Value Expectations 8/8/00:
Rafael Resendes
Daniel J. Obrycki

Cisco Systems

Overview

On Tuesday August 8, Cisco will announce its quarterly results. While Cisco has been a tremendous investment during the 90's, the question facing portfolio managers today, is, "**What am I paying for in today's price?**"

The Applied Finance Group has developed a tool called Value Expectations™ that helps our clients address this very issue. Value Expectations™ lets our clients harness the Economic Margin Framework, and solve for the performance a company must deliver to justify its current price. For example, Value Expectations™ for Cisco in 1995 revealed that Cisco was really more of a value stock, in spite of a P/E greater than 50. At that time, the expectations priced into Cisco's stock were very modest. The table below shows Cisco actual value driver performance prior to 1995, the expectations priced into Cisco's stock at the start of 1995, and what Cisco subsequently delivered.

Table 1: Value Expectations Priced into Cisco 12/94

	Performance (92/94)	Expectations Priced into stock 12/94	Performance (95/99)
Sales Growth	89	0	60
EBITDA	42	20	35

Value Expectations™ indicated that despite a 50+ P/E Cisco was relatively cheap. Huge potential rewards were available to those that took the time to think through the analysis.

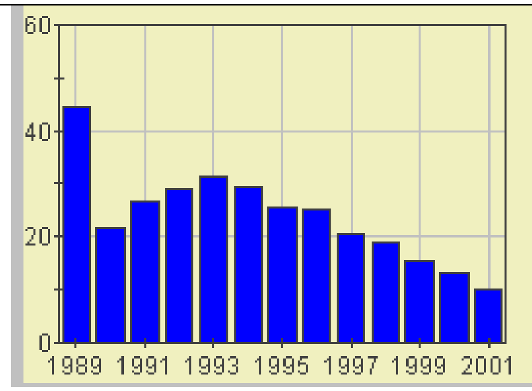
Value Expectations is designed to provide intermediate to longer-term insights into the factors that are driving a stock's price. By converting the AFG Economic Margin valuation model into value driver expectations, our clients are able to readily communicate with associates, company executives, and industry experts to better understand what they are paying for in a given stock price, and whether they should ultimately Buy/Sell/Hold the stock.

Lets look at what is priced into Cisco's current market value.

While Cisco was a slam-dunk 5 years ago, it is a much more interesting company to analyze today.

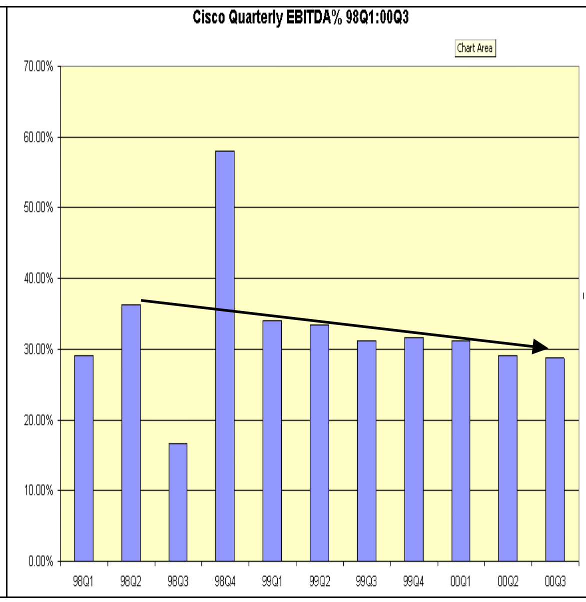
The chart to the right displays Cisco's actual and expected Economic Margins[1] from 1989 to 2001.

The one striking feature about this chart is that Cisco's EMs have been continuously declining since 1993. Cisco has avoided the underperformance that accompanies most firms with declining EMs, because of its tremendous growth. An interesting issue becomes at what point will Cisco start to stem the slide in Economic Profitability at the expense of its growth?



It has not just been Cisco's Economic Margins that have been slipping. The chart on the left displays Cisco's quarterly EBITDA% from 98Q1 through 00Q3. As the arrow traces out, the trend in EBITDA Margin has continued to decline quarter after quarter since 98Q2.

The trade-off between declining margins and increasing sales is always a delicate balance. Cisco has pulled it off with flying colors, as its quarterly sales growth has been nothing short of phenomenal. With recent quarter to quarter sales growth exceeding 50%, Cisco is still smashing the expectations for even a great company



The question remains however, what am I paying for at $66 per share? How will future growth and margin trade-offs affect Cisco's value going forward?

We have prepared a series of graphs for Cisco's past Sales Growth and EBITDA Margins to frame the question: "What must Cisco achieve going forward to provide an adequate

[1] Economic Margin is a metric developed by The Applied Finance Group to summarize whether companies are creating or destroying shareholder value. Economic Margin is defined as:

(Operating Cash Flow less a charge for Invested Capital)/ Invested Capital.

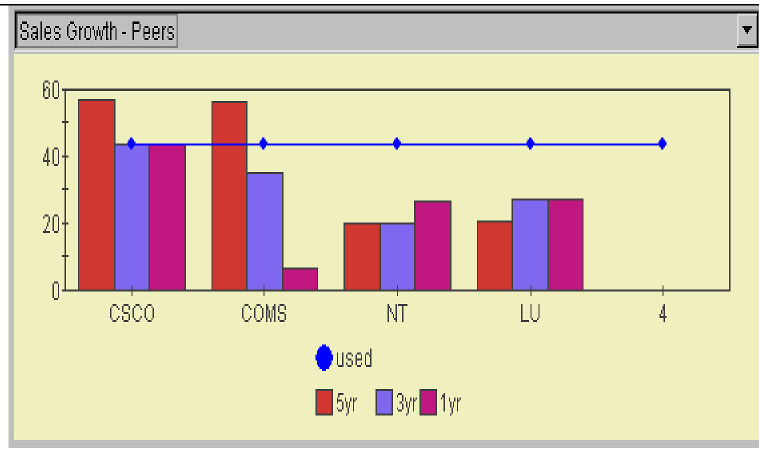
For more information on Economic Margins, visit our website at www.AFGView.com.

rate of return on its current stock price?" This process is the heart of Value Expectations™.

Value Expectations™

Sales Growth Comparison

The chart to the right shows how Cisco's annual sales growth compares against its peers across a 1,3, and 5-year time horizon. Notice that no competitor has come close to matching Cisco's recent growth. The nearest competitor is 3-Com, and a significant part of its growth was the result of the US Robotics acquisition. Will the law of large numbers eventually catch up to this company? If last quarter is any indication, do not hold your breath as 4 Quarter growth came in over 50%.



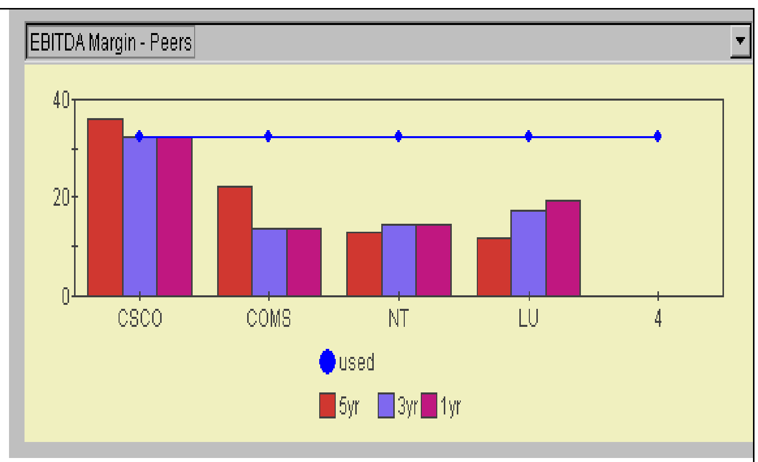
Cisco's sales growth has blitzed its competitors. More impressive is that recent quarterly results indicate no slow-down. Most recent 4 quarter sales growth comparisons came in at over 50%!

EBITDA Margin Comparison

Similar to the above chart, Cisco is killing it peers in terms of EBITDA Margin. However, unlike sales growth, Cisco's margins have been consistently dropping over the last 8 quarters.

The obvious question is "Can the strength of Cisco's competitive advantages enable it to sustain margins that are more than double some of its competitors?"

This question is more relevant than ever as a result of Cisco's margin weakness during the past 10 quarters.



While Cisco has best in class EBITDA Margins, key questions are:

- What will allow it to maintain such margin superiority?
- Will the recent slip in margins continue?

What Does It Mean?

Using the AFG Value Expectations™ framework, you can understand the performance Cisco must deliver during the next five years to justify today's price. As you will see, the expectations are very high.

Assuming that Cisco can maintain its current EBITDA Margin of 32%, it must achieve an average sales growth of 65% over the next five years to be fairly valued. While not inconceivable, it is a very tall standard to achieve. Executing on these expectations requires that by 2004, Cisco's sales will top 140 Billion. Generating such spectacular results, however, only makes Cisco a market performer since these expectations have already been priced into the stock.

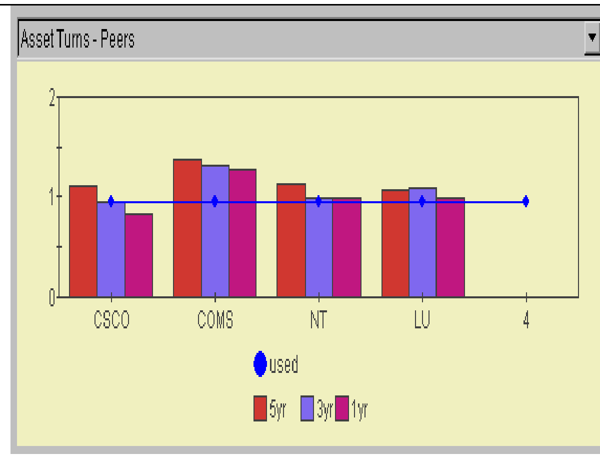
Lets attack the problem from another angle. What margins must Cisco achieve to justify its price, given that it will maintain 50% annual sales growth over the next 5 years? Not surprisingly, the answer is depressingly high. Given its current operating structure, Cisco must average a 43% EBITDA Margin if its sales growth averages 50% over the next 5 years. While Cisco's margins approached those levels in the early '90's, they have not been close since 1993.

By focusing on these two value drivers, Sales Growth and EBITDA Margin, it is obvious that the secret is out of the bag on Cisco. Whereas in the past you could buy Cisco with the expectation that it only needed to match its past performance to be an outstanding investment, today it must smash those standards to be an average investment.

The one value-driver we have not mentioned is Cisco's Asset Utilization. Because of its incredible growth, this is one area that Cisco lags its peers.

Cisco's Asset Efficiency has been consistently dropping over the last five years. Most recently, it has become the least efficient firm in its peer group.

Cisco's acquisitions make this a potentially suspect value driver, as acquisitions will tend to depress this metric in the short-run. Eventually these investments must pay-off, leading to higher asset turns.



Cisco's aggressive growth has caused asset turns to slip below its peers. For Cisco, such metrics lose some relevance as a result of numerous acquisitions

If Cisco can grow more efficiently going forward, its hurdles to support its current price are significantly lowered. For example, getting back to its peak asset efficiency of 1997, would lower the EBITDA Margin Cisco needs to from 43% to 39%, assuming 50% Sales Growth. How efficient must Cisco be to justify its price with its 50% Sales Growth and its current 32% EBITDA Margins? In a simple comparison, it must become as efficient as Dell, and turn its assets over 2.65 times per year, which is a level Cisco and its peers have never achieved.

Conclusion

Cisco has been and will continue to be (barring drastic changes) one of the world's most preeminent companies. Does that make it a great investment? Not really. Unlike the past, when you could purchase Cisco at a fraction of its likely performance, today's price presents no such opportunity. In order to be an average investment, Cisco must not only match its superior past performance, but noticeably improve on it. Given the margin slippage that Cisco has shown during the past quarters, the burden put on top line performance is becoming too great. Would we bet against Cisco making its numbers? No! Do we see Cisco having great upside potential at this price level: No!

Great companies are not great investments. Cisco has managed to be both in the past because the market's expectation of its future performance was low relative to the spectacular performance management delivered. Today, market expectations are high relative to what management is likely to deliver.

If you own the stock this announcement might provide a bounce allowing you to trim a position. If the announcement does not elicit a rally, this is probably an indication that the market may reassess the expectations built into the stock and further price erosion is likely.