September 2013

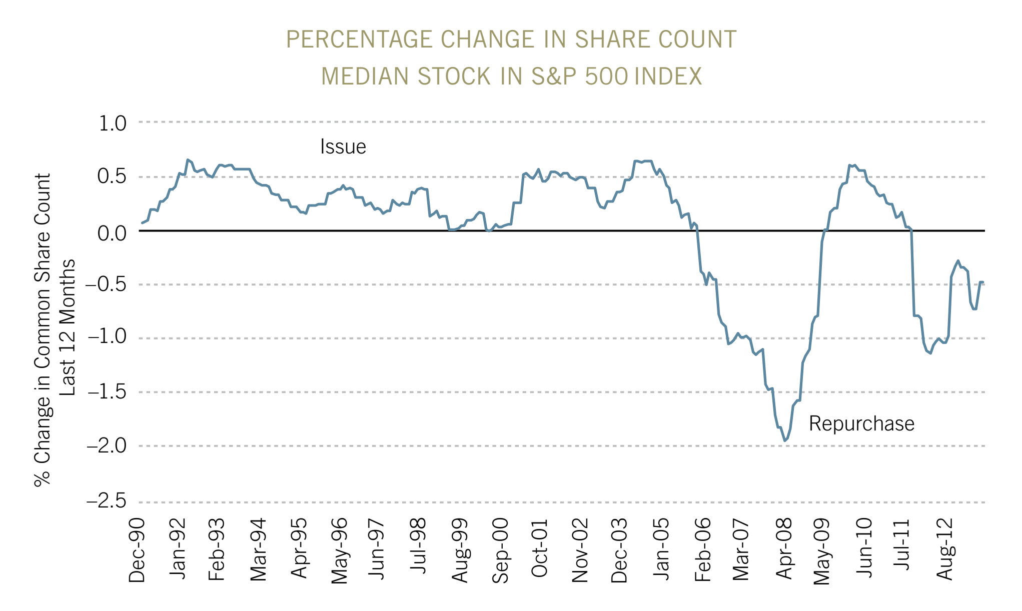
Share Repurchase: Potential Signal of Undervaluation and Outperformance

Share repurchases occur when companies buy back their own stock that was previously issued on the open market. Such stock buybacks are commonly viewed as increasing shareholder value. We analyze this proposition by looking at companies in the S&P 500® Index from December 31, 1990 through July 31, 2013.

For this analysis, we define share repurchase as a decrease in common share count over the past 12 months—a measure that takes into account share issuance due to mergers and acquisitions but excludes preferred share transactions. This allows us to clearly illustrate whether a company is a net share issuer or repurchaser.

Since 1990 through July 2013, the median company in the S&P 500 (based on share repurchase) was a net issuer (see Exhibit 1, below). On average, only 42% of S&P 500 companies were reducing their share counts.

EXHIBIT 1: From December 1990 through July 2013, the median S&P 500 company has been a net issuer, although repurchases have become more common during the past two years.



Monthly data from Dec. 31, 1990 to Jul. 31, 2013. Source: Standard & Poor's, S&P Capital IQ/Compustat.

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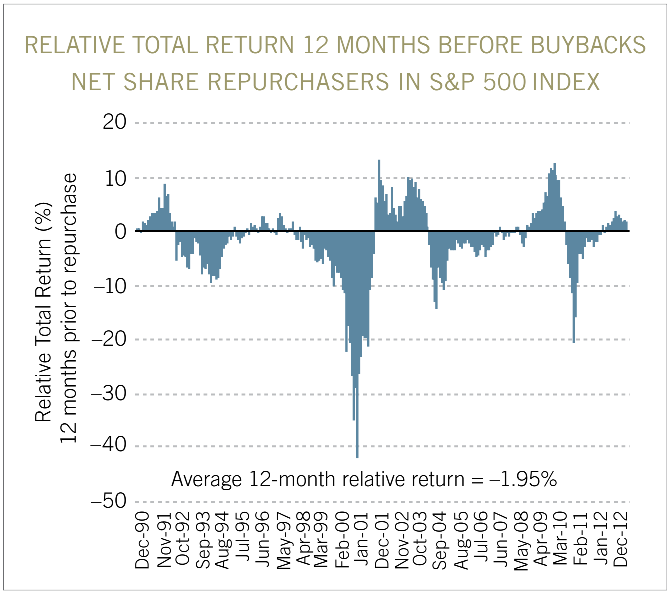
KEY TAKEAWAYS

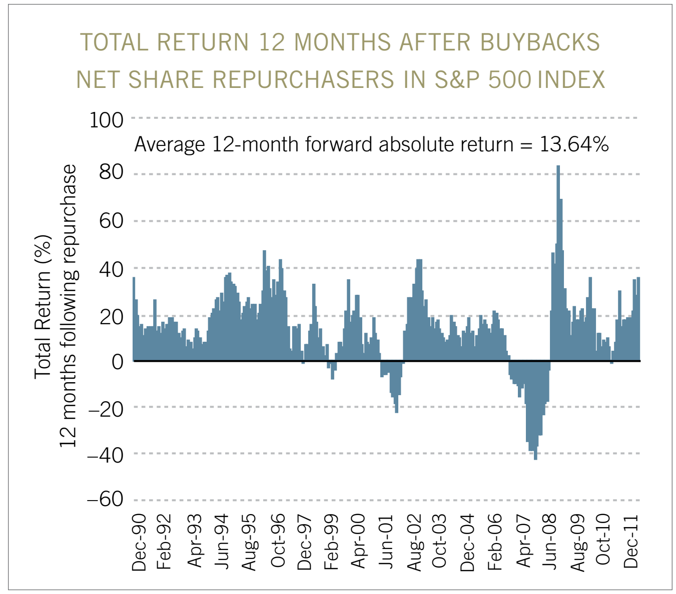
- Based on historical analysis of S&P 500 companies before and after buybacks since 1990, we find that management tends to repurchase shares after periods of relative underperformance.
- Companies have generally delivered positive absolute and relative returns after buybacks, with particularly strong results among those that completed large share repurchases.
- Our multiple regression analysis indicates that the forward outperformance of share repurchasers cannot be explained by other factors such as valuation and price momentum.
- While all large buybacks tended to generate future outperformance, infrequent repurchases produced better relative returns than serial repurchases.
- This evidence supports the premise that companies use share repurchases to signal the undervaluation of their shares, and the forward outperformance suggests that this message has been successfully communicated to investors.

EXHIBIT 2: Net share repurchasers have tended to underperform the S&P 500 Index 12 months *before* their buybacks.



Monthly data from Dec. 31, 1990 to Jul. 31, 2013. Relative returns are calculated by taking the average 12-month return of all stocks in the portfolio and comparing them with the average return of all stocks in the S&P 500 Index. Hypothetical portfolios are rebalanced monthly. Source: FactSet, Standard & Poor's, S&P Capital IQ/Compustat.

EXHIBIT 3: Net share repurchasers have tended to deliver positive absolute returns 12 months *after* their buybacks.



Monthly data from Dec. 31, 1990 to Jul. 31, 2013. Past performance is no guarantee of future results. Source: FactSet, Standard & Poor's, S&P Capital IQ/Compustat.

Companies tended to repurchase shares after poor relative performance

What is the typical performance of companies before they buy back shares? When we consider the relative returns of hypothetical portfolios of net share repurchasers during the 12 months prior to their buybacks, we find that these companies generally underperformed the market—represented by the equal-weighted S&P 500 Index—by 1.95 percentage points (see Exhibit 2, above left). This result supports the theory that companies repurchase their shares as a means of signaling to the market that their stocks are undervalued.

Companies generally delivered positive returns after share repurchase

How do the stocks of share repurchasers perform after buybacks? Looking at S&P 500 companies that repurchased shares between December 31, 1990 and July 31, 2012, we find that they generally delivered positive absolute returns over the 12 months following their buybacks (see Exhibit 3, above right). Hypothetical portfolios of net share repurchasers produced positive 12-month total returns during 85% of the observed buyback months, with an average return of 13.64% across all observations. To put this into perspective, stocks without repurchases produced lower average returns of 12.12% during a lower percentage of months (79%).

Along with producing positive absolute returns, companies that repurchased shares also outperformed the market by 0.83 percentage points over the next 12 months. Those repurchasers that bought back more than 5% of their share counts delivered even better results, with a 12-month forward relative return of 4.79 percentage points (see Exhibit 4, below). And a hypothetical portfolio of large repurchasers outperformed the market during 72% of months—more frequently than a hypothetical portfolio of all repurchasers (57%). In addition, this outperformance continued beyond 12 months. During the 12–24 month period after their buybacks, the relative returns of large repurchasers averaged 0.75 percentage points.

EXHIBIT 4: Net share repurchasers have tended to outperform the S&P 500 Index 12 months after their buybacks, and large repurchasers have delivered better relative returns.

	12-Month Forward Relative Total Return (%pts)	% of Months when Portfolio Return > Market Return	# of Stocks as % of S&P 500
Repurchase More than 5%	4.79	72%	9%
All Repurchasers	0.83	57%	42%

Monthly data from Dec. 31, 1990 to Jul. 31, 2013. Relative returns compare the average 12-month forward return of all stocks in the hypothetical portfolio with the average 12-month forward return of all stocks in the S&P 500 Index. Hypothetical portfolios are rebalanced monthly. Source: FactSet, Standard & Poor's, S&P Capital IQ/Compustat.

EXHIBIT 5: Multiple regression analysis indicates that share repurchase can explain subsequent outperformance, even after accounting for valuation, size, and price momentum.

Independent Variables	Statistically Significant at 5% Level	Coefficient Interpretation
% Change in Shares	Yes	High Repurchase → Higher Alpha
Valuation (Book Yield)	Yes	Cheap Valuation → Higher Alpha
Size (Market Value)	Yes	Small Market Value → Higher Alpha
Price Momentum (12-Month Trailing Price Return)	Yes	High Price Momentum → Higher Alpha

Annual data from Dec. 31, 1990 to Dec. 31, 2012. Relative return, or alpha, compares a stock's 12-month forward return with the average 12-month forward return of all stocks in the S&P 500 Index; 10,729 data points are included. Source: FactSet, Standard & Poor's, S&P Capital IQ/Compustat.

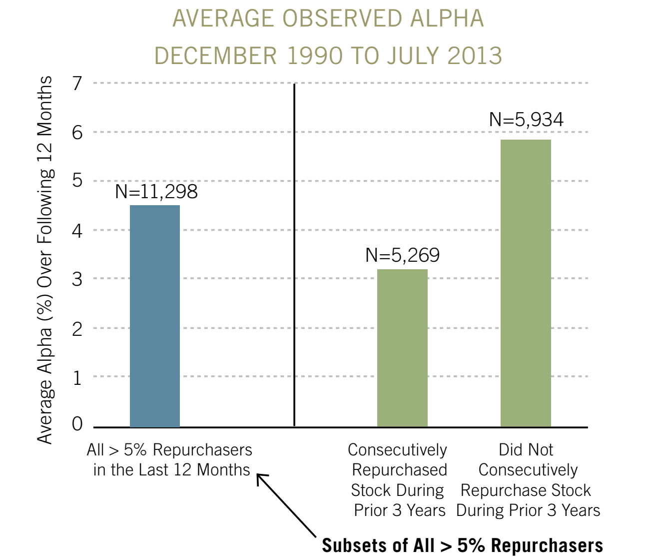
Post-buyback outperformance is not fully explained by other factors

Is the outperformance of repurchasers attributable to share buybacks, or are other factors also involved? With multiple regression, we can test whether repurchase is still predictive of future relative returns after controlling for valuation (measured by book-to-price yield), size (measured by market capitalization), and price momentum (measured by the 12-month trailing price return). Based on our regression analysis, share repurchase is still statistically significant after accounting for these attributes. Factors such as valuation, size, and momentum can help explain—but not fully—the relative return of 4.79 percentage points. In other words, there is something unique about companies that repurchase shares. And we can confirm that the higher the share repurchase, the higher the subsequent outperformance (see Exhibit 5, above left).

Infrequent repurchasers tended to perform better than serial repurchasers

We find that share repurchase—and especially large share repurchase—has typically preceded forward outperformance. However, some companies continually repurchase their shares, while others do not. Do these serial repurchasers perform differently? To answer this question, we divide companies with large share buybacks into two groups based on their repurchase decisions during the previous three years. The first group consecutively repurchased shares during that period and delivered relative returns of 3.19 percentage points over the following 12 months. The second group did not consecutively repurchase and outperformed by 5.81 percentage points on average (see Exhibit 6, above right). This suggests that unlike the serial repurchasers, infrequent share repurchasers surprised the market with their buybacks and subsequently experienced the highest 12-month forward outperformance.

EXHIBIT 6: Infrequent share repurchasers subsequently delivered the highest outperformance relative to the market.



Monthly data from Dec. 31, 1990 to Jul. 31, 2013. Past performance is no guarantee of future results. Relative return, or alpha, compares the 12-month forward return of each stock in the subsets with the 12-month forward return of all stocks in the S&P 500. Source: FactSet, Standard & Poor's, S&P Capital IQ/Compustat.

Investment implications

Share repurchase is a powerful tool, and its signal should not be ignored. Historically, companies underperformed the market prior to completing a buyback and then outperformed following the buyback. This outperformance cannot be explained by valuation, company size, or price momentum. Forward outperformance was amplified if the repurchase was large and infrequent. This evidence adds support to the theory that companies can use share repurchase as a signal to the market that their shares are undervalued, and their subsequent outperformance illustrates the successful communication of that message.

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Fidelity Thought Leadership Vice President, Senior Investment Writer Jennifer Carter, CFA, provided editorial direction for this article.

Methodology

The following methodology was used for the quantitative analysis:

Time period

Dec. 31, 1990 to Jul. 31, 2013 for hypothetical portfolios
Dec. 31, 1990 to Dec. 31, 2012 for multiple regression

Universe

S&P 500 Index

Data sources

FactSet for security prices and returns; Standard & Poor's for index constituents; and S&P Capital IQ/Compustat for financial data such as book value, shares outstanding, and market value. Performance data sourced from and calculated by FactSet's AT3 backtesting application.

Factor definitions

Share repurchase = percentage change in shares outstanding over the past 12 months
Book yield = book value per share divided by the stock price
Price momentum = 12-month trailing price return
Size = stock's market value

Hypothetical portfolio construction methodology

All portfolios and benchmarks are equally weighted for the purpose of calculating returns. All portfolios and benchmarks are rebalanced monthly, and annual buy-and-hold returns are used in all calculations. Returns include reinvestment of capital gains and dividends, if any, but do not reflect any fees or expenses.

Multiple regression methodology

Relative return, or alpha, is calculated by comparing a stock's return versus the return of the equal-weighted benchmark. Each variable is capped at the 2nd and 98th percentiles to reduce the effect of outliers and data errors, then normalized to create a "z-score" representing the difference between each observation and the variable's mean, in units of standard deviation. This facilitates comparison across time.

Techniques to overcome look-ahead and survivorship biases

Historical S&P 500 constituents are retrieved at the beginning of each period and thus include companies that no longer exist today. Quarterly book values per share from S&P Capital IQ/Compustat are lagged by 45 days and annual book values per share are lagged by 90 days to allow for the normal procedure of reporting results, with some delay after quarter end and year end.

Index definitions

The S&P 500®, a market capitalization–weighted index of common stocks, is a registered service mark of The McGraw-Hill Companies, Inc., and has been licensed for use by Fidelity Distributors Corporation and its affiliates.

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