

Relative Total Shareholder Return Plans: Valuation 103 – How Design Decisions Impact the Cost of Relative Total Shareholder Return Awards

Long-term incentive plans based on Relative Total Shareholder Return (TSR) often come with an unexpected feature - higher than anticipated accounting cost.

The accounting cost of a share-based Relative TSR award is based on grant date fair value and is not reversible regardless of the performance features and pay outcome. The accounting value of each Relative TSR share, therefore, is quite important.

The accounting value for a share of stock to be earned based on three-year Relative TSR is not necessarily intuitive. It can be 120% to 150% or more of the value of the share! When this becomes a surprise at the end of a design process, any of the following undesirable results can occur:

- The company accepts a higher accounting charge and lower earning than expected
- The value of long-term incentives, as presented in the proxy, becomes greater than the compensation committee thought it agreed to
- Last-minute redesign is implemented to try and lower the valuation of the Relative TSR award

We recommend that the accounting valuation impact of Relative TSR award design features be woven into the overall design process so that there are no surprises at the end. This article highlights the reasons for the surprisingly high valuation and then identifies five design decisions that can lower the valuation of a Relative TSR award with no or modest impact on the value as perceived by participants.

Introduction

The number of long-term performance plans using Relative TSR as the performance metric has grown to more than 1000 companies in the US. The vast majority of the FTSE 100 in the UK has relied on Relative TSR for several years also.

In this article, we will not attempt to address the relative advantages and disadvantages of Relative TSR awards vs. other long-term compensation alternatives, other than to point out:

- They are superior to time-based vesting in an executive compensation environment emphasizing pay for performance

- They complement stock options well in an uncertain stock market environment and in volatile industries

Several key design features impact the valuation of the Relative TSR award. They include:

- Selecting the peer group
- Establishing threshold, target, and superior performance levels
- The payout opportunities earned at each level of performance

Understanding the valuation model and how the key features of the plan impact valuation— and therefore cost— can help guide the design process.

Primer on Relative TSR Valuation

The most common technique used to value Relative TSR awards is Monte Carlo simulation. A Monte Carlo simulation model uses probability to estimate hundreds of thousands of potential future stock prices for the company and its peers. Estimates of future share prices are based on the assumption of stock price growth at the risk-free rate, share price volatility, and peer company share price correlation. For more detail on Relative TSR award valuation, please see our reports titled [Valuation 101](#) and [Valuation 102](#).

Relative TSR awards are designed to deliver increasing payouts for increasing levels of relative performance. This design leads to a direct relationship between high relative performance, high share price, and high payout percentiles. The compounding effect of that relationship leads to an increasingly nonlinear, convex payout curve. The upper portion of the payout curve associated with high simulated share prices has a disproportionately large impact on the fair value of the award. Many of the design decisions introduced in this document, if implemented, lower the fair value of the award by reducing the level of convexity in the payout curve.

In [Valuation 102](#), we provided an example of a Relative TSR award that provided payouts ranging from 0% at the 25th percentile to 200% at the 75th percentile. In that example, we assumed all companies had the same volatility and correlation coefficient. In practice, it isn't realistic that all 401 companies have the same volatility and are equally correlated. In this article, we will assume a normal distribution of volatility and correlation coefficients, which yields a fair value of 145.9% of the valuation date stock price. This example—the “base case”—will be used throughout the remainder of this article.

When developing Relative TSR awards, accounting cost should not dictate optimal compensation design. Instead, accounting cost is an element that should be integrated into the design process so that companies will understand how design choices increase or decrease perceived value and the accounting costs.

This report is a summary of five design decisions that impact the overall cost of Relative TSR awards. They are:

- Peer Group Selection
- Payout Caps
- Limiting Awards When TSR Is Negative
- Payout Levels for Superior Performance
- Threshold, Target, and Maximum Payout Levels

The first two decisions reduce the overall cost of Relative TSRs while having a limited impact on the perceived value. The others also reduce accounting cost but have a more pronounced impact on the perceived value of the award. Taken together, these five decisions provide a roadmap for designing Relative TSRs that balances perceived award value and accounting cost.

Design Decision 1 – Peer Group Selection

When developing a Relative TSR peer group, companies often utilize a number of qualitative and quantitative criteria. Optimally, the resulting group of peer companies balances similarity (i.e., validity) and the ability to generate consistent comparisons over time (i.e., reliability).

When developing a peer group for Relative TSR purposes, companies should also include share price volatility and share price correlation—measures of technical similarity—as selection criteria. Using these criteria to select peers leads to lower accounting costs.

While we do not advocate selecting a peer group expressly for the purpose of reducing accounting cost, it is our recommendation that these criteria, in addition to other more typical measures, should be considered when choosing among reasonable alternatives.

Example: The composition of primary and alternate peer groups varies from company to company; therefore, the resulting change in fair value, related to the change in peer group, varies widely. In our experience, however, we find that alternate peer groups lead to fair market values that are 0% to 15% below/above the initial value while having a minimal impact on perceived value. Further, some have argued that removing the non-similar companies actually *increases* the perceived value as the award becomes less of a lottery ticket.

	Accounting Cost	Perceived Impact on Value
Base Case	145.9%	
Alternate Peer Group	Varies from 0% to +/- 15%	Minimal

Note: The financial impact of the following design decisions is described in this paper. The estimated impact of these design decisions should not be substituted for actual valuations, as the actual impact of each of these decisions is dependent on the facts and circumstances related to each award. The evaluation of perceived value is based on our collective consulting experience.

Design Decision 2—Payout Caps

Most Relative TSR awards provide payout opportunities based on a percentage of shares granted at the targeted level. The ultimate value is equal to the number of shares earned multiplied by the share price on the date earned. Theoretically, there is no cap on the value because there is no cap on the ending share price. These awards do not consider, or limit, the value realized upon vesting (Shares Earned x Ending Share Price). Therefore, to determine the accounting cost (e.g., grant date fair value) of these awards, the Monte Carlo simulation model considers the full range of award payouts and the likelihood of share price outcomes.

In many cases, a material portion of the accounting cost relates to a small percentage of unlikely potential share prices considered in the grant date fair value calculation. Payout caps can be used to lessen the impact of unlikely share prices and reduce accounting cost.

The payout cap, denominated as a multiple of the grant date share price, sets a maximum amount that can be awarded to each participant. Optimally, payout caps are set at levels where they are unlikely to be reached but have a meaningful impact on the Monte Carlo simulation. At this level, payout caps reduce the accounting cost of the award without diminishing the perceived value.

To maximize effectiveness, payout caps should be implemented at levels that are not expected to be obtained during the performance period. At this level, accounting costs are reduced and the perceived value of the award is largely unchanged.

Example: Consider an award of 100 shares that vest based on Relative TSR is granted at a share price of \$10. The award design includes a 200% maximum payout with a 6x payout cap that limits the final value to \$6,000. If, at the end of the performance period, it is determined that performance occurs at the superior level resulting in a 200% of target payout, share price can rise from \$10 to \$30 (i.e., 300% higher than the grant date share price) without incurring a payout limitation.

Because the effect of payout caps is largely affected by the volatility, we have illustrated the reduction in accounting cost with a 30%, a 50% (the base case), and a 70% expected volatility.

	Accounting Cost			Perceived Impact on Value
	30.00%	50%	70%	
Expected Volatility	30.00%	50%	70%	
Base Case	144.00%	145.90%	151.00%	
800% Payout Cap	143.6% (-0.3%)	136.1% (-6.7%)	120.3% (-20.3%)	Minimal
600% Payout Cap	142.5% (-1.1%)	129.0% (-11.6%)	110.5% (-26.8%)	Minimal
400% Payout Cap	138.4% (-3.9%)	116.2% (-20.4%)	93.1% (-38.3%)	Minimal

Note: The financial impact of the following design decisions is described in this paper. The estimated impact of these design decisions should not be substituted for actual valuations, as the actual impact of each of these decisions is dependent on the facts and circumstances related to each award. The evaluation of perceived value is based on our collective consulting experience.

Design Decision 3—Limiting Awards When TSR Is Negative

Most Relative TSR awards measure performance on a relative basis and do not require minimum levels of absolute TSR performance. Adding a negative TSR cap layers an additional performance hurdle onto Relative TSR awards such that the payout is reduced in the event of a negative share price return. Adding this additional performance requirement reduces the accounting cost.

Negative TSR caps can be applied by adding one of the following payout limitations to Relative TSR awards:

- Limit payouts to a predefined level (i.e., 100% of target)
- Reduce payouts using a multiplier, potentially 50%
- Provide no payout

Negative TSR caps provide for lower Relative TSR cost. When implementing this type of provision, it is important to balance the scope of the limitation with the fundamental intention of the award. A broad limitation, such as a provision that provides no payouts if TSR is negative, may counteract the intention of the awards. Typically, one benefit of Relative TSR awards is that they provide leveraged incentives whose value is largely maintained in increasing and decreasing share price environments. Adding an overly broad provision materially reduces that benefit.

Example: Consider an award of 100 shares that vests based on Relative TSR is granted at a share price of \$10. The award includes a negative TSR cap that states that payouts will not exceed 100% of target if absolute TSR is negative.

At the end of the performance period, it is determined that Relative TSR is at the 55th percentile of the peer group. Using a hypothetical payout range, performance translates to 120% of target payout. Now consider that the 55th percentile performance was achieved with a -5% TSR. In this alternate scenario, the Relative TSR payout is reduced from 120% to 100%.

	Accounting Cost	Perceived Impact on Value
Base Case	145.90%	
100% Cap on a Negative TSR	137.0% (-6.1%)	Low
50% Multiplier on a Negative TSR	133.7% (-8.4%)	Moderate
No Payout on a Negative TSR	120.3% (-17.5%)	Large

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Design Decision 4—Payout Levels for Superior Performance

Accounting cost can be reduced by lowering payouts for superior performance or by increasing the performance required for payouts at the superior level. Changes to superior payout and performance levels have a large impact on the accounting cost when compared to the impact of changes to the threshold and target pay and performance levels. The reduction in accounting cost, however, is coupled with a material diminution of the award's value to participants.

Example: Consider a Relative TSR award that provides payouts equal to 200% of the target value if performance meets or exceeds the 75th percentile performance level. The accounting cost of the award is reduced if the payout, for this level of performance, is reduced to 150% or 175% of the targeted value.

	Accounting Cost	Perceived Impact on Value
Base Case	145.90%	
175% at the 75 th Percentile	129.6% (-11.2%)	Low
150% at the 75 th Percentile	113.9% (-21.9%)	Moderate

Note: The financial impact of the following design decisions is described in this paper. The estimated impact of these design decisions should not be substituted for actual valuations, as the actual impact of each of these decisions is dependent on the facts and circumstances related to each award. The evaluation of perceived value is based on our collective consulting experience.

Design Decision 5—Threshold, Target, and Maximum Payout Levels

Similar in concept to changing the pay-for-performance relationship at the top of the scale, accounting cost can be reduced by lowering threshold payments or increasing threshold or target performance requirements. When compared to changes in payouts for superior performance or the superior performance requirements, changes to threshold and target levels have a more limited impact on accounting cost.

The relative lack of accounting cost impact should not negate the importance of setting threshold and target performance at the appropriate level. These payout levels provide a clear message regarding the minimum and targeted levels of performance that are expected from participants. Further, these levels impact the perception of award value. These messages, not accounting cost, should shape threshold and target pay and performance levels.

Example: Consider a Relative TSR award that pays 100% at the 50th percentile, effectively requiring a ranking of 200 out of 400 for target to be earned. Now, we have revised the plan and shifted the target level up to 55%, thereby forcing the ranking to be approximately 180 out of 400 for target to be earned.

	Accounting Cost	Perceived Impact on Value
Base Case	145.90%	
Shift Threshold, Target, and Maximum up by 5% 0% at the 30 th 100% at the 55 th 200% at the 80 th	135.7% (-7.0%)	Low
Shift Threshold, Target, and Maximum up by 10% 0% at the 35 th 100% at the 60 th 200% at the 85 th	126.4% (-13.4%)	Moderate
Shift Threshold, Target, and Maximum up by 15% 0% at the 40 th 100% at the 65 th 200% at the 90 th	116.5% (-20.2%)	Large

Summary

The overarching intent of any performance equity program is to pay employees fairly, such that incentive compensation is aligned with both performance and the return to shareholders. One popular approach to achieve that is with a Relative TSR program. When developing the design of these plans, it is important to consider key plan design decisions that have the ability to optimize the relationship of the perceived value to employees and the overall accounting cost. Five of these key decisions were discussed in this paper. They are:

- Peer Group Selection
- Payout Caps
- Limiting Awards When TSR Is Negative
- Payout Levels for Superior Performance
- Threshold, Target, and Maximum Payout Levels

Careful consideration of these and other Relative TSR design decisions will help create awards that balance perceived value with accounting costs for incentives that efficiently deliver pay for performance.

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