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Catalyst Funds

# EXPLOITING EXCESS RETURNS FROM SHARE BUYBACK ANNOUNCEMENTS

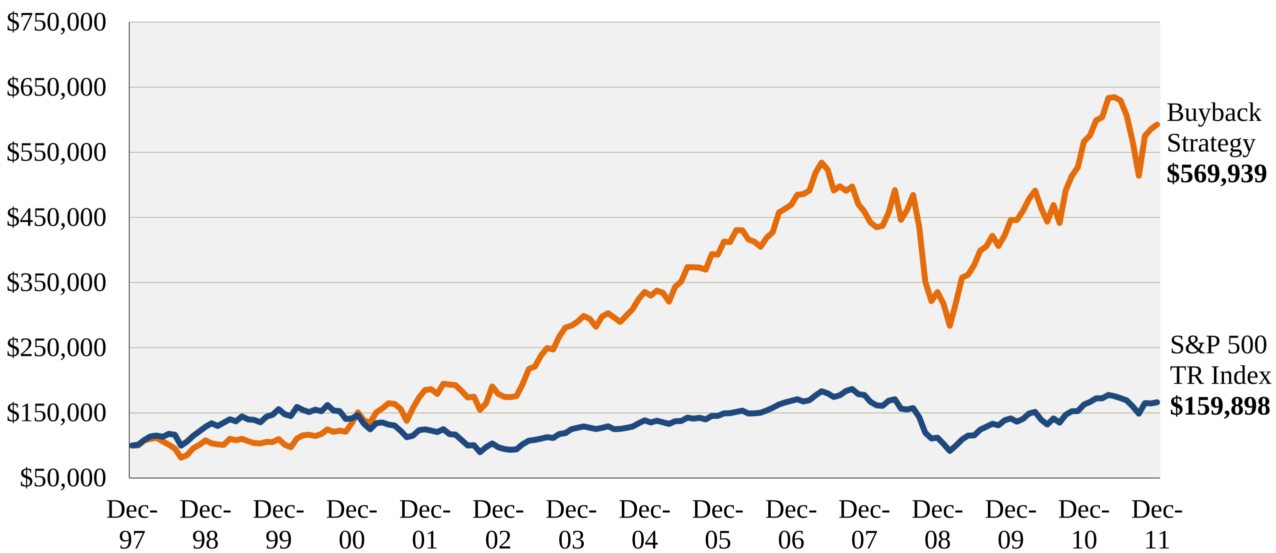
White Paper by Catalyst Capital Advisors

## EXECUTIVE SUMMARY

Corporate stock buybacks have become an increasingly popular form of payout to shareholders and account for a significant percentage of capital market activity. During the past 15 years, companies have spent more on share buybacks than dividends. There has been extensive research of the subject in attempt to determine the motives of share repurchases as well as the impact on stock performance. Although theory suggests buybacks enhance shareholder value, evidence for a sustainable improvement in long-term shareholder returns is elusive. However, short-term stock performances surrounding a buyback announcement are more significant with evidence pointing to a period of superior performance.

Research into corporate stock buybacks supports academic findings that share buyback announcements provide a compelling signal for short-term post-announcement excess returns. By focusing on the size of the share repurchase and recency to the time of announcement, ***the Buyback Strategy has historically outperformed the S&P 500 by +9% on an annualized basis*** (see **Exhibit 1**).

**EXHIBIT 1:** A Buyback Strategy based on size of announced buyback and recency since announced buyback has substantially outperformed the S&P 500 Total Return Index[1]




Source: EquityCompass Strategies[2]

## STOCK BUYBACK OVERVIEW

### The value of stock buybacks, a form of payment to shareholders, has exceeded cash dividends in the last 15 years

Stock buybacks are a popular form of payout to shareholders. The payout is normally initiated with a board-authorized announcement to periodically repurchase outstanding company shares in the open market. The intended benefit is to accrete shareholder value by reducing outstanding shares. In the past 15 years, the value of stock buybacks has exceeded cash dividends.(3)

This buyback phenomenon has been analyzed in depth by academic researchers for more than two decades. Various studies suggest that firms repurchase their own stock for a multitude of reasons:(4) to distribute excess cash, to signal undervaluation due to asymmetric information between managers and shareholders, to increase their leverage ratio, to fund employee and management stock options, to fend off unwanted takeover attempts, and to mimic competitors.

## THE OPPORTUNITY WITH BUYBACKS

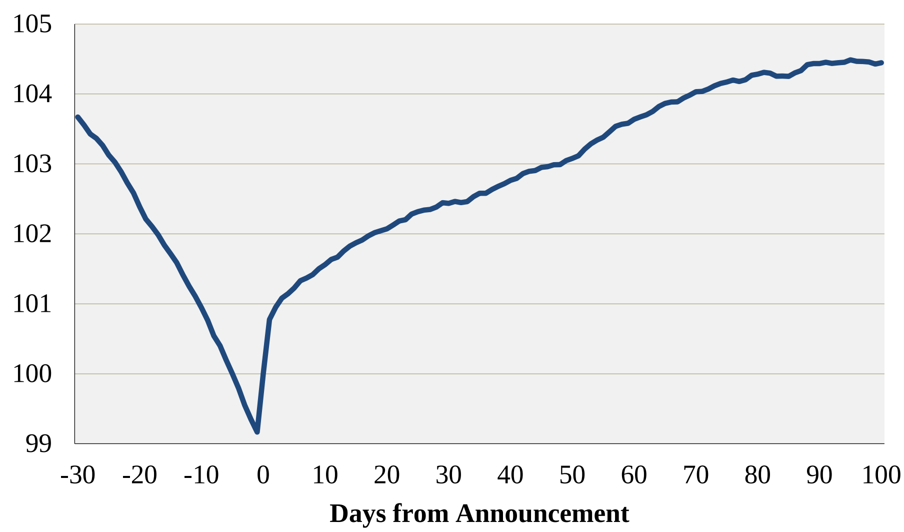
### Abnormal returns are a persistent post-announcement feature of stock buybacks

Academic studies show that the stock market positively reacts to stock buyback announcements.(5) The more commonly accepted theories for the positive reaction include the signaling theory,(6) the agency/free cash flow theory,(7) and the capital structure theory.(8) The positive price reaction at buyback announcements does not, however, translate into predictable excess returns in the long-term. Factors such as the failure to complete the announced buyback, subsequent share issuance, the company's inability to continue creating value, etc., can impact a stock's long-term performance more than the mere announcement.

Researchers have found, however, that abnormal returns following share repurchase announcements are more distinct in the shorter-term.(9) Studies have concluded the perception of increased liquidity and signaling by management of confidence in near-term prospects provides a buying catalyst leading to excess returns.(10)

EquityCompass Strategies conducted research to confirm the academic studies by analyzing stock price performance relative to the S&P 500 in the 30 days prior to, and 100 days following, a stock buyback announcement. The findings show a consistent and significant positive abnormal relative return post announcement for up to 100 days after, outperforming the S&P 500 by 4.45% on average, with the strongest returns occurring within the first 60 days from the announcement (see **Exhibit 2**). Notable in the performance is the poor performance in the 30 days prior to the announcement. The relative underperformance is a likely motivator for corporate management to announce a share buyback.

**EXHIBIT 2:** Stocks of companies announcing buybacks outperform relative to the S&P 500 for up to 100 days following the announcement (11)



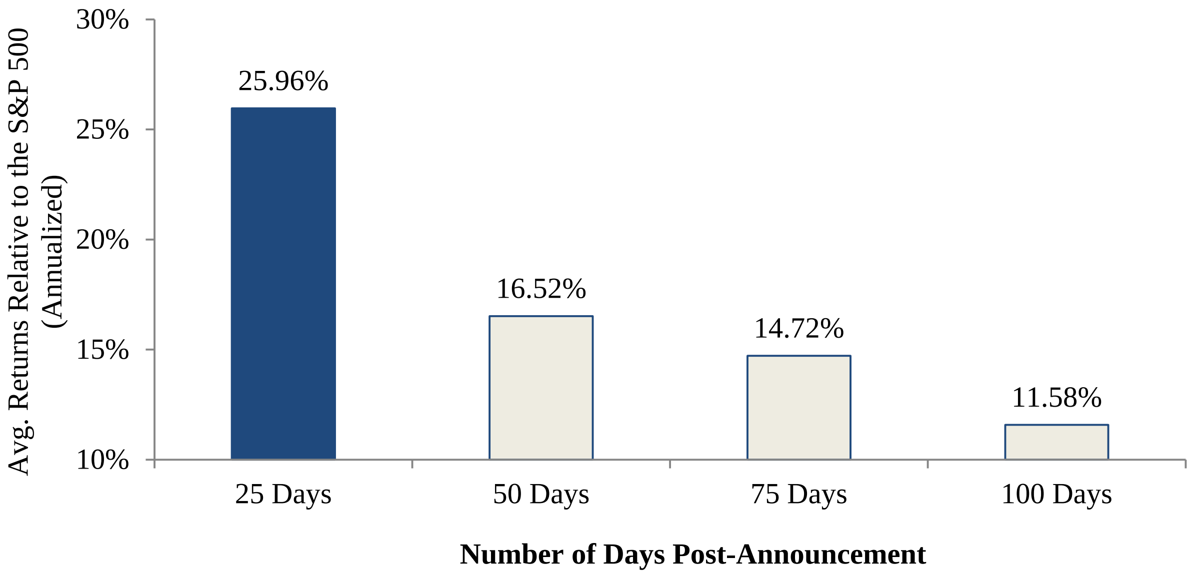

Source: EquityCompass Strategies

## EXCESS RETURN DRIVERS

### Two factors, size of the share buyback and recency to the announcement, amplify excess return potential

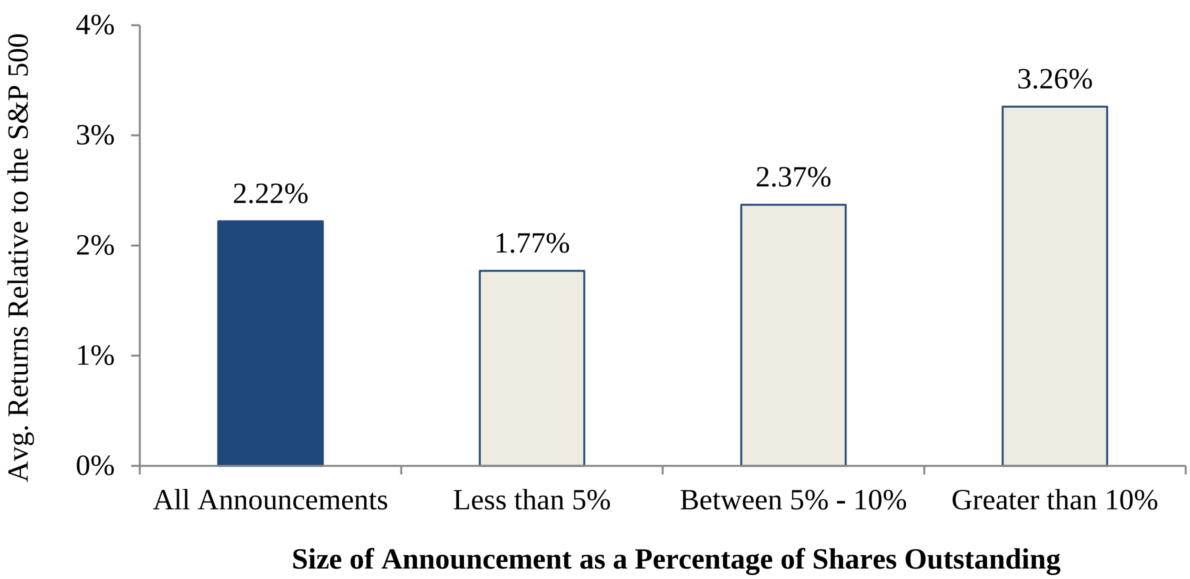
Two conditions amplify the excess return potential: (1) the recency to the announcement (see **Exhibit 3**) and (2) the size of the share repurchase (as a percent of shares outstanding) (see **Exhibit 4**).

**EXHIBIT 3:** Recency to time of the announcement is a significant driver of excess returns [12]




Source: EquityCompass Strategies

**EXHIBIT 4:** Size of the share buyback announcement is a significant driver of excess returns in the first 30 days [13]




Source: EquityCompass Strategies

## BUYBACK STRATEGY PERFORMANCE

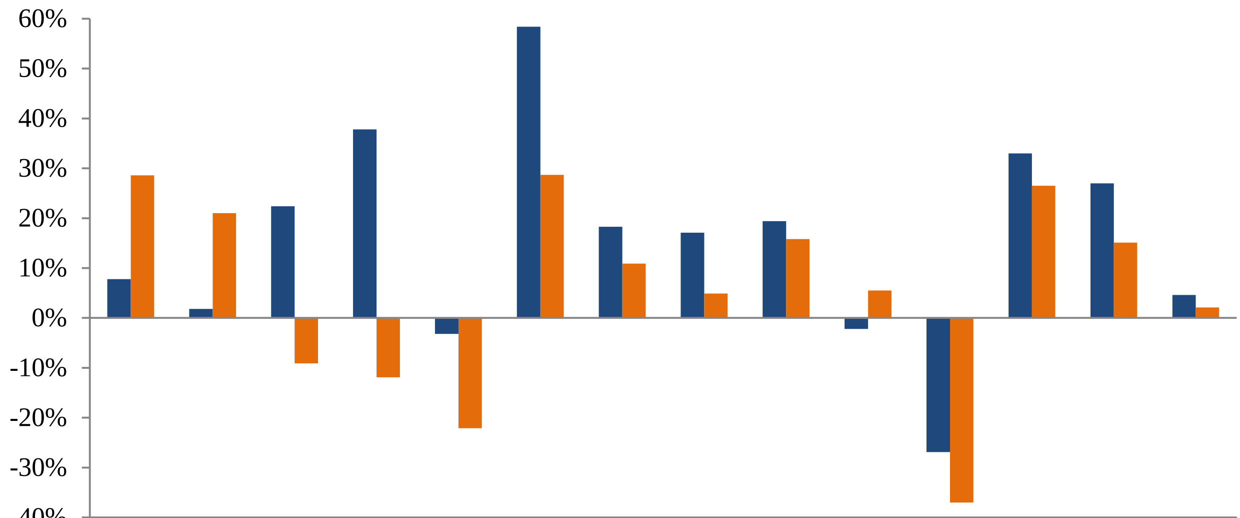
### A Buyback Strategy based on recency and size has substantially outperformed the S&P 500 Total Return Index

To gain risk and reward insights to the Buyback Strategy, EquityCompass Strategies simulated a portfolio from 12/31/1997 through 12/30/2011. All criteria used for the initial construction of the portfolio, as well as all subsequent changes, were based on out-of-sample data as of the most recent month-end at the time the ratings were derived. The historical constituent data was carefully assembled to include eligible companies even if they no longer exist for various reasons including acquisition, delisting, merger, bankruptcy, etc. The simulation included dividends, but did not include the impact of transaction costs or management fees.

Stocks were selected to the portfolio using a 2-factor model based upon: (1) Days since announcement (announcement date to constitution date) – lower is better and (2) Size of announcement (as a percentage of shares outstanding) – higher is better. The average ranking of each factor determines the overall composite rank. The 30 stocks with the highest overall composite rank were added to the portfolio. In the event of a tie (i.e., the 30th and 31st stock have the exact same composite rank), the stock with the highest market-capitalization was selected. The portfolio was rebalanced monthly.

During the simulated period, the Buyback Strategy outperformed the S&P 500 Total Return Index in 11 out of 14 years (see **Exhibit 5**), generating total returns of 492.7% versus 66.2% for the S&P 500 (13.6% vs. 3.7% when annualized) (see **Exhibit 6**). Furthermore, the Buyback Strategy exhibits low correlation with most major asset classes (see **Exhibit 7**), making it a valuable tool in a diversified portfolio seeking above average risk adjusted returns.

**EXHIBIT 5:** The Buyback Strategy has outperformed the S&P 500 Total Return Index in 11 out of 14 years




| | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Buyback Strategy | 7.8% | 1.8% | 22.4% | 37.8% | -3.2% | 58.4% | 18.3% | 17.1% | 19.4% | -2.2% | -26.9% | 33.0% | 27.0% | 4.6% |
| S&P 500 TR Index | 28.6% | 21.0% | -9.1% | -11.9% | -22.1% | 28.7% | 10.9% | 4.9% | 15.8% | 5.5% | -37.0% | 26.5% | 15.1% | 2.1% |

Source: EquityCompass Strategies

**EXHIBIT 6:** The Buyback Strategy has outperformed the S&P 500 Total Return Index by +9% on an annualized basis

| | 1-Yr. Aggregate | 3-Yr. Annualized | 5-Yr. Annualized | Since Inception Aggregate | Since Inception Annualized |
|---|---|---|---|---|---|
| Buyback Strategy | 4.6% | 20.9% | 4.8% | 492.7% | 13.6% |
| S&P 500 Total Return Index | 2.1% | 14.1% | -0.2% | 66.2% | 3.7% |

Source: EquityCompass Strategies

**EXHIBIT 7:** The Buyback Strategy has demonstrated low correlation to most asset classes

| | Correlation | | Correlation |
|---|---|---|---|
| S&P 500 | 0.68 | Dow Jones Large Cap Value | 0. 59 |
| Dow Jones Small Cap Value | 0.66 | Dow Jones Large Cap Growth | 0.51 |
| Dow Jones Small Cap Growth | 0.47 | Bloomberg REIT Index | 0.34 |
| Dow Jones Mid Cap Value | 0.69 | Gold Near Future (GC1) | 0.001 |
| Dow Jones Mid Cap Growth | 0.54 | Barclay's Aggregate Bond Index | 0.002 |

Source: EquityCompass Strategies

The three calendar years the Buyback Strategy underperformed the S&P 500 were 1998, 1999, and 2007. The macro environment provides an important context. In the late 1990s, investors became almost singularly focused on growth and momentum investing, particularly in the Information Technology and Telecommunication sectors. Announced stock buybacks often occur after periods of price weakness when management believes their stock is mispriced. This value criteria was out-of-sync with investor preferences for growth and momentum. In 2007, a year of record announced buybacks ($738 billion), corporate management's confidence in outlook was misplaced considering the ensuing financial crisis.

## CONCLUSION

**Empirical study results support findings from more than two decades of academic research that the announcement of a share buyback provides a compelling signal for short-term post-announcement excess returns. The conditions that amplify short-term excess return potential are the recency to the announcement and the size of the share repurchase. A simulation using out-of-sample data produced superior risk/reward characteristics. The Buyback Strategy outperformed the S&P 500 in 11 out of the 14 years and by +9% on an annualized basis. Given the Buyback Strategy's low correlation to the general equity markets, it can be a valuable tool in building a diversified portfolio with above average returns.**

## ENDNOTES

(1) This chart presents the hypothetical returns on $100,000 for the Buyback Strategy and the S&P 500 TR Index from December 31, 1997 to December 30, 2011. Positions are rebalanced monthly and are equally weighted. The data includes returns from dividends and is gross of fees. Source: EquityCompass Strategies, Bloomberg, and FactSet.

(2) EquityCompass Strategies conducted an event study of share buybacks dating back to 1996 and found excess returns associated with announced share repurchases for up to 100 days post-announcement. Source: EquityCompass Strategies.

(3) Source: Bloomberg and Ned Davis Research.

(4) To distribute excess cash (Jensen (1986), to signal undervaluation due to asymmetric information between managers and shareholders (Vermaelen (1981), Stephens and Weisbach (1998), Louis and White (2007), to increase their leverage ratio (Bagwell and Shoven (1988), to fund employee and management stock options (Fenn and Liang (2001), Kahle (2002), to fend off unwanted takeover attempts (Bagwell (1991), Billett and Xue (2007), and to mimic competitors (Massa, Rehman, and Vermaelen (2007).

(5) Dann (1981), Vermaelen (1981), Lakonishok and Vermaelen (1990)

(6) John and Williams (1985)

(7) Jensen (1986)

(8) Dittmar (2000), Lie (2002)

(9) Vermaelen (1981), Comment and Jarrell (1991), Ikenberry, Lakonishok and Vennalen (1994)

(10) DeRidder and Råsbrant (2009)

(11) This chart shows the average relative performance versus the S&P 500 for companies that announce a share buyback 30 days prior to, and 100 days following, the share buyback announcement. The index (S&P 500 Index) at the day of announcement (Day 0) equals 100 by default. EquityCompass Strategies analyzed 10,070 unique open market share repurchase announcements (common stock only and adjusted for spin-offs and splits) made by members of the Russell 3000 from January 1, 1996 to April 30, 2010. Dividends are excluded. Source: EquityCompass Strategies and Bloomberg.

(12) Chart is based on 10,070 unique buyback announcements from December 1995 to April 2010. Source: EquityCompass Strategies.

(13) Chart is based on 10,070 unique buyback announcements from December 1995 to April 2010. Performance period is one month forward from announcement. Source: EquityCompass Strategies.

## REFERENCES


Cripps, Richard E. and Timothy M. McCann., June 2010, *Exploiting Excess Returns from Announced Share Buybacks*, EquityCompass Strategies Whitepaper.

Eberhardt, Allan C. and Siddique, Akhtar R., November 2004, *Why are Stock Buyback Announcements Good News?*, Social Science Research Network (SSRN).

Hulbert, Mark., December 2007, *Are Buyback Stocks Still Good for Investors?*, New York Times article.

Ikenberry, D., Lakonishok, J., Vermaelen, T., 1995. *Market Underreaction to Open Market Share Repurchases*. Journal of Financial Economics.

Isagawa, Nobuyuki., Autumn 2002, *Open-Market Repurchase Announcements, Actual Repurchases, and Stock Price Behavior in Inefficient Markets*, Financial Management Association.

Kinsler, Nicholas A. and Bacon, Frank W., February 2008, *Stock Repurchase Announcements: A Test of Market Efficiency*, Proceedings of ASBBS, Volume 15, Number 1.

Mauboussin, Michael J., January 2006, *Clear Thinking about Share Repurchase, Legg Mason Capital Management.*

Ridder, Adri De and Råsbrant, Jonas., October 2009, *The Market Liquidity Impact of Share Repurchase Trading*, Working Paper.

Silverblatt, Howard and Guarino, Dave., December 2007, *S&P 500 Buybacks: Three Years and $1.3 Trillion Later, Standard & Poor's.*

Vermaelen, T., 1981. *Common Stock Repurchases and Market Signaling*. Journal of Financial Economics.

Vermaelen, T., 2005. *Share Repurchases. Foundations and Trends in Finance*. Volume 1 Issue 3.

Wang, Jim and Johnson, Lewis D., February 2008, *Information Asymmetry, Signaling, and Share Repurchase*, Social Science Research Network (SSRN).

Wiggins, J., 1994. *Open Market Stock Repurchase Programs and Liquidity*. Journal of Financial Research 17, 217-229.

## DEFINITIONS

**Correlation:** How securities or asset classes move and perform in relation to each other.

**Russell 3000 Index** measures the performance of the largest 3000 U.S. companies representing approximately 98% of the investable U.S. equity market.

**Standard & Poor's 500 Index** is an unmanaged index of 500 selected common large capitalization stocks (most of which are listed on the New York Stock Exchange) that is often used as a measure of the U.S. stock market.

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