116	77	20	-	-	-	-	-
Net Propety & Equip	3,000	3,090	3,165	3,240	3,315	3,390	3,465	3,540	3,615	3,690	3,765
Total Assets	$ 3,000	$ 3,460	$ 3,603	$ 3,737	$ 4,142	$ 4,286	$ 4,443	$ 4,568	$ 4,755	$ 4,888	$ 5,022
Liabitlity & Net Worth											
Bank Debt	$ -	$ 218	$ 299	$ 205	$ 413	$ 370	$ 221	$ 238	$ 267	$ 250	$ 229
Accnts. Payable	-	85	93	98	198	231	258	270	300	315	331
other Liab.	-	124	158	160	180	224	355	334	317	288	251
Total Current Liab.	-	427	550	463	791	825	834	842	884	853	811
Deferred Taxes	-	-	-	-	-	-	-	-	-	-	-
Long-term Debt	1,500	1,600	1,700	2,000	2,000	2,000	2,000	2,000	2,000	2,000	2,000
Common Equity	1,500	1,433	1,353	1,274	1,351	1,461	1,609	1,726	1,871	2,035	2,211
Total Liab. & Net Worth	$ 3,000	$ 3,460	$ 3,603	$ 3,737	$ 4,142	$ 4,286	$ 4,443	$ 4,568	$ 4,755	$ 4,888	$ 5,022

Exhibit 5

BENNINGER PACKAGING, INC.

New Plant's Projected Tax Accounting Statements
(in thousands)

Projected Tax accounting Statement	***2004***	***2005***	***2006***	***2007***	***2008***	***2009***	***2010***	***2011***	***2012***	***2013***	***2014***
Sales	-	850	925	975	1,975	2,305	2,575	2,704	3,001	3,151	3,309
Cost of Goods Sold	-	638	694	731	1,481	1,728	1,931	2,028	2,251	2,363	2,481
Gross Profit	-	212	231	244	494	577	644	676	750	788	828
Selling & Admin. Exp.	-	99	99	99	99	115	129	135	150	158	165
Depreciation	-	110	125	125	125	125	125	125	125	125	125
EBIT	-	3	7	20	270	337	390	416	475	505	537
Interest Exp.	-	105	127	140	154	169	166	155	157	159	158
Profit Before Tax	-	(102)	(120)	(120)	116	168	224	260	318	347	380
Taxable income		(102)	(120)	(120)	116	168	224	260	318	347	380
Tax losses Carry forward					116	168	58				
Taxes (34%)	-	-	-	-	-	-	56	88	108	118	129
Net Profit After Tax	-	(102)	(120)	(120)	116	168	168	172	210	229	251
Accumulated Tax losses		(102)	(222)	(342)	(226)	(58)					

Exhibit 6

BENNINGER PACKAGING, INC.

Forest and Paper-Products Companies

Financial Information

Name	**Total Debt**	**Book Value Equity per share**	**Shares outstanding**	**Tax Rate**	**Value Line Beta**	**2003 Sales**	**2003 Dividend**	**Stock Price**	**Value Line 5 yr EPS growth**	**Value Line 5 yr Div. growth**
Abitibi-Consol	3,843	8.30	440.00	29%	0.90	3,650	0.13	8	**NMF**	*nil*
Boise Cascade	1,815	23.15	86.00	28%	1.15	7,875	0.60	33	18%	*nil*
Bowater	2,466	29.10	55.30	40%	0.95	2,700	0.80	47	**NMF**	*nil*
Chesapeake	499	31.45	15.35	25%	0.90	900	0.88	27	29%	2%
Domtar inc.	1,638	7.35	225.00	35%	0.85	3,550	0.14	12	11%	*7%*
Georgia-Pacific	11,105	19.35	254.00	30%	1.30	19,900	0.50	31	12%	*nil*
P.H. Glatfelter	253	8.70	43.80	36%	0.85	540	0.62	12	4%	-10%
Int'l Paper	15,145	15.15	479.00	28%	1.05	24,825	1.00	43	18%	*nil*
Louisiana-Pac.	1,023	11.90	105.90	36%	1.20	2,235	0.00	19	**NMF**	**NMF**
Mead corp.	1,381	26.66	59.18	38%	1.35	4,790	1.00	41	22%	7%
Pope & Talbot	266	8.95	15.65	40%	0.90	610	0.32	18	**NMF**	-9%
Wausau Paper	162	7.00	52.00	37%	0.95	975	0.34	14	24%	4%

NMF=Not a meaningful number

Source: Value Line.