

TOOLKIT: COMPUTATION AND INTERPRETATION OF PAY DURATION INDICATOR

When evaluating a company’s investment cycle and strategic objectives, pay duration can provide context for comparison. For example, if a company is ramping up investment in R&D, it should structure executive incentives in a way that matches a lengthening investment horizon, thus increasing the resulting pay duration. Pay duration can also be applied as a screening tool for comparing pay profiles of companies in a peer group to see how incentives are structured on a relative basis.

Computation and interpretation

(1) Pay duration is simply a weighted average of each of the components of the pay package granted in the year in question:⁴¹

$$Duration = \frac{(Salary + Bonus) \times 0 + \sum_{i=1}^{n_s} Restricted\ Stock_i \times t_i + \sum_{j=1}^{n_o} Option_j \times t_j}{(Salary + Bonus) + \sum_{i=1}^{n_s} Restricted\ Stock_i + \sum_{j=1}^{n_o} Option_j}$$

Description from the authors: “... i denotes a restricted stock grant, j denotes an option grant, $Salary$ and $Bonus$ are, respectively, the dollar values of annual salary and bonus. Duration is calculated relative to the year end, so $Salary$ and $Bonus$ have a vesting period of zero. Next, $Restricted\ stock_i$ is the dollar value of restricted stock grant i with corresponding vesting period t_i (in years). During the year, the firm may have other stock grants with different vesting periods (different t_i), and n_s is the total number of such stock grants. Finally, $Option_j$ is the Black-Scholes value of option grant j with corresponding vesting period t_j (in years), and n_o has a similar interpretation to that of n_s .”⁴²

In instances of graded vesting of restricted stock and options, replace each of the terms in the above equation with the following terms, where a stock grant i vests equally over t_i years:

$$Restricted\ Stock_i \times \left(\frac{t_i + 1}{2}\right) \quad \text{and} \quad Option_j \times \left(\frac{t_j + 1}{2}\right)$$

In building upon the work of Gopalan and colleagues (2014), we can expanded upon and interpret the concept of executive pay duration in light of several realities. An important one is that CEO discount rates are often not the same as corporate rates. By capturing unique discount rates, the computation of compensation duration would build on the formula in (1) as follows:

(2) Expanded formula with CEO discount rates

$$Duration = \frac{(Salary + Bonus) \times 0 + \sum_{i=1}^{n_s} \frac{1}{(1+r)^{t_i}} \times Restricted\ Stock_i \times t_i + \sum_{j=1}^{n_o} \frac{1}{(1+r)^{t_j}} \times Option_j \times t_j}{(Salary + Bonus) + \sum_{i=1}^{n_s} Restricted\ Stock_i + \sum_{j=1}^{n_o} Option_j}$$

This method of calculation is probably more reflective of economic realities and does not rely on the assumption that CEO and company discount rates are the same – that is, discount rates that are the same drop out of the baseline measure in equation (1).

Adding further terms to the formula

As written, the formula (1) baseline measure of pay duration captures only the structure of current proposed pay elements and does not include previous unvested grants. Certain terms can be added to the formula in order to build a fuller picture of incentives. Besides vesting periods, *access period* can also be introduced into the methodology, with the rationale that awards that the executive is required to hold as shares are at risk and beyond the control of the owner. When mandatory holding periods are linked to specific share awards, these policies effectively lengthen the time horizon of access to the awards, which effectively lengthens the duration of pay. For example, a typical share award, with equal vesting over three years, would have a duration of two years. A mandatory holding period for this award that requires retention of vested shares for two years would lengthen the effective pay duration to three years. Exhibit 7 helps to visually explain time horizons and how holding periods could be integrated into pay duration calculations. FCLTGlobal welcomes readers to contact us for further follow-up and deeper conversation.

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Exhibit. Mapping out vesting and holding periods

	Pay component	Vesting period	Access period
Current Pay	Salary	\emptyset	\emptyset
	Bonus	\emptyset	\emptyset
	performance-based plan	\emptyset	\emptyset
	Time-based LTIP	t	t
	Time-based LTIP with holding period	t	$t+h$
	performance-based LTIP performance-based LTIP with holding period	t	t
	performance-based LTIP with holding period	t	$t+h$
Vested pay	Grants with holding periods	\emptyset	h
Share retention provisions*		\emptyset	-

Source: FCLTGlobal

t = vesting period; h = holding period; - = undefined

*Share retention provisions refer to policies that are applied globally to all shares owned and are not linked to specific awards. These policies may not specify a period of years and are instead applied over the tenure of an executive. Since a holding period measured in years is open to interpretation, we leave it as such and encourage solutions to estimate an appropriate holding period assumption.