



*Over 125 companies have implemented a Relative TSR Plan in 2010 to date*

## **RADFORD REVIEW:**

### **Relative TSR Plans: The Balanced Approach to Equity**

One of the fastest growing forms of employee equity among Fortune 1000 companies is performance awards which base the earnout upon Relative Total Shareholder Return (TSR). In fact, Radford has observed over 400 companies adopting this form of equity through our ongoing research, with over 125 new Relative TSR plans implemented in 2010 through the third quarter. To clarify Relative TSR as a performance metric, the amount of awards to vest, or earnout, is based upon the company's TSR compared to, or ranked against, the TSRs of a comparator group. While the method of comparison can vary between plans, the actual comparison of the company's TSR to the TSR of an external entity is what defines Relative TSR.

Despite the increase in popularity of this performance metric, Relative TSR plans have received mixed reviews in the marketplace. Some viewpoints believe Relative TSR represents the most balanced and transparent metric possible in the marketplace. Alternatively, others view these plans as easily skewed by market performance (with volatile payouts depending on the date of grant and peer selection) and as difficult to implement.

Even though the aforementioned viewpoints reflect opinions, Radford has found more evidence that Relative TSR plans are balanced than skewed. Actually, through our research study, we believe Relative TSR plans to be one of the purest forms of performance equity in the marketplace, with a direct correlation to shareholders. Additionally, using the same research study, Radford has also analyzed one of the major design trends of these plans in the marketplace to help ease the burden of implementation. Understanding the design nuances of these plans helps to minimize the administrative challenges of employing them.

#### **The Relative TSR Balance Study**

In an effort to determine the overall balance associated with Relative TSR plans, Radford analyzed over 800 companies comprising the S&P 500, the S&P Midcap 400, the NASDAQ 100, and the Dow 30. This analysis studied historical data over a 13-year period, with the assumption that a new 3-year performance period begins every quarter – therefore creating 40 rolling performance periods. A more detailed description of the methodology can be found in Appendix A.

Inside the study, we researched the stock price performance for each company in each of the 40 performance periods and then ranked the performance accordingly. To assess performance, we used five metrics. The table on the next page explains how each metric should be interpreted:

**Radford is an Aon  
Hewitt Company**

**The Albert Pujols Example**  
**The method in which Radford has discovered the Top Performing Companies is comparable to the reputation of Albert Pujols in Major League Baseball. Pujols has been widely regarded as the best player in baseball over the last decade, despite not leading the league in every statistical category (i.e. highest batting average) every year. He has achieved this reputation through sustaining high performance over time.**

**Likewise, it cannot be expected for the top performing companies in the long-term to have the best return over each intermediate 3-year period.**

Metric	Definition	What Metric Results Tell Us About Performance
13 Year TSR of Index	TSR from October 1, 1997 to June 30, 2010 for each index	The overall performance of each Index over the 13-year period
Best Average Rank	The best average performance for the 40 periods (or the highest of the TSRs on average)	The highest performing companies over the 40 periods on average with the level of performance. For example, Southwestern Energy Co. had the best average performance (average rank of 43.5 out of 418) of the 40 three-year periods from 1997 to 2010 for the S&P 500.
Worst Average Rank	The worst average performance for the 40 periods (or the lowest of the TSRs)	The lowest performing companies over the 40 periods on average with the level of performance
Standard Deviation (SD)	The square root of the variance. In this analysis, this represents the amount at which the ranks vary from the mean.	A low SD means there is little variance in the average ranks between companies. In contrast, a high SD means there is significant variance in the average ranks.
Correlation	The reciprocal relationship between the average ranks over the 40 periods and the rank of the specific 13-year TSR	A correlation closer to one means there is a greater degree of alignment between payouts, and the long-term TSR of companies.

The following table illustrates results of the study:

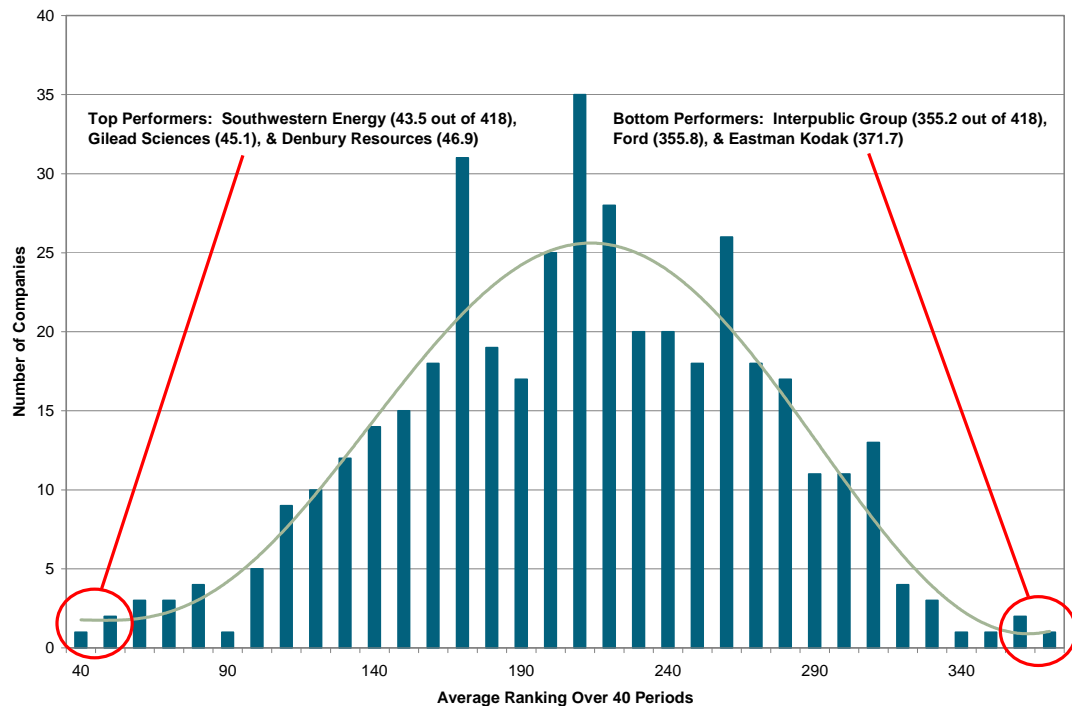
Indices	13-Year TSR of Index	Number of Cos.	Best Average Rank	Worst Average Rank	Standard Deviation	Correlation
S&P 500	7.88%	418	43.5	371.7	62.31	.8529
S&P Midcap 400	113.94%	272	36.4	224.4	35.96	.8499
NASDAQ 100	24.78%	85	17.9	65.7	12.14	.7854
Dow 30	21.94%	30	7.7	22.1	3.73	.7366

The high correlations seen in the previous table accentuate the significant relationship between the average performance over the 40 overlapping periods and the overall 13-year TSR. In other words, if a company has a high TSR over a long period of time, the payouts for the overlapping performance periods inside that particular long-term period will also tend to be high. The same relationship exists with the inverse. This relationship supports Radford's belief that payouts are not necessarily skewed by short-term market performance but indicative of the company's specific long-term performance.

Furthermore, the best and worst average ranks also suggest that Relative TSR plans are not easily skewed by market performance, or even companies performing in the extremes. If these plans were skewed by extreme performers, we'd expect the same company to outperform in every performance period, or the best average rank above to be one. Likewise, we'd expect the same company to underperform in every performance period, yielding a worst average rank of 418 using the S&P 500 as an example. Since this is not the case, there is some variation present in the average ranks over time, which implies that there is a lack of influence by companies performing in the extremes.

For further evidence against the influence of market performance, we graphed the average performance over the 40 periods to create a distribution. The following chart illustrates this distribution of average performance for the S&P 500. Please note that average performance is the average TSR ranking for the 40 performance periods.

*The normal distribution to the right illustrates the balance of performance and payouts over time in Relative TSR plans.*



Appendix B illustrates the distribution of average performance for the other three indices in the study, which are very comparable to the distribution of the S&P 500.

This histogram implies that the average rankings (i.e. performance) tend to follow a normal distribution due to the bell-shaped curve. This suggests that performance will vary in a fairly consistent manner with the majority of data points clustering around the mean (both above and below). This means that top performers and random market fluctuations will not skew payouts over time which further supports the conclusion that payouts will remain balanced over time in Relative TSR plans.

*There are numerous design features to consider when implementing a Relative TSR plan, but understanding these design features will help to alleviate the difficulty associated with its implementation.*

Through this research, Radford has concluded that not only are Relative TSR plans not skewed by market performance, but they are representative of the company's individual long-term performance. Due to this overall balance and the transparent nature of stock price as a metric, Radford believes this form of employee equity is among the best in the marketplace.

### Relative TSR Plan Design Trends

Now that we have evidence that Relative TSR plans promote balance and transparency, we will address the difficulty of implementation. Radford believes that with an understanding of the design nuances comes more ease in implementation. With that, there are numerous design features that need to be considered with Relative TSR plans, including:

- > Overall Plan Format;
- > Types of Peers;
- > Payout Schedule;
- > Length of Performance Period;
- > Averaging Periods
- > Treatment of Dividend Equivalents;
- > Retirement and CIC Provisions

Below, we've have summarized research on one particular design consideration - the Overall Plan Format. Vast research on the other design considerations can be found at [www.RelativeTSR.com](http://www.RelativeTSR.com).

**While Component Rank Plans are more prevalent, a growing number of companies are implementing Outperform Plans**

### Overall Plan Format - Rank vs. Outperform

The first design element when implementing a Relative TSR plan is the overall format of the plan, in which there are two main types. The first type, which Radford calls a “Component Rank” plan, is the most prevalent in the marketplace with over 90% of plans applying this format. Under this format, a company’s TSR is ranked against multiple peer companies, either comprising an index or a custom peer group. The company’s specific ranking is the determinant of the amount of awards to vest.

Radford refers to the other type of plan format as an “Outperform” plan, which is based upon the level of outperformance/underperformance of a company’s TSR relative to a benchmark TSR, which is usually the TSR of an overall index or a specific percentile (such as the 50<sup>th</sup> percentile) of an index or custom peer group. In this format, vesting is tied to the amount at which the company’s TSR is higher (or lower) than the comparator TSR (see [Intel Corporation](#), [DR Horton](#), and [QUALCOMM](#)). The benefit of an Outperform plan is that the magnitude of outperformance (or underperformance) can be captured by how much you beat the competition. These plans are not yet as prevalent as Component Rank plans; however, Radford has seen a recent uptick in them over the past year.

The challenge in implementing an Outperform plan is determining the slope that aligns payouts to a Component Rank plan. Through our previously-mentioned study of overall balance, we were also able to determine the payout slope that, on average, aligns with the historical payout distributions of the four indices. The following table summarizes the average slope for each index and the overall payout slope across all four indices.

Index	Average Return at: <sup>1</sup>			0%-200% Payouts	
	25 <sup>th</sup>	50 <sup>th</sup>	75 <sup>th</sup>	Upside Slope	Downside Slope
S&P 500	-6.79%	23.58%	63.21%	2.52% pts.	3.29% pts.
S&P Midcap 400	-0.34%	31.46%	77.04%	2.19% pts.	3.15% pts.
NASDAQ 100	-5.77%	40.65%	118.67%	1.28% pts.	2.15% pts.
Dow 30	-8.81%	10.95%	34.68%	4.21% pts.	5.06% pts.
<b>Average</b>	<b>-5.43%</b>	<b>26.66%</b>	<b>73.40%</b>	<b>2.55% pts.</b>	<b>3.41% pts.</b>

**Outperform Plans allow for the level of outperformance to influence earnouts.**

<sup>1</sup> In order to conduct this conversion, we assumed that the payout bendpoints would be fairly consistent with what is “best practice” in the market place, whereby the employee would receive 200% of the award if at the 75<sup>th</sup> percentile or greater, 100% of the award if at the 50<sup>th</sup> percentile, and 0% if at the 25<sup>th</sup> percentile. We then determined the upside slope by the spread of the TSRs between the 75<sup>th</sup> percentile and the 50<sup>th</sup> percentile, and the downside slope by the spread of the TSRs between the 50<sup>th</sup> percentile and the 25<sup>th</sup> percentile.

Three possible conclusions, or relationships, can be drawn from this data:

- > This data suggests that roughly a 3% slope (upside and downside) would be consistent with the marketplace when converting a Percentile Rank plan with the assumed payout bendpoints and percentages to an Outperform plan.
- > The downside slope for all four indices is higher than the upside slope. This suggests that the spread of TSR above the 50<sup>th</sup> percentile is higher than the spread of TSR below the 50<sup>th</sup> percentile.

**Relative TSR Plans Align Payouts with Long-Term Shareholder Returns.**

- > There is a significant difference in slope between indices, specifically the NASDAQ 100 and the Dow 30. This implies that less volatile companies (i.e. companies comprising the Dow 30) may yield higher slopes than more volatile companies (i.e. companies comprising the NASDAQ 100). In other words, this suggests that less volatile companies have a smaller spread in TSR than more volatile companies, which seems intuitively correct as more volatile companies have more fluctuations in stock price.

## Summary

Relative TSR plans have been increasing in popularity over the past several years. Radford believes this is a result of advantages Relative TSR plans have over other forms of equity. At its' most basic level, these plans balance shareholder concerns with employee compensation and retention. One major concern about Relative TSR plans, however, is the impact of market fluctuations on performance. Through our research though, we have seen the opposite. Over a 13-year period, payouts remained balanced regardless of market fluctuation. Overall, Radford believes these plans effectively unite the collective goals of shareholders and employees better than other forms of equity.

Even though these plans represent one of the most balanced forms of equity, they are still difficult to implement without specific design understanding. Because so many different design possibilities exist, we believe each design should be specific to each company. For example, most companies historically have utilized a Component Rank plan, but recently, others have taken interest in Outperform plans. A company's specific interest should be taken into account when designing a Relative TSR plan. However, understanding market trends will always help to alleviate some governance concerns.

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## About Radford

For more than 35 years, Radford has provided compensation market intelligence to the technology and life sciences industries. Global survey databases, which include 3.8 million incumbents, offer current, reliable data to nearly 2,000 clients. Leveraging Radford survey data, our thought-leading global Radford Consulting team creates tailored solutions for the toughest global business and compensation challenges facing companies at all stages of development. In addition to our consulting team, we also offer equity valuation assistance via Radford Valuation Services, and leading-edge market analyses and survey services with Radford Analytic Services. Radford's suite of surveys includes the Global Technology, Life Sciences, and Sales Surveys, as well as the US Benefits Survey. For more information on Radford, please visit <http://www.radford.com/>.

## Appendix A: The Relative TSR Balance Study Overview

In this study, Radford wanted to understand the effect of market and company performance on a company's performance and associated payouts under hypothetical Relative TSR plans. This study was completed by the following steps:

- > We calculated the Total Shareholder Return ("TSR") for the three-year period beginning July 1, 2007 and ending on June 30, 2010 for each member of the S&P 500, S&P Midcap 400, NASDAQ 100, and Dow 30.
- > 40 rolling historical three-year TSR's were calculated for the constituents of each index ending with the period from October 1, 1997 to September 30, 2000. Each period started at the beginning of the calendar quarters (January 1, April 1, July 1, and October 1).
- > Each TSR was calculated using a 20-trading-day stock price averaging period for the beginning and ending price of each period.
- > We started with the companies comprising each index as of June 30, 2010. Any company that was not continuously traded over the 13-year period was removed from the analysis. We recognize the inherent bias associated with only examining the surviving companies, but we refrained from attempting to make any conclusions that would be affected by such bias.
- > Radford also calculated the TSR for each member of each index over the entire 13-year period from October 1, 1997 to June 30, 2010. A one-day spot price was used for the beginning and ending price of this calculation.
- > We calculated the TSR for each actual index for each of the 40 rolling performance periods and the overall 13-year period using same TSR methodology outlined above.
- > We finally ranked the components inside of each index for each of the 40 periods based upon TSR and also compared each company's TSR to the TSR of the actual index.
- > We calculated the average ranking for each company across the 40 periods along with the standard deviation.
- > We then summarized the number of times each company finished in a specific quartile according to each ranking.

This yielded a significant amount of data points in which we studied the average rankings over the 40 periods. Additionally, we studied the relationship between the average performance over those 40 periods and the overall performance (TSR over the entire 13-year period).

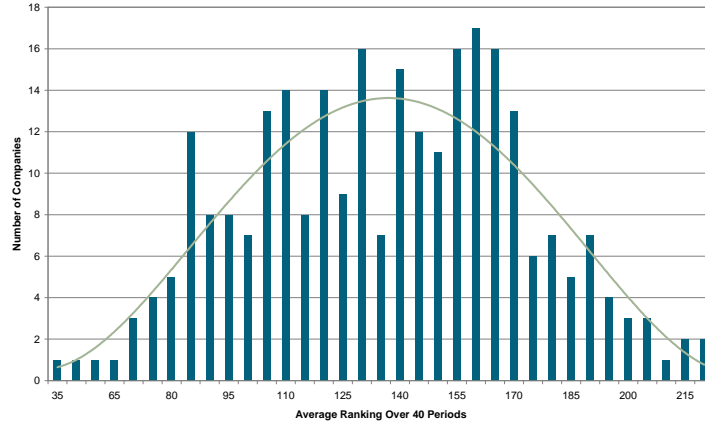
Lastly, for the plan design analysis, we studied the overall slope for converting from a "Component Rank" plan to a "Composite Outperform" plan. The significant amount of data pieces allowed us to make a substantial inference on the overall slope; thus making the result fairly robust.

All of the backup detail for each individual company in the Relative TSR Balance Study can be accessed by emailing Dan Kapinos at [dkapinos@radford.com](mailto:dkapinos@radford.com).

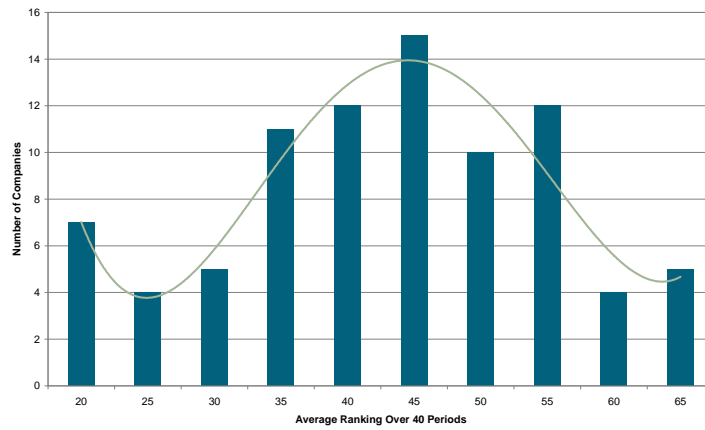
## Appendix B: Study Results

### Distribution of Average Performance for the Other Three Indices

S&P Midcap 400



NASDAQ 100



Dow 30

