



BRIEF CASES

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Sterling Household Products Company

January of 2013 brought a new year and an important new opportunity to the management team of Sterling Household Products Company. Sterling manufactured and marketed a wide line of consumer goods, including laundry products, soaps, cosmetics, toilet preparations, and cleaning, disinfecting and sanitizing products, which were sold domestically and internationally, and were used every day in millions of households around the world. Sterling's family of quality products included many highly regarded brand names, and the company had consistently delivered impressive sales and profits to the investment community.

Sterling's financial measures for all recent years showed that the company was successful, but a time series analysis of these same financial measures quickly isolated Sterling's current challenge: growth rates for unit volume, sales, and profits were very low, and company management was looking to expand into businesses and products with more potential for growth. Sterling had identified health care as an industry with more growth potential, and a detailed search for health care products which could fit well into the company's existing operations led to discussions between Sterling and Montagne Medical Instruments Company. Sterling was interested in acquiring Montagne Medical's germicidal, sanitation, and antiseptic products unit, and Montagne Medical was willing to sell the unit for the right price. Negotiations had revealed that Montagne Medical believed the right price was \$265 million, so Sterling had to determine if acquiring the unit at this price would generate value for the company and its investors.

Sterling Household Products: History, Finances, and a Strategic Opportunity

Sterling was a leading manufacturer and marketer of consumer products, selling trusted and recognized brand names through mass merchandisers, grocery stores, and other retail outlets. When Sterling was founded in the early 1920s it produced and sold only laundry products, but success in this narrow business line allowed the company to grow and expand the scale and scope of its operations. Sterling invested internally as attractive opportunities were identified, but with brand development in consumer products being both a lengthy and expensive process, much of its growth came from acquisitions of existing and successful brands. By the beginning of 2013 the company

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manufactured a wide variety of consumer products in more than 20 countries and marketed these products in more than 100 countries. As presented in **Exhibit 1**, Sterling's well-regarded laundry products, soaps, cosmetics, toilet preparations, and cleaning, disinfecting and sanitizing products combined to generate nearly \$3.3 billion of sales and \$323 million of net income in 2012, producing a net profit margin of 9.8% of sales. This high profit margin reflected the income statement success of Sterling and its products, and with year-end 2012 total assets equal to nearly \$2.7 billion (**Exhibit 2**), the company produced a rate of return on assets of 12% in the most recent year. Sterling's financial results in the preceding years were just as robust; by any financial measure the company was successful year after year.

Analysis of Sterling's income statements through time, however, revealed the company's biggest challenge. Between 2010 and 2012 sales grew from \$3.14 billion to \$3.281 billion, a total increase of 4.5%, representing a compounded annual growth rate of only 2.2%. Although the company had excellent products and was well-positioned in the industry, growth opportunities were limited and its business was under constant pressure. The company's annual sales volume in units had increased by just less than 1% per year, constrained by weak growth in overall demand and strong competition with other products, giving end consumers a variety of manufacturers and products to choose from. In addition, Sterling's largest retail customer represented 26% of its net sales, and its 10 largest retail customers accounted for 55% of company sales. These powerful retailers regularly squeezed Sterling and other consumer goods manufacturers, with respect to wholesale prices and volumes, as well as encouraging end consumers to trade down to private label products which generated more profit for the retailer. The company's operating expenses and commodities costs were also rising faster than the inflation rate, placing even more pressure on Sterling's profits, as shown in **Exhibit 1**. None of these situations were expected to improve in the near future, so the company was attempting to shift its product offerings into industries with more opportunities for growth and sustained profitability.

Sterling's management team had identified one segment of the health care industry as an attractive investment opportunity. The company had highly regarded and successful household cleaning, disinfecting, and sanitizing products, and justified public health concerns about acquired infections was driving demand for more effective products in health care settings. Acquired infections in hospitals and acute care nursing facilities were a significant and growing concern in the health care industry, with the U.S. Department of Health and Human Services estimating that at any time one in 20 hospital patients had a health-care-associated infection.¹ The entire health care infection-control market was estimated to currently represent \$2.5 billion of yearly sales; it was growing rapidly and was also quite fragmented, with no competitor holding more than a 7% market share. Sterling's management recognized that the market for effective germicidal, sanitation, and antiseptic products for use on environmental surfaces, medical equipment, and for skin infection control was large and growing, and management believed that this market was also a natural extension of Sterling's expertise in the household market.

Sterling had identified a possible investment opportunity in Montagne Medical Instruments Company, a large health care company which specialized in surgical and medical instruments, but also owned a unit manufacturing and marketing germicidal, sanitation, and antiseptic products which were U.S. Environmental Protection Agency (EPA) registered to kill numerous microorganisms. Sterling approached Montagne Medical about acquiring the unit, and the two firms initiated formal discussions.

¹ <http://www.hhs.gov/ash/initiatives/hai/index.html>

Montagne Medical Instruments Company

Montagne Medical operated in Standard Industrial Classification (SIC) code 3841, Surgical and Medical Instruments and Apparatus, and generated \$1.756 billion of sales in 2012. The products and services contained within SIC 3841 were quite varied, ranging alphabetically from anesthesia apparatus to veterinarian's instruments and apparatus, with germicidal, sanitation, and antiseptic products included in this classification group. The company's primary focus, however, was medical examination and surgical instruments, which accounted for approximately 90% of its sales and net income. As shown in **Exhibits 3 and 4**, Montagne Medical was a strong financial performer, producing a profit margin and rate of return on assets of 14.6% and 17.8%, respectively in 2012, with sales increasing at a 12.2% compounded annual growth rate since 2010.

The company also owned a unit which produced germicidal, sanitation, and antiseptic products for health care settings, which sold well and generated positive operating income. The unit and its products, however, consumed scarce resources and management time, which the company believed could be better used in its core lines of business. Management had been considering exit from this market for some time, so they were happy to discuss sale of the products unit when they were approached by Sterling. Preliminary discussions quickly evolved into detailed negotiations about the sale, resulting in a tentative agreement for Sterling to acquire the unit from Montagne Medical for a cash payment of \$265 million.

The Proposed Sale

The tentative sale of the unit by Montagne Medical to Sterling appeared to be a good strategic fit for both companies; Montagne Medical would be able to focus all of its resources on its core medical instruments business while also receiving a large cash payment, and Sterling would acquire a growing and profitable business with products which were closely related to one of Sterling's existing and successful product lines. Whether or not this acquisition was a good investment opportunity for Sterling, however, could not be determined until the expected financial benefits from the acquisition were compared to the \$265 million purchase price.

Financial information for Montagne Medical's germicidal, sanitation, and antiseptic products unit for the last three years is presented in **Exhibit 5**. These results show annual sales growth greater than 5%, and operating income approaching 19% of sales. Both of these percentages were better than the recent financial results for Sterling, reinforcing Sterling's interest in the acquisition, but they were also lower than recent financial results for Montagne Medical, revealing why the company was willing to negotiate the sale. Using this historical financial information as a base, pro forma financial information for the products unit for the five years from 2013 through 2017 was prepared by Sterling's financial group, and these forecasts are presented in **Exhibit 6**. The numbers reflect management's expectations for sales, operating expenses, capital expenditures, straight-line depreciation of new capital assets based on a 20-year physical and economic life to zero salvage value, and operating assets and liabilities through Sterling's first five years of ownership. Company management wanted to see five more years of detailed financial forecasts, so these pro forma financial results would have to be extended through the year 2022. Sterling's management team also believed the products unit would stabilize by 2017; sales growth, capital expenditures, depreciation, and all relationships to sales that existed in 2017 would continue for the following five years.

The pro forma financial results for 2013 through 2022, however, represent only one-half of the 20-year life of the products unit. Ten more years of sales, profits, and ultimately free cash flow would create additional value for Sterling, which must be included in the investment analysis. Sterling chose to do this by estimating the value of all cash flow from 2023 through 2032 as a terminal value

multiple, as of 2022. The finance group's analysis of these 10 years determined that this terminal value could be accurately estimated as a multiple of nine times the free cash flow generated by the products unit in 2022, with free cash flow calculated as operating cash flow, minus capital expenditures, minus increases in net working capital investment. This multiple of nine times free cash flow captured the value of all operating, investment, and liquidation cash flows in the final 10 years of the products unit, as of 2022.

For several years Sterling had consciously worked to maintain a capital structure mix of 20% long-term debt finance and 80% equity finance. Current historically low borrowing rates—as well as the company's low level of business risk—and its income tax rate of 35% had caused Sterling to reconsider this capital structure. After a great deal of analysis and discussion involving the finance group, top management, and the board of directors, this capital structure target was changed; future capital investments would be financed with a mix of 30% long-term debt finance and 70% equity finance, which included the proposed acquisition of the unit from Montagne Medical.

Current market yields on Sterling's existing long-term debt were approximately 4.5%, but by increasing the weight of debt finance in its capital structure, the company's cost of borrowing for the transaction would increase to 5.1%. This rate was well above the current yield to maturity on long-term U.S. Treasury bonds of 3.1%, but it was still significantly less expensive than equity finance, and interest paid on borrowed funds was fully tax deductible for the company. Sterling currently used a market risk premium of 5% when estimating its cost of equity using the capital asset pricing model, but the appropriate beta coefficient for the cost of equity calculation, given the risk of the acquisition, was a source of discussion within the company's finance group. Financial information for Montagne Medical's six primary competitors in the market for germicidal, sanitation, and antiseptic products, including equity beta coefficients, is presented in **Exhibit 7**. Four of these companies sold a wide variety of medical products (Teleological, Labyrinth, Stratus, and Vortex), and two of the firms were more focused, with approximately 80% of their revenue coming from sales of germicidal, sanitation, and antiseptic products for health care uses (Chiron and Pathogen).

An Expansion Opportunity

The proposed acquisition of the products unit from Montagne Medical had one more potential benefit for Sterling: the option to invest and expand the unit's capacity. As currently configured, the unit was operating very close to full capacity, and by the year 2014 it would be at full capacity; therefore the pro forma increases in sales dollars presented in **Exhibit 6** for years 2014 and beyond were entirely due to forecasted price increases. The property that contained the products unit also had sufficient unused space for expansion, which would allow the company to increase its sales into the rapidly growing health care market.

If Sterling chose to exercise this option and expand the products unit, the company would invest \$60 million to purchase and install new capital equipment during 2013, with the expansion coming online and generating additional sales in 2014. These additional sales would equal 20% of base sales from the unit in 2014, and would grow to 30% of base sales in 2015, and finally to 40% of base sales in 2016. In years 2017 through 2032 additional sales from the expansion would remain at 40% of base sales. To maintain production capacity in this expansion investment, the company anticipated \$600,000 of additional capital expenditures each year, and all new capital assets would be depreciated straight-line to zero salvage value using a 20-year physical and economic life, also starting in 2014 when the investment came online. The net working capital investment necessary to support these additional sales would remain at the same percent of sales as the base products unit and would occur in the same year as the additional sales. Manufacturing expenses and selling & administrative expenses were similarly forecasted to remain at the same percent of sales as the base products unit in

each year from 2014 through 2032, but research and development expenses were not expected to change if the unit was expanded. Although the expansion would increase capacity and sales, Sterling's management believed that the research and development expenditures in the base forecast for the products unit were sufficient to ensure a steady stream of new and effective products for the health care market; the company would benefit from economies of scale in research and development through expansion. Consistent with the analysis of the base acquisition, Sterling's management wanted to see a detailed forecast for the expansion opportunity for the years 2013 through 2022; the value of all cash flow from 2023 through 2032, as of 2022, would be estimated with a terminal value multiple of nine times the free cash flow generated in 2022.

Conclusion

The tentative agreement to acquire the germicidal, sanitation, and antiseptic products unit from Montagne Medical appeared to be a good fit with Sterling's goal to expand its operations into new products and industries with better potential for profitable growth. The purchase price for the unit had been tentatively agreed upon by both parties, but one question remained to be answered: would the proposed investment be value-additive for Sterling, given the risk of the acquisition, its expected cash flow, and the \$265 million purchase price?

Exhibit 1 Income Statement for Sterling Household Products Company
(\$ in millions except per share amounts)

	2010	2011	2012
Net sales	\$3,140	\$3,138	\$3,281
Cost of goods sold	\$1,742	\$1,751	\$1,860
Gross profit	\$1,398	\$1,387	\$1,421
General, selling & administrative expenses	\$726	\$740	\$769
Research & development expenses	\$67	\$72	\$78
Income before interest and income taxes	\$605	\$575	\$574
Interest expenses	\$83	\$70	\$76
Income before income taxes	\$522	\$505	\$498
Income taxes expenses	\$178	\$171	\$175
Net income	\$344	\$334	\$323
Weighted number of shares outstanding (in thousands)	84,160	81,520	79,508
Earnings per share	\$4.09	\$4.10	\$4.06
Dividends per share	\$2.44	\$2.44	\$2.44
Stock price at end of year	\$58.79	\$63.78	\$65.46
Price/Earnings ratio	14.4	15.6	16.1
Equity beta coefficient			0.40

Exhibit 2 Balance Sheet for Sterling Household Products Company
(\$ in millions except per share amounts)

	2010	2011	2012
Assets			
Current assets			
Cash and cash equivalents	\$202	\$305	\$346
Accounts receivable, net	\$324	\$315	\$346
Inventories, net	\$199	\$229	\$231
Other current assets	\$318	\$91	\$96
Total current assets	\$1,043	\$940	\$1,019
Property, plant & equipment, net	\$580	\$653	\$669
Goodwill & trademarks	\$1,019	\$903	\$912
Other assets	\$86	\$91	\$86
Total assets	\$2,728	\$2,587	\$2,686
Liabilities & Shareholders' Equity			
Current liabilities			
Accounts payable	\$245	\$254	\$243
Short-term bank notes payable	\$222	\$275	\$181
Accrued liabilities	\$339	\$290	\$299
Total current liabilities	\$806	\$819	\$723
Long-term debt	\$1,274	\$1,106	\$1,257
Other long-term liabilities	\$418	\$455	\$497
Total liabilities	\$2,498	\$2,380	\$2,477
Shareholders' equity			
Contributed capital	\$466	\$474	\$478
Retained earnings	\$2,552	\$2,687	\$2,816
Treasury stock	-\$2,788	-\$2,954	-\$3,085
Stockholders' equity	\$230	\$207	\$209
Total liabilities & shareholders' equity	\$2,728	\$2,587	\$2,686

Exhibit 3 Income Statement for Montagne Medical Instruments Company
(\$ in millions except per share amounts)

	2010	2011	2012
Net sales	\$1,396	\$1,622	\$1,756
Cost of goods sold	\$408	\$481	\$581
Gross profit	\$988	\$1,141	\$1,175
General, selling & administrative expenses	\$534	\$630	\$671
Research & development expenses	\$127	\$144	\$154
Income before interest and income taxes	\$327	\$367	\$350
Interest expenses	\$0	\$0	\$0
Income before income taxes	\$327	\$367	\$350
Income tax expenses	\$91	\$101	\$93
Net income	\$236	\$266	\$257
Weighted number of shares outstanding (in thousands)	113,607	117,538	118,618
Earnings per share	\$2.08	\$2.26	\$2.17
Stock price at end of year	\$31.37	\$36.48	\$35.24
Price/Earnings ratio	15.1	16.1	16.3
Equity beta coefficient			0.97

Exhibit 4 Balance Sheet for Montagne Medical Instruments Company
(\$ in millions except per share amounts)

	2010	2011	2012
Assets			
Current assets			
Cash and cash equivalents	\$109	\$306	\$541
Accounts receivable, net	\$202	\$247	\$256
Inventories, net	\$126	\$180	\$184
Other current assets	\$73	\$86	\$93
Total current assets	\$510	\$819	\$1,074
Property, plant & equipment, net	\$101	\$187	\$216
Intangible assets, net	\$41	\$44	\$53
Other assets	\$66	\$71	\$97
Total assets	\$718	\$1,121	\$1,440
Liabilities & Shareholders' Equity			
Current liabilities			
Accounts payable	\$67	\$89	\$113
Accrued liabilities	\$112	\$137	\$148
Total current liabilities	\$179	\$226	\$261
Long-term debt	\$1	\$1	\$0
Other long-term liabilities	\$27	\$40	\$46
Total liabilities	\$207	\$267	\$307
Shareholders' Equity			
Contributed capital	\$347	\$424	\$446
Retained earnings	\$249	\$515	\$772
Treasury stock	-\$85	-\$85	-\$85
Shareholders' equity	\$511	\$854	\$1,133
Total liabilities & shareholders' equity	\$718	\$1,121	\$1,440

Exhibit 5 Financial Information for Montagne Medical Instruments Company's
germicide, sanitation, and antiseptic products unit

Income Statement (\$ in thousands)	2010	2011	2012
Net sales	\$128,462	\$135,496	\$142,528
Manufacturing expenses	\$71,399	\$75,512	\$79,231
Selling & administrative expenses	\$27,285	\$28,712	\$30,301
Research & development expenses	\$3,314	\$3,618	\$3,606
Depreciation expenses	\$2,216	\$2,329	\$2,438
Total costs	\$104,215	\$110,170	\$115,577
Operating income	\$24,247	\$25,326	\$26,951
Balance sheet (\$ in thousands)	2010	2011	2012
Operating assets:			
Accounts receivable	\$16,533	\$17,217	\$17,675
Inventory	\$21,059	\$22,772	\$23,802
Property, plant & equipment, at cost	\$43,840	\$46,172	\$48,454
– Accumulated depreciation	\$16,366	\$18,695	\$21,133
Property, plant & equipment, net	\$27,474	\$27,477	\$27,321
Total operating assets	\$65,066	\$67,466	\$68,798
Operating liabilities:			
Accounts payable	\$10,573	\$11,143	\$11,689
Net operating assets	\$54,493	\$56,323	\$57,109
Percent of sales ratios:	2010	2011	2012
Manufacturing expenses	55.6%	55.7%	55.6%
Selling & administrative expenses	21.2%	21.2%	21.3%
Research & development expenses	2.6%	2.7%	2.5%
Accounts receivable	12.9%	12.7%	12.4%
Inventory	16.4%	16.8%	16.7%
Property, plant & equipment, net	21.4%	20.3%	19.2%
Accounts payable	8.2%	8.2%	8.2%

Exhibit 6 Sterling's Projected Pro Forma Financial Information for Montagne Medical Instruments
Company's germicidal, sanitation, and antiseptic products unit

Income Statement (\$ in thousands)	2013	2014	2015	2016	2017
Net sales	\$149,369	\$152,954	\$156,625	\$160,384	\$164,233
Manufacturing expenses	\$83,049	\$84,890	\$86,927	\$89,013	\$91,149
Selling & administrative expenses	\$31,666	\$32,120	\$32,891	\$33,681	\$34,489
Research & development expenses	\$3,734	\$3,824	\$3,916	\$4,010	\$4,106
Depreciation expenses	\$2,525	\$2,600	\$2,675	\$2,750	\$2,825
Total costs	\$120,975	\$123,434	\$126,409	\$129,453	\$132,569
Operating income	\$28,394	\$29,520	\$30,216	\$30,931	\$31,664
Balance sheet (\$ in thousands)	2013	2014	2015	2016	2017
Operating assets:					
Accounts receivable	\$18,522	\$18,966	\$19,422	\$19,888	\$20,365
Inventory	\$24,945	\$25,543	\$26,156	\$26,784	\$27,427
Property, plant & equipment, at cost	\$50,192	\$51,692	\$53,192	\$54,692	\$56,192
- Accumulated depreciation	\$23,658	\$26,258	\$28,933	\$31,683	\$34,508
Property, plant & equipment, net	\$26,534	\$25,434	\$24,259	\$23,009	\$21,684
Total operating assets	\$70,000	\$69,944	\$69,837	\$69,681	\$69,476
Operating liabilities:					
Accounts payable	\$12,248	\$12,542	\$12,843	\$13,151	\$13,467
Net operating assets	\$57,752	\$57,401	\$56,994	\$56,529	\$56,009
Percent of sales ratios:	2013	2014	2015	2016	2017
Manufacturing expenses	55.6%	55.5%	55.5%	55.5%	55.5%
Selling & administrative expenses	21.2%	21.0%	21.0%	21.0%	21.0%
Research & development expenses	2.5%	2.5%	2.5%	2.5%	2.5%
Accounts receivable	12.4%	12.4%	12.4%	12.4%	12.4%
Inventory	16.7%	16.7%	16.7%	16.7%	16.7%
Property, plant & equipment, net	17.8%	16.6%	15.5%	14.3%	13.2%
Accounts payable	8.2%	8.2%	8.2%	8.2%	8.2%

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