

## Improving Executive Pay

By **Stephen F. O’Byrne and S. David Young**

There is widespread agreement on the basic objectives of executive compensation: provide strong incentives to increase shareholder wealth, retain key talent, and limit the cost of executive compensation to levels that maximize the wealth of current shareholders. The problem is that the basic objectives are hard to measure, and directors frequently rely on two misleading measures: 1) percentage of pay at risk as a proxy for incentive strength and 2) competitive position target (e.g., 50th percentile pay) as a proxy for retention risk and shareholder cost.

In this article, we will show that the proper measure of incentive strength is the sensitivity of executive wealth to changes in shareholder wealth, what we call “wealth leverage.” We will also present better measures of retention risk and shareholder cost and highlight the key compensation policies directors must insist upon to ensure strong, sustainable, and cost-efficient incentives to increase shareholder wealth.

### Wealth Leverage: the Right Way to Think About Incentives

Executives, like investors, are motivated by expected changes in their wealth, not just by expected changes in their annual pay. Executive wealth has three major components:

- The current value of company stock and stock options;
- The present value of expected future compensation, including future salary, bonus, stock and option grants, and pension; and

- Non-company-related wealth such as houses, cars, and other investments.

Substantial non-company-related wealth can greatly diminish an executive’s incentive, but for this article, we’ll focus solely on company-related wealth. We express the return on this wealth as follows:

$$\text{Executive Wealth Return} = \frac{\Delta \text{Executive Wealth} + \text{Cash Received}}{\text{Beginning Wealth}}$$

where “ $\Delta$ Executive Wealth” is the increase or decrease in executive wealth for the year and “Cash Received” is cash compensation and stock sale proceeds. Wealth leverage is the ratio of Executive Wealth Return to Shareholder Wealth Return:

$$\text{Wealth Leverage} = \frac{\text{Executive Wealth Return}}{\text{Shareholder Wealth Return}}$$

where “Shareholder Wealth Return” is equal to  $(\Delta \text{price} + \text{dividend})/\text{beginning price}$ .

Wealth leverage measures the sensitivity of changes in executive wealth to changes in shareholder wealth. The wealth leverage of a “pure” entrepreneur, who has 100 percent of his or her wealth in company stock, is 1.0 because any percentage change in shareholder wealth results in an equal percentage change in the entrepreneur’s wealth. A wealth leverage of zero indicates no relationship between executive and shareholder wealth.

To estimate wealth leverage, we calculate executive and shareholder returns for multiple years, and then calculate the slope of the regression trend line relating the executive wealth return to the shareholder return. The trend line gives us the average sensitivity of executive wealth to shareholder wealth over the analysis period. We can calculate wealth leverage using historical returns or using returns from a Monte Carlo simulation of the pay program (see box on page 22).

**Director Summary:** Directors often rely on misleading measures when considering executive compensation. The authors argue against target pay percentiles and suggest that the proper measure of incentive strength is the sensitivity of executive wealth to changes in shareholder wealth.



## Top Executive Wealth Leverage for S&P 1500 Companies

We estimated the top executive wealth leverage for S&P 1500 companies using proxy data for 1992-2004. Our annual estimates of the present value of expected future compensation took into account all pay components up to the executive's projected retirement date as well as future pension payments. We limited the sample to top-five executives with at least three years of history data to have sufficient data to estimate target compensation levels. We estimated company average wealth leverage by calculating the slope of the trend line relating average executive wealth return to shareholder return net of market and industry returns for the years 1995-2004. Our analysis showed that:

- The median company had wealth leverage of 0.43, with 10 percent of the companies below 0.12 and 10 percent above 0.81.
- Wealth leverage had a significant impact on company performance; on average, an increase of 0.1 in wealth leverage increased a company's annualized excess return by 0.9 percentage points.
- Almost all wealth leverage at the median company, is due to stock and option holdings, not current pay or changes in the present value of future pay.

## The Effect of Competitive Pay Policies

The major reason compensation fails to provide a significant incentive is the prevalence of competitive pay policies. Most companies have a competitive position target (e.g., 50th percentile pay) and strive to provide a target pay level regardless of company performance. Our research shows that top executives at almost 40 percent of S&P 1500 companies have stronger incentives to increase revenue than to increase shareholder wealth. This is no surprise since the compensation surveys that companies use to define their target pay levels show a strong correlation between pay and company size.

A target pay level creates a systematic performance penalty. If an option on 100,000 shares provides competitive compensation when the stock is at \$10, an increase in the stock price to \$20 requires a 50 percent reduction in option shares to stay at the target compensation level and a decline in the stock price to \$5 requires a 100 percent increase in option shares to maintain the target compensation level. Superior performance is penalized by a reduction in shares and poor performance is rewarded by an increase in shares. Since the share adjustment offsets the impact of the stock price change, the present value of expected future compensation—a large component of executive wealth—has little sensitivity to changes in shareholder wealth.

The rationale for a competitive pay policy is that it limits retention risk and shareholder cost. By not letting pay fall below the target percentile, the company ensures that pay is high enough to retain employees, and by not letting pay rise above the target percentile, the company ensures that shareholder cost is reasonable. But a target pay percentile does not provide a meaningful measure of retention risk: for example, 50th percentile pay provides low retention risk for a 20th percentile performer, but high retention risk for an 80th percentile performer. A much better measure of retention risk is the difference between an executive's performance percentile and the executive's compensation percentile (taking account of unvested deferred compensation).

Similarly, a target pay percentile does not provide a meaningful measure of shareholder cost because it reflects the cost, but not the benefit, of incentive compensation. A much better measure of net shareholder cost is the expected excess return from executive wealth leverage minus the premium, if any, of executive compensation over market average compensation. A useful proxy for net shareholder cost is the difference between a company's competitive percentile and the average competitive percentile for companies with equal wealth leverage.

A look at individual pay decisions shows that directors often rebel against the performance penalty inherent in a competitive pay policy. We analyzed consecutive option grants received by 19,511 executives reported in S&P's Execucomp database over the period 1992-2004 and found that about half of the time the second option grant did not reflect a performance penalty. In other words, about half of the time, option shares were unchanged or shares increased when the stock price increased or shares declined when the stock price declined.

However, directors are not consistent in this practice. A look at 7,397 executives who received three consecutive option grants found that 43 percent of the executives with no performance penalty in year two did suffer a performance penalty in year three. Similarly, 51 percent of the executives who suffered a performance penalty in year two were not similarly penalized in year three. The data shows that directors swing back and forth between strong incentives and competitive pay adjustments, favoring one objective one year, but the second objective the next year.

## Conclusion

To create strong, sustainable and cost-efficient incentives, directors need to focus on the right measures—wealth leverage, retention risk, and net shareholder cost—and adopt policies that provide strong incentives with tolerable retention risk and reasonable shareholder cost. Current and expected future compensation will provide



little incentive unless directors insist that executives have fixed share interests in economic profit improvement and/or shareholder wealth gains. Fixed share interests will not help a company achieve a competitive position target, but they will limit retention risk for superior performance and avoid overpaying to limit retention risk for poor performers. Of equal importance is the need for directors to continue their efforts to strengthen holdings

leverage through vesting and retention requirements, granting options or using performance conditions to increase the leverage of stock grants and providing stock ownership guidelines. ■

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## Wealth Leverage: A Simulation

The table illustrates a five-year wealth leverage simulation for an executive with a \$100,000 base salary and a target bonus of \$100,000. The expected stock return is 9% and stock volatility is 0.413 (the median for S&P 1500 companies). The actual bonus, as a percentage of the target bonus, is equal to ending shareholder wealth as a percentage of beginning shareholder wealth. In this example, 50% of pay at risk generates wealth leverage of only 0.11. If this executive had 50% of wealth in company stock, and 50% in the present value of expected future salary, the wealth leverage would be 0.5.

The wealth leverage is so low because the target bonus, unlike the shareholder's expected return, is independent of prior performance and because the bonus is not paid in stock. Making each year's target bonus equal to the prior year's actual bonus increases median wealth leverage from 0.11 to 0.31. Paying this bonus in stock held through the end of year five (equivalent to an incentive plan with an annual stock grant of a fixed number of shares) increases median wealth leverage from 0.31 to 0.52—achieving a wealth leverage five times greater than that in the initial simulation with no increase in the initial percentage of pay at risk.

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Shareholder Wealth	\$20.00	\$18.11	\$29.25	\$19.03	\$18.36	\$16.34
Shareholder Return		-9%	62%	-35%	-4%	-11%
Shareholder Wealth % of Prior Year		91%	162%	65%	96%	89%
Target Bonus	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Actual Bonus % of Target Bonus		91%	162%	65%	96%	89%
Actual Bonus		\$90,530	\$161,540	\$65,051	\$96,491	\$88,994
Base Salary	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000
Present Value of Future Salary	\$432,948	\$354,595	\$272,325	\$185,941	\$95,238	\$0
Cumulative Salary Received		\$100,000	\$205,000	\$315,250	\$431,013	\$552,563
Present Value of Future Bonus	\$432,948	\$354,595	\$272,325	\$185,941	\$95,238	\$0
Cumulative Actual Bonus		\$90,530	\$256,596	\$334,477	\$447,692	\$559,071
Executive Wealth	\$865,895	\$899,720	\$1,006,246	\$1,021,609	\$1,069,181	\$1,111,634
Executive Wealth Return		3.9%	11.8%	1.5%	4.7%	4.0%
Shareholder Wealth Return		-9.5%	61.5%	-34.9%	-3.5%	-11.0%
Wealth Leverage						0.11