

# The Purpose of Buyback ROI – Fortuna Advisors

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Buybacks can be an important tool in the corporate finance toolbox, but unfortunately the buyback strategies and tactics employed by most US companies tend to be misaligned with shareholder value.

Academic studies point to the benefits of buybacks based on share price reaction to announcement, often placing less emphasis on long-term performance. In our work, however, we find that companies that dedicate a greater proportion of cash earnings to share repurchases on average experience [lower total shareholder returns](#) (TSR), [contracting or lower multiple expansion](#), and poor timing. These findings are evidenced across the market broadly, as well as at the [industry](#) level.

Market timing is undoubtedly a large part of the story and it is what often separates worthwhile buyback programs from those that detract from shareholder value. Certainly, it is easy to retroactively identify specific share repurchase programs that did much or little to add value.

Unfortunately, evidence points to a market-wide timing problem. More specifically, S&P 500 constituents tend to buy back more shares when market valuations are high and, even independent from this, when individual company valuations are relatively high.<sup>1</sup> S&P 500 companies in aggregate repurchased over \$500 billion in 2007 and a fraction of that in 2009. Again in 2014-16, constituents repurchased over \$500 billion per year, arguably when valuations are high.

This timing problem stems from the commonly promoted (or assumed) “pecking order” strategy that prioritizes investments and dividends, and allocates the residual to buybacks. Stock prices tend to be higher when company performance is strong and this residual is larger. As a result, selling shareholders benefit from peak pricing at the expense of those that stick around. Companies would repurchase a lot more shares per dollar if they used dollar cost averaging, or even better, if they used a rules-based approach (as we have developed for our clients) to repurchase shares at low valuations.

With such large amounts of cash being spent on repurchases<sup>2</sup>, one may ask if this form of distribution is really in the best interest of shareholder, especially today. Do management teams and boards of directors perform or expect the same level of rigor, planning, and review of share repurchase policies and decisions as they do for other forms of capital deployment such as capital expenditures and acquisitions? Are there other motivations and forces at play (e.g., EPS targeting, overly conservative hurdles for other investments, investor short-termism)?

We believe that companies would do well to develop a buyback measurement and

review process within a rigorous capital deployment policy framework. To assist with this, we developed Buyback ROI and its associated metrics in order to measure the return and timing of repurchases, especially relative to other capital deployment alternatives. We detail each of their calculations below, discuss recent results, and suggest how to incorporate these measures within financial policy and decision making.

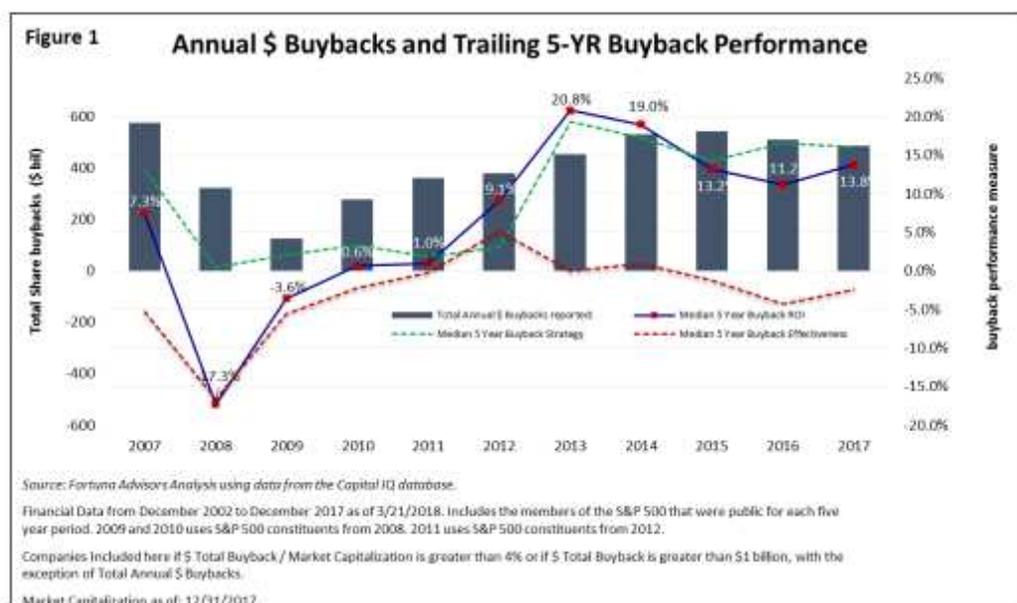
## The Buyback ROI Calculation

The figure below illustrates the metric's calculation. Over a specified time period, an annualized internal rate of return (IRR) is calculated based on (1) the cash outflows associated with share repurchases, (2) the estimated cash “inflows” of avoided dividends, and (3) an estimated final “inflow” related to the final value of the accumulated number of shares repurchased.

1. Companies often buy above share price trend, see reinvestment effectiveness in figure 3.

2. And more than what's necessary to offset dilution – share counts have fallen by more than 9%

over the past five years. See median % Share Count at the top of the table included in the appendix.



The Buyback ROI ranking discussed below and published in FORTUNE Magazine is based on the most recent five years of buybacks although longer and shorter periods can also be used. All members of the S&P 500 are included if they deployed at least \$1 billion or at least 4% of the recent market capitalization to buy back shares over the period. As most companies don't disclose average buyback prices, quarterly buybacks are assumed to be executed at the average closing price for each day the market is open during the quarter. For consistency, the final value of the cumulative repurchased shares is set based on the average closing price for the final quarter of the analysis.

Two associated metrics reflect the timing impact of repurchases (Buyback Effectiveness), as well as a company's underlying share price performance (Buyback Strategy). See equation (a) in figure 2 below.

Buyback Strategy is similar to total shareholder return, which reflects share price appreciation and dividends, but with the starting and ending share price again based on the average closing price of the quarter. Buyback Effectiveness is the compounded difference between Buyback ROI and Buyback Strategy. See equation (b) in figure 2 below.

When companies tend to buy more shares when the share price is below the longer term trend, Buyback Effectiveness is positive. When companies tend to buy more shares at higher prices, Buyback Effectiveness is negative.

### **Commentary on the 2017 Ranking**

Over the 5-year period through December 2016, the 353 ranked companies delivered median Buyback ROI of 11.2%, which is down for the third year in row from the peak of 20.8% realized over the 5 years ending in 2013. Median Buyback Strategy was a strong 16.6%, indicating buybacks were generally a very good idea for many of these companies, but weighing on this was a median Buyback Effectiveness of negative 4.3% resulting from generally poor buyback timing (most companies buy more stock when its expensive than when it's not). Fully 83% of companies in the ranking have negative Buyback Effectiveness.

In total, these companies repurchased a whopping \$2.4 trillion over the five years. This is 80% more than what was distributed as dividends. Total buybacks and dividends were \$3.7 trillion which is 91% of net income over the period and 46% of companies deployed more than 100% of net income into buybacks and dividends. Many experts claim corporate America is underinvesting in the future and these figures suggest that this may be because of an increasing infatuation with dividends and buybacks that is crowding out investments.

By sorting companies into high, medium, and low groups based on their buybacks over the five years as a percent of recent market capitalization, we can measure if companies doing more or less buybacks have better Buyback ROI on average. The High buyback group had the lowest median Buyback ROI, Buyback Strategy and Buyback Effectiveness. Conversely, the Low buyback group had the best median results on all three dimensions. So those doing more buybacks had worse results.

The High buyback group delivered median EPS growth of 38.8% on only 9.9% median net income growth. In [other research](#), we have found that the more that EPS growth comes from buybacks, the more that price-earnings multiples tend to decline. In fact, it appears that EPS growth from buybacks is only worth about half as much as EPS growth from operations.

A small set of companies have generated positive EPS growth despite declining net income. We refer to these companies as the Top EPS Manufacturers. Although

Northrop Grumman and a few others had strong share price performance during the five years, 71% of them had Buyback Strategy below the ranking median and 86% have negative Buyback Effectiveness.

## Capital Deployment Policy

By measuring performance, Buyback ROI and its associated measures are intended to help bring a greater amount of rigor and accountability to share repurchase strategy and decision-making. Most importantly, a focus on the measure helps to bring greater attention and consideration to the impact that share repurchases have on value creation. A focus on their potential value, as opposed to a residual distribution view, is especially important in today's climate where shorter-term motivations or pressures may often prevail.

While Buyback ROI can certainly be used to measure past performance, which we think is very important, it is also useful when informing future decisions and policy. We often suggest performing prospective break-even and scenario analysis as is done for other capital deployment decisions. For example, what sort of future share price performance (and dividend yield) will generate a return in-line with other capital deployment hurdles? What are the probabilities that can be associated with the over and underperformance of this breakeven performance especially when considering current company and market valuations? How do these probabilities compare to past results?

The timing and way in which repurchase programs are executed (over the long term) is also critical. Specifying rules related to company valuation, market or industry conditions, and future liquidity needs may be very helpful. For example, should dollar-cost averaging be employed to minimize poor repurchase timing? Alternatively, is it best to focus on opportunistic or tactical repurchases when share prices are below a predetermined valuation threshold? Do current market conditions suggest less upside in the market or industry? Do future investment opportunities, economic conditions, or long-term company strategy indicate a greater need for future liquidity?

We believe that a consideration of these items and a meaningful effort to quantify future performance, especially in light of past performance, may help to better formalize a share repurchase strategy. A well thought-out strategy will help a company take advantage of, versus fall victim to, the mood swings of the market, where the timing and magnitude of buybacks will likely be better aligned with shareholder value.

## Further Reading on Buyback ROI

1. ["Stock Buybacks: Buy High and Sell Low," Fortune, Scott Cendrowski](#)
2. ["What's Your Return on Buybacks," CFO.com, Gregory V. Milano](#)
3. ["How to Make Hay Out of Buybacks," CFO.com, Gregory V. Milano](#)
4. ["Why to Choose Growth Over Buybacks," CFO.com, Gregory V. Milano and John R Cryan](#)
5. ["Advocates Overrating the Benefits of Buybacks," CFO.com, Gregory V. Milano and John R. Cryan](#)

6. ["Are Buybacks The Best We Can Do?," Buona Fortuna!, Gregory V. Milano](#)