

2018 Fortuna Buyback ROI Report

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Fortuna Advisors introduced Buyback ROI on June 3, 2011 in an article published on [CFO.com](#) titled “[What’s Your Return on Buybacks?](#)” For the first time, investors and corporate observers could look clearly past the overly simplistic and often misleading Earnings Per Share (EPS) accretion assessment and determine if remaining shareholders benefit from a buyback. At the time of the publication, the prevailing thought was that EPS accretion was generally good and therefore so were buybacks, especially as a tax-efficient way to return capital to shareholders. Elements of this perspective are still quite common today, but the timing of buybacks and their excessive use relative to investing in the business has attracted much attention.

This is partly because market participants, on the whole, recognize that not all EPS growth is created equal. Our research shows that, on average, the EPS growth that comes from reducing the number of shares outstanding is worth significantly less than the EPS growth resulting from revenue growth and operating improvements. So short-term EPS accretion alone is not enough to drive share prices higher. We believe that this [finding](#) diminishes part of the allure associated with buybacks and emphasizes the need to evaluate buybacks using a consistent return-based framework, just like any other resource allocation.

The allocation of resources is one of the most important responsibilities of executive management and the board of directors. Managements’ consider the return on investment when evaluating and prioritizing capital deployment alternatives to fund capital expenditures, research & development, major marketing expenditures and acquisitions. Buyback ROI is a consistent measure to allow a management team to evaluate buybacks against these other uses of capital, and only pursue buybacks when they are the best use of capital.

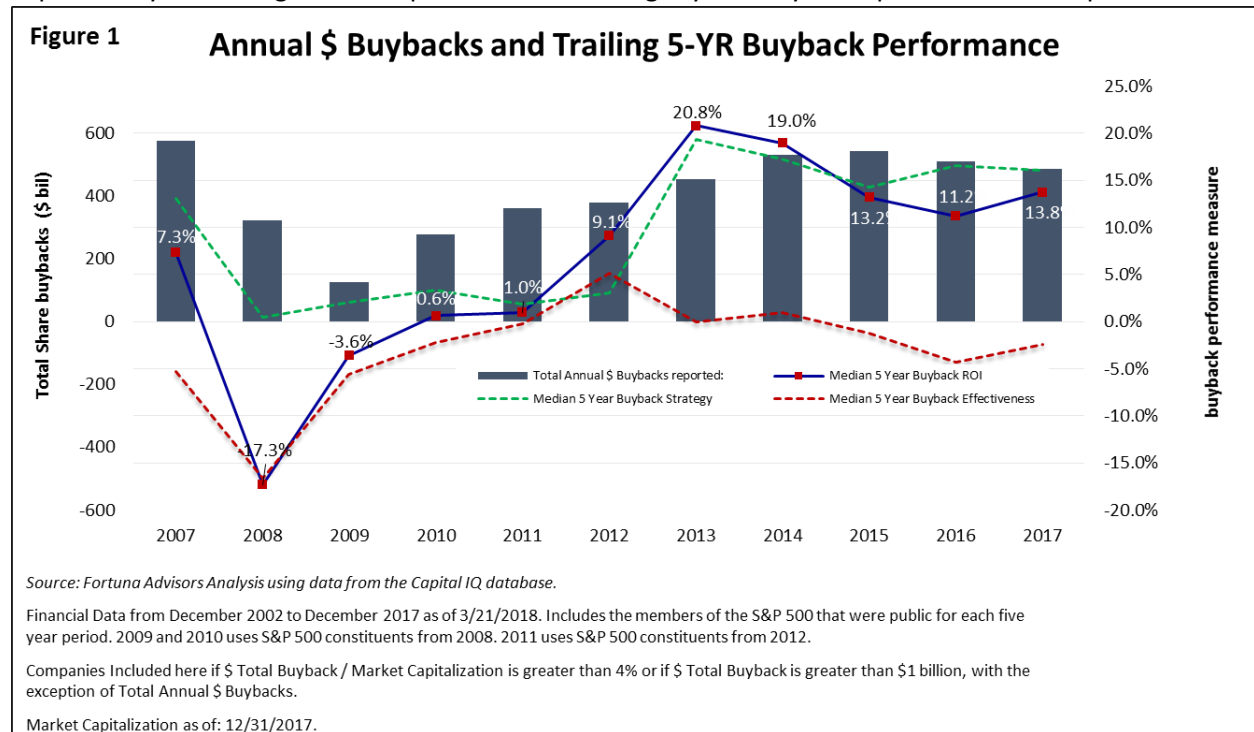
If a management team spends \$1 billion to acquire another company, and a year later the acquired company has meaningfully increased in value, they have delivered a strong return on investment to investors. In exactly the same way, if management deploys \$1 billion to repurchase their own stock, and a year later the acquired shares have meaningfully increased in value, they also have delivered a strong return on investment to investors. But if management buys back shares at a peak and then the value of the shares decline, well then shareholders would have been much better off if management waited and bought back more shares at the lower price. It doesn’t feel good to own shares valued at \$20 a share when you know others had their shares acquired at \$30, using your money. This has now been quantified as Buyback ROI.

Last year [Fortune Magazine featured our Buyback ROI ranking](#) for the first time and we are grateful that they have decided to do so again in 2018. In this report, we provide the full ranking along with a more in-depth discussion of the findings and how managements can use Buyback ROI to make better capital deployment decisions.

For those new to Buyback ROI, you can familiarize yourself with the methodology by reading [Appendix I – About Buyback ROI](#) before reading the main report, and for those interested in the details of the Buyback ROI calculation, please read [Appendix II – The Buyback ROI Calculation](#).

Commentary on the 2018 Ranking

Over the 5-year period through December 2017, the 353 ranked companies delivered median Buyback ROI of 13.8%, up from 11.2% last year. This was the first up-tick after three years of decline in Buyback ROI from the peak of 20.8% realized over the 5 years ending in 2013. Median Buyback Strategy was a strong 16.1%, indicating buybacks were generally a very good idea for many of these companies, but weighing on this was a median Buyback Effectiveness of negative 2.5% resulting from generally poor buyback timing (most companies buy more stock when its expensive than when it's not), though this was better than the negative 4.3% recorded last year. Fully 75% of companies in the ranking have negative Buyback Effectiveness, down from 83% last year. This improvement in the timing of buybacks could be explained by the stronger market performance and slightly less buyback spend in 2017 compared to 2016.



In total, S&P 500 companies repurchased a whopping \$2.5 trillion over the five years. This is 64% more than what was distributed as dividends. Total buybacks and dividends were \$4.0 trillion which is 106% of net income over the period and 35% 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 infatuation with distributing cash as 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 median Buyback ROI. The High buyback group had the lowest median Buyback ROI, Buyback Strategy and Buyback Effectiveness. This is not great news for investors (and their management teams), especially those advocating for heavy buybacks.

Figure 2 High, Medium and Low Groups on Total Buyback \$ / Current Market Capitalization

\$buyback % of Market Cap Grouping	\$ Total Buyback / Market Cap	Median Buyback ROI	Median Buyback Strategy	Median Buyback Effectiveness	Median % ΔEarnings	Median % ΔEPS	Median % ΔShare Count
High	24.2%	8.1%	13.4%	-3.8%	-1.2%	33.4%	-18.6%
Medium	11.8%	14.3%	18.7%	-2.6%	-13.8%	-4.7%	-9.0%
Low	6.8%	15.9%	17.4%	-1.5%	53.5%	50.7%	-1.8%

Source: Fortuna Advisors Analysis using data from the Capital IQ database.
Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.
Market Capitalization as of: 12/31/2017.

Due to share count reduction, the High buyback group delivered median EPS growth of 33.4% on a median net income decline of 1.2%. 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.

Figure 3 Top Manufacturers of EPS (*)

	Company Name	Ticker	Industry	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)		
								% ΔEarnings	% ΔEPS	% ΔShare Count
1	VeriSign, Inc.	VRSN	Software and Services	34.1%	23.0%	21.8%	1.0%	(2.7%)	52.9%	(36.3%)
2	CF Industries Holdings, Inc.	CF	Materials	39.3%	(2.6%)	0.7%	(3.3%)	(1.2%)	33.4%	(25.9%)
3	IDEX Laboratories, Inc.	IDXX	Healthcare Equipment and Services	14.6%	32.6%	27.2%	4.2%	(11.8%)	10.4%	(20.0%)
4	W.W. Grainger, Inc.	GWV	Capital Goods	27.9%	(1.8%)	2.7%	(4.5%)	(3.3%)	20.1%	(19.5%)
5	Humana Inc.	HUM	Healthcare Equipment and Services	15.2%	24.9%	29.7%	(3.7%)	(4.2%)	10.1%	(13.0%)
6	ANSYS, Inc.	ANSS	Software and Services	10.9%	23.0%	15.7%	6.3%	(6.2%)	3.9%	(9.8%)

* Manufacturers of EPS considers S&P threshold companies with low (negative) Earnings Growth but high reduction in share count to generate positive EPS Growth.
** EPS calculation = Quarterly Reported Net Income / Actual Quarter's Reported Total Shares Outstanding.
Source: Fortuna Advisors Analysis using data from the Capital IQ database.
Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.
Market Capitalization as of: 12/31/2017.

Six companies generated positive EPS growth over the full five years despite declining net income, down from 14 companies last year. We refer to these companies as the Top Manufacturers of EPS. In contrast to last year, four of the six had strong Buyback ROI and three had positive Buyback Effectiveness this year. Typically the Manufacturers of EPS have weaker shareholder performance.

Capital Deployment Policy and Rules-Based Buyback Strategies

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 these measures help to bring greater attention and consideration to the impact that the quantity and timing of share repurchases has on value creation for the remaining shareholders. A value based perspective is especially important in today's climate where shorter-term investor and media pressures may prevail and lead management to buyback too much stock or to emphasize buybacks at precisely the wrong time.

While Buyback ROI can be used to measure past performance, it is also very useful when informing future decisions and policy. We often suggest performing the same prospective break-even and scenario analysis

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? Given our expectations for earnings or EBITDA growth, what valuation multiple is required to deliver decent Buyback ROI? Given the company's historical range of valuation multiples, what is the probability that current buybacks will deliver high Buyback ROI when we look back in a few years?

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 lofty market conditions suggest less upside in the market or industry? Do future investment opportunities, economic conditions, or long-term company strategies 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.

Evaluating Buybacks in Advance (A Case Study)

Executives often struggle with the usefulness of past Buyback ROI's in evaluating a forward-looking application¹. Buyback evaluation (or the lack thereof) is often disconnected from the rigorous analysis often associated with other forms of capital deployment. What's the alternative?

Until now, the best one could do was to suggest to execute buybacks in advance of share price increases. A higher future share price will help drive a higher ROI. But who doesn't think their stock is cheap? Most executives believe their stock is undervalued and will rise in the future, so we need a more rules-based process for evaluating buyback timing in order to deliver a desirable Buyback ROI.

We suggest that managers first perform a sanity check: (1) solve for the future earnings and multiple expansion scenario(s) necessary to deliver various levels of share price performance and subsequent Buyback ROI and (2) compare this performance to the past to get a sense of how likely it is that the company will achieve strong Buyback ROI.

To illustrate this exercise, consider Alaska Air Group (ALK), a company that delivered near median Buyback ROI of 11.5% over the last five years, stemming from strong share price performance indicated by a Buyback Strategy of 30.0%, but less than ideal buyback timing as shown by Buyback Effectiveness of negative 14.2%. If you assume that the company maintains its current dividend yield of 2.1%, its share price would need to grow by 7.9% per year to achieve a 10% Buyback ROI (10%-2.1%, Buyback ROI incorporates the benefits of forgone dividends). This suggests a share price of \$87 five years from now, versus a current share price of \$60.

¹ Based in part on "How to Tell Good Buybacks from Bad Ones", Greg Milano and Joseph Theriault, May 5, 2017, CFO.com

The consensus of the brokerage analysts that follow ALK is that it will deliver \$5.61 of EPS over the next twelve months and 11.4% EPS growth over the long term. Compounding this growth rate until year five suggests a future EPS of about \$8.65. The implied PE multiple in year five would be the share price of \$87 divided by the EPS \$8.65, or 10.1x.

For Alaska Air, a 10.1x multiple is lower than 67% of the historical observations over the last decade. The past is not always a good indicator of the future, but if Alaska Air's future valuations are at all like the past, this would suggest that buybacks are likely to deliver at least a 10% Buyback ROI to Alaska Air's shareholders – although, of course, this will depend on the timing of buybacks. Alaska Air management will need to do a better job of timing buybacks in the future than they did in the past.

There are other companies where there appears to be a lower likelihood of achieving a strong future Buyback ROI. One such company is Host Hotels & Resorts (HST), which exhibits a relatively high current PE multiple, versus the company's past, and a modest consensus long term EPS growth rate. To achieve a Buyback ROI of 10%, the implied year five PE multiple is at the 61st percentile against its past. It seems much less likely that Host Hotels & Resorts can achieve a 10% Buyback ROI than Alaska Air. It is important to note, though, that historically Host Hotels & Resorts has had a positive Buyback Effectiveness, so if they time their buybacks well, they may be able to deliver a higher Buyback ROI.

Additional facets of the analysis can be added. For example, the analysis can also be done in reverse. Using Alaska Air's historical median PE multiple would imply a 12.3% Buyback ROI instead of the 10% that we solved for. A similar analysis for Host Hotels & Resorts implies a Buyback ROI of 4.5% - less than half that of Alaska Air.

Variations of this exercise can be used to formulate a rules-based buyback framework that relies on a combination of important factors (company price multiples, earnings growth, probability of future multiple expansion, future cash needs and alternative uses, market valuations and trends, etc.). Such a framework will help increase the likelihood of a high buyback ROI by:

- (1) Providing a return-based focus for buybacks, and
- (2) Helping to improve timing.

Appendix I - About Buyback ROI

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.

Poor market timing is what often separates worthwhile buyback programs from those that detract from shareholder value. The 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.² S&P 500 companies in aggregate repurchased over \$500 billion in 2007 and a fraction of that in 2009. Again in 2014-17, constituents repurchased over \$500 billion per year³, 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 capital to buybacks. Stock prices tend to be higher when company performance is strong and residual capital is greater. As a result, selling shareholders benefit from peak pricing at the expense of those that stick around.

With such large amounts of cash being spent on repurchases⁴, one may ask if this form of distribution is really in the best interest of shareholders, especially with the market so high 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 such as EPS targeting, overly conservative hurdles for other investments, or 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. We detail each of their calculations in Appendix II below.

Further Reading on Buyback ROI:

1. ["How to Tell Good Buybacks from Bad Ones," CFO.com, Gregory V. Milano and Joseph Theriault](#)
2. ["Stock Buybacks: Buy High and Sell Low," Fortune, Scott Cendrowski](#)
3. ["What's Your Return on Buybacks," CFO.com, Gregory V. Milano](#)
4. ["How to Make Hay Out of Buybacks," CFO.com, Gregory V. Milano](#)
5. ["Why to Choose Growth Over Buybacks," CFO.com, Gregory V. Milano and John R Cryan](#)
6. ["Advocates Overrating the Benefits of Buybacks," CFO.com, Gregory V. Milano and John R. Cryan](#)
7. ["Are Buybacks The Best We Can Do?," Buona Fortuna!, Gregory V. Milano](#)

² Companies often buy above share price trend, see reinvestment effectiveness in Figure 1.

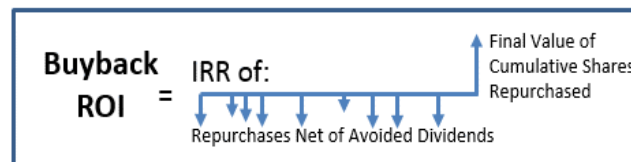
³ This study includes companies that were public for the full five years. Total buybacks for this group was \$485 billion in 2017, but the full S&P 500 repurchased over \$500 billion for the fourth year in a row.

⁴ And more than what's necessary to offset dilution – share counts have fallen by 8.8% over the past five years. See median % Δ Share Count at the top of the table included in Appendix III.

Appendix II - The Buyback ROI 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. Figure 4 illustrates the metric's calculation.

Figure 4



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 5 below.

Figure 5

$$(1 + \text{Buyback ROI}) = (1 + \text{Buyback Strategy}) \times (1 + \text{Buyback Effectiveness}) \quad \dots \text{equation (a)}$$

$$(1 + \text{Buyback ROI}) / (1 + \text{Buyback Strategy}) = (1 + \text{Buyback Effectiveness}) \quad \dots \text{equation (b)}$$

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.

Appendix III – 2017 Buyback ROI Ranking (Following pages)

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.

Appendix III - Complete Buyback ROI Ranking

Source: Fortuna Advisors Analysis using data from the Capital IQ database.

Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.



Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
1	NVIDIA Corporation	NVDA	Semiconductors and Semiconductor Equipment	\$117,261	\$3,936	3.4%	95.6%	76.8%	10.6%	543.2%	554.9%	-1.8%	1	
2	Applied Materials, Inc.	AMAT	Semiconductors and Semiconductor Equipment	\$54,000	\$5,368	9.9%	62.8%	40.4%	15.9%	297.1%	353.5%	-12.4%	8	
3	Constellation Brands, Inc.	STZ	Food, Beverage and Tobacco	\$44,684	\$1,396	3.1%	46.6%	44.5%	1.4%	348.5%	323.0%	6.0%	NA	
4	E*TRADE Financial Corporation	ETFC	Diversified Financials	\$13,205	\$864	6.5%	43.6%	39.9%	2.7%	NA	NA	NA	NA	
5	Lam Research Corporation	LRCX	Semiconductors and Semiconductor Equipment	\$29,809	\$3,301	11.1%	43.3%	42.5%	0.6%	-255.4%	-254.8%	0.4%	23	
6	Cadence Design Systems, Inc.	CDNS	Software and Services	\$11,808	\$1,667	14.1%	42.8%	27.3%	12.2%	-104.6%	-104.6%	0.2%	NA	
7	Activision Blizzard, Inc.	ATVI	Software and Services	\$47,876	\$6,008	\$54	39.6%	42.9%	-2.3%	-265.3%	-342.6%	-31.9%	9	
8	Micron Technology, Inc.	MU	Semiconductors and Semiconductor Equipment	\$47,548	\$1,113	2.3%	39.2%	48.7%	-6.3%	NA	NA	NA	297	
9	Best Buy Co., Inc.	BBY	Retailing	\$20,016	\$3,757	18.8%	38.1%	36.9%	0.9%	NA	NA	NA	29	
10	MSCI Inc.	MSCI	Diversified Financials	\$11,397	\$2,148	18.8%	37.7%	35.9%	1.4%	18.6%	59.3%	-25.5%	NA	
11	Facebook, Inc.	FB	Software and Services	\$512,759	\$1,976	0.4%	37.3%	49.7%	-8.3%	6570.3%	5369.7%	21.9%	NA	
12	Adobe Systems Incorporated	ADBE	Software and Services	\$86,383	\$4,500	5.2%	36.1%	38.1%	-1.5%	125.6%	129.9%	-1.9%	24	
13	Global Payments Inc.	GPN	Software and Services	\$15,952	\$1,411	8.8%	35.9%	35.8%	0.1%	244.8%	240.3%	1.3%	7	
14	The Boeing Company	BA	Capital Goods	\$175,642	\$30,790	17.5%	35.7%	33.4%	1.8%	220.2%	313.0%	-22.5%	202	
15	Electronic Arts Inc.	EA	Software and Services	\$32,351	\$2,329	7.2%	34.8%	51.9%	-11.3%	NA	NA	NA	2	
16	Huntington Ingalls Industries, Inc.	HII	Capital Goods	\$10,668	\$969	9.1%	34.6%	43.0%	-5.9%	28.0%	41.9%	-9.8%	NA	
17	UnitedHealth Group Incorporated	UNH	Healthcare Equipment and Services	\$213,641	\$11,158	5.2%	33.6%	33.2%	0.3%	190.8%	208.0%	-5.6%	18	
18	Northrop Grumman Corporation	NOC	Capital Goods	\$53,426	\$10,161	19.0%	33.3%	37.5%	-3.0%	-66.6%	-54.6%	-26.5%	4	
19	Intuitive Surgical, Inc.	ISRG	Healthcare Equipment and Services	\$40,891	\$4,609	11.3%	32.6%	16.5%	13.8%	-122.2%	-123.8%	-6.7%	105	
20	IDEXX Laboratories, Inc.	IDXX	Healthcare Equipment and Services	\$13,639	\$1,987	14.6%	32.6%	27.2%	4.2%	-11.8%	10.4%	-20.0%	16	
21	Autodesk, Inc.	ADSK	Software and Services	\$23,091	\$2,575	11.2%	32.5%	28.9%	2.8%	-332.9%	-338.7%	-2.4%	58	
22	Mettler-Toledo International Inc.	MTD	Pharmaceuticals, Biotechnology and Life Sciences	\$15,847	\$2,104	13.3%	32.2%	29.0%	2.5%	-26.4%	-12.5%	-15.9%	41	
23	Skyworks Solutions, Inc.	SKWS	Semiconductors and Semiconductor Equipment	\$17,446	\$1,924	11.0%	32.0%	37.9%	-4.3%	5.9%	11.6%	-5.1%	11	
24	Cintas Corporation	CTAS	Commercial and Professional Services	\$16,591	\$1,815	10.9%	31.8%	31.6%	0.1%	75.7%	102.1%	-13.1%	15	
25	A. O. Smith Corporation	AOS	Capital Goods	\$10,536	\$583	5.5%	30.7%	33.6%	-2.2%	NA	NA	NA	NA	
26	Aetna Inc.	AET	Healthcare Equipment and Services	\$58,838	\$6,800	11.6%	30.5%	33.1%	-1.9%	28.4%	28.8%	-0.3%	27	
27	Avery Dennison Corporation	AVY	Materials	\$10,112	\$1,095	10.8%	29.7%	30.2%	-0.4%	-221.6%	-238.1%	-11.9%	39	
28	Southwest Airlines Co.	LUV	Transportation	\$38,837	\$6,025	15.5%	29.5%	45.5%	-11.0%	2320.5%	2897.5%	-19.2%	6	
29	Texas Instruments Incorporated	TXN	Semiconductors and Semiconductor Equipment	\$102,932	\$13,128	12.8%	29.3%	30.6%	-1.0%	30.3%	46.7%	-11.2%	26	
30	CSX Corporation	CSX	Transportation	\$49,164	\$4,700	9.6%	29.3%	23.9%	4.3%	826.2%	977.0%	-14.0%	132	
31	ConocoPhillips	COP	Energy	\$65,622	\$3,145	4.8%	29.2%	1.4%	27.4%	10.7%	15.6%	-4.2%	302	
32	Microsoft Corporation	MSFT	Software and Services	\$659,906	\$56,164	8.5%	28.9%	27.4%	1.2%	-198.8%	-207.5%	-8.1%	40	
33	S&P Global Inc.	SPGI	Diversified Financials	\$43,197	\$4,438	10.3%	28.7%	27.6%	0.8%	NA	NA	NA	28	
34	Harris Corporation	HRS	Capital Goods	\$16,885	\$1,260	7.5%	28.5%	26.7%	1.4%	186.6%	168.2%	6.9%	35	
35	Raytheon Company	RTN	Capital Goods	\$54,305	\$3,924	7.2%	28.0%	30.2%	-1.7%	-16.2%	-5.2%	-11.6%	25	
36	Red Hat, Inc.	RHT	Software and Services	\$21,251	\$1,768	8.3%	28.0%	19.1%	7.4%	191.4%	218.1%	-8.4%	160	
37	Synopsys, Inc.	SNPS	Software and Services	\$12,676	\$1,493	11.8%	27.9%	21.8%	5.0%	-105.3%	-105.5%	-3.3%	72	
38	Marriott International, Inc.	MAR	Consumer Services	\$49,485	\$7,843	15.8%	27.8%	29.1%	-1.0%	11.0%	-2.8%	14.3%	118	
39	Lockheed Martin Corporation	LMT	Capital Goods	\$92,056	\$8,569	9.3%	27.8%	32.1%	-3.3%	-212.8%	-226.3%	-10.7%	17	
40	Edwards Lifesciences Corporation	EW	Healthcare Equipment and Services	\$23,852	\$2,504	10.5%	27.7%	19.6%	6.8%	-103.1%	-103.3%	-8.1%	14	
41	United Rentals, Inc.	URI	Capital Goods	\$14,539	\$2,101	14.5%	27.5%	30.8%	-2.5%	2087.8%	2330.1%	-10.0%	175	
42	Darden Restaurants, Inc.	DRI	Consumer Services	\$11,875	\$1,107	9.3%	27.3%	17.3%	8.5%	152.1%	163.4%	-4.3%	38	
43	Stanley Black & Decker, Inc.	SWK	Capital Goods	\$26,022	\$1,106	4.2%	26.7%	20.7%	5.0%	NA	NA	NA	94	
44	Cigna Corporation	CI	Healthcare Equipment and Services	\$50,072	\$6,150	12.3%	26.4%	31.0%	-3.6%	-34.5%	-22.7%	-15.2%	75	
45	PulteGroup, Inc.	PHM	Consumer Durables and Apparel	\$9,774	\$2,343	24.0%	26.3%	14.4%	10.4%	31.8%	78.4%	-26.1%	308	
46	Bank of America Corporation	BAC	Banks	\$307,912	\$25,195	8.2%	25.9%	24.0%	1.5%	244.3%	264.3%	-5.5%	103	
47	KLA-Tencor Corporation	KLAC	Semiconductors and Semiconductor Equipment	\$16,465	\$1,267	7.7%	25.7%	26.7%	-0.7%	-226.0%	-234.3%	-6.2%	63	
48	SBA Communications Corporation	SBAC	Real Estate	\$19,202	\$1,860	9.7%	25.7%	18.8%	5.8%	NA	NA	NA	NA	
49	The Progressive Corporation	PGR	Insurance	\$32,756	\$1,008	3.1%	25.7%	23.0%	2.1%	131.4%	139.6%	-3.5%	129	
50	Anthem, Inc.	ANTM	Healthcare Equipment and Services	\$57,774	\$7,683	13.3%	25.6%	31.5%	-4.5%	NA	NA	NA	97	
51	Regions Financial Corporation	RF	Banks	\$20,044	\$3,333	16.6%	25.1%	20.8%	3.6%	26.4%	59.1%	-20.6%	52	
52	Apple Inc.	AAPL	Technology Hardware and Equipment	\$860,882	\$173,880	20.2%	25.0%	17.5%	6.4%	53.4%	100.0%	-23.3%	125	
53	McDonald's Corporation	MCD	Consumer Services	\$137,212	\$26,932	19.6%	24.9%	17.3%	6.5%	-50.0%	-36.8%	-20.8%	200	
54	Humana Inc.	HUM	Healthcare Equipment and Services	\$34,625	\$5,274	15.2%	24.9%	29.7%	-3.7%	-4.2%	10.1%	-13.0%	36	

Appendix III - Complete Buyback ROI Ranking

Source: Fortuna Advisors Analysis using data from the Capital IQ database.

Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.



Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
55	Morgan Stanley	MS	Diversified Financials	\$94,860	\$13,147	13.9%	24.8%	25.7%	-0.7%	8.2%	18.5%	-8.6%	80	
56	Mastercard Incorporated	MA	Software and Services	\$160,239	\$16,620	10.4%	24.7%	26.4%	-1.4%	-62.5%	-56.2%	-14.4%	79	
57	Masco Corporation	MAS	Capital Goods	\$13,822	\$1,439	10.4%	24.7%	25.7%	-0.8%	NA	NA	NA	42	
58	Visa Inc.	V	Software and Services	\$258,392	\$27,416	10.6%	24.5%	26.0%	-1.2%	95.1%	127.8%	-14.4%	66	
59	The Home Depot, Inc.	HD	Retailing	\$221,323	\$37,426	16.9%	24.5%	25.3%	-0.6%	74.2%	124.5%	-22.4%	49	
60	JPMorgan Chase & Co.	JPM	Banks	\$371,048	\$39,657	10.7%	24.4%	22.5%	1.6%	-25.7%	-17.1%	-10.3%	69	
61	Comerica Incorporated	CMA	Banks	\$15,098	\$1,658	11.0%	24.4%	24.2%	0.2%	-13.8%	-6.5%	-7.9%	73	
62	Symantec Corporation	SYMC	Software and Services	\$17,397	\$3,243	18.6%	24.3%	17.6%	5.7%	521.3%	588.9%	-9.8%	51	
63	Tyson Foods, Inc.	TSN	Food, Beverage and Tobacco	\$29,783	\$4,257	14.3%	24.3%	35.2%	-8.0%	842.8%	809.5%	3.7%	12	
64	Illinois Tool Works Inc.	ITW	Capital Goods	\$57,163	\$9,989	17.5%	24.0%	24.0%	0.0%	-107.8%	-110.3%	-24.9%	57	
65	The PNC Financial Services Group, Inc.	PNC	Banks	\$68,653	\$7,861	11.5%	24.0%	21.6%	2.0%	189.7%	224.6%	-10.8%	106	
66	M&T Bank Corporation	MTB	Banks	\$25,737	\$1,847	7.2%	23.9%	13.4%	9.3%	8.8%	-5.6%	15.4%	NA	
67	Intuit Inc.	INTU	Software and Services	\$40,336	\$5,167	12.8%	23.9%	21.8%	1.7%	-129.6%	-134.2%	-13.6%	88	
68	Rockwell Automation Inc.	ROK	Capital Goods	\$25,210	\$2,435	9.7%	23.7%	22.8%	0.8%	-246.5%	-260.2%	-8.6%	149	
69	Waste Management, Inc.	WM	Commercial and Professional Services	\$37,473	\$2,914	7.8%	23.6%	23.7%	-0.1%	303.1%	333.7%	-7.1%	37	
70	TransDigm Group Incorporated	TDG	Capital Goods	\$14,269	\$757	5.3%	23.5%	26.3%	-2.2%	324.4%	306.9%	4.3%	NA	
71	Corning Incorporated	GLW	Technology Hardware and Equipment	\$27,634	\$13,957	50.5%	23.3%	23.4%	-0.1%	-1011.0%	-1679.9%	-42.3%	91	
72	Stryker Corporation	SYK	Healthcare Equipment and Services	\$57,947	\$1,360	2.3%	23.1%	25.0%	-1.5%	-192.2%	-193.2%	-1.1%	70	
73	Amphenol Corporation	APH	Technology Hardware and Equipment	\$26,809	\$2,057	7.7%	23.0%	24.6%	-1.3%	-173.7%	-177.0%	-4.4%	60	
74	ANSYS, Inc.	ANSS	Software and Services	\$12,525	\$1,360	10.9%	23.0%	15.7%	6.3%	-6.2%	3.9%	-9.8%	NA	
75	Analogue Devices, Inc.	ADI	Semiconductors and Semiconductor Equipment	\$32,820	\$1,055	3.2%	23.0%	20.3%	2.2%	104.4%	69.1%	20.9%	84	
76	VeriSign, Inc.	VRSN	Software and Services	\$11,280	\$3,846	34.1%	23.0%	21.8%	1.0%	-2.7%	52.9%	-36.3%	108	
77	Carnival Corporation	CCL	Consumer Services	\$47,579	\$3,563	7.5%	22.9%	15.0%	6.9%	487.1%	537.3%	-7.9%	199	
78	Fiserv, Inc.	FISV	Software and Services	\$27,327	\$5,252	19.2%	22.9%	27.6%	-3.7%	NA	NA	NA	30	
79	Citigroup Inc.	C	Banks	\$196,740	\$33,461	17.0%	22.8%	15.7%	6.2%	-1679.7%	-1976.7%	-15.8%	213	
80	Alphabet Inc.	GOOQ	Software and Services	\$729,458	\$10,319	1.4%	22.8%	NA	NA	NA	NA	NA	170	
81	TE Connectivity Ltd.	TEL	Technology Hardware and Equipment	\$33,420	\$5,620	16.8%	22.5%	24.1%	-1.3%	-114.4%	-117.3%	-16.4%	148	
82	General Dynamics Corporation	GD	Capital Goods	\$60,747	\$10,865	17.9%	22.2%	27.8%	-4.4%	NA	NA	NA	50	
83	Thermo Fisher Scientific Inc.	TMO	Pharmaceuticals, Biotechnology and Life Sciences	\$76,141	\$2,593	3.4%	22.0%	26.0%	-3.2%	40.3%	24.9%	12.3%	33	
84	Albemarle Corporation	ALB	Materials	\$14,131	\$882	6.2%	21.8%	20.9%	0.7%	-678.8%	-564.4%	24.6%	183	
85	Valero Energy Corporation	VLO	Energy	\$40,218	\$7,561	18.8%	21.8%	27.5%	-4.5%	134.8%	201.9%	-22.2%	121	
86	Xilinx, Inc.	XLNX	Semiconductors and Semiconductor Equipment	\$16,919	\$2,325	13.7%	21.6%	18.7%	2.4%	-88.5%	-88.2%	-2.6%	130	
87	Agilent Technologies, Inc.	A	Pharmaceuticals, Biotechnology and Life Sciences	\$21,633	\$1,963	9.1%	21.5%	21.1%	0.3%	-278.8%	-292.5%	-7.1%	164	
88	Lincoln National Corporation	LNC	Insurance	\$16,821	\$3,404	20.2%	21.4%	27.0%	-4.5%	153.9%	215.8%	-19.6%	61	
89	Unum Group	UNM	Insurance	\$12,317	\$1,848	15.0%	21.3%	23.9%	-2.1%	14.1%	38.0%	-17.3%	100	
90	Moody's Corporation	MCO	Diversified Financials	\$28,208	\$4,354	15.4%	21.3%	27.2%	-4.6%	-84.1%	-81.4%	-14.2%	156	
91	Republic Services, Inc.	RSG	Commercial and Professional Services	\$22,597	\$2,034	9.0%	21.2%	21.2%	0.0%	423.1%	473.3%	-8.8%	54	
92	SunTrust Banks, Inc.	STI	Banks	\$30,747	\$3,417	11.1%	21.1%	19.3%	1.5%	107.9%	139.2%	-13.1%	68	
93	Parker-Hannifin Corporation	PH	Capital Goods	\$26,589	\$2,764	10.4%	21.0%	20.2%	0.7%	-69.0%	-65.2%	-10.8%	173	
94	Nasdaq, Inc.	NDAQ	Diversified Financials	\$12,771	\$868	6.8%	20.9%	28.0%	-5.5%	186.0%	184.5%	0.5%	21	
95	The Sherwin-Williams Company	SHW	Materials	\$38,142	\$3,293	8.6%	20.9%	22.6%	-1.4%	1218.7%	1355.6%	-9.4%	138	
96	Principal Financial Group, Inc.	PFG	Insurance	\$20,375	\$1,175	5.8%	20.5%	23.6%	-2.5%	277.2%	282.0%	-1.3%	64	
97	Rockwell Collins, Inc.	COL	Capital Goods	\$22,204	\$946	4.3%	20.5%	21.2%	-0.6%	112.1%	76.7%	20.0%	179	
98	Accenture plc	ACN	Software and Services	\$94,406	\$13,153	13.9%	20.5%	18.8%	1.4%	60.8%	62.5%	-1.1%	71	
99	3M Company	MMM	Capital Goods	\$140,188	\$21,923	15.6%	20.5%	23.3%	-2.3%	-47.2%	-38.7%	-13.9%	113	
100	The Allstate Corporation	ALL	Insurance	\$37,573	\$9,775	26.0%	20.5%	21.8%	-1.1%	217.0%	328.6%	-26.0%	139	
101	Ameriprise Financial, Inc.	AMP	Diversified Financials	\$25,070	\$8,093	32.3%	20.1%	24.9%	-3.8%	-53.5%	-35.4%	-27.9%	188	
102	Intercontinental Exchange, Inc.	ICE	Diversified Financials	\$41,279	\$2,560	6.2%	20.0%	22.7%	-2.2%	843.1%	18.1%	698.5%	86	
103	Hasbro, Inc.	HAS	Consumer Durables and Apparel	\$11,321	\$953	8.4%	20.0%	23.7%	-3.0%	-104.1%	-104.2%	-2.9%	34	
104	Honeywell International Inc.	HON	Capital Goods	\$116,064	\$8,849	7.6%	19.9%	21.9%	-1.6%	-1060.6%	-1104.4%	-4.4%	153	
105	Marsh & McLennan Companies, Inc.	MMC	Insurance	\$41,538	\$4,430	10.7%	19.8%	21.8%	-1.6%	-88.8%	-87.9%	-7.3%	85	
106	Aon plc	AON	Insurance	\$33,503	\$8,616	25.7%	19.7%	22.2%	-2.1%	-106.2%	-107.9%	-21.0%	83	
107	Fidelity National Information Services, Inc.	FIS	Software and Services	\$31,414	\$1,385	4.4%	19.6%	24.5%	-4.0%	NA	NA	NA	59	
108	Ross Stores, Inc.	ROST	Retailing	\$30,667	\$3,602	11.7%	19.4%	20.5%	-0.9%	90.5%	123.7%	-14.9%	31	
109	HP Inc.	HPQ	Technology Hardware and Equipment	\$34,566	\$9,624	27.8%	19.4%	30.9%	-8.8%	57.3%	86.3%	-15.6%	185	

Appendix III - Complete Buyback ROI Ranking

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Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.



Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
110	Waters Corporation	WAT	Pharmaceuticals, Biotechnology and Life Sciences	\$15,365	\$1,632	10.6%	19.3%	18.1%	1.0%	-300.7%	-320.2%	-8.8%	155	
111	Andeavor	ANDV	Energy	\$17,988	\$1,727	9.6%	19.1%	24.2%	-4.1%	NA	NA	NA	NA	
112	Norfolk Southern Corporation	NSC	Transportation	\$41,463	\$3,835	9.2%	19.1%	19.7%	-0.5%	860.8%	966.5%	-9.9%	177	
113	BlackRock, Inc.	BLK	Diversified Financials	\$82,913	\$6,756	8.1%	19.1%	23.3%	-3.4%	233.9%	255.6%	-6.1%	109	
114	PerkinElmer, Inc.	PKI	Pharmaceuticals, Biotechnology and Life Sciences	\$8,060	\$425	5.3%	18.9%	19.3%	-0.3%	NA	NA	NA	176	
115	Torchmark Corporation	TMK	Insurance	\$10,472	\$1,767	16.9%	18.6%	21.3%	-2.2%	580.2%	736.7%	-18.7%	81	
116	The Estée Lauder Companies Inc.	EL	Household and Personal Products	\$46,854	\$3,412	7.3%	18.4%	16.4%	1.7%	-72.5%	-71.1%	-4.9%	263	
117	Deere & Company	DE	Capital Goods	\$50,489	\$7,158	14.2%	18.4%	13.4%	4.4%	-182.4%	-199.1%	-16.9%	250	
118	Cognizant Technology Solutions Corporation	CTSH	Software and Services	\$41,877	\$3,288	7.9%	18.1%	16.3%	1.6%	-106.5%	-106.6%	-2.6%	242	
119	T. Rowe Price Group, Inc.	TROW	Diversified Financials	\$25,426	\$2,552	10.0%	18.1%	12.2%	5.3%	49.6%	57.2%	-4.8%	299	
120	Booking Holdings Inc.	BKNG	Retailing	\$84,749	\$7,562	8.9%	18.1%	23.9%	-4.7%	-292.4%	-298.7%	-3.2%	NA	
121	illumina, Inc.	ILMN	Pharmaceuticals, Biotechnology and Life Sciences	\$31,900	\$1,062	3.3%	18.0%	33.1%	-11.3%	-5.4%	-20.2%	18.5%	209	
122	Wyndham Worldwide Corporation	WYN	Consumer Services	\$11,741	\$2,813	24.0%	17.9%	18.9%	-0.8%	461.3%	669.0%	-27.0%	254	
123	Willis Towers Watson Public Limited Company	WLTW	Insurance	\$19,897	\$1,400	7.0%	17.8%	14.0%	3.3%	NA	NA	NA	248	
124	Automatic Data Processing, Inc.	ADP	Software and Services	\$51,973	\$5,180	10.0%	17.6%	20.8%	-2.6%	19.6%	30.9%	-8.6%	107	
125	Fifth Third Bancorp	FITB	Banks	\$21,407	\$5,090	23.8%	17.6%	17.5%	0.1%	27.9%	65.1%	-22.6%	120	
126	FedEx Corporation	FDX	Transportation	\$66,849	\$9,612	14.4%	17.5%	21.3%	-3.1%	76.9%	109.8%	-15.7%	122	
127	Expedia Group, Inc.	EXPE	Retailing	\$18,264	\$1,668	9.1%	17.5%	18.6%	-1.0%	719.1%	636.3%	11.2%	22	
128	ResMed Inc.	RMD	Healthcare Equipment and Services	\$12,018	\$611	5.1%	17.3%	17.4%	-0.1%	-87.8%	-87.7%	-0.4%	NA	
129	Cummins Inc.	CMI	Capital Goods	\$29,317	\$3,180	10.8%	17.1%	14.6%	2.2%	-174.3%	-185.7%	-13.3%	197	
130	Prudential Financial, Inc.	PRU	Insurance	\$48,836	\$6,771	13.9%	17.1%	19.4%	-1.9%	NA	NA	NA	110	
131	Caterpillar Inc.	CAT	Capital Goods	\$93,750	\$8,264	8.8%	17.1%	13.7%	3.0%	-286.4%	-304.3%	-8.8%	273	
132	Assurant, Inc.	AIZ	Insurance	\$5,426	\$2,153	39.7%	17.0%	24.5%	-6.0%	1152.3%	1781.8%	-33.5%	48	
133	Aptiv PLC	APTIV	Automobiles and Components	\$22,551	\$3,657	16.2%	16.9%	26.4%	-7.6%	88.2%	123.5%	-15.8%	NA	
134	Gartner, Inc.	IT	Software and Services	\$11,164	\$1,223	11.0%	16.8%	21.2%	-3.6%	82.4%	87.5%	-2.7%	116	
135	Sysco Corporation	SYYS	Food and Staples Retailing	\$31,644	\$5,519	17.4%	16.8%	16.0%	0.7%	28.3%	44.1%	-10.9%	62	
136	Monster Beverage Corporation	MNST	Food, Beverage and Tobacco	\$35,693	\$3,497	9.8%	16.8%	28.8%	-9.3%	196.1%	159.7%	14.0%	93	
137	Citrix Systems, Inc.	CTXS	Software and Services	\$13,259	\$4,157	31.3%	16.8%	10.6%	5.6%	-349.0%	-441.3%	-27.1%	150	
138	Intel Corporation	INTC	Semiconductors and Semiconductor Equipment	\$216,029	\$23,629	10.9%	16.7%	19.6%	-2.4%	-127.8%	-129.4%	-5.4%	166	
139	Martin Marietta Materials, Inc.	MLM	Materials	\$13,894	\$901	6.5%	16.6%	20.5%	-3.2%	1651.6%	1179.7%	36.9%	5	
140	Baxter International Inc.	BAX	Healthcare Equipment and Services	\$35,218	\$2,086	5.9%	16.5%	15.3%	1.0%	-114.4%	-114.5%	-1.0%	186	
141	Fortune Brands Home & Security, Inc.	FBHS	Capital Goods	\$10,389	\$1,002	9.6%	16.4%	19.5%	-2.6%	595.7%	672.3%	-9.9%	140	
142	Quanta Services, Inc.	PWR	Capital Goods	\$6,070	\$1,750	28.8%	16.3%	8.0%	7.7%	14.7%	58.6%	-27.7%	123	
143	PVH Corp.	PVH	Consumer Durables and Apparel	\$10,555	\$792	7.5%	16.3%	4.5%	11.3%	34.4%	40.7%	-4.5%	259	
144	Northern Trust Corporation	NTRS	Diversified Financials	\$22,717	\$2,222	9.8%	16.3%	17.1%	-0.7%	112.6%	125.4%	-5.7%	126	
145	AMETEK, Inc.	AME	Capital Goods	\$16,749	\$1,033	6.2%	16.3%	14.7%	1.4%	98.9%	109.2%	-4.9%	323	
146	Ingersoll-Rand Plc	IR	Capital Goods	\$22,286	\$4,105	18.4%	16.1%	20.9%	-3.9%	95.2%	131.5%	-15.7%	102	
147	The Hartford Financial Services Group, Inc.	HIG	Insurance	\$20,076	\$5,226	26.0%	16.1%	23.3%	-5.8%	NA	NA	NA	145	
148	The Bank of New York Mellon Corporation	BK	Diversified Financials	\$55,154	\$10,134	18.4%	16.0%	19.1%	-2.6%	85.0%	113.3%	-13.3%	104	
149	Altria Group, Inc.	MO	Food, Beverage and Tobacco	\$136,264	\$6,074	4.5%	16.0%	20.6%	-3.8%	350.2%	377.6%	-5.7%	32	
150	Cisco Systems, Inc.	CSCO	Technology Hardware and Equipment	\$189,341	\$31,575	16.7%	15.9%	17.5%	-1.3%	-379.3%	-409.1%	-9.6%	127	
151	FLIR Systems, Inc.	FLIR	Technology Hardware and Equipment	\$6,460	\$491	7.6%	15.9%	19.5%	-3.0%	-165.1%	-167.8%	-4.0%	191	
152	Motorola Solutions, Inc.	MSI	Technology Hardware and Equipment	\$14,656	\$8,196	55.9%	15.6%	13.8%	1.5%	-271.1%	-388.2%	-40.6%	141	
153	Johnson & Johnson	JNJ	Pharmaceuticals, Biotechnology and Life Sciences	\$375,361	\$31,367	8.4%	15.5%	18.0%	-2.2%	-517.3%	-535.1%	-4.1%	112	
154	Lowe's Companies, Inc.	LOW	Retailing	\$77,118	\$18,327	23.8%	15.5%	21.9%	-5.2%	91.7%	157.7%	-25.6%	67	
155	Bristol-Myers Squibb Company	BMJ	Pharmaceuticals, Biotechnology and Life Sciences	\$100,297	\$3,133	3.1%	15.5%	16.9%	-1.2%	-351.7%	-352.9%	-0.5%	117	
156	eBay Inc.	EBAY	Software and Services	\$39,422	\$11,682	29.6%	15.4%	12.2%	2.9%	-446.8%	-552.0%	-23.3%	171	
157	Dollar Tree, Inc.	DLTR	Retailing	\$25,443	\$1,112	4.4%	15.4%	19.0%	-3.1%	355.0%	330.6%	5.7%	136	
158	Aflac Incorporated	AFL	Insurance	\$34,511	\$6,111	17.7%	15.3%	13.5%	1.6%	344.6%	433.2%	-16.6%	193	
159	Huntington Bancshares Incorporated	HBAN	Banks	\$15,739	\$973	6.2%	15.2%	19.8%	-3.8%	158.0%	97.4%	30.7%	131	
160	Textron Inc.	TXT	Capital Goods	\$14,907	\$1,382	9.3%	15.2%	17.5%	-2.0%	-171.6%	-175.2%	-4.8%	162	
161	KeyCorp	KEY	Banks	\$21,691	\$1,963	9.0%	15.1%	20.1%	-4.2%	-3.4%	-15.2%	13.9%	115	
162	General Motors Company	GM	Automobiles and Components	\$58,223	\$14,731	25.3%	15.0%	15.0%	0.0%	-531.4%	-521.1%	2.4%	229	
163	Marathon Petroleum Corporation	MPC	Energy	\$32,225	\$8,458	26.2%	15.0%	19.3%	-3.7%	167.0%	272.5%	-28.3%	182	
164	The Goldman Sachs Group, Inc.	GS	Diversified Financials	\$96,096	\$28,629	29.8%	14.8%	16.8%	-1.7%	-166.7%	-181.9%	-18.6%	142	

Appendix III - Complete Buyback ROI Ranking

Source: Fortuna Advisors Analysis using data from the Capital IQ database.

Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.



Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
165	J.B. Hunt Transport Services, Inc.	JBHT	Transportation	\$12,619	\$1,036	8.2%	14.8%	14.3%	0.4%	358.8%	391.4%	-6.6%	192	
166	Everest Re Group, Ltd.	RE	Insurance	\$9,087	\$1,982	21.8%	14.8%	18.2%	-2.9%	871.5%	1115.5%	-20.1%	NA	
167	Chubb Limited	CB	Insurance	\$67,837	\$3,275	4.8%	14.4%	16.2%	-1.5%	100.4%	46.2%	37.1%	158	
168	NRG Energy, Inc.	NRG	Utilities	\$9,018	\$501	5.6%	14.4%	6.4%	7.5%	-708.7%	-719.3%	-1.7%	353	
169	Walmart Inc.	WMT	Food and Staples Retailing	\$292,535	\$28,404	9.7%	14.3%	7.7%	6.1%	-61.2%	-56.7%	-10.4%	280	
170	Tiffany & Co.	TIF	Retailing	\$12,919	\$530	4.1%	14.3%	11.5%	2.5%	-65.5%	-64.8%	-2.1%	268	
171	Varian Medical Systems, Inc.	VAR	Healthcare Equipment and Services	\$10,183	\$2,006	19.7%	14.2%	12.7%	1.3%	-217.9%	-240.9%	-16.3%	233	
172	State Street Corporation	STT	Diversified Financials	\$36,197	\$8,758	24.2%	14.1%	18.7%	-3.8%	-21.3%	-2.2%	-19.5%	181	
173	Jacobs Engineering Group Inc.	JEC	Capital Goods	\$7,950	\$750	9.4%	14.1%	9.1%	4.6%	-97.8%	-98.0%	8.7%	111	
174	Dr Pepper Snapple Group, Inc.	DPS	Food, Beverage and Tobacco	\$17,523	\$2,239	12.8%	14.0%	18.4%	-3.7%	198.8%	239.1%	-11.9%	53	
175	Weyerhaeuser Company	WY	Real Estate	\$26,615	\$2,524	9.5%	13.9%	9.2%	4.4%	89.5%	36.3%	39.0%	220	
176	NetApp, Inc.	NTAP	Technology Hardware and Equipment	\$14,759	\$5,342	36.2%	13.9%	12.3%	1.4%	-420.1%	-530.5%	-25.7%	290	
177	Quest Diagnostics Incorporated	DGX	Healthcare Equipment and Services	\$13,424	\$2,398	17.9%	13.8%	12.1%	1.5%	NA	NA	NA	119	
178	Kansas City Southern	KSU	Transportation	\$10,895	\$755	6.9%	13.7%	7.5%	5.7%	501.0%	542.4%	-6.4%	303	
179	The Travelers Companies, Inc.	TRV	Insurance	\$37,124	\$12,929	34.8%	13.6%	15.8%	-2.0%	81.3%	152.4%	-28.2%	152	
180	Eaton Corporation plc	ETN	Capital Goods	\$34,812	\$2,912	8.4%	13.5%	12.8%	0.6%	257.0%	285.1%	-7.3%	243	
181	Union Pacific Corporation	UNP	Transportation	\$105,559	\$16,026	15.2%	13.4%	17.0%	-3.0%	602.5%	750.2%	-17.4%	207	
182	Costco Wholesale Corporation	COST	Food and Staples Retailing	\$81,726	\$1,916	2.3%	13.4%	16.0%	-2.2%	53.8%	53.0%	0.6%	137	
183	Expeditors International of Washington, Inc.	EXPD	Transportation	\$11,496	\$2,259	19.6%	13.4%	12.3%	0.9%	98.3%	133.8%	-15.2%	198	
184	Amgen Inc.	AMGN	Pharmaceuticals, Biotechnology and Life Sciences	\$126,236	\$8,962	7.1%	13.3%	17.8%	-3.8%	-641.1%	-662.0%	-3.7%	82	
185	BB&T Corporation	BBT	Banks	\$39,225	\$2,771	7.1%	13.2%	13.6%	-0.3%	22.8%	10.5%	11.1%	NA	
186	Comcast Corporation	CMCSA	Media	\$187,185	\$23,788	12.7%	13.1%	17.4%	-3.6%	887.2%	1022.0%	-12.0%	96	
187	Eli Lilly and Company	LLY	Pharmaceuticals, Biotechnology and Life Sciences	\$88,445	\$4,148	4.7%	13.1%	15.0%	-1.6%	-300.3%	-307.0%	-3.2%	157	
188	Abbott Laboratories	ABT	Healthcare Equipment and Services	\$99,336	\$6,375	6.4%	13.1%	14.3%	-1.1%	-178.6%	-170.7%	11.2%	255	
189	Ball Corporation	BLL	Materials	\$13,250	\$1,176	8.9%	13.0%	14.2%	-1.1%	162.4%	122.9%	17.7%	98	
190	The Clorox Company	CLX	Household and Personal Products	\$19,178	\$1,256	6.5%	13.0%	16.1%	-2.7%	89.4%	91.7%	-1.2%	178	
191	U.S. Bancorp	USB	Banks	\$88,916	\$11,859	13.3%	12.5%	13.0%	-0.5%	18.5%	33.7%	-1.4%	169	
192	Delta Air Lines, Inc.	DAL	Transportation	\$39,771	\$7,828	19.7%	12.4%	40.1%	-19.7%	9433.3%	11418.9%	-17.2%	212	
193	Brown-Forman Corporation	BF.B	Food, Beverage and Tobacco	\$26,151	\$2,180	8.3%	12.4%	15.4%	-2.6%	21.0%	37.0%	-11.7%	313	
194	Time Warner Inc.	TWX	Media	\$71,218	\$13,090	18.4%	12.3%	18.8%	-5.5%	24.9%	49.7%	-16.6%	78	
195	Phillips 66	PSX	Energy	\$51,257	\$8,672	16.9%	12.2%	17.4%	-4.4%	NA	NA	NA	NA	
196	Garmin Ltd.	GRMN	Consumer Durables and Apparel	\$11,169	\$668	6.0%	12.2%	12.9%	-0.6%	7.3%	11.6%	-3.8%	241	
197	Equifax Inc.	EFX	Commercial and Professional Services	\$14,160	\$587	4.1%	12.2%	18.5%	-5.3%	272.1%	271.1%	0.3%	NA	
198	Laboratory Corporation of America Holdings	LH	Healthcare Equipment and Services	\$16,238	\$1,667	10.3%	11.8%	12.1%	-0.3%	488.0%	436.7%	9.6%	205	
199	Dover Corporation	DOV	Capital Goods	\$15,733	\$1,767	11.2%	11.8%	16.1%	-3.7%	85.4%	109.6%	-11.5%	236	
200	People's United Financial, Inc.	PBCT	Banks	\$6,349	\$474	7.5%	11.7%	13.8%	-1.9%	73.7%	68.8%	2.9%	147	
201	Verisk Analytics, Inc.	VRSK	Commercial and Professional Services	\$15,810	\$1,679	10.6%	11.7%	13.2%	-1.3%	NA	NA	NA	159	
202	CarMax Inc.	KMX	Retailing	\$11,639	\$3,402	29.2%	11.7%	15.9%	-3.6%	57.2%	99.5%	-21.2%	274	
203	Host Hotels & Resorts, Inc.	HST	Real Estate	\$14,691	\$894	6.1%	11.6%	9.6%	1.8%	513.3%	501.1%	2.0%	279	
204	Alaska Air Group, Inc.	ALK	Transportation	\$9,045	\$1,280	14.2%	11.5%	30.0%	-14.2%	747.7%	862.4%	-11.9%	20	
205	V.F. Corporation	VFC	Consumer Durables and Apparel	\$29,241	\$3,835	13.1%	11.4%	14.8%	-3.0%	-127.0%	-130.2%	-10.6%	292	
206	American Express Company	AXP	Diversified Financials	\$86,201	\$21,750	25.2%	11.2%	12.6%	-1.2%	-287.9%	-340.7%	-21.9%	294	
207	McCormick & Company, Incorporated	MKC	Food, Beverage and Tobacco	\$13,334	\$948	7.1%	11.2%	11.7%	-0.5%	18.3%	19.6%	-1.1%	146	
208	Dollar General Corporation	DG	Retailing	\$25,258	\$4,290	17.0%	11.0%	13.4%	-2.1%	124.4%	173.2%	-17.9%	224	
209	LyondellBasell Industries N.V.	LYB	Materials	\$43,517	\$16,197	37.2%	11.0%	19.3%	-6.9%	199.7%	337.0%	-31.4%	286	
210	International Paper Company	IP	Materials	\$23,925	\$1,448	6.1%	10.9%	13.1%	-2.0%	521.3%	565.6%	-6.7%	245	
211	Cerner Corporation	CERN	Healthcare Equipment and Services	\$22,401	\$1,606	7.2%	10.9%	12.5%	-1.5%	201.1%	211.8%	-3.4%	314	
212	C.H. Robinson Worldwide, Inc.	CHRW	Transportation	\$12,446	\$1,642	13.2%	10.9%	8.5%	2.1%	-40.5%	-32.5%	-11.9%	221	
213	PepsiCo, Inc.	PEP	Food, Beverage and Tobacco	\$170,543	\$18,013	10.6%	10.9%	13.6%	-2.4%	-142.7%	-147.0%	-9.1%	174	
214	Snap-on Incorporated	SNA	Capital Goods	\$9,936	\$682	6.9%	10.8%	18.0%	-6.1%	53.1%	57.7%	-2.9%	56	
215	Capital One Financial Corporation	COF	Diversified Financials	\$48,270	\$9,403	19.5%	10.7%	11.3%	-0.5%	-215.2%	-238.0%	-16.5%	230	
216	Discover Financial Services	DFS	Diversified Financials	\$27,951	\$8,564	30.6%	10.7%	13.4%	-2.4%	69.7%	137.8%	-28.6%	151	
217	Oracle Corporation	ORCL	Software and Services	\$195,720	\$40,124	20.5%	10.6%	10.8%	-0.1%	-13.5%	-0.2%	-13.3%	258	
218	Duke Energy Corporation	DUK	Utilities	\$58,875	\$1,500	2.5%	10.6%	11.2%	-0.5%	61.6%	57.9%	2.3%	257	
219	Leggett & Platt, Incorporated	LEG	Consumer Durables and Apparel	\$6,292	\$846	13.4%	10.4%	16.0%	-4.8%	-50.6%	-46.5%	-7.8%	99	

Appendix III - Complete Buyback ROI Ranking

Source: Fortuna Advisors Analysis using data from the Capital IQ database.

Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.



Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
220	BorgWarner Inc.	BWA	Automobiles and Components	\$10,772	\$1,119	10.4%	10.3%	10.6%	-0.3%	-220.6%	-232.9%	-9.2%	318	
221	NIKE, Inc.	NKE	Consumer Durables and Apparel	\$102,051	\$13,894	13.6%	10.2%	20.5%	-8.5%	99.7%	122.0%	-10.0%	167	
222	MetLife, Inc.	MET	Insurance	\$53,204	\$5,277	9.9%	10.0%	15.2%	-4.5%	1774.8%	1883.6%	-5.5%	272	
223	United Technologies Corporation	UTX	Capital Goods	\$101,874	\$15,647	15.4%	9.8%	11.5%	-1.5%	-80.7%	-77.8%	-12.9%	267	
224	Philip Morris International Inc.	PM	Food, Beverage and Tobacco	\$164,096	\$9,844	6.0%	9.8%	8.4%	1.3%	-66.9%	-64.9%	-5.7%	251	
225	Ecolab Inc.	ECL	Materials	\$38,767	\$2,831	7.3%	9.7%	15.1%	-4.8%	144.6%	150.7%	-2.5%	211	
226	United Parcel Service, Inc.	UPS	Transportation	\$102,675	\$13,726	13.4%	9.6%	13.2%	-3.2%	NA	NA	NA	180	
227	Loews Corporation	L	Insurance	\$16,842	\$2,380	14.1%	9.2%	4.2%	4.8%	NA	NA	NA	253	
228	Praxair, Inc.	PX	Materials	\$44,286	\$2,417	5.5%	9.1%	9.3%	-0.2%	-92.0%	-91.8%	-2.9%	281	
229	Pfizer Inc.	PFE	Pharmaceuticals, Biotechnology and Life Sciences	\$215,897	\$36,127	16.7%	9.1%	11.4%	-2.0%	94.4%	134.8%	-17.2%	223	
230	Celgene Corporation	CELG	Pharmaceuticals, Biotechnology and Life Sciences	\$82,164	\$15,000	18.3%	8.9%	23.9%	-12.1%	-130.8%	-134.3%	-10.2%	65	
231	Robert Half International Inc.	RHI	Commercial and Professional Services	\$6,840	\$1,001	14.6%	8.8%	15.9%	-6.1%	-19.7%	-8.4%	-12.4%	269	
232	PPG Industries, Inc.	PPG	Materials	\$29,728	\$4,364	14.7%	8.8%	15.3%	-5.7%	-35.2%	-25.8%	-12.8%	276	
233	Church & Dwight Co., Inc.	CHD	Household and Personal Products	\$12,539	\$1,692	13.5%	8.5%	13.9%	-4.8%	402.0%	468.2%	-11.6%	135	
234	Medtronic plc	MDT	Healthcare Equipment and Services	\$109,295	\$12,811	11.7%	8.5%	15.9%	-6.4%	-240.6%	-205.2%	33.7%	124	
235	Eastman Chemical Company	EMN	Materials	\$13,316	\$1,269	9.5%	8.3%	11.1%	-2.5%	NA	NA	NA	306	
236	Wells Fargo & Company	WFC	Banks	\$298,755	\$42,378	14.2%	8.2%	14.1%	-5.1%	24.2%	34.3%	-7.5%	247	
237	The Hershey Company	HSY	Food, Beverage and Tobacco	\$23,916	\$2,359	9.9%	8.1%	11.4%	-3.0%	20.9%	28.7%	-6.1%	227	
238	Invesco Ltd.	IVZ	Diversified Financials	\$14,875	\$1,580	10.6%	8.1%	11.1%	-2.8%	157.2%	176.1%	-6.8%	278	
239	Starbucks Corporation	SBUX	Consumer Services	\$81,711	\$7,997	9.8%	7.8%	19.3%	-9.7%	420.6%	455.1%	-6.2%	90	
240	Ulta Beauty, Inc.	ULTA	Retailing	\$13,642	\$968	7.1%	7.7%	17.4%	-8.2%	222.6%	239.4%	-5.0%	NA	
241	Biogen Inc.	BIIB	Pharmaceuticals, Biotechnology and Life Sciences	\$67,370	\$8,653	12.8%	7.5%	18.8%	-9.5%	-201.8%	-213.7%	-10.5%	225	
242	CA, Inc.	CA	Software and Services	\$13,929	\$1,672	12.0%	7.4%	11.2%	-3.4%	-137.1%	-140.5%	-8.6%	219	
243	XL Group Ltd	XL	Insurance	\$9,001	\$3,569	39.7%	7.3%	11.7%	-4.0%	-64.6%	-59.5%	-12.6%	215	
244	The Coca-Cola Company	KO	Food, Beverage and Tobacco	\$195,479	\$19,326	9.9%	7.3%	7.5%	-0.2%	-247.5%	-254.1%	-4.3%	266	
245	DENTSPLY SIRONA Inc.	XRAY	Healthcare Equipment and Services	\$15,120	\$1,609	10.6%	7.2%	11.1%	-3.5%	-612.9%	-422.3%	59.2%	244	
246	The Western Union Company	WU	Software and Services	\$8,731	\$2,413	27.6%	7.1%	9.6%	-2.3%	-571.2%	-681.8%	-19.0%	184	
247	The Walt Disney Company	DIS	Media	\$162,048	\$33,845	20.9%	7.1%	17.3%	-8.7%	220.0%	284.3%	-16.7%	165	
248	O'Reilly Automotive, Inc.	ORLY	Retailing	\$20,453	\$6,614	32.3%	6.9%	20.4%	-11.3%	127.6%	204.3%	-25.2%	19	
249	Emerson Electric Co.	EMR	Capital Goods	\$44,507	\$5,587	12.6%	6.7%	8.7%	-1.9%	-13.7%	-1.8%	-12.1%	295	
250	The Procter & Gamble Company	PG	Household and Personal Products	\$234,120	\$22,720	9.7%	6.7%	8.9%	-2.0%	-38.5%	-32.9%	-8.3%	234	
251	United Continental Holdings, Inc.	UAL	Transportation	\$19,967	\$6,003	30.1%	6.6%	24.4%	-14.3%	NA	NA	NA	44	
252	HCA Healthcare, Inc.	HCA	Healthcare Equipment and Services	\$31,100	\$9,449	30.4%	6.4%	22.5%	-13.2%	51.0%	90.8%	-20.9%	249	
253	Colgate-Palmolive Company	CL	Household and Personal Products	\$66,253	\$7,336	11.1%	6.2%	8.9%	-2.5%	-46.0%	-42.2%	-6.5%	238	
254	Michael Kors Holdings Limited	KORS	Consumer Durables and Apparel	\$9,573	\$2,816	29.4%	6.2%	0.8%	5.3%	68.7%	121.3%	-23.8%	NA	
255	The TJX Companies, Inc.	TJX	Retailing	\$48,346	\$8,295	17.2%	6.1%	12.4%	-5.7%	45.0%	68.7%	-14.0%	144	
256	The Goodyear Tire & Rubber Company	GT	Automobiles and Components	\$7,959	\$1,320	16.6%	5.8%	21.8%	-13.2%	-1471.4%	-1500.2%	-2.1%	216	
257	Juniper Networks, Inc.	JNPR	Technology Hardware and Equipment	\$10,685	\$5,044	47.2%	5.7%	9.8%	-3.7%	-254.8%	-329.3%	-32.5%	237	
258	AT&T Inc.	T	Telecommunication Services	\$238,684	\$15,889	6.7%	5.7%	6.1%	-0.4%	NA	NA	NA	217	
259	Kimberly-Clark Corporation	KMB	Household and Personal Products	\$42,443	\$5,409	12.7%	5.7%	10.8%	-4.6%	131.1%	155.3%	-9.5%	194	
260	Merck & Co., Inc.	MRK	Pharmaceuticals, Biotechnology and Life Sciences	\$153,304	\$25,853	16.9%	5.7%	8.9%	-3.0%	-215.3%	-229.3%	-10.8%	190	
261	Verizon Communications Inc.	VZ	Telecommunication Services	\$215,925	\$5,287	2.4%	5.5%	6.9%	-1.3%	NA	NA	NA	246	
262	Western Digital Corporation	WDC	Technology Hardware and Equipment	\$23,524	\$2,324	9.9%	5.5%	21.3%	-13.0%	-345.7%	-298.7%	23.6%	270	
263	Regeneron Pharmaceuticals, Inc.	REGN	Pharmaceuticals, Biotechnology and Life Sciences	\$40,077	\$1,068	2.7%	5.3%	19.9%	-12.1%	-63.1%	-66.6%	10.6%	NA	
264	Monsanto Company	MON	Materials	\$51,477	\$11,986	23.3%	5.2%	7.8%	-2.4%	-50.1%	-39.6%	-17.5%	305	
265	American International Group, Inc.	AIG	Insurance	\$53,560	\$31,510	58.8%	5.2%	14.0%	-7.7%	NA	NA	NA	95	
266	Whirlpool Corporation	WHR	Consumer Durables and Apparel	\$12,119	\$1,900	15.7%	5.0%	14.5%	-8.3%	-319.7%	-344.2%	-10.0%	239	
267	Mondelēz International, Inc.	MDLZ	Food, Beverage and Tobacco	\$63,960	\$10,890	17.0%	5.0%	11.7%	-6.0%	NA	NA	NA	201	
268	The Interpublic Group of Companies, Inc.	IPG	Media	\$7,834	\$1,646	21.0%	4.8%	16.0%	-9.7%	0.1%	7.8%	-7.1%	76	
269	F5 Networks, Inc.	FFIV	Technology Hardware and Equipment	\$8,214	\$2,858	34.8%	4.8%	5.8%	-1.0%	27.2%	61.7%	-21.3%	161	
270	GGP Inc.	GGP	Real Estate	\$22,351	\$1,540	6.9%	4.7%	6.0%	-1.3%	525.8%	491.7%	5.8%	195	
271	Newell Brands Inc.	NWL	Consumer Durables and Apparel	\$15,144	\$1,235	8.2%	4.5%	12.7%	-7.3%	1522.1%	856.6%	69.6%	47	
272	Chevron Corporation	CVX	Energy	\$237,783	\$8,906	3.7%	3.8%	5.7%	-1.8%	-57.1%	-56.3%	-1.7%	285	
273	Henry Schein, Inc.	HSIC	Healthcare Equipment and Services	\$10,968	\$1,900	17.3%	3.7%	13.5%	-8.6%	-107.6%	-108.6%	-11.9%	143	
274	Genuine Parts Company	GPC	Retailing	\$13,930	\$864	6.2%	3.7%	10.9%	-6.5%	-32.5%	-28.7%	-5.3%	210	



Appendix III - Complete Buyback ROI Ranking

Source: Fortuna Advisors Analysis using data from the Capital IQ database.

Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.

Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
275	AutoZone, Inc.	AZO	Retailing	\$19,458	\$6,317	32.5%	3.6%	11.5%	-7.1%	38.1%	85.3%	-25.4%	87	
276	General Mills, Inc.	GIS	Food, Beverage and Tobacco	\$33,739	\$6,332	18.8%	3.2%	9.4%	-5.7%	-20.5%	-13.6%	-8.0%	168	
277	Pentair plc	PNR	Capital Goods	\$12,824	\$1,871	14.6%	3.1%	11.0%	-7.1%	NA	NA	NA	307	
278	Xerox Corporation	XRX	Technology Hardware and Equipment	\$7,421	\$3,069	41.4%	2.9%	13.9%	-9.7%	-156.7%	-168.1%	-16.8%	296	
279	CBS Corporation	CBS	Media	\$22,586	\$11,450	50.7%	2.6%	11.6%	-8.1%	-110.4%	-117.3%	-39.6%	228	
280	Omnicom Group Inc.	OMC	Media	\$16,790	\$3,536	21.1%	2.6%	10.7%	-7.3%	-17.2%	-6.0%	-11.9%	128	
281	Sealed Air Corporation	SEE	Materials	\$8,893	\$2,571	28.9%	2.5%	24.7%	-17.8%	NA	NA	NA	282	
282	Mylan N.V.	MYL	Pharmaceuticals, Biotechnology and Life Sciences	\$22,697	\$1,568	6.9%	2.3%	8.0%	-5.2%	50.8%	15.9%	30.1%	232	
283	Franklin Resources, Inc.	BEN	Diversified Financials	\$24,001	\$4,347	18.1%	1.9%	2.0%	-0.1%	-213.0%	-230.6%	-13.5%	322	
284	The J. M. Smucker Company	SJM	Food, Beverage and Tobacco	\$14,113	\$1,607	11.4%	1.7%	7.7%	-5.6%	439.1%	409.0%	5.9%	154	
285	Conagra Brands, Inc.	CAG	Food, Beverage and Tobacco	\$15,388	\$1,736	11.3%	1.5%	12.7%	-9.9%	5.6%	11.1%	-4.9%	74	
286	Affiliated Managers Group, Inc.	AMG	Diversified Financials	\$11,408	\$1,047	9.2%	1.4%	9.0%	-6.9%	319.8%	318.8%	0.2%	338	
287	Kellogg Company	K	Food, Beverage and Tobacco	\$23,485	\$2,907	12.4%	1.3%	6.5%	-4.9%	NA	NA	NA	214	
288	QUALCOMM Incorporated	QCOM	Semiconductors and Semiconductor Equipment	\$94,793	\$25,645	27.1%	1.0%	2.6%	-1.6%	-412.3%	-462.5%	-13.8%	262	
289	Johnson Controls International plc	JCI	Capital Goods	\$35,268	\$4,138	11.7%	1.0%	12.4%	-10.1%	-35.9%	-52.7%	35.3%	256	
290	McKesson Corporation	MCK	Healthcare Equipment and Services	\$32,512	\$5,659	17.4%	0.9%	10.4%	-8.6%	203.0%	242.0%	-11.4%	208	
291	Exxon Mobil Corporation	XOM	Energy	\$354,392	\$34,945	9.9%	0.6%	1.7%	-1.1%	-15.8%	-11.0%	-5.4%	283	
292	Akamai Technologies, Inc.	AKAM	Software and Services	\$11,002	\$1,467	13.3%	0.2%	7.8%	-7.0%	-72.0%	-70.7%	-4.5%	189	
293	AmerisourceBergen Corporation	ABC	Healthcare Equipment and Services	\$20,024	\$5,431	27.1%	0.0%	16.7%	-14.3%	411.1%	439.0%	-5.2%	218	
294	Kohl's Corporation	KSS	Retailing	\$9,111	\$3,430	37.6%	0.0%	2.3%	-2.3%	24.1%	63.8%	-24.2%	289	
295	Halliburton Company	HAL	Energy	\$42,641	\$5,156	12.1%	-0.1%	7.4%	-7.0%	NA	NA	NA	275	
296	Archer-Daniels-Midland Company	ADM	Food, Beverage and Tobacco	\$22,415	\$5,074	22.6%	-0.7%	11.5%	-10.9%	54.5%	82.1%	-15.2%	277	
297	Alliance Data Systems Corporation	ADS	Software and Services	\$14,004	\$2,822	20.1%	-0.9%	10.5%	-10.3%	224.3%	191.5%	11.2%	316	
298	Twenty-First Century Fox, Inc.	FOX	Media	\$63,640	\$15,826	24.9%	-1.1%	6.8%	-7.4%	NA	NA	NA	315	
299	International Business Machines Corporation	IBM	Software and Services	\$142,035	\$33,899	23.9%	-1.1%	-2.0%	0.9%	-118.1%	-121.9%	-17.3%	309	
300	Campbell Soup Company	CPB	Food, Beverage and Tobacco	\$14,462	\$988	6.8%	-1.4%	8.7%	-9.3%	50.0%	56.8%	-4.3%	133	
301	W.W. Grainger, Inc.	GWV	Capital Goods	\$13,462	\$3,759	27.9%	-1.8%	2.7%	-4.5%	-3.3%	20.1%	-19.5%	293	
302	Seagate Technology plc	STX	Technology Hardware and Equipment	\$12,105	\$5,054	41.8%	-1.9%	11.7%	-12.2%	-67.7%	-59.3%	-20.6%	240	
303	The AES Corporation	AES	Utilities	\$7,152	\$919	12.8%	-2.1%	3.3%	-5.2%	-866.9%	-965.9%	-11.4%	304	
304	CF Industries Holdings, Inc.	CF	Materials	\$9,923	\$3,901	39.3%	-2.6%	0.7%	-3.3%	-1.2%	33.4%	-25.9%	341	
305	CVS Health Corporation	CVS	Food and Staples Retailing	\$73,449	\$20,600	28.0%	-2.6%	11.0%	-12.3%	194.5%	259.8%	-18.2%	222	
306	Tapestry, Inc.	TPR	Consumer Durables and Apparel	\$12,578	\$525	4.2%	-2.7%	-3.0%	0.3%	-82.1%	-82.3%	1.5%	NA	
307	Navient Corporation	NAVI	Diversified Financials	\$3,503	\$3,100	88.5%	-2.8%	7.2%	-9.3%	-124.1%	-141.5%	-41.9%	204	
308	Harley-Davidson, Inc.	HOG	Automobiles and Components	\$8,493	\$3,562	41.9%	-2.8%	3.3%	-6.0%	-88.2%	-84.0%	-26.5%	264	
309	Walgreens Boots Alliance, Inc.	WBA	Food and Staples Retailing	\$71,920	\$11,393	15.8%	-2.9%	17.2%	-17.1%	98.8%	89.9%	4.7%	89	
310	Ford Motor Company	F	Automobiles and Components	\$49,614	\$2,582	5.2%	-2.9%	6.9%	-9.2%	50.8%	48.3%	1.6%	324	
311	Cardinal Health, Inc.	CAH	Healthcare Equipment and Services	\$19,276	\$3,010	15.6%	-3.0%	11.0%	-12.6%	247.5%	276.4%	-7.7%	231	
312	SL Green Realty Corp.	SLG	Real Estate	\$9,918	\$806	8.1%	-3.4%	8.1%	-10.7%	23.7%	25.0%	-1.0%	NA	
313	Universal Health Services, Inc.	UHS	Healthcare Equipment and Services	\$10,758	\$1,056	9.8%	-3.4%	19.4%	-19.1%	62.1%	68.0%	-3.5%	226	
314	Tractor Supply Company	TSCO	Retailing	\$9,386	\$1,435	15.3%	-3.4%	8.2%	-10.7%	38.1%	55.1%	-11.0%	261	
315	Occidental Petroleum Corporation	OXY	Energy	\$56,368	\$4,083	7.2%	-3.5%	1.6%	-5.1%	47.9%	55.6%	-5.0%	319	
316	The Gap, Inc.	GPS	Retailing	\$13,244	\$3,488	26.3%	-4.1%	0.0%	-4.1%	-41.6%	-30.2%	-16.3%	330	
317	The Kroger Co.	KR	Food and Staples Retailing	\$24,193	\$5,994	24.8%	-4.7%	14.8%	-17.0%	84.8%	119.4%	-15.8%	43	
318	Target Corporation	TGT	Retailing	\$35,468	\$9,696	27.3%	-4.7%	2.6%	-7.1%	14.6%	36.4%	-16.0%	265	
319	Express Scripts Holding Company	ESRX	Healthcare Equipment and Services	\$42,274	\$21,733	51.4%	-4.9%	2.2%	-7.0%	361.7%	574.2%	-31.5%	311	
320	Simon Property Group, Inc.	SPG	Real Estate	\$53,387	\$1,016	1.9%	-5.1%	5.9%	-10.4%	80.9%	80.8%	0.1%	NA	
321	Nielsen Holdings plc	NLSN	Commercial and Professional Services	\$12,965	\$1,702	13.1%	-5.6%	7.7%	-12.3%	107.7%	117.6%	-4.6%	288	
322	Schlumberger Limited	SLB	Energy	\$93,353	\$9,175	9.8%	-6.3%	0.4%	-6.6%	-265.4%	-258.8%	4.1%	291	
323	H&R Block, Inc.	HRB	Consumer Services	\$5,482	\$2,366	43.2%	-6.4%	10.9%	-15.7%	NA	NA	NA	332	
324	Gilead Sciences, Inc.	GILD	Pharmaceuticals, Biotechnology and Life Sciences	\$93,581	\$27,888	29.8%	-6.7%	17.7%	-20.7%	-606.9%	-692.4%	-14.4%	335	
325	Flowerserve Corporation	FLS	Capital Goods	\$5,504	\$1,008	18.3%	-7.2%	-0.4%	-6.8%	-174.8%	-182.6%	-9.4%	301	
326	Fluor Corporation	FLR	Capital Goods	\$7,225	\$1,494	20.7%	-7.3%	-2.1%	-5.4%	NA	NA	NA	321	
327	Alexion Pharmaceuticals, Inc.	ALXN	Pharmaceuticals, Biotechnology and Life Sciences	\$26,718	\$1,591	6.0%	-8.1%	4.3%	-11.9%	-62.6%	-67.1%	13.9%	339	
328	Nordstrom, Inc.	JWN	Retailing	\$7,893	\$2,805	35.5%	-8.5%	-0.9%	-7.6%	-46.8%	-37.9%	-14.3%	300	
329	DaVita Inc.	DVA	Healthcare Equipment and Services	\$13,246	\$1,493	11.3%	-8.5%	2.3%	-10.6%	94.7%	126.7%	-14.1%	346	

Appendix III - Complete Buyback ROI Ranking

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Financial Data from December 2012 to December 2017. Includes the 472 members of the current S&P 500 that were public for the full period.

Market Capitalization as of: 12/31/2017.

Companies Included here if \$ Total Buyback / CurrentMarket Capitalization is greater than 4% or if \$ Total Buyback is greater than \$1 billion.



Rank	Company Name	Ticker	Industry	Market Capitalization	\$ Total Buyback	\$ Total Buyback / Market Cap	Buyback ROI	Buyback Strategy	Buyback Effectiveness	% Δ (Q4 '17 vs Q4 '12)			Buyback ROI Ranking in 2017 Report	
										% ΔEarnings	% ΔEPS	% ΔShare Count		
				Average	\$55,375	\$7,040	15.5%	12.9%	16.5%	-3.2%	122.5%	109.8%	-4.4%	
				Median	\$25,210	\$3,180	11.8%	13.8%	16.1%	-2.5%	14.7%	25.0%	-8.8%	
330	Macerich Company	MAC	Real Estate	\$9,246	\$1,422	15.4%	-9.0%	6.2%	-14.3%	-81.2%	-81.7%	2.5%	328	
331	CenturyLink, Inc.	CTL	Telecommunication Services	\$17,831	\$3,099	17.4%	-10.4%	-8.8%	-1.7%	379.4%	180.4%	71.0%	317	
332	Hanesbrands Inc.	HBI	Consumer Durables and Apparel	\$7,623	\$1,137	14.9%	-10.6%	21.9%	-26.6%	-578.4%	-622.2%	-8.4%	348	
333	Ralph Lauren Corporation	RL	Consumer Durables and Apparel	\$8,428	\$1,872	22.2%	-10.7%	-8.4%	-2.5%	-137.9%	-142.3%	-10.4%	336	
334	Acuity Brands, Inc.	AYI	Capital Goods	\$7,349	\$358	4.9%	-11.0%	21.4%	-26.7%	173.9%	182.3%	-3.0%	NA	
335	Anadarko Petroleum Corporation	APC	Energy	\$29,350	\$1,302	4.4%	-11.2%	-6.6%	-5.0%	380.8%	374.1%	1.4%	NA	
336	General Electric Company	GE	Capital Goods	\$151,328	\$36,554	24.2%	-11.5%	1.8%	-13.1%	-340.4%	-387.1%	-16.3%	187	
337	L Brands, Inc.	LB	Retailing	\$16,998	\$1,511	8.9%	-12.3%	5.9%	-17.2%	61.6%	67.0%	-3.3%	172	
338	Foot Locker, Inc.	FL	Retailing	\$5,682	\$1,869	32.9%	-12.6%	3.8%	-15.8%	-147.1%	-160.1%	-21.6%	45	
339	Kinder Morgan, Inc.	KMI	Energy	\$40,355	\$1,146	2.8%	-12.8%	-8.6%	-4.6%	-557.3%	-314.7%	113.0%	337	
340	Allergan plc	AGN	Pharmaceuticals, Biotechnology and Life Sciences	\$54,404	\$15,945	29.3%	-13.3%	15.8%	-25.1%	11047.5%	4247.2%	156.4%	351	
341	National Oilwell Varco, Inc.	NOV	Energy	\$13,689	\$3,011	22.0%	-14.2%	-10.6%	-4.0%	-102.1%	-102.3%	-10.5%	349	
342	Hess Corporation	HES	Energy	\$15,083	\$5,469	36.3%	-14.3%	-1.3%	-13.1%	-815.8%	-869.7%	-7.0%	340	
343	Stericycle, Inc.	SRCL	Commercial and Professional Services	\$5,805	\$529	9.1%	-15.9%	-6.0%	-10.6%	27.3%	28.1%	-0.6%	347	
344	The Mosaic Company	MOS	Materials	\$9,008	\$3,554	39.5%	-16.6%	-13.4%	-3.7%	-170.0%	-177.3%	-9.5%	350	
345	Apache Corporation	APA	Energy	\$16,083	\$2,861	17.8%	-16.8%	-10.8%	-6.8%	-31.7%	-29.9%	-2.6%	333	
346	Mattel, Inc.	MAT	Consumer Durables and Apparel	\$5,287	\$672	12.7%	-17.1%	-11.3%	-6.5%	-191.8%	-192.1%	-0.3%	320	
347	Marathon Oil Corporation	MRO	Energy	\$14,385	\$1,517	10.5%	-18.4%	-11.5%	-7.7%	NA	NA	NA	352	
348	Discovery, Inc.	DISC.A	Media	\$12,509	\$5,712	45.7%	-18.6%	-8.2%	-11.3%	-610.7%	-755.0%	-22.0%	326	
349	Perrigo Company plc	PRGO	Pharmaceuticals, Biotechnology and Life Sciences	\$12,276	\$699	5.7%	-19.5%	-4.3%	-15.9%	-30.9%	-53.9%	49.9%	NA	
350	Viacom, Inc.	VIAB	Media	\$12,596	\$8,290	65.8%	-21.4%	-10.3%	-12.3%	14.3%	40.6%	-18.7%	343	
351	TripAdvisor, Inc.	TRIP	Retailing	\$4,786	\$500	10.4%	-21.4%	0.0%	-21.4%	-350.2%	-357.2%	-2.7%	NA	
352	Macy's, Inc.	M	Retailing	\$7,672	\$5,790	75.5%	-22.1%	-8.1%	-15.2%	81.5%	134.5%	-22.6%	325	
353	Chipotle Mexican Grill, Inc.	CMG	Consumer Services	\$8,160	\$1,811	22.2%	-22.7%	1.7%	-24.0%	-28.6%	-20.6%	-10.0%	331	