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# In Tech, It's How Well You Invest that Matters

What seems to matter most is not how much you invest but how well you invest.

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*This article is the first in a four-part series on what drives success for shareholders in technology industries.*

The top 10 U.S. technology companies have a combined market capitalization of over \$2.7 trillion. Four of these companies either didn't exist or weren't publicly owned at the height of the tech bubble towards the end of 1999. Another four companies, after over 16 years, have a lower market capitalization now than they did in that tech bubble. One company is flat, and Apple is worth over 30 times what it was then.

With such tremendous potential riches and such varied paths over time, figuring out what really drives returns for shareholders in the technology industries is of critical importance to both executives on the inside and investors on the outside.

Many investors, analysts and journalists feel this question was answered a long time ago. Many experts say that in tech, it's all about growth. This theory would suggest that executives should invest as much as they can in future growth, and investors should seek out the companies making the biggest investments in the future.

But many experts recognize it is impractical to sustain high growth forever. Thus, to supplement the growth story, they advocate stock buybacks to reduce the share count and accelerate the growth in earnings per share. Citing this as a surefire way to drive shareholder returns, such experts often point to academic studies that show how share prices tend to rise on the mere announcement of a buyback as evidence of the benefits of buybacks.

Do tech companies that invest more deliver better performance for shareholders? Do tech companies that buy back more stock deliver better performance for shareholders? We decided to test these and other related hypotheses to see what really drives shareholder returns in the technology industries.

We conducted customized capital market research based on the relationship between various company financial characteristics and total shareholder return (TSR), which reflects the capital gains plus dividends as a percent of the beginning share price. To capture different market cycles and changing dynamics in the industry, we studied ten periods between 2006 and 2015, using three years of historical aggregate data in each of these periods.

The study includes the 169 U.S. listed technology companies that were public for the entire period and have a current market capitalization of at least \$1 billion. For each facet of our study, we categorized companies within “High,” “Medium,” and “Low” groupings to indicate their rankings on the respective financial characteristics.

The first three articles in this series will draw upon this capital market research and the final article will focus on evaluating the performance and valuation of one company – Amazon.com.

Despite the prevailing view on the importance of investing in growth, one of the more interesting findings of our research was that having a high or low “reinvestment rate” doesn’t seem to have much influence on share price performance in the tech industry. We define reinvestment rate as the amount of investment (the sum of capital expenditures, research and development, cash acquisitions, and increases in net working capital) as a percentage of what we call Gross Cash Earnings, which is EBITDA plus R&D, less taxes. (See Gregory V. Milano’s article, “[Are You Reinvesting Enough?](#)” for more detail.)

High reinvesting companies had a median reinvestment rate of 122% and their median TSR was 12.8%. Low reinvesting companies had a median reinvestment rate of 51%, a substantially lower rate of reinvestment, and had median TSR of 12.7%. Is it worth investing more in a tech company if the TSR is essentially unaffected?

Opinion\_Bug7The answer is: it depends. Many tech companies invest a lot and do not get much in return. To quantify this concept, we use our “reinvestment effectiveness” metric, first introduced in “[Are Your Growth Investments Effective?](#)” This measure quantifies the dollars of revenue growth a company generates over a period of time for each dollar of investment made during that period.

Regardless of how much is invested, tech companies that generate more growth per dollar of investment tend to have better TSRs. Note that the growth may or may not be directly related to the new investment – what’s important is that there is an adequate amount of growth in relation to the size of the investments.

Highly effective reinvesting companies had a median reinvestment effectiveness of 70%, or \$70 of growth per \$100 of investment over a three-year period. Low-growth-producing, or inefficient, companies had a slightly negative median reinvestment effectiveness, which implies their revenue declined despite the investments made by management. High reinvestment effectiveness companies had a median TSR of 24.3%, almost double the 12.5% median TSR of the Low companies.

In each of the ten rolling three-year periods, the High reinvestment effectiveness companies had the highest median TSR. What seems to matter most, for tech companies, is not how much you invest, but how well you invest.

## What About Buybacks?

And what about stock buybacks? High tech buyback companies deployed a median of 39.9% of their Gross Cash Earnings into stock buybacks, net of stock issuance, and had a median TSR of 9.5%. On the other hand, the Low buyback companies had net stock issuance, net of buybacks, of 4.8% of their Gross Cash Earnings, and their median TSR was 15.8%. Those that bought back more stock tended to have worse share price performance over time despite the typical short-term positive bounce they got upon announcement of the buyback.

Why do the heavy buyback companies perform worse for shareholders? Every company has a different story, but often the companies doing more buybacks are investing less in growth. Sometimes this is a natural decision when growth investments dry up. But some management teams have become so infatuated with buybacks as a path to easy EPS growth that the buybacks crowd out growth investments. They calculate the incremental EPS, assume the price-to-earnings multiple will stay fixed, and calculate what seems to be an almost certain increase in the share price.

Growth investments may sound great. But they seem risky to many executives, with much less instant gratification. Will the growth materialize over a longer window of time? For this reason, buybacks seem so much more definitive in the eyes of many management teams.

Sadly, this seemingly straightforward logic doesn't hold up in the real world. In separate research, cited in [“Advocates Overrating the Benefits of Buybacks,”](#) we found that EPS growth from share count reductions associated with buybacks are only worth about half as much to investors as EPS from operations. In that article, we noted that buybacks only create value if a gap exists between the company's public market value and its true, intrinsic value at the time of the buyback, and that gap subsequently closes in the market.

In reality, most share repurchases are done when prices are high rather than low, so they tend to destroy value instead of create it.

What does this all mean? When we examine what investors do rather than what they and others say, it seems the “common” wisdom on what drives shareholder returns in tech is more common than wise.

Corporate executives should incorporate the reinvestment rate and reinvestment effectiveness in their internal reporting and planning processes. It is strategically important for tech companies to invest in the future and make sure the investments are actually delivering adequate growth. Investors should incorporate these metrics in their investment screening and evaluation methodologies as well. And finally, stock buybacks should be resisted except when there appears to be a material discount in the share price versus intrinsic value.

*Gregory V. Milano is the co-founder and chief executive officer of Fortuna Advisors LLC, a value-based strategic advisory firm. Arshia Chatterjee and David Fedigan are associates at the firm and led the research discussed in the article.*