CASE THREE

The Valuation of Amazon.com in June 2001[1]

BACKGROUND

Amazon.com was one of the darlings of the Internet stock boom of the late 1990s. Opening its virtual doors in 1995, Amazon's original mission was to use the Internet to transform book buying into the fastest, easiest, and most enjoyable shopping experience possible. Amazon went public in May of 1997, with an offer price of $18 per share, and opened at $29.25 per share. Over the next five years, Amazon's stock price went on a wild ride, peaking at over $100 per share in December 1999. During this period, Amazon split its shares by a factor of 12, implying a split-adjusted price of over $1,200 per share relative to its $18 offer price—a gain of over 6,000 percent in less than three years. Since December of 1999, however, Amazon's stock price, like many of its dot.com counterparts, has seen a steady decline. In June of 2001, Amazon's stock price had declined to $12 per share.

By June 2001, Amazon had grown into the leading inventory-carrying shopping destination on the Internet. Its new mission was "to be the place customers can go to find/discover anything they might want to buy online." The company had indeed expanded its product line to include items such as music and consumer electronics and had opened operations in the United Kingdom, Germany, France, and Japan. Sales had grown from just $16 million in 1996 to almost $3 billion in 2001. Despite this rapid growth, there were some problems. Perhaps most importantly, Amazon had yet to report a profit. Moreover, sales growth was declining and was forecast by management to drop to 20–30 percent for fiscal 2001.

Wall Street analysts expressed widely divergent opinions concerning Amazon's future. At one extreme, some analysts argued that it was time to value Amazon like a "real-world" retailer. Pointing to its lack of a profitable business model combined with its high leverage and declining levels of working capital, these analysts forecast that Amazon could face a serious credit problem and possibly even bankruptcy before the end of fiscal 2001. For example, Ravi Suria, a convertible bond analyst with Lehman Brothers, argued that

> We believe that the low levels of working capital could trigger a creditor squeeze in the second half of the year, creating considerable downside risk to revenue and cash estimates for the second half[2].

At the opposite extreme, some analysts saw Amazon as the dominant player in an important new industry. Armed with its valuable customer list and e-commerce brand name, these analysts saw Amazon as the future Wal-Mart of "e-tailing." These analysts believed that margin improvement and scale economies would soon enable Amazon to turn profitable. For example, Mary Meeker and Mark Mahoney, equity analysts with Morgan Stanley Dean Witter, argued that

> Total worldwide online retail sales are expected to grow nicely over the next 3–5 years, and Amazon.com, with 32MM cumulative customers and one of the strongest e-commerce brands, should be well positioned to benefit from this growth.[3]

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[1] This case was prepared by Professor Richard Sloan as the basis for class discussion, rather than to illustrate either effective or ineffective handling of a business situation. Copyright © 2001 by Richard Sloan.

[2] Ravi Suria, Research Report on Amazon.com, *Lehman Brothers Convertible Bond Research,* February 6, 2001.

[3] Mary Meeker and Mark Mahoney, Research Report on Amazon.com, *Morgan Stanley Dean Witter Equity Research,* June 21, 2001.

Accordingly, these analysts reiterated their "Long-Term Outperform" rating on Amazon.com. Amazon's management shared this optimistic view of their company's future with Chairman and CEO Jeff Bezos, promising pro forma operating profitability by the fourth quarter of 2001.

ASSIGNMENT

Your assignment is to use *eVal* to provide a comprehensive valuation analysis of Amazon as of June 30, 2001. To assist you with this task, three online exhibits are provided at www.lundholmandsloan.com .

The exhibits are (a) Amazon.com's fiscal 2000 annual report, (b) financial results for the first fiscal quarter of 2001, and (c) a valuation model for Amazon.com that is based on a leading sell-side research report on Amazon dated June 21, 2001. The valuation model includes both short-term income statement forecasts and a formal DCF valuation model (a rare event indeed for sell-side research!). Note that no balance sheet forecasts were provided in the report.

TASKS

1. Load the Amazon.com data into *eVal*. (Note: case data can be imported by going to the Case Data sheet in *eVal* and selecting the yellow block of data for the company, and then pasting this block of data into the yellow cells at the bottom of the Financial Statements sheet using Paste Special - Values from the Edit menu.) Select a 10-year forecast horizon, set the valuation date to June 30, 2001, and examine the default valuation provided by *eVal*. You will note that the default estimate is a negative number. This seems odd, because limited liability prevents real-world stock prices from being negative. Explain why *eVal* provides a negative value.
2. Use *eVal* to *approximately* reconstruct the sell-side valuation model provided at the third online exhibit to this case. Your approximation should be close enough that the resulting *eVal* valuation is between $10 and $20 per share. You will have to make some additional assumptions in your *eVal* model because the valuation model provided is very terse. Provide a critical evaluation of this valuation model, paying special attention to the forecasted financial ratios implied by the model. [*Hints*: (a) As you change the forecasting assumptions, refer to the "Computation of Free Cash Flow to Investors" portion of the Cash Flow Analysis sheet to see the resulting free cash flows, and (b) to cleanly isolate depreciation in your forecasts, move 84460 out of SG&A and into Depreciation on the fiscal 2000 historical income statement.]
3. Use *eVal* to conduct a sensitivity analysis on the valuation model you constructed above with respect to the future EBITDA assumptions. First, construct a model in which EBITDA as a percent of revenue is higher by 0.20 than in the above model for every future forecast period. Second, construct a model in which EBITDA as a percent of revenue is lower by 0.20 than in the above model for every future forecast period. [To be clear, EBITDA is forecasted to be 5 percent of revenue in 2003; in your first model this will be 25 percent and in your second model it will be 15 percent, and you will make similar adjustments to all other years in the forecast horizon.]
4. Assume that there is a one-third probability of each of the three valuation scenarios you have computed above. What would this imply about the value of Amazon.com? How does this compare to the original valuation provided in the sell-side valuation model? Explain the sources of any differences. Based on the sum of all your analysis, what do you think Amazon.com was worth at June 30, 2001?