

ESO VALUATION – BLACKOUT PERIODS

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Let us consider an Employee Stock Option (ESO). Suppose that the option can be exercised at any time. Suppose that the yield is 0%. Then the best policy is to delay exercise until the expiration date. However, the employees are expected to have a suboptimal exercise behavior, e.g. they will exercise when the stock price crosses a given value. This suboptimal policy results in a significant decrease of the option value. Suppose now that a blackout period is imposed. This blackout period will force the employees to improve their suboptimal exercise policy because it delays the exercise of the option. Therefore, the blackout period is expected to increase the option value.

For this ESO the real restriction is the suboptimal exercise factor. The blackout period is not an extra restriction. The blackout period is the suspension of the restriction (the suboptimal exercise policy) for a given timeframe.

Here is an extreme example:

- Suppose that the doctor recommends for X to exercise outdoor every day for the next 10 years. This can be viewed as the optimal policy.
- Suppose that X is convicted to house arrest for the next 10 years, i.e., X cannot get out and exercise. This may be viewed as the suboptimal exercise policy.
- Suppose that in addition to house arrest for the next 10 years, X will be evicted from his house for 1 month. This may be viewed as the blackout period.

Despite the fact that the 1-month eviction may appear as an added punishment, it is in fact an improvement for X because now he can exercise as recommended by the doctor.

