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Amazon: A Case Study in Tech Valuation

How can a company with such dismal net income performance demonstrate such stellar improvement in Residual Cash Earnings?

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The final article in a four-part series on the drivers of success for shareholders in the technology industries.

In 2014, Greg McFarlene wrote in “[Amazon Never Makes Money But No One Cares](#)” on Investopedia.com that if you totaled the cumulative net income since Amazon went public, it equated to what ExxonMobil earned every 2.5 weeks. Since that article was published, Amazon’s Total Shareholder Return (TSR) is 91%, ExxonMobil is just 5%.

Although Amazon is technically classified as an internet retailer in the consumer discretionary sector, it’s as much a technology company as any out there. With a market capitalization of over \$300 billion, it’s one of the largest companies subject to skepticism for the apparent disconnect between their net incomes and their valuations. Indeed, Amazon’s current price to earnings (PE) ratio is about 280x — about 10 times the market average.

Have investors lost their mind? We don’t think so. In fact, we believe Amazon is one of the most profitable companies out there as long as you measure performance the right way.

In the first three articles of this series, we focused on elucidating our capital market research study of technology companies. We clarified the “real world” tech company relationships among strategic choices, performance measures, and TSR, which includes dividends and the change in the share price as a percent of the starting share price. We debunked a few market myths about stock buybacks and profit margins along the way.

In this article, we examine Amazon’s valuation under the lens of those concepts. We will first take a look at Amazon’s recent performance, and then identify the biggest disconnect between its profitability and valuation. This will in turn help clarify ways in which other companies can target the right goals and measures and improve shareholder returns.

In the [first article](#), we showed that how well you invest means more than how much you invest. Our “reinvestment effectiveness” metric, which quantifies the dollars of revenue growth over a period of time for each dollar of investment made during that period, reveals this.

Regardless of how much is invested, our research showed, tech companies that generate more growth per dollar of investment tend to have better TSR. Amazon’s three-year reinvestment effectiveness is 300%, which is in the 98th percentile. Amazon gets more growth per dollar of investment than almost all tech companies.

Our research also showed that companies that bought back more stock tended to have worse share price performance over time despite the typical short-term positive bounce they get upon announcement of the buyback. Amazon has not repurchased any stock over the last three years — another reason that the high valuation makes sense at first glance.

The big questions about Amazon's valuation all revolve around profitability. In our [third article](#), we introduced Residual Cash Earnings (RCE). The measure is calculated as the cash generated by the business less a charge that reflects the expected return of the shareholders and lenders for the use of the company's capital. As it turns out, the change in RCE, as a percent of beginning gross operating assets, correlates with TSR better than any other measure we studied.

Amazon's RCE improvement over the last three-year period was 54% of beginning gross operating assets, which is in the 98th percentile for tech companies. Therefore, judging by this market in our capital market research study, Amazon once again outshines almost all other tech companies.

But Amazon's net income in 2015 was only \$0.6 billion, begging the obvious question: how can a company with such dismal net income performance demonstrate such stellar RCE improvement?

This brings us to what is seemingly the biggest disconnect when comparing Amazon's profitability to its valuation: Research and Development (R&D). Accounting standards are designed to satisfy many interested parties, including lenders, shareholders, regulators, and tax authorities. Because of the uncertainty of the future benefits of R&D, lenders prefer that it be expensed instead of capitalized like investments in inventory, accounts receivable, and property, plant and equipment.

Amazon's meager net income number comes after expensing its \$12.5 billion investment in R&D. Would there be less skepticism if Amazon's R&D investments were treated like investments in a new manufacturing plant?

We believe so, because from a shareholder perspective, it's better to treat R&D as an investment.

We find that RCE does a better job of explaining TSR when R&D is capitalized instead of using the traditional accounting practice of treating R&D as an expense, especially for companies that have a material amount of R&D to report.

The use of this metric also holds management more accountable for earning returns on their R&D investments over the coming years, since "capitalized" R&D incurs a capital charge. For simplicity, we treat R&D as if it has a five-year life. That can be varied when customizing RCE for businesses that have a much longer or shorter R&D "life."

Many investors, analysts, and journalists are quick to suggest that tech companies can't be measured by standard financial measures. During the internet bubble of the late 1990s, it was common to link valuation to website "hits" and other non-financial metrics. We have seen a resurgence of this in recent years, such as USA Today's 2014 report that internet companies were again being valued on the basis of [eyeballs](#). And tech valuations have only risen since then.

Although many would suggest that financial measures like RCE don't apply to tech companies, our capital market research and our analysis of Amazon suggest otherwise. RCE is at least as important for tech companies as it would be for their "rust belt" counterparts. The principles of market valuation remain the same. Companies will create value in tech only insofar as they produce returns that exceed the required return on investors' capital, which includes the capital invested in R&D.

Why does RCE work so well in tech? The improvement in RCE captures growth, profitability and asset efficiency (including R&D efficiency). Products and services that are differentiated are much less vulnerable to competition, and successful tech companies like Amazon are highly differentiated. This differentiation allows companies to price well above their costs, including the cost of capital. This fact, coupled with growth, is what drives RCE higher over time.

In conclusion, success for shareholders in technology companies can be captured by a series of metrics that can be readily calculated and evaluated by investors and managers alike. Metrics like RCE and Reinvestment Effectiveness can be combined with traditional growth measures to form a simple scorecard that aligns well with TSR.

Tech management teams that apply such scorecards to their planning, investment, decision-making, pricing, and performance management are likely to be more successful than those who use less effective measures, or downplay financial metrics as being less relevant in tech.

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