ARTICLES

The Distinction between a Company and Its Stock Price

By *Chris Brightman*

April 2020
Read Time: 10 min

We at Research Affiliates recently conducted our first virtual All Hands meeting after finding ourselves working from home in the wake of the COVID-19 crisis. As CIO, I responded to questions about our investment strategy. Katy Sherrerd, CEO, and Jeff Wilson, Head of Distribution, asked me to elaborate more broadly on my response to one of the questions submitted by email the day prior.

Question*: It appears that a lot of value companies are being hit hard by coronavirus and tech companies (especially Amazon) are poised to actually do better through/after the pending recession since they are some of the only companies still hiring and with strong revenues. Does this shift our thinking about our investment strategy or do we feel that value will begin performing better soon?*

I have great appreciation for this question. Both the preamble and the question itself raise important subjects. Let’s start by making the critical distinction between companies and their stock prices. Some companies will certainly grow faster than others and we readily observe which are likely to do so. But does that growth translate into relative outperformance?

Amazon, as was pointed out in the question, is growing rapidly. No doubt about it. Last year’s (2019) growth in sales was 20%. Growth in earnings per share (EPS) was 8%, not as fast as sales, but still an amazing growth rate for such an enormous company. With all of us now working from home with our servers on Amazon Web Services, Amazon is hiring as fast as it can and seems poised for continued rapid growth.

*Does this unexpected and abrupt change in our workplace and environment shift our **thinking** about our investment strategy?*

In a word, no. We at Research Affiliates remain convinced that proper fiduciary investing requires comparing the prices of companies' stocks to estimates of their fundamental values. For my analysis, I use information available to me on March 23. Stock prices may have moved since then, but the point I am illustrating remains the same.

What about the price of AMZN? Its trailing 12-month EPS is $23. Mr. Market prices it at $1,900. That's a price-to-earnings (P/E) ratio of 83.

But, what's Amazon ***worth***? We can roughly illustrate an estimate of value using a simple two-stage dividend discount model (DDM). The first stage extrapolates recent company growth for a decade into the future, and the second stage assumes a mature company that grows in line with the economy.

We can calibrate this model to today's market conditions by assuming a mature company, such as Walmart, is fairly priced. WMT reports EPS of $5.20 and is priced at $115, for a P/E of 22. Last year, Walmart's sales grew by a nominal rate of 4%. Let's assume annualized nominal growth of 4% for the economy as well as for Walmart's sales and EPS from year-end 2019 through 2029. In 2019 Walmart paid 40% of its EPS as dividends. We'll assume the same 40% payout each year for the coming decade.

Note that Walmart has the highest sales of all US companies. These sales represented 2.4% of US GDP in 2019. According to the model's assumptions, the company's sales will remain at 2.4% of US GDP 10 years hence.

At the end of the decade, the DDM assumes simple terminal parameters for the Gordon constant-growth model: 50% dividend payout, 2% real growth, 2% real bond yield, and 2% inflation. By inputting a 4.6% real discount rate, we find the discounted present value of WMT's future dividends equals $116 per share, matching Mr. Market's price today.

Let's make a quick sanity check of these assumptions. In equilibrium, the real discount rate for a company's stock equals its real return on capital and the real return from holding its stock. Does a real return of 4.6% seem right for the US stock market? From an historical perspective that's a skinny risk premium relative to our assumed 2% real bond yield. It implies a 3.5% real return for a 60 equity/40 bond portfolio—generously assuming a 2% real bond yield in 2029.

What does the DDM model say about AMZN? This stock has never paid a dividend, so let's assume no dividends until Amazon becomes the mature company assumed by the Gordon model at year-end 2029. What shall we assume for growth in EPS for this coming decade?

In 2019, Amazon reported growth in EPS of 8%. Plugging that rate of growth into our DDM produces a value estimate for AMZN of $633 relative to today's price of $1,900. Mr. Market must be much more optimistic. Last year's (2019) growth in sales was 20%. If we assume growth in both sales and EPS of 20% for next decade, the model's value estimate for a share of AMZN is $1,800, indicating that Amazon must do a bit better to justify its current stock price.

The assumed growth rate of Amazon's sales implies that within five years Amazon will overtake Walmart's position as the US company with the largest sales. It further implies that Amazon grows to 5.4% of GDP by 2029. Optimistic? Sure. Implausible? Maybe not.

*Do we **feel** that value will begin performing better soon?*

We at Research Affiliates try to keep our feelings away from our investment decisions by using the discipline of quantitative modeling. What does our simple two-stage DDM tell us about value stocks?

Let's take a look at Bank of America, which has a trailing EPS of $2.80. As of March 23, Mr. Market priced BAC at $20 per share for a P/E of 7.

Hmm… does that seems pessimistic for a too-big-to-fail bank? Let's see what our DDM model says. Bank of America had –2% annual growth in sales and –4% growth in EPS in

2019. Plugging in –4% annual growth in EPS for the entire coming decade, the DDM estimates a value of $28 per share for BAC. BAC looks cheap.

Again, let's take a sanity check. With –4% growth in EPS, Bank of America would shrink to half its size relative to the economy. Does that seem plausible?

That brings us to the question of relative performance: Will a value stock such as BAC begin *performing* better than AMZN? I think so. Value performs best in rebounds from market crashes. On March 24, the day I answered this question, the S&P 500 Index was up 8%. AMZN was up less than 2%. BAC was up 15%.

Learn More About the Author

Chris Brightman, CFA
Partner, Chief Investment Officer