
Knowledge Group Webinar

The Future of Executive Compensation: Trends, Challenges & Opportunities

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The objectives of executive pay have been the same for 100+ years, but plan design has moved from value sharing to competitive pay

- The objectives of executive compensation have been the same for 100+ years: (1) providing strong incentives to increase shareholder value, (2) retaining key talent and (3) limiting shareholder cost.
- Executive pay in the first half of the 20th century was based on value sharing in economic profit:
 - General Motors' bonus pool was 10% of profit above a 7% return on capital, a formula it used for 25 years (1922-1947) without any change in the sharing percentage or threshold return. Most big companies had similar plans.
 - These plans provide strong incentives and control shareholder cost, but managing retention risk is challenging.
- Executive pay since the 1960s has been tied to competitive pay concepts, e.g., 50th percentile target pay regardless of past performance, and the belief that a high percent of pay at risk provides a strong incentive.
 - Modern executive pay plans provide surprisingly weak incentives and low alignment of pay and performance because competitive pay policy creates a systematic “performance penalty”.
 - If market pay is \$1 million and the stock price is \$100, 10,000 shares are needed to provide market pay, but
 - If stock price drops to \$50, 20,000 shares are needed to provide to provide market pay.

The “performance penalty” in competitive pay policy leads to huge differences in pay for the same cumulative performance

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Market pay		1,000	1,000	1,000	1,000	1,000

GOOD EARLY PERFORMANCE

Stock price	10	15	20	25	30	20
Shares (= market pay / BOY stock price)		100	67	50	40	33
Cumulative shares		100	167	217	257	290
Ending wealth						5,800

BAD EARLY PERFORMANCE

Stock price	10	7	6	5	8	20
Shares (= market pay / BOY stock price)		100	143	167	200	125
Cumulative shares		100	243	410	610	735
Ending wealth						14,690

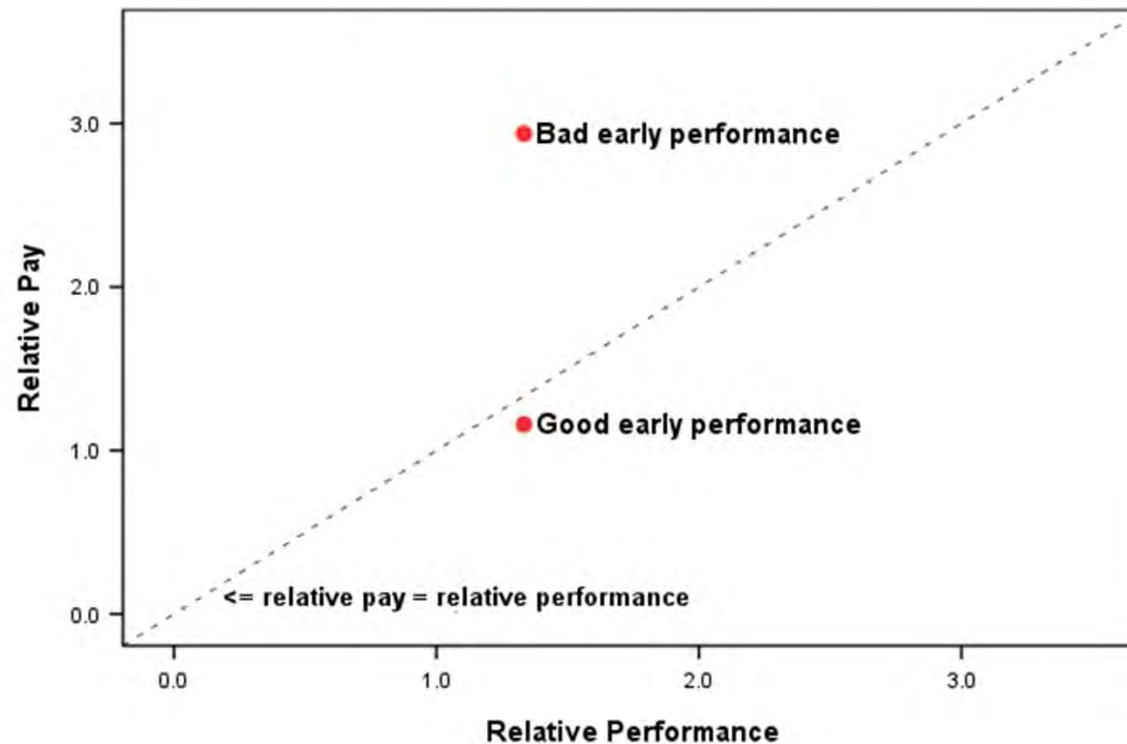
TWO KEY TAKEAWAYS:

CONVERTING MARKET PAY TO SHARES MIS-ALIGNS PAY AND PERFORMANCE, CREATING, IN THIS CASE, A 153% PAY DIFFERENTIAL FOR THE SAME PERFORMANCE

A HIGH PERCENT OF PAY AT RISK (100% IN THIS CASE) PROVIDES NO ASSURANCE THAT PAY WILL BE ALIGNED WITH PERFORMANCE

Plotting relative pay vs relative performance for the two scenarios highlights the big disparity in pay for the same performance

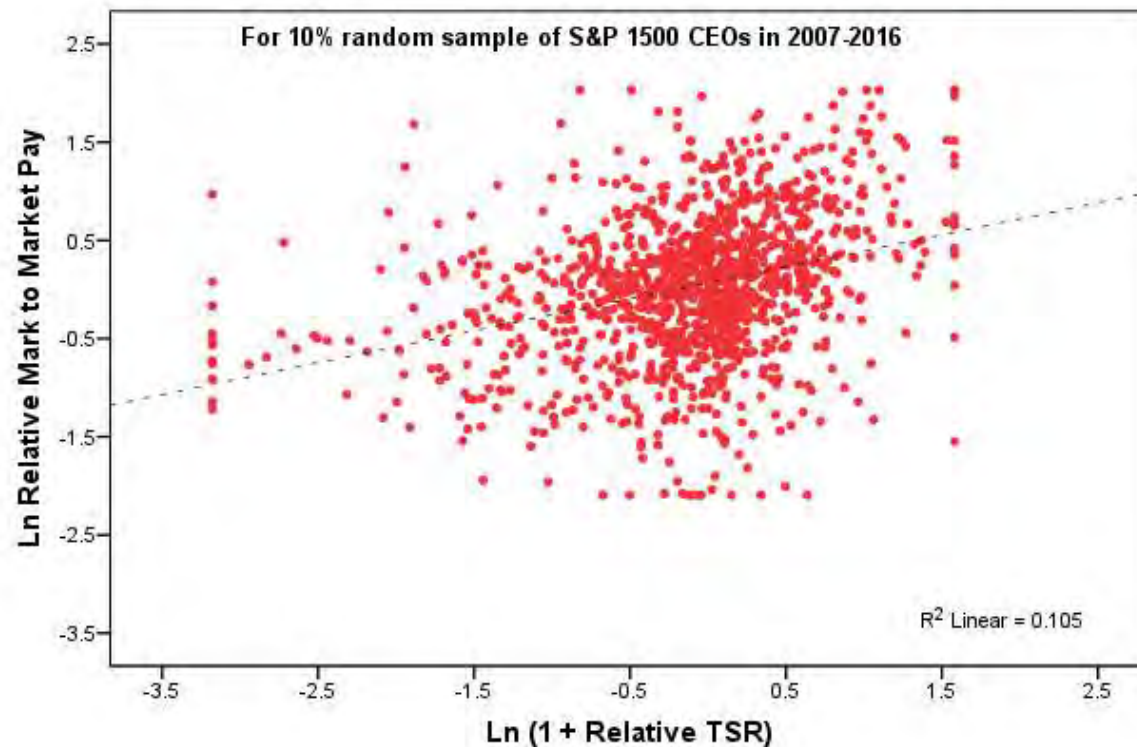
Relative Pay vs Relative Performance



We assume that the industry stock price goes from \$10 to \$15, so relative performance is [company wealth / industry wealth] = $[20/15] = 1.33$. Relative pay is [actual pay / cumulative market pay], so relative pay is $2.94 = [14,690/5,000]$ for bad early performance and $1.16 = [5,800/5,000]$ for good early performance.

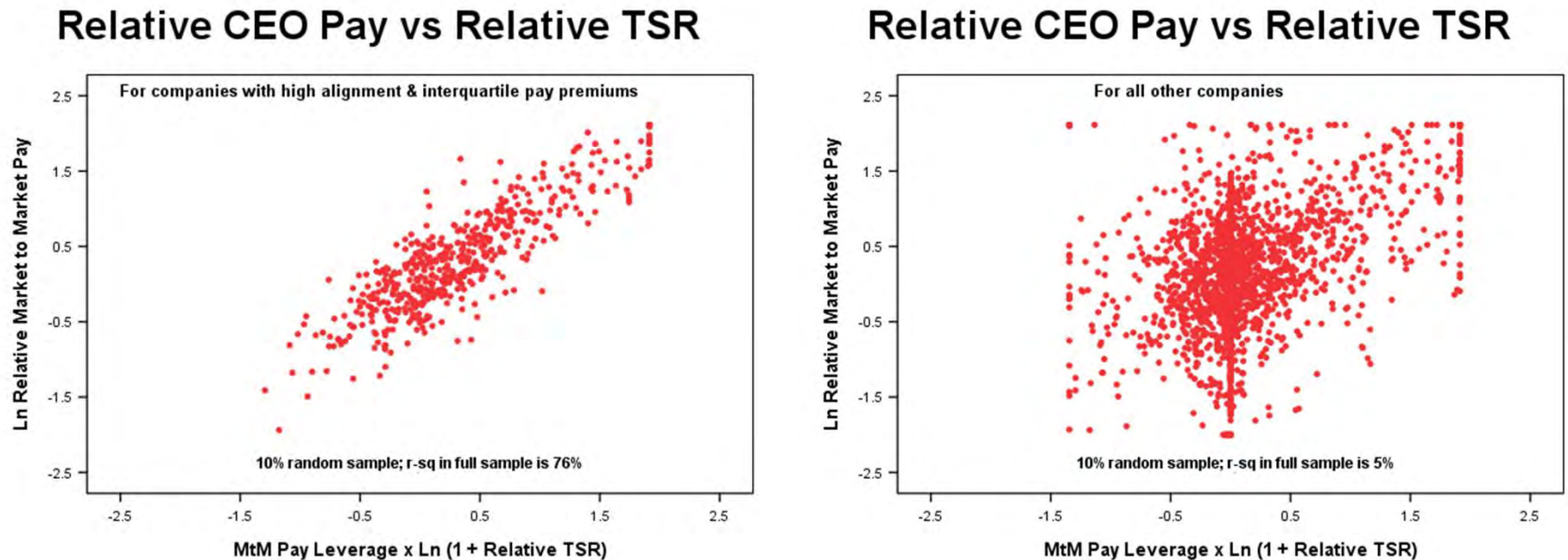
A plot of relative pay vs relative TSR for S&P 1500 CEO shows low alignment and leverage

Relative Pay vs Relative TSR



The graph is a 10% random sample from 19,880 observations of CEO pay and performance for S&P 1500 companies in 2007-2016. The sample includes 10 observations of cumulative relative pay and cumulative relative TSR for each company (i.e., 1 yr, 2 yr., etc). Relative pay is based on mark-to-market (or “realizable”) pay that values equity compensation at the end of period stock price. The sample is 1,988 companies, not 1,500, because the sample includes current and prior S&P 1500 members included in S&P’s Execucomp database.

20% of companies do a good job of aligning pay & performance and controlling cost and their alignment (left panel) is high



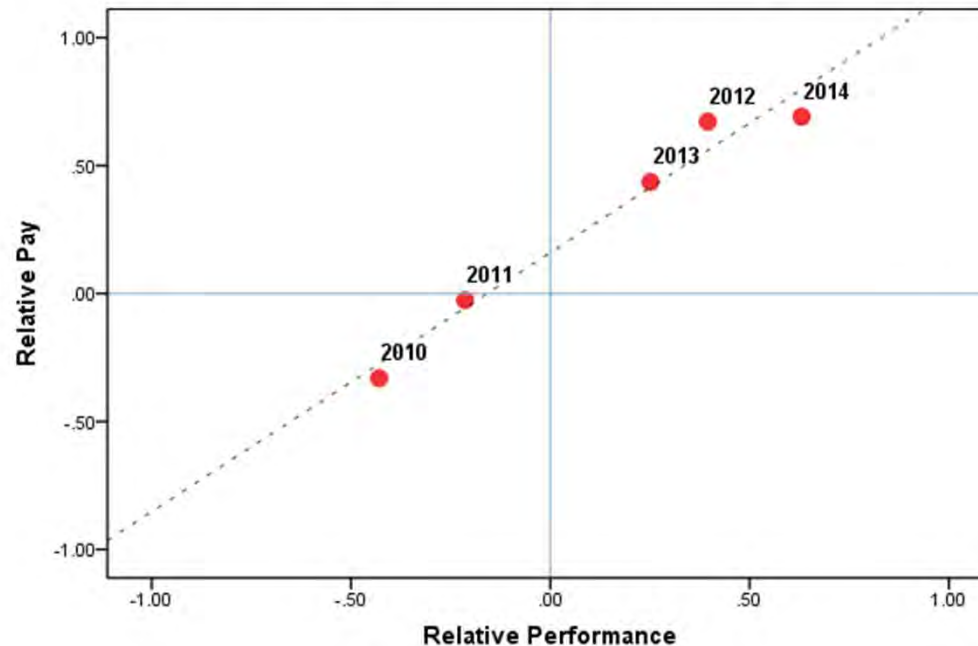
The ten observations for each company in the prior slide graph can be used to measure that company's alignment, pay leverage and pay premium at industry average performance.

The left panel shows a 10% random sample from the 395 companies that do a good job managing pay. These companies have alignment (r-sq) > 50% and an interquartile pay premium at industry average performance. For these companies, relative TSR explains 76% of the variation in relative CEO pay. The independent variable is pay leverage x $\ln(1 + \text{relative TSR})$ to recognize differences in pay leverage.

The right panel shows a 10% random sample from the 1,593 companies that don't do a good job managing pay. These companies have alignment (r-sq) < 50% and/or pay "premiums" outside the interquartile range. For these companies, relative TSR explains only 5% of the variation in relative CEO pay.

A single company plot of relative pay vs relative performance measures incentive strength, retention risk and shareholder cost

Relative Pay vs Relative Performance



ISS, CalPERS and others use similar looking graphs, e.g., pay percentile vs TSR percentile, but they plot only observation per company. These multi-company graphs provide little insight about individual company pay practices.

The dashed line is the regression trendline relating relative pay to relative performance. The trendline gives us measures of the three basic objectives of executive pay:

1. The slope of the line measures **INCENTIVE STRENGTH** or pay leverage, i.e., the ratio of relative pay change to relative performance change. Pay leverage is the product of pay alignment (or correlation) and relative pay risk.
2. The intercept, where the trendline crosses the light blue vertical axis, is a negative measure of **RETENTION RISK**, i.e., higher positive values mean lower retention risk. The intercept is the pay premium at industry average performance. Above average pay for average performance reduces retention risk.
3. The intercept is a positive measure of **SHAREHOLDER COST**. Above average pay for average performance increases shareholder cost.

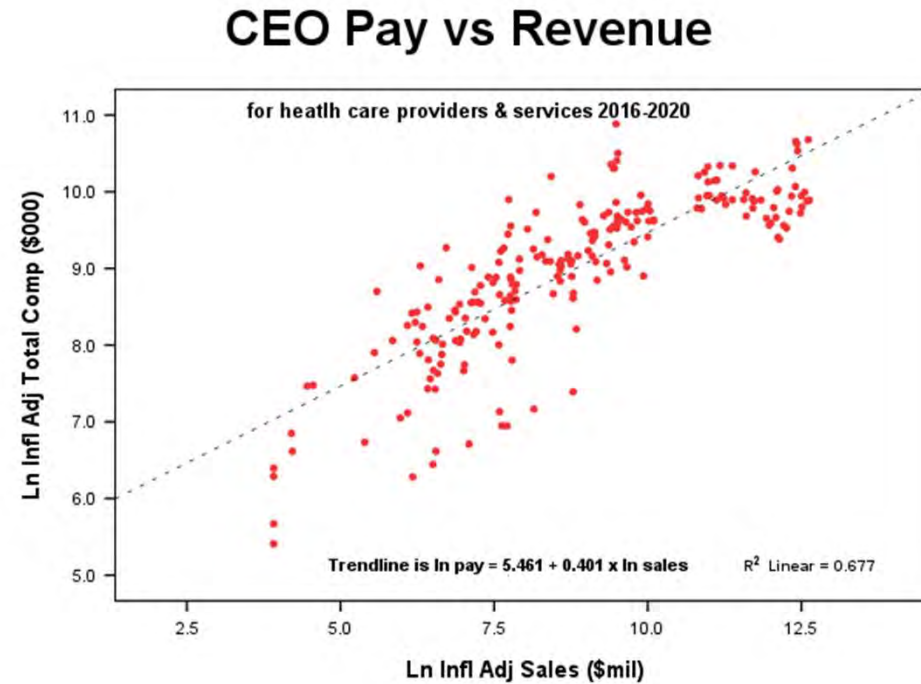
The new PvP disclosures (and a little effort) provide the data for this highly informative graph

- We need to make two adjustments to the reported data:
 - The first adjustment is estimating and backing out pay attributable to grants before the three (four or five) year measurement period. This is needed to match pay and performance periods.
 - The second adjustment is adding up the annualized CAP figures to get cumulative realizable (or “mark to market”) pay for each year. This is needed to give the pay and performance periods the same duration.
- We need two pieces of supplemental information:
 - Market rates of pay.
 - My market rates are based on single regression trendlines relating the log of grant date pay to the log of revenue.
 - I do trendlines by industry and position/pay rank.
 - The expected annual accretion in pay.
 - Market rates are present value numbers, while mark to market pay is a future value number. The accretion factor is needed to convert market rates to future values.
 - Market rates and the accretion factor are needed to get an accurate estimate of the pay premium at industry average performance [which has a negative effect on future stock returns].

We need to calculate market rates of pay so we can plot relative pay vs relative performance

The trendline of a log-log regression is used to estimate a market rate of pay.

Market pay is an opportunity cost concept, just like cost of capital.

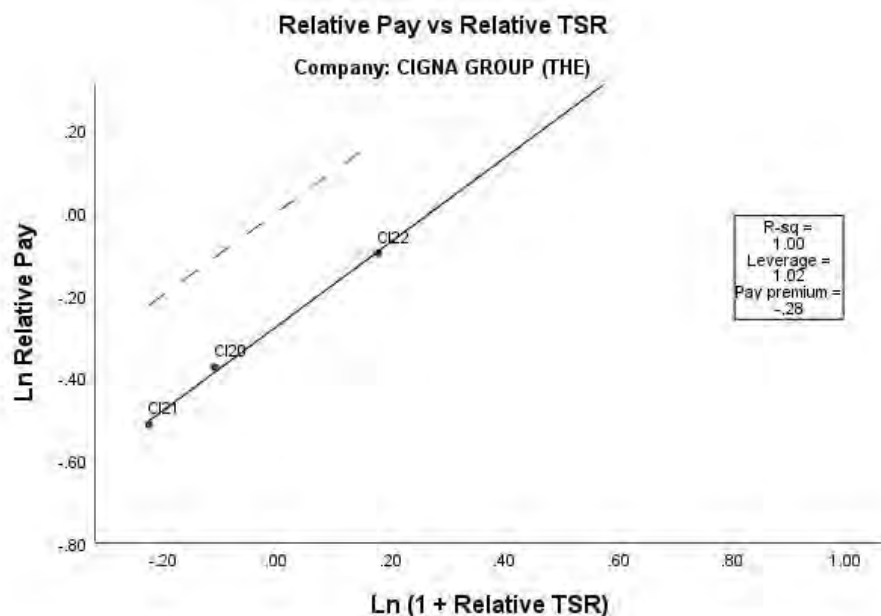


Log-log curves imply that a doubling in size is associated with a constant percentage increase in pay. For this sample, the equation of the trendline is $\ln \text{ pay } (\$000) = 5.461 + 0.401 \times \ln \text{ revenue } (\$mil)$, or $\text{pay} = \exp(5.461) \times \text{revenue}^{0.401} = \$235 \times \text{revenue}^{0.401}$. From this equation, we can see that a doubling in revenue increases pay by 32% since $2^{0.401} = 1.32$.

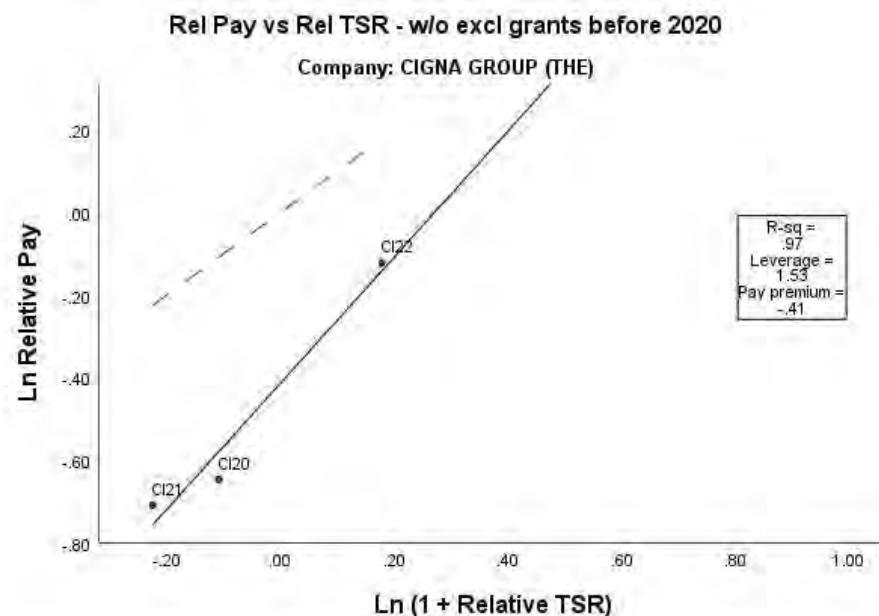
The trendline gives a 2020 market rate of \$30.3 million for Cigna CEO David Cordani. Cigna's 2020 revenue was \$182.5 billion and $\exp(5.461 + (.401 \times \ln(182,474))) = \30.298 million. We'll use this market rate when we show how to analyze the new PVP disclosures.

The widespread reliance on market pay estimates based on sales means that executives have an incentive to increase revenue even if it does not increase economic profit..

Individual company graphs based on the new PvP disclosures provide measures of the key pay dimensions



Solid line is the company trendline. Dashed line is leverage = 1.0 with pay premium of zero



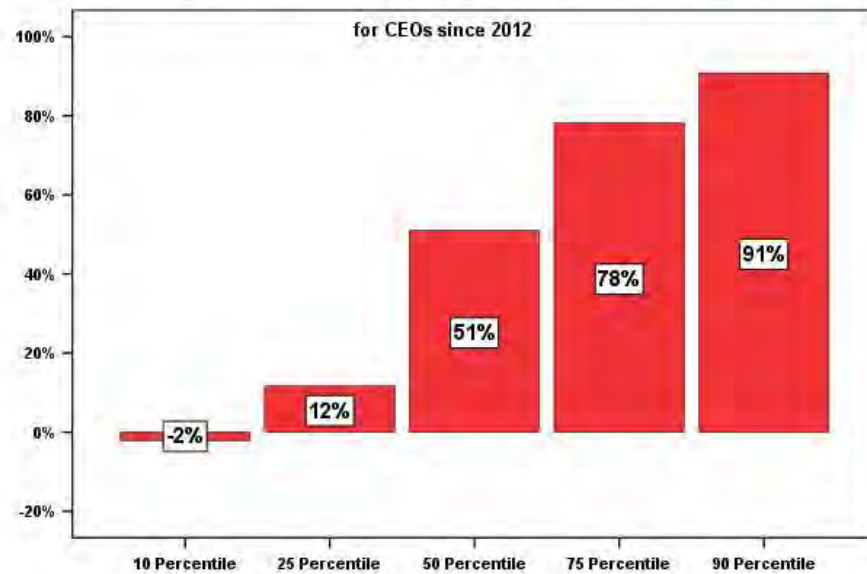
Solid line is the company trendline. Dashed line is leverage = 1.0 with pay premium of zero

The left panel shows log relative pay vs log relative TSR for Cigna CEO David Cordani after excluding gains and losses from grants made prior to the performance measurement period 2020-2022. The peer group used to compute relative TSR is the S&P 500 Health Care Index.

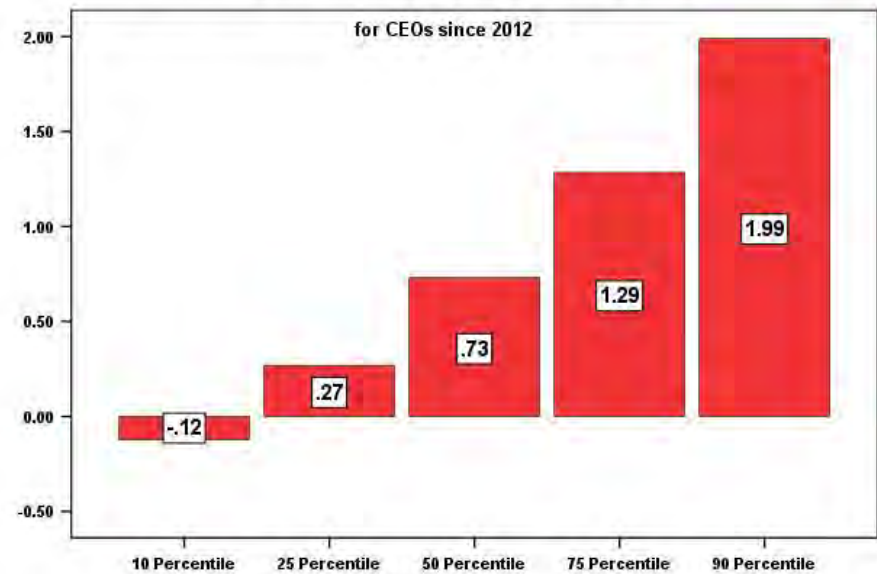
The right panel shows log relative pay vs relative TSR for Cordani without excluding gains and losses from grant made prior to 2020-2022. The prior grants declined in value during 2020 and 2021, reducing Compensation Actually Paid and increasing pay leverage from 1.02 to 1.53, an increase of 50%. But these prior grants correspond to pre-2020 market pay that is not reflected in our relative pay measure and reflect a reversal of a 2019 relative wealth gain that is not reflected in our relative performance measure. These mis-matches exaggerate Cordani's pay leverage and reduce his pay premium at industry average performance.

The new PvP disclosures can be used to benchmark pay dimensions, not just pay level

Mark to Market Pay Alignment (r-sq)



Mark to Market Pay Leverage



The left panel shows the distribution of alignment (r-sq) for S&P 1500 CEOs over the years 2012-2023. Alignment is calculated for CEO tenure for CEOs with tenures of 5+ years ending after 2011 (or continuing in 2023).

The right panel shows the distribution of leverage for S&P 1500 CEOs over the years 2012-2023. Leverage is calculated for CEO tenure for CEOs with tenures of 5+ years ending after 2011 (or continuing in 2023).

The relative pay vs perf graph leads to “perfect” pay concepts (where alignment with relative pay is 100%) – here’s step one

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Market pay		1,000	1,000	1,000	1,000	1,000
Beginning stock x (1 + industry return)	10	11	12	13	14	15

GOOD EARLY PERFORMANCE

Stock price	10	15	20	25	30	20
Relative return (at beginning of year)		0%	36%	67%	92%	114%
Target pay (= market x (1 + relative return))		1,000	1,364	1,667	1,923	2,143
Grant shares (= target pay / BOY stock price)		100	91	83	77	71
Cumulative shares		100	191	274	351	423
Ending wealth						8,452

BAD EARLY PERFORMANCE

Stock price	10	7	6	5	8	20
Relative return (at beginning of year)		0%	-36%	-50%	-62%	-43%
Target pay (= market x (1 + relative return))		1,000	636	500	385	571
Shares (= target pay / stock price)		100	91	83	77	71
Cumulative shares		100	191	274	351	423
Ending wealth						8,452

The first step in achieving perfect alignment is making target pay equal to market pay adjusted for trailing relative performance.

The second step in achieving perfect alignment is using vesting to take out the industry component of the stock return

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Market pay		1,000	1,000	1,000	1,000	1,000
Beginning stock x (1 + industry return)	10	11	12	13	14	15
GOOD EARLY PERFORMANCE						
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Grant shares (= target pay / BOY stock price)		100	91	83	77	71
Industry return from grant to end of year 5		50%	36%	25%	15%	7%
Year 5 vesting multiple (= 1 / (1 + industry return))		0.67	0.73	0.80	0.87	0.93
Vesting grant shares		67	67	67	67	67
Cumulative vesting shares		67	133	200	267	333
Ending wealth						6,667

BAD EARLY PERFORMANCE						
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Vesting grant shares		67	67	67	67	67
Cumulative vesting shares		67	133	200	267	333
Ending wealth						6,667

The perfect performance share plan highlights three critical weaknesses in current pay design

Weakness in Current Pay Design	Perfect Pay Design
<p>Competitive pay policy</p> <p>Management is entitled to competitive target pay regardless of past performance</p>	<p>Target pay is market pay adjusted for trailing relative performance</p>
<p>Pay for industry performance</p> <p>Through restricted stock grants, stock options or poorly designed performance shares</p>	<p>Vesting takes out the industry component of the stock return</p>
<p>Weak mechanisms to link cumulative pay and cumulative performance</p> <p>Cash pay/realizations are not limited to cumulative earned pay</p>	<p>Cash is a draw against the value of the performance shares</p>

- Pay dimensions have statistically and economically significant effects on future stock returns.
 - The pay premium at industry average performance has a negative effect on future returns and relative pay risk has a positive effect.
 - Conventional pay measures (i.e., percent of pay at risk and percent from market) don't tell us anything useful about future returns.
- See my chapter in *The Handbook of Board Governance* (3rd edition), edited by Richard LeBlanc.

Pay leverage is a proxy for wealth leverage – a concept sorely needed in the Elon Musk pay trial

- The most comprehensive measure of incentive strength is wealth leverage, i.e., the ratio of percent change in executive wealth to percent change in shareholder wealth.
 - An executive's wealth as the present value of expected future cash flows, including stock and option holdings and the present value of expected future pay.
 - When we use historical data to measure pay leverage, we are ignoring the change in the present value of expected future pay. If a company follows competitive pay policy – as most companies say they do - the present value of future pay has zero sensitivity to current performance, so our calculated pay leverage is likely to overstate wealth leverage.
- The judge in the Elon Musk case uses the dollar change in wealth as a proxy for incentive strength
 - His “ownership stake gave him every incentive to push Tesla to levels of transformative growth – Musk stood to gain over \$10 billion for every \$50 billion in market capitalization increase...Why did Telsa have to ‘give’ anything in these circumstances?” (pp. 6,178).
 - The judge (and, apparently, the defendants) did not estimate the impact of the 2018 grant on Musk's wealth leverage and nor estimate the shareholder wealth gain from higher wealth leverage.
 - Space X and his other non-Tesla holdings made his pre-grant wealth leverage < 1.
 - The compensation plan increased his wealth leverage because it had wealth leverage of about 1.5. The change in Musk's wealth leverage and its estimated impact on shareholder wealth was never measured.