# The Stock Price Performance of Spin-Off Subsidiaries, Their Parents, and the Spin-Off ETF, 2001–2013

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Intermittently, (or, more accurately, episodically) market participants become curious about the investment performance of stocks with corporate parents that spin off their subsidiaries. They also become curious about the performance of the newly listed shares of spun-off entities. These episodes of curiosity customarily occur in tandem with or shortly following substantial stock market rises, increases in the frequency of corporate spin-offs, or calls for certain highly visible firms to undertake restructurings by spinning off their apparently underperforming divisions. The latter half of 2013 evidenced each of these phenomena. During the first half of 2013, the S&P 500 index increased by 12.6% and highly visible corporations, including Time Warner, Inc. and Sears Holdings Corp., spun off major operating components. Former Microsoft executives and board members called for the company to spin-off XBox and Bing (Foley and Waters [2013]). All of the ingredients were in place.

Not surprisingly, investors of various sorts have been curious about the wisdom of investing in the stocks of parent companies that are now free of any possible drag that the spun-off entities may have had on their operations. Of course, they have been equally curious about the wisdom of investing in the newly freed subsidiaries, whose shares have begun to trade on their own merits. Perhaps also not surprisingly, prior studies have been devoted to addressing these questions, including Cusatis, Miles, and Woolridge [1993], Daley, Mehrotra, and Sivakumar [1997], Desai and Jain [1999], and McConnell, Ozbilgin, and Wahal [2001]. These studies' conclusions are mildly mixed; in the aggregate, they suggest that a strategy of uniformly investing in both the parent company and the spun-off subsidiary is the route to superior investment outcomes.

McConnell and Ovtchinnikov [2004] performed the most recent of these studies of long-run returns following spin-offs.[1] Their study encompasses a comprehensive set of parents and spun-off subsidiaries for which data are available for the years 1965 to 2000. They measure performance against two benchmarks over the 36 months following spin-offs and report that spun-off subsidiaries' shares outperform both benchmarks over the first 22 months following the spin-off and trade in line with the benchmark thereafter.

The parent companies' shares also outperform their benchmarks by an impressive margin, but the pattern is slightly different for parents that outperform the benchmarks over the first 15 months following the spin-offs and then level off. However, as the authors point out, parents' excess performance is largely due to one extreme outlier. When we remove the outlier, the parent shares' average cumulative return is just equal to that of the benchmarks.

In sum, based on prior evidence, the best investment advice is to buy shares of the spun-off subsidiaries as soon as they become available and hold them for 22 months. At the same time, buy shares in the parent companies and hold them for 15 months.

In this study we take up where the prior studies leave off. We study the stock market performance of parent shares and spun-off subsidiaries that are members of a comprehensive set of 146 spin-offs that occurred from 2001 to 2012. We study returns over the 36 months following the spin-offs, and are especially interested in how an investor who looked to past performance as a guide to the future would have fared. It turns out that basing a strategy on prior performance would have worked well, though perhaps by luck rather than skill. Specifically, over the first 22 months following the spin-offs, an equally weighted portfolio of subsidiaries' shares earned an average raw buy-and-hold return of 1.26% per month, for a cumulative raw return of 31.6%. When measured against a size and market-to-book benchmark, the spun-off subsidiaries outperformed the benchmark by 0.72% per month, for a cumulative excess return of 17.1%. Over the following six months, the subsidiaries continued to mildly outperform the benchmark, but performed comparably thereafter.

Parent stocks also outperformed their benchmarks. Over the first 15 months following the spin-offs, an equally weighted portfolio of parent stocks achieved an average raw return of 0.85% per month, and outperformed a size and book-to-market benchmark by 0.27% per month, for a cumulative excess return of 3.7%. As with the spun-off subsidiaries, the parent stocks continued to outperform the benchmark for the next several months before leveling off.

We undertake one further investigation of spin-off performance by comparing the performance of the full set of spun-off subsidiary stocks with the performance of the Guggenheim Spin-off exchange-traded fund (NYSE Arca: CSD). In this comparison, an equally weighted portfolio of all spun-off subsidiary stocks, each of which is held for 22 months, earned an average annual return of 22.2%, versus 17.4% for the ETF. In short, the managed ETF underperformed relative to the universe of spin-offs, with a holding period of 22 months.

Although a portfolio strategy for spin-offs that worked from 1965 to 2000 also worked from 2000 to 2013, the customary stock market caveat applies. Buyer beware: what worked in the past will not necessarily work in the future.

## SOME ANECDOTES

Evidence of the interest in spin-offs as a desirable corporate undertaking is not difficult to find. For example, in May 2012, Trian Fund (under the direction of co-founder and activist investor Nelson Peltz) acquired a 7.1% ownership position in Ingersoll Rand. The fund immediately called for management to restructure certain of the company's business units (Jones, Chon, and Benoit [2012]). On that day, company shares increased by 5.4%. In December of the same year, after initial resistance, the company announced its intent to spin-off Allegion, its commercial and home security division. Other activist investors have recently followed similar strategies. During January 2014, Carl Icahn acquired a 0.82% stake in eBay for roughly $625 million, and immediately called for management to spin off the company's PayPal holdings (Bensinger [2014]). In the same month, Third Point took a $1 billion position in Dow Chemical and urged the firm to spin off its petrochemical unit (Herbst-Baylis and Scheyder [2014]). And in July 2014, Elliott Management acquired a 2% stake, valued at over $1 billion, in EMC Corp and urged the company to spin off VMware (Cimilluca and Ovide [2014]). Whether these calls for spin-offs will be answered with action will only be known with time.

Evidence of investor interest is also readily available. Kapadia of *Barron's* writes, "clearly, investors in spinoffs are doing well. In the past year through May 30, the Bloomberg Spin-Off Index, which tracks spinoffs with a market value of at least $1 billion, is up 60%–more than double the 26% returned by the S&P 500" (Kapadia [2013]). Echoing this sentiment, Pleven states in *The Wall Street Journal* that "the share prices of one-time subsidiaries can outperform the stock market in the months after becoming independent publicly traded companies" (Pleven [2014]).

Other writers, however, question whether a strategy of investing in spun-off subsidiaries and their parents can generate market-beating returns. According to Hough [2011] in *MarketWatch*, "spinoffs are no big deal for investors." In this article, we sort out the recent evidence.

## THE SAMPLE OF SPIN-OFFS

In a traditional spin-off, a parent corporation distributes the shares of a wholly-owned subsidiary on a

pro rata basis to the shareholders of the parent company. At a date certain, the two entities' shares begin to trade separately. In many instances, the shares of the soon to be spun-off entity begin to trade on a forward-delivery basis before share distribution. Parent shares continue to trade as they were, except that the value of the parent stock is adjusted downward on the spin-off ex-dividend date. Following that date, an investor can purchase shares in the parent and the spun-off subsidiary as separate entities.

As with previous studies, we are interested in U.S. non-taxable, corporate spin-offs of non-REIT entities. To identify such spin-offs, we access the *CRSP* distributions file and the *Mergent Dividend Record*. From the *CRSP* file, we collect all distributions of U.S. listed common stocks classified as spin-offs that occurred between January 2001 and December 2012.[2] We then access the *Mergent Dividend Record* to verify the ex date and to ensure that the spin-offs meet the criteria for inclusion in our analysis, as previously described. We further exclude parent companies acquired at or near the ex date.[3] This procedure yields 146 spin-off events, representing 139 parents and 153 spun-off subsidiaries. Each event represents a spin-off occurrence. In two events, two parents spun off a joint venture. In five events, the parent spun off two subsidiaries concurrently, and in one event the parent spun off four subsidiaries. As a result of these factors, the number of spun-off subsidiaries exceeds the number of spin-off events, and the number of spin-off events exceeds the number of parents.

As suggested at the outset and as shown in Exhibit 1, panel A, spin-off events tend to flourish during periods of robust stock market performance. From 2001 to 2012, the two peak years of spin-off events were 2002 and 2008, with 18 and 19 events, respectively. Further, over this time period, six to 12 months elapsed between the spin-off announcements and the ex dates. Not coincidentally, the S&P 500 index achieved relative peaks during the prior 12 to 18 months, reaching a relative peak of 1,517.68 in August 2000 and another relative peak of 1,549.38 in October 2007. Those peaks were followed by severe stock market dips and significant declines in spin-off activity, with only 10 events in 2003 and just six in 2009. The exhibit also gives the aggregate market values of the subsidiaries' equity as of the ex dates. As with the number of events, the aggregate dollar value of spun-off subsidiaries also shows significant variation across years, with the highest level—$145.4 billion in 2008—15 times the lowest level: $9.8 billion in 2003.

Exhibit 1, panel B gives the industry classifications of the spun-off subsidiaries and their parents.[4] By number, and ignoring non-classified subsidiaries, the computer, software and electronic equipment industry has the largest representation of spun-off subsidiaries—22—followed by manufacturing and finance, which have 16 each. In terms of total market capitalization, the biggest contributors are the telephone and television transmission and consumer non-durables groups, which

## EXHIBIT 1
### Descriptive Statistics

**Panel A: Parent and Subsidiary Characteristics by Year**

| | | Subsidiaries | | | | Parents | | | |
|---|---|---|---|---|---|---|---|---|---|
| Year | Number of Events | Number of Subsidiaries | Mean Market Value ($Billions) | Aggregate Market Value ($Billions) | Mean Book-to-Market Ratio | Number of Parents | Mean Market Value ($Billions) | Aggregate Market Value ($Billions) | Mean Book-to-Market Ratio |
| 2001 | 13 | 13 | 4.55 | 59.15 | 0.35 | 13 | 25.85 | 336.06 | 0.38 |
| 2002 | 18 | 19 | 3.20 | 60.83 | 1.58 | 17 | 21.01 | 357.20 | 0.83 |
| 2003 | 10 | 11 | 0.89 | 9.78 | 0.93 | 10 | 12.66 | 126.62 | 0.65 |
| 2004 | 11 | 11 | 1.74 | 19.17 | 0.70 | 11 | 20.83 | 229.18 | 0.46 |
| 2005 | 14 | 14 | 1.85 | 25.95 | 0.97 | 14 | 11.54 | 161.59 | 0.67 |
| 2006 | 13 | 14 | 3.89 | 54.48 | 0.40 | 12 | 19.78 | 237.30 | 2.93 |
| 2007 | 12 | 13 | 2.85 | 37.06 | 0.67 | 11 | 8.94 | 98.39 | 0.48 |
| 2008 | 19 | 23 | 6.32 | 145.44 | 0.61 | 19 | 4.22 | 80.18 | 0.65 |
| 2009 | 6 | 5 | 1.47 | 7.35 | 1.27 | 6 | 9.03 | 54.18 | 1.18 |
| 2010 | 8 | 8 | 1.41 | 11.26 | 1.08 | 7 | 2.15 | 15.03 | 0.48 |
| 2011 | 13 | 13 | 3.35 | 43.61 | 0.63 | 11 | 8.10 | 89.08 | 0.37 |
| 2012 | 9 | 9 | 4.02 | 36.14 | 0.98 | 8 | 12.59 | 100.68 | 0.66 |
| Total | 146 | 153 | | 510.2 | | 139 | | 1,885.5 | |

## EXHIBIT 1 *(Continued)*

**Panel B. Parent and Subsidiary Characteristics by Industry**

| | Subsidiaries | | | | Parents | | | |
|---|---|---|---|---|---|---|---|---|
| Industry | Number of Subsidiaries | Mean Market Value ($Billions) | Aggregate Market Value ($Billions) | Mean Book-to-Market | Number of Parents | Mean Market Value ($Billions) | Aggregate Market Value ($Billions) | Mean Market Value ($Billions) |
| Consumer NonDurables | 8 | 15.13 | 121.06 | 0.59 | 11.00 | 8.19 | 90.04 | 0.59 |
| Consumer Durables | 3 | 1.44 | 4.32 | 0.87 | 3.00 | 2.21 | 6.63 | 0.60 |
| Manufacturing | 16 | 0.69 | 11.09 | 0.99 | 10.00 | 6.47 | 64.68 | 0.48 |
| Oil, Gas, and Coal | 7 | 6.80 | 47.63 | 0.93 | 10.00 | 13.09 | 130.86 | 0.60 |
| Chemicals and Allied Products | 1 | 0.39 | 0.39 | 1.21 | 3.00 | 39.75 | 119.26 | 0.40 |
| Computers, Software, and Electronic Equipment | 22 | 1.93 | 42.51 | 0.66 | 23.00 | 11.87 | 273.10 | 0.66 |
| Telephone and Television Transmission | 13 | 10.05 | 130.69 | 0.88 | 22.00 | 18.43 | 405.36 | 1.92 |
| Utilities | 3 | 6.24 | 18.72 | 3.94 | 4.00 | 10.64 | 42.58 | 0.77 |
| Wholesale and Retail | 11 | 0.78 | 8.63 | 0.38 | 10.00 | 3.04 | 30.39 | 0.67 |
| Healthcare, Medical Equipment, and Drugs | 9 | 2.67 | 24.00 | 0.98 | 11.00 | 27.90 | 306.89 | 0.22 |
| Finance | 16 | 3.56 | 56.96 | 1.00 | 14.00 | 24.31 | 340.37 | 0.85 |
| Other | 44 | 1.00 | 44.22 | 0.66 | 18.00 | 4.19 | 75.33 | 0.61 |
| Total | 153 | | 510.2 | | 139 | | 1,885.5 | |

*Panel A reports by year the number of spin-off events, along with the number, mean market value, aggregate market value, and mean book-to-market ratio for both spun-off subsidiaries and parents. Panel B reports by industry the number, mean market value, aggregate market value, and mean book-to-market ratio of both spun-off subsidiaries and parents. Firms are classified by industry using the Fama-French 12-industry classification scheme.*

together represent 49.3% of the spun-off subsidiaries' aggregate market value.

## MEASURING PERFORMANCE

To measure performance for each parent and each subsidiary, we begin with the ex date and use daily returns taken from the *CRSP* database. We calculate the buy-and-hold return for either parent or subsidiary stock $i$ through month $M$ as

$$r_{i,M} = \left[\prod_{d=1}^{D}(1+r_{i,d})\right] - 1 \qquad (1)$$

where $r_{i,d}$ is the daily return of stock $i$ on day $d$ and $D$ is the number of trading days between the ex date and the same numerical date of the $M$th month following the ex date. For example, for the six-month buy-and-hold return for stock $i$ with a spin-off ex date of March 17, 2003, $D$ is 128 where 128 is the number of trading days between March 18, 2003, and September 17, 2003.

The mean buy-and-hold return for either the parents or the spun-off subsidiaries through month $M$ is calculated as

$$\bar{R}_M = \frac{\sum_{i=1}^{N} r_{i,M}}{N} \qquad (2)$$

where $N$ is 139 for parents and 153 for subsidiaries.

We use the Fama-French [1993] size and book-to-market portfolios as benchmarks for evaluating the performance of the spun-off subsidiaries and their parents.[5] To construct these portfolios, in July of each year, Fama and French sort all NYSE, AMEX, and NASDAQ common stocks with positive equity book values in the *CRSP* database into quintile portfolios on the basis of total market capitalization ("size"), and separately sort stocks into quintiles on the basis of book-to-market equity ratios. The NYSE market equity quintiles as of the end of June of year t are the breakpoints for size, while the NYSE quintiles as of December of year t-1 are the breakpoints for book-to-market ratios. This procedure results in a total of 25 size and book-to-market portfolios.

As of the spin-off ex date, we assign each parent and subsidiary stock to its matching size and book-to-market portfolio. We measure size as the market value of the entity's equity as of the ex date. To calculate the parent and subsidiary book-to-market ratios, we use the

first available post-spin-off quarterly book equity value taken from the *COMPUSTAT* database, and the equity market value as of the same quarter-end taken from the *CRSP* database. One subsidiary and four parents lack the post-spin-off data necessary to calculate book-to-market ratios. For these firms, we take the parent's most recent pre-spin-off book-to-market ratio and assign it to either the subsidiary or the parent. With these two characteristics, each parent and subsidiary is assigned to its appropriate benchmark portfolio based on the Fama-French breakpoints that prevail at the time of the spin-off. For each year after the year of the ex date, we reassign parents and subsidiaries to their appropriate size and book-to-market benchmarks. For each parent and subsidiary, we calculate the benchmark return as in Equations 1 and 2.

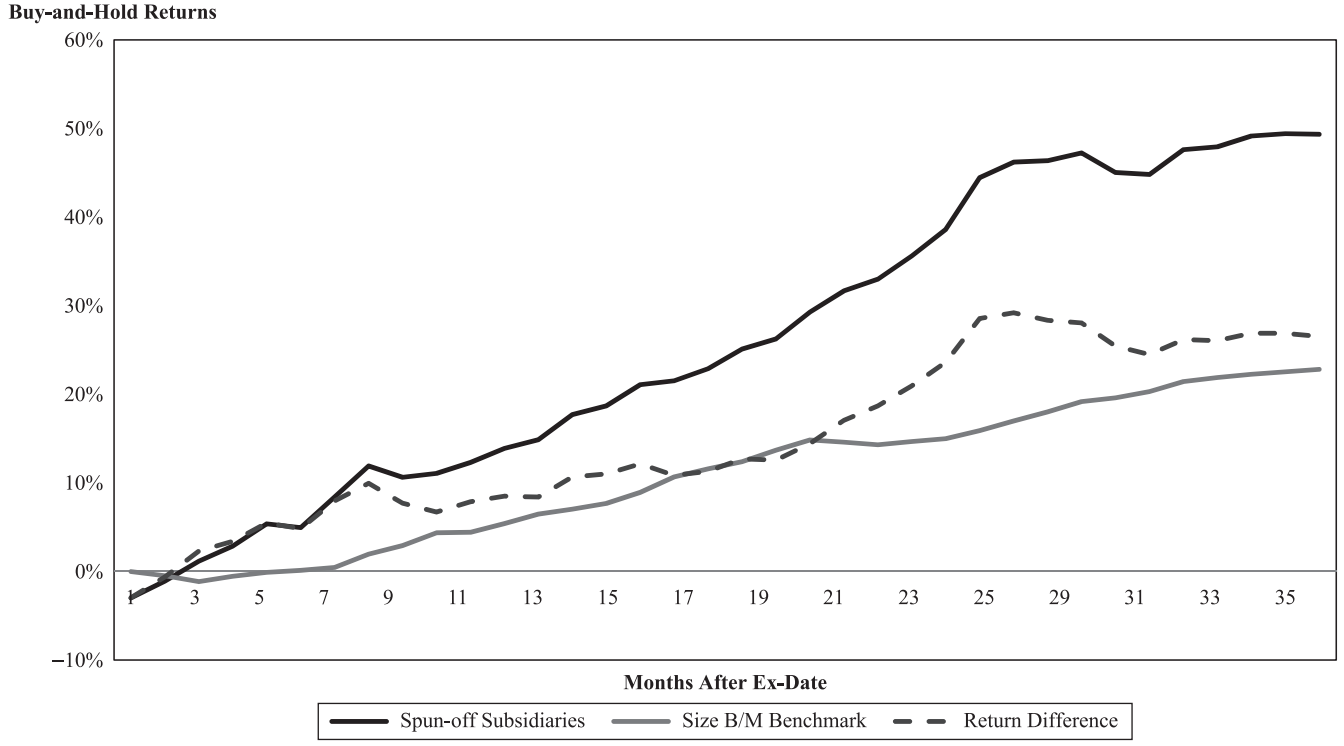
## SUBSIDIARY PERFORMANCE

Exhibit 2 plots the average buy-and-hold returns for the spun-off subsidiaries, their size and book-to-market benchmark, and the difference between the two over the first 36 months following the spin-off ex dates. The raw buy-and-hold returns over this interval are impressive, amounting to 49.4% for an average annual buy-and-hold return of 14.3%. In comparison, the benchmark buy-and-hold average return was 22.8%. Clearly, spun-off subsidiaries' stock returns substantially outstripped their benchmark over this time frame. All of the difference between the subsidiaries' performance and benchmark performance occurs through month 27. Thereafter, the subsidiaries actually underperform relative to the benchmark. Nevertheless, over the period from 2001 to 2013, an investor who purchased shares of spun-off subsidiaries immediately following the ex date would have achieved superior performance relative to a risk-based benchmark, regardless of the holding period considered.

Exhibit 3 provides a more detailed consideration. As shown in the exhibit, over the first 22 months following the ex date, subsidiaries' mean buy-and-hold return was 31.7%, in comparison with a mean benchmark return of

## EXHIBIT 2

**Mean Buy-and-Hold Returns of Spun-Off Subsidiaries and Size and B/M Benchmark Over Time**




*This figure depicts the average cumulative returns of spun-off subsidiaries and their size and book-to-market benchmarks in event time.*

## EXHIBIT 3

**Subsidiary, Parent, and Size and Book-to-Market Benchmark Buy-and-Hold Returns (in %)**

| | | | | Return Difference | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Month | Mean Return | Mean Benchmark Return | Mean | 25th Percentile | Median | 75th Percentile | Min | Max |
| Subsidiaries | 6 | 4.95 | 0.12 | 4.83 (1.69)* | –17.52 | 3.82 | 22.79 | –77.62 | 130.90 |
| | 12 | 13.90 | 5.40 | 8.50 (1.96)* | –20.59 | 0.73 | 31.19 | –99.65 | 256.67 |
| | 22 | 31.66 | 14.60 | 17.06 (2.16)** | –29.89 | –0.11 | 43.63 | –129.38 | 648.97 |
| | 27 | 46.19 | 16.99 | 29.20 (2.78)*** | –33.63 | –0.28 | 46.08 | –138.31 | 775.95 |
| | 36 | 49.35 | 22.82 | 26.53 (2.40)** | –39.44 | –6.79 | 38.52 | –138.31 | 775.95 |
| Parents | 6 | 1.84 | 3.31 | –1.47 (–0.55) | –17.51 | –3.72 | 11.26 | –70.78 | 117.12 |
| | 12 | 9.47 | 7.74 | 1.73 (0.42) | –26.84 | 4.25 | 16.94 | –101.98 | 302.84 |
| | 15 | 13.46 | 9.76 | 3.70 (0.66) | –26.74 | 0.10 | 13.16 | –104.96 | 494.12 |
| | 19 | 18.66 | 13.87 | 4.79 (0.72) | –27.72 | 0.00 | 15.60 | –119.50 | 625.05 |
| | 36 | 24.04 | 26.74 | –2.70 (–0.48) | –43.84 | –4.08 | 17.94 | –127.98 | 280.55 |

*This table reports the 6-, 12-, 22-, 27-, and 36-month mean return of spinoffs and 6-, 12-, 15-, 19-, and 36-month mean return of parent firms. In each year, we sort all CRSP common stocks (CRSP share code 10 or 11) into quintiles by size and book-to-market ratio. Benchmark portfolios consist of firms within the same size and book-to-market quintiles. The buy-and-hold returns are compounded daily returns.*

14.6%, for a difference of 17.1%. Examing the median, 25th percentile, and 75th percentile of the differences in subsidiary and benchmark returns demonstrates that much of the mean difference in returns is due to a positively skewed distribution of subsidiary returns. Of course, buying and holding through the first 27 months following the spin-off would have been even better, producing an average difference is 29.2%, but that is a hindsight measure, and hindsight is always 20-20.

In sum, however, an investment strategy regarding spun-off subsidiaries based on the findings for the period from 1965 to 2000 would have proven successful from 2001 to 2013, whether we consider absolute performance or, more appropriately, comparison to a relevant benchmark.

## PARENT PERFORMANCE

Exhibit 4 plots the buy-and-hold returns to the parents. Interestingly, over the first several months following the spin-offs, parent stocks (on average) actually decline in value and certainly underperform the benchmark. Further, the mean difference between the parents and their benchmarks is in negative territory until month six after the spin-off events. By month 15 after the spin-offs, the mean difference essentially reaches its highest level and, with the exception of a slight bump up in month 19, begins a steady decline.

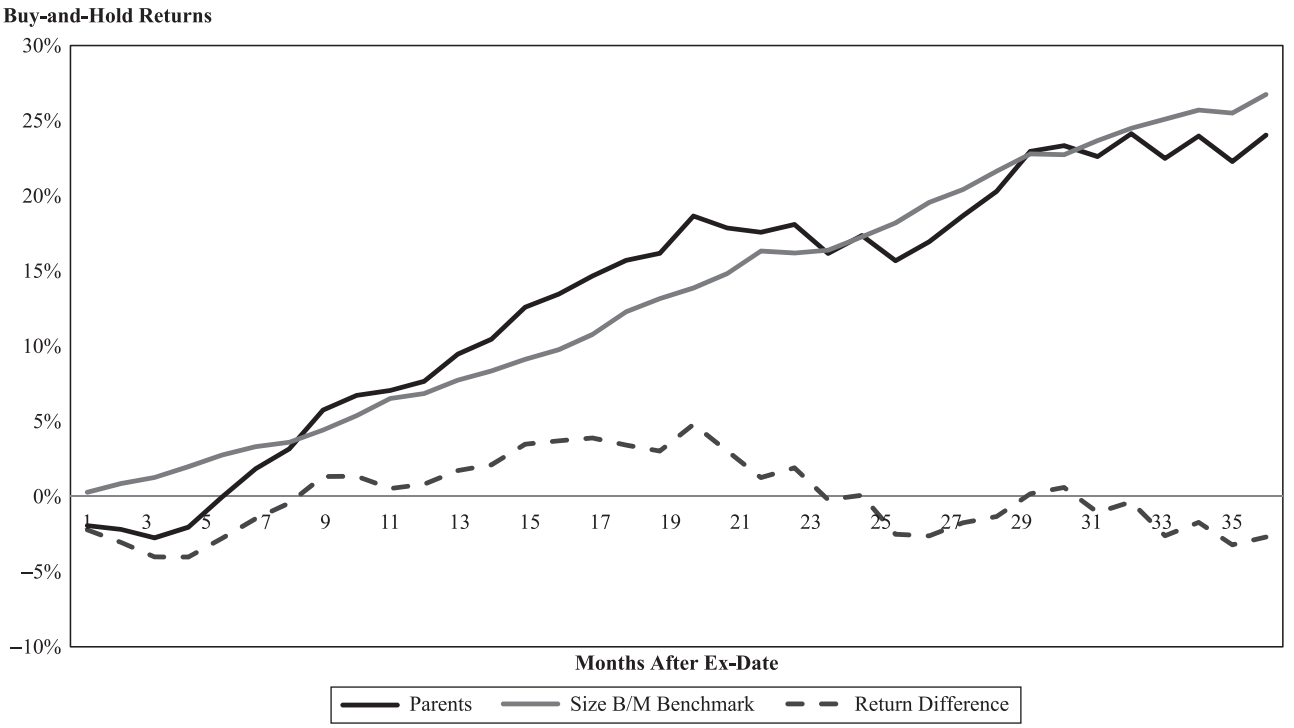
The data in the bottom panel of Exhibit 3 give the statistics in greater detail. As of month 15, the mean raw buy-and-hold return to the spin-off parents is 13.46%, and the difference between the parents and their benchmark is 3.70%. This difference peaks at 4.79% in month 19, again illustrating the benefit of hindsight.

There are two key differences between the performance of spun-off subsidiaries and that of their parents. The first is the sheer magnitude of the difference in performance between the two groups. The second is that, unlike the subsidiaries' outperformance, the parent's outperformance is not statistically significant. That is, parents stocks do outperform their benchmark on average, but the superior performance is marginal and the timing must be precise.

Nevertheless, from the perspective of this undertaking, a strategy of buying all spun-off subsidiaries and

## EXHIBIT 4

**Mean Buy-and-Hold Returns of Parents and Size and B/M Benchmark Over Time**




*This figure depicts the average cumulative returns of parents and their size and book-to-market benchmarks in event time.*

their parents and holding them based on the historical performance of parents and subsidiaries from 1965 to 2000 would also have achieved superior performance during the recently-ended interval of 2001 to 2013.

## ETF PERFORMANCE

As it turns out, an active strategy of tracking all spin-offs events, buying as soon as the parents and subsidiaries start trading as separate entities, holding for just the right length of time, and then liquidating the stocks takes time and effort. Perhaps there is a simpler way to accomplish the same or better goal. One strategy might be an investment in the Guggenheim Spin-off ETF. The Guggenheim Spin-off ETF commenced trading in December 2006, and is advertised as a passive fund that "seeks to replicate, before fees and expenses, the performance of the [Beacon] Spin-off Index." The Beacon Spin-off Index, in turn, is composed of up to 40 stocks chosen from the "universe of recently spun-off companies using a proprietary rules-based methodology" that seeks "to identify those stocks that offer the greatest potential from a risk/return perspective." Thus, the passive ETF tracks an index that is actively managed to at least some extent.

But would the strategy based on historical results have performed as well as or even better than the ETF? To address this question, and because the ETF began trading in December 2006, we construct an equally weighted portfolio of spun-off subsidiaries as of that date. In our sample, we include any subsidiary for which the ex date was fewer than 22 months before December 2006. When a portfolio stock reaches the date at which the spin-off ex date is 22 months in the past, we drop the stock from the portfolio. When a spin-off occurs at any point after December 15, 2006, we add the newly listed subsidiary stock to the portfolio. As of December 2006, there are 26 stocks in the portfolio. The portfolio contained its maximum number of stocks—33—in August 2008. It contained its minimum—10—in June 2010.

Cumulative buy-and-hold returns for the ETF and the spun-off subsidiaries ("all subsidiaries") portfolio are calculated as

$$r_{p,T} = \left[\prod_{t=1}^{T}(1 + r_{p,t})\right] - 1 \qquad (3)$$

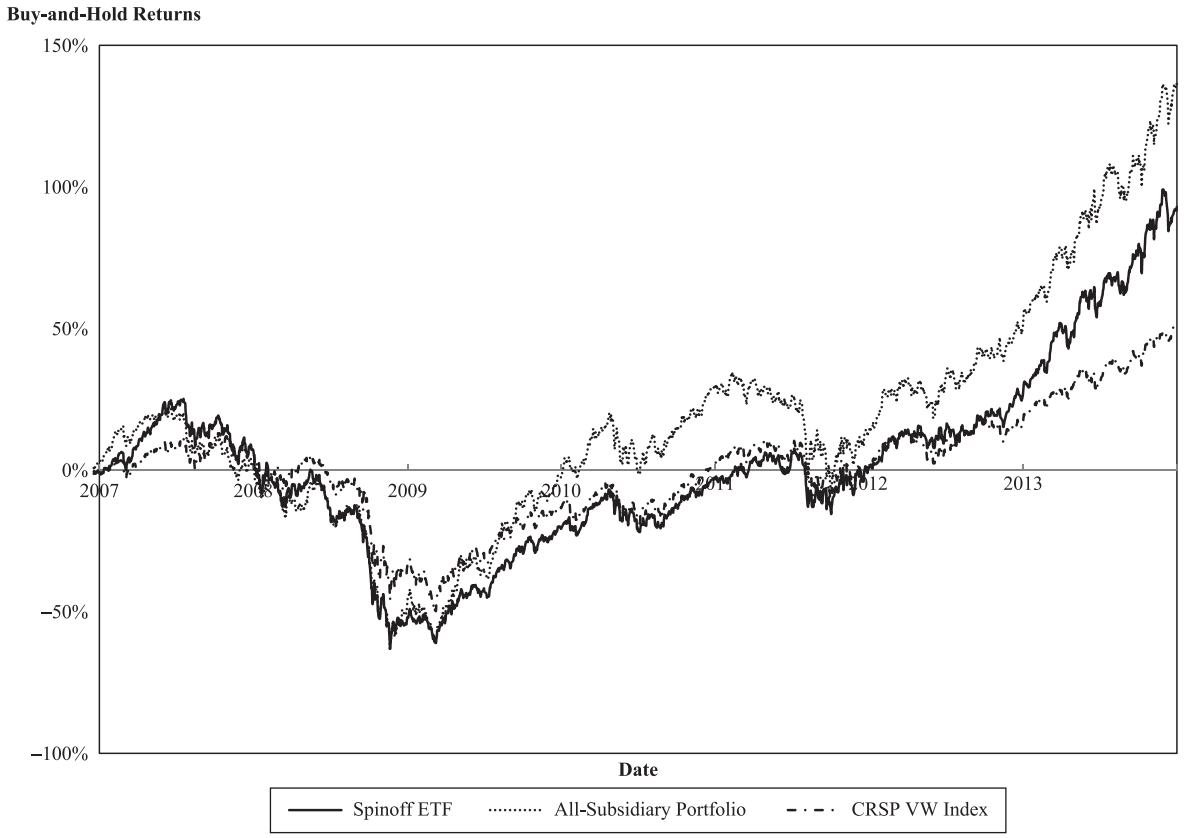
where $r_{p,T}$ is the cumulative buy-and-hold return of portfolio $p$ through day $T$ and $r_{p,t}$ is the daily return of the portfolio on day $t$.

Exhibit 5 plots the ETF's buy-and-hold performance, the all-subsidiaries portfolio, and the cumulative buy-and-hold return of the value-weighted CRSP market index from December 15, 2006 through December 31, 2013. As shown in the figure, both the ETF and the all-subsidiary portfolio substantially outperform the market index over the full seven years. At the end of December 2013, the market index had achieved a cumulative buy-and-hold return of 52.2%. In comparison, the ETF had achieved a return of 92.9%, and the all-subsidiary 22-month portfolio had achieved a buy-and-hold return of 137.0%. Thus, over this time period, the ETF gave an investor the opportunity to participate in the overall superior performance of spun-off subsidiaries with minimal effort. But investors who were willing to manage their own 22-month all-subsidiary portfolios would have performed even better. Whether the incremental return would have been worth the investor's incremental effort depends on the investor.

Exhibit 6, which shows the buy-and-hold returns by calendar year, presents a different perspective on portfolio returns. In 2008, the market index experienced a return of −38.1%. The ETF had an even worse year, with a return of −55.2%, and the all-subsidiary

## EXHIBIT 5

**Spin-Off ETF Returns Compared to Spin-Off Portfolios and S&P 500**




*This figure depicts the cumulative buy-and hold returns of the Guggenheim Spin-off ETF, the all-subsidiary portfolio, and the CRSP value-weighted market return from December 18, 2006 through December 31, 2014. The year labels on the X-axis are placed at the beginning of each year.*

## EXHIBIT 6

**Yearly Buy-and-Hold Returns of the Spinoff ETF, All Subsidiaries Portfolio, and the CRSP Value-Weighted Index**

| Year | Guggenheim Spinoff ETF | All-Subsidiary Portfolio | CRSP Value-Weighted Index |
|---|---|---|---|
| 2007 | 7.4 | –5.6 | 6.7 |
| 2008 | –55.2 | –41.1 | –38.1 |
| 2009 | 65.2 | 93.2 | 31.1 |
| 2010 | 22.0 | 32.7 | 17.7 |
| 2011 | 3.8 | –16.1 | –1.1 |
| 2012 | 26.4 | 34.6 | 15.8 |
| 2013 | 52.1 | 57.1 | 30.5 |

*This table reports the annual returns (in percentages) to the Guggenheim Spin-off ETF (Ticker: CSD), the all-subsidiary portfolio, and the CRSP value-weighted market index.*

portfolio had a return of –41.1%. The years 2009 and 2013 were very good years for the market, with returns of 31.1% and 30.5%, respectively, and even better years for both the ETF and the all-subsidiary portfolio. The ETF had returns of 65.2% in 2009 and 52.1% in 2013, and the all-subsidiary portfolio had returns of 93.2% and 57.1%, respectively. In combination, Exhibits 5 and 6 show that spun-off subsidiaries outperformed the market over the full period of time we considered. However, over any given horizon, they can also substantially underperform.

## CONCLUSION

The frequency of corporate spin-offs ebbs and flows with general economic activity. After a spin-off occurs, investors can invest separately in entities that were previously presented as a single investment opportunity. For active investors, the question of whether to invest in one or both (or neither) of the separated entities ebbs and flows with spin-off market activity. Beginning in 1965 and ending in 2000, the evidence suggested that a strategy of investing in the spun-off subsidiaries and holding the shares for 22 months, while concurrently buying and holding the parents' shares for 15 months, would have yielded superior returns relative to risk-adjusted benchmarks. We address the question of whether such a strategy would have yielded superior returns over the subsequent 13 years, from 2000 to 2013. It would have. More specifically, spun-off subsidiaries beat a size and book-to-market benchmark by a cumulative buy-and-hold return of 17.1% over 22 months; parents beat the benchmark by a modest 3.7% over 15 months. In this instance, history did repeat itself. Will the future see such superior performance? We make no promises.

## ENDNOTES

[1]Other, sometimes more recent studies, consider the short run or event-window returns surrounding spin-off announcements. These include Allen, Lummer, McConnell, and Reed [1995], Feng, Nandy, and Tian [2008], Schipper and Smith [1983], and Veld and Veld-Merkoulova [2009].

[2]We end with 2012, so we have at least 12 months of parent and subsidiary returns for analysis.

[3]For example, Digimarc Corp. agreed to sell its ID systems business to L-1 Identity Solutions Inc. As part of the deal, Digimarc Corp. agreed to spin off its digital watermarking business. http://uk.reuters.com/article/2008/06/23/digimarc-idUKBNG11885120080623.

[4]This classification is based on the Fama-French 12 industry classification scheme (taken from Kenneth French's website).

[5]Returns and breakpoints for the 25 size and book-to-market portfolios are available on Kenneth French's website: http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html.

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