
Case 70

Computer Concepts/Computech

Mergers

Directed

In recent years, it has become fairly common for computer hardware and software companies to merge with one another in an effort to gain economies of scale and scope and thus be better able to compete with larger rivals in the marketplace. The mergers are generally either horizontal (for example, when two software companies merge to expand their product lines) or vertical (for example, when a hardware company acquires a software company to obtain software to package with its computers.)

CompuTech Industries was recently bitten by the merger bug. The company was founded by Marco Garibaldi in the basement of his parents' home in 1983. Garibaldi had no intentions of competing with the "giants" in the industry (Microsoft, Lotus, etc.), but rather finding a market niche of his own. Garibaldi envisioned selling software to individuals at a low economical price and grabbing the low-price end of the market.

Garibaldi was a mathematical wizz and "computer hacker" who had dropped out of college because he was not intellectually challenged. The idea for CompuTech actually originated from one of Marco's other hobbies—writing science fiction novels. Although Marco enjoyed concocting his sci-fi stories, he hated spending endless hours retyping manuscripts to correct his typographical errors. He surmised that college students probably disliked this chore at least as much as he did, so he set out to develop a user-friendly word processing computer program aimed at high school and college level students. He called the computer software program WordPro Easy, and it was an overnight success. In fact, the program received wide acceptance from both the academic and the business communities. Marco had not foreseen how quickly CompuTech would grow and the amount of capital that would be necessary to fund its growth. However, he received numerous offers from venture capital funds, and this supported early growth. Marco's goal was to take the firm public, which he did in 1990. By December 31, 1995, CompuTech's stock was selling for \$25 per share, and there were 10 million shares outstanding.

During the company's 12 years of existence, CompuTech developed a solid reputation for ingenuity, reliability, and timely introduction of new products. In addition, unlike many of its rivals, CompuTech maintains a toll-free telephone technical support service for users, and it uses information from the service both to identify and correct potential program bugs and to get ideas for product improvements. Consequently, WordPro Easy has been updated frequently, enabling it to maintain its strong market position. More recently, the firm's programmers created a presentation

package called Chart Easy that has also received wide market acceptance because, like WordPro Easy, it is innovative, easy to use, and relatively free from errors.

However, when CompuTech attempted to enter the financial spreadsheet market, it found the going much rougher. Its product, Spreadsheet Easy, has simply not caught on, partly due to CompuTech's late entrance into the market, partly due to the market's perception that the firm's expertise is not financial software, and partly because other firms' spreadsheet programs have an established hold on the market. This failure to enter the financial spreadsheet market has Garibaldi worried, because rival software companies are increasingly bundling their word processing, presentation, and financial software programs into one "office suite." Garibaldi fears, correctly, that if CompuTech were to follow the market and bundle its software programs into an office package, the package would fail because Spreadsheet Easy doesn't have a strong market following. Garibaldi believes that CompuTech's continued success lies in finding a firm which enjoys a similar reputation to CompuTech's, but one that specializes in financial spreadsheet programs and brings with it a strong market following.

One potential acquisition candidate is Computer Concepts Inc. (CCI), a firm that specializes in accounting, finance, and tax return software programs. Like CompuTech, CCI was founded in the early 1980s, expanded with the help of venture capitalists, and went public in 1993. (Three million shares had been offered at \$1.25 per share, and 2.5 million shares were actually sold to raise \$2.5 million, net of underwriting fees.) CCI's financial spreadsheet program, Model Pro, was an initial success and has been continually updated to meet changing market demands. Consequently, it has an excellent market following. Also, Model Pro was written so that a spreadsheet created by it could be incorporated as text into most word processing programs (including WordPro Easy). The firm's one perceived weakness is its lack of diversity in software product offerings. Garibaldi views a merger with CCI as a perfect fit with CompuTech—such a merger would provide a way for CompuTech to enter the financial software market and thus solve his office suite problem.

The primary issues now facing CompuTech are (1) how much to offer for CCI's stock and (2) how to approach CCI's management. Marco Garibaldi and his staff are good at developing computer software programs, but they are not finance experts and are not experienced with acquisitions. So, rather than taking a chance on making a mistake, they decided to bring your consulting firm in to advise them on the CCI merger.

Table 1 provides some information on CCI. The stock is traded infrequently and in small blocks, and while the last trade was at a price of \$1.50, it would probably run up sharply if a large buy order were placed. CCI's beta coefficient is 1.6, and that number is close to the average beta for publicly traded computer software companies. If the acquisition takes place, CompuTech would increase CCI's debt ratio from 10 to 25 percent, and consolidation of income for tax purposes would move CCI's 30 percent federal-plus-state tax rate up to that of CompuTech's, 40 percent.

CCI's management owns about 30 percent of the stock, which is substantial but not enough to completely block a merger. They might fight to keep the firm independent if CompuTech makes an offer, but there is a chance that they would welcome a chance to sell out. They also might want to remain active, but would appreciate being acquired by a firm which would provide them with product diversity, something that it is currently lacking. To the best of Marco Garibaldi's knowledge, CCI's managers have had no discussions with anyone about a merger, and the few analysts who follow the stock have not said anything about the possibility of a takeover. However, Garibaldi is afraid some other software company might force a bidding war if CompuTech decides to make an offer. CCI does not appear to be large enough to interest companies like IBM or Microsoft, but such a company might decide to buy CCI for its accounting and tax applications and then cultivate them.

Marco Garibaldi wants your opinion on how CompuTech should approach CCI's management, should he decide to make an offer. One possibility would be to go to its management with a relatively low offer which could later be increased if necessary. Another would be to come in with a high offer and attempt to preempt any outside challenge. A third plan would be to by-pass man-

agement altogether and make a tender offer directly to CCI's stockholders. So, part of your task is to discuss the pros and cons of these approaches, plus any others you might think of.

CompuTech has, in the past, built its software business "from the ground up" rather than through acquisitions, and some of Garibaldi's managers prefer internal expansion to acquisitions. Therefore, Garibaldi wants you to include, in your report and presentation, a discussion of mergers versus business creation to achieve CompuTech's strategic objectives. He also wants you to comment on whether there might be any legal impediments to a merger with CCI. A discussion of the pros and cons of a hostile versus a friendly merger would also be helpful.

The proper price to offer is a critical issue. CCI's most recent stock price was \$1.50 per share, and there are 3,000,000 shares outstanding. That suggests that CCI's value is \$4.5 million. However, analysts often look at other data when appraising the value of stocks such as CCI for acquisition purposes, and they consider valuation multiples such as those shown in Table 1. The weights given to the different multiples are somewhat arbitrary, and they vary from situation to situation. Also, some analysts rely almost totally on a DCF calculation and use the multiples, if at all, simply as a check to see if their DCF analysis is in the right ballpark. The multiples given in Table 1 are recent averages for software companies, but actual multiples for individual companies vary substantially depending on the circumstances. Higher multiples are generally used for more rapidly growing firms, or for firms with more growth potential, while lower multiples are used for highly leveraged firms.

In addition, the stock prices of independent companies are frequently bid up over their going concern values once investors start thinking of them as acquisition candidates. Garibaldi does not think such a "merger premium" is reflected in CCI's current stock price, but he is not sure about this. If no merger premium is currently embodied in the price, then CompuTech would probably have to offer a premium to get CCI's stockholders to agree to sell. So, Garibaldi wants to know the maximum price CompuTech could afford to pay without diluting its own value. He also wants to know the minimum price CCI's stockholders are likely to accept. Then, if the price CompuTech can afford exceeds the price CCI will accept, a merger is at least feasible.

To find the maximum price CompuTech can pay, Garibaldi wants you to develop pro forma financial statements and then use them to determine the cash flows CompuTech would realize if it buys CCI. The present value of those cash flows can then be used to estimate the maximum offer price. Of course, Garibaldi would like to buy CCI at a lower price, because the merger will not benefit CompuTech's current stockholders unless it can be completed at a price less than the PV of the cash flows.

It may turn out that CCI's management would welcome a merger, in which case they may not bargain too hard. However, since the management team owns 30 percent of the stock, they will want to get a high price, and that (plus a legal obligation to do so) might lead them to solicit competing bids. Also, you know that CCI's management team is relatively young and aggressive, so they probably will not want to retire. Therefore, what they are offered in terms of employment, and their compensation package, will have an effect on their attitude toward a merger. Garibaldi wants you to address that issue.

Table 2 contains some pro forma financial data that Garibaldi's people worked up from the set of data CCI disclosed as a part of its recent public offering. The data in Table 2 assume a takeover by CompuTech. The required addition to retained earnings represents the amounts that would be necessary to finance the projected growth. Although specific estimates were only made for 1996 through 1999, the acquired company would be expected to grow at a 5 percent rate in 2000 and beyond. However, actual growth could be greater or less than the expected growth rate, and this would significantly affect CCI's value.

One important part of the merger analysis involves determining a discount rate to apply to the estimated cash flows. In its merger work, your consulting firm uses a procedure developed by Professor Robert Hamada of the University of Chicago to adjust betas to reflect differing degrees of financial leverage. Hamada's basic equations are given below:

Formula to unlever beta:

$$b_u = \frac{b_L}{1+(1-T)(D/S)}$$

Formula to relever beta:

$$b_L = b_u[1+(1-T)(D/S)]$$

Here b_U is the beta that CCI would have if it used no debt financing (the inherent beta of the assets), T is the applicable corporate tax rate, and D/S is the applicable market value debt-to-equity ratio. As shown in Table 1, the T-bond rate is 6.5 percent, and your firm's economists estimate that the market risk premium is currently 5 percent.

Your task now is to complete a report in which you first address the issue of whether or not CompuTech should attempt to take over CCI. Based on your discussions with Garibaldi, you know that you should consider questions such as the following: If an attempt is to be made, how much should CompuTech offer, what is the maximum price it can afford to pay, and how would CCI's current management be likely to respond? Would CompuTech want CCI's current management team to stay on, or would CompuTech be better off if it replaced CCI's managers with its own people? Do the ratios provided in Table 2 look reasonable, or do they cast any doubts on the forecasts? Should CCI's stockholders be offered cash, debt securities, or stock in CompuTech? In addition to the projected cash flows, is there the potential for some "strategic option value" if CCI is acquired, and if so, how should this be factored in? Recognize that either Garibaldi or one of the other CompuTech managers could ask you follow-up questions, so you should thoroughly understand the implications of your analysis. To help structure your report, answer the following questions.

QUESTIONS

1. Several factors have been proposed as providing a rationale for mergers. Among the more prominent ones are (1) tax considerations, (2) diversification, (3) control, (4) purchase of assets below replacement cost, and (5) synergy. From the standpoint of society, which of these reasons are justifiable? Which are not? Why is such a question relevant to a company like CompuTech, which is considering a specific acquisition? Explain your answers.
2. Briefly describe the differences between a hostile merger and a friendly merger. Is there any reason to think that acquiring companies would, on average, pay a greater premium over target companies' pre-announcement prices in hostile mergers than in friendly mergers?
3. Complete CCI's cash flow statements for 1996 through 1999. Why is interest expense typically deducted in merger cash flow statements, whereas it is not normally deducted in capital budgeting cash flow analysis? Why are retained earnings deducted to obtain the free cash flows?
4. Conceptually, what is the appropriate discount rate to apply to the cash flows developed in Question 3? What is the numerical value of the discount rate? How much confidence can one place in this estimate, i.e., is the estimated discount rate likely to be in error by a small amount, such as 1 percentage point, or a large amount, such as 4 or 5 percentage points? Would an error in the discount rate have much of an effect on the maximum offer price?
5. What is the terminal value of CCI, that is, what is the 1999 value of the cash flows CCI is expected to generate beyond 1999? What is CCI's value to CompuTech at the beginning of 1996? Suppose another firm was evaluating CCI as a potential acquisition candidate. Would they obtain the same value? Explain.

6. a. CCI's management has a substantial ownership interest in the company, but not enough to block a merger. If CCI's managers want to keep the firm independent, what are some actions they could take to discourage potential suitors?
- b. If CCI's managers conclude that they cannot remain independent, what are some actions they might take to help their stockholders (and themselves) get the maximum price for their stock?
- c. If CCI's managers conclude that the maximum price others are willing to bid for the company is less than its "true value," is there any other action they might take that would benefit both outside stockholders and the managers themselves? Explain.
- d. Do CCI's managers face any potential conflicts of interest (agency problems) in their negotiations with CompuTech? If so, what might be done to reduce conflict of interest problems.
7. CCI has 3 million shares of common stock outstanding. The shares are traded infrequently and in small blocks, but the last trade, of 500 shares, was at a price of \$1.50 per share. Based on this information, and on your answers to Questions 5 and 6, how much should CompuTech offer for CCI, and how should it go about making the offer?
8. Do you agree that synergistic effects probably create value in the average completed merger? If so, what determines how this value is shared between the stockholders of the acquiring and acquired companies? On average, would you expect more of the value to go to the acquired or to the acquiring firm? Explain your answers.
9. A major concern when analyzing any merger is the accuracy of the cash flows. How would the maximum price vary if the variable cost percentage were greater or less than the expected 80 percent? If you are using the spreadsheet model, do a sensitivity analysis on the variable cost ratio, and also determine the maximum percentage that would justify a price of \$3.50 per share. If you do not have access to the spreadsheet model, simply discuss the issue, and explain why managers would be interested in such a sensitivity analysis.
10. What rate of return on equity is projected in the analysis? Should the projected ROE make you want to question the assumptions that went into the cash flow and financial statement projections?
11. Would the response of CCI's stockholders be affected by whether the offer was for cash or for stock in CompuTech? Explain.
12. What are your final conclusions? Should CompuTech make an offer, and if so, should they try for a friendly deal; what price per share should they offer; how should they make payment; and should they try to retain the present management?

TABLE 1
Selected Data Related to the Potential CCI Merger

Data on CCI	
1995 Assets (end of year)	\$ 3,000,000
1995 Sales	10,000,000
1995 Net Income	425,000
Estimated beta coefficient	1.6
Debt ratio	10.0%
Tax rate	30.0%
Shares Outstanding	3,000,000
Latest price per share	\$1.50
Pro forma Data Assuming CCI is operated by CompuTech starting in 1996:	
1996 Assets (end of year)	\$ 3,450,000
1996 Sales	12,000,000
1996 Net Income	808,650
Debt ratio	25.0%
Tax rate	40.0%
Sales growth, 1996–1999	20.0%
Assets growth, 1996–1999	15.0%
Long-run growth rate in sales and assets	5.0%
Other Data and Assumptions, Post-Merger:	
Risk-free rate	6.5%
Market risk premium	5.0%
Company's cost of debt	10.0%
Variable costs/sales	80.0%
Fixed costs/assets	20.0%
Depreciation/assets	8.0%
Valuation Multiples (averages for young, rapidly growing software firms):	
Value as a multiple of cash flow	10.0
Value as a multiple of sales	0.5
Value as a multiple of net income	12.0
Value as a multiple of Market/Book	3.5

The weights given to valuations based on these multiples are judgmental, not set by some formula. Note too that some people would give no weight whatsoever to valuations based on these multiples, relying instead only on DCF, i.e., giving 100 percent of the weight to the PV of cash flows.

TABLE 2

Pro Forma Data on CCI Assuming CompuTech's Management

Balance Sheet Information (end of year):				
	1996	1997	1998	1999
Assets	\$ 3,450,000	\$	\$ 4,562,625	\$ 5,247,019
Debt	862,500		1,140,656	1,311,755
Income and Cash Flow Statements:				
	1996	1997	1998	1999
Net sales	\$12,000,000	\$	\$17,280,000	\$20,736,000
Var. operating costs	9,600,000		13,824,000	16,588,800
Depreciation	276,000		365,010	419,762
Fixed operating costs	690,000		912,525	1,049,404
Interest expense	86,250		114,066	131,175
Earnings before taxes	\$ 1,347,750	\$	\$ 2,064,399	\$ 2,546,859
Taxes	539,100		825,760	1,018,744
Net income	\$808,650	\$	\$ 1,238,640	\$ 1,528,116
Plus depreciation	276,000		365,010	419,762
Cash flow	\$ 1,084,650	\$	\$ 1,603,650	\$ 1,947,877
Req'd addn to equity	388,125		513,295	196,763
Available CF	\$ 696,525	\$	\$ 1,090,354	\$ 1,751,114
Expected terminal value				
Free cash flow	\$ 696,525	\$	\$ 1,090,354	\$
Maximum total offer, total:		\$		
Maximum offer price per share:		\$		
Ratios:				
	1996	1997	1998	1999
Return on Sales	6.74%	%	7.17%	7.37%
Return on Assets	23.44%	%	27.15%	29.12%
Return on Equity	31.25%	%	36.20%	38.83%
Total Asset Turnover	3.48		3.79	3.95
Debt/Assets	25.00%	%	25.00%	25.00%

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