Are CEOs paid extra for riskier pay packages?

Albuquerque-Albuquerque-Carter-Dong

Kevin J. Murphy
December 2019

Compensating Differentials for Risk

“Theory” predicts that risk-averse CEOs will demand compensating differentials for accepting risky pay packages

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Authors consider 3 approaches

- Simulations based on performance metrics in incentive plans (Incentive Lab)
- E[Pay]=Mean[TDC1], Var[Pay]=Var[TDC1]
- E[Pay] and Var[Pay] based ARCH estimates using TDC1

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Apparently, our theories need updating . . .

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This paper shows that we've taken the risk-aversion story too seriously

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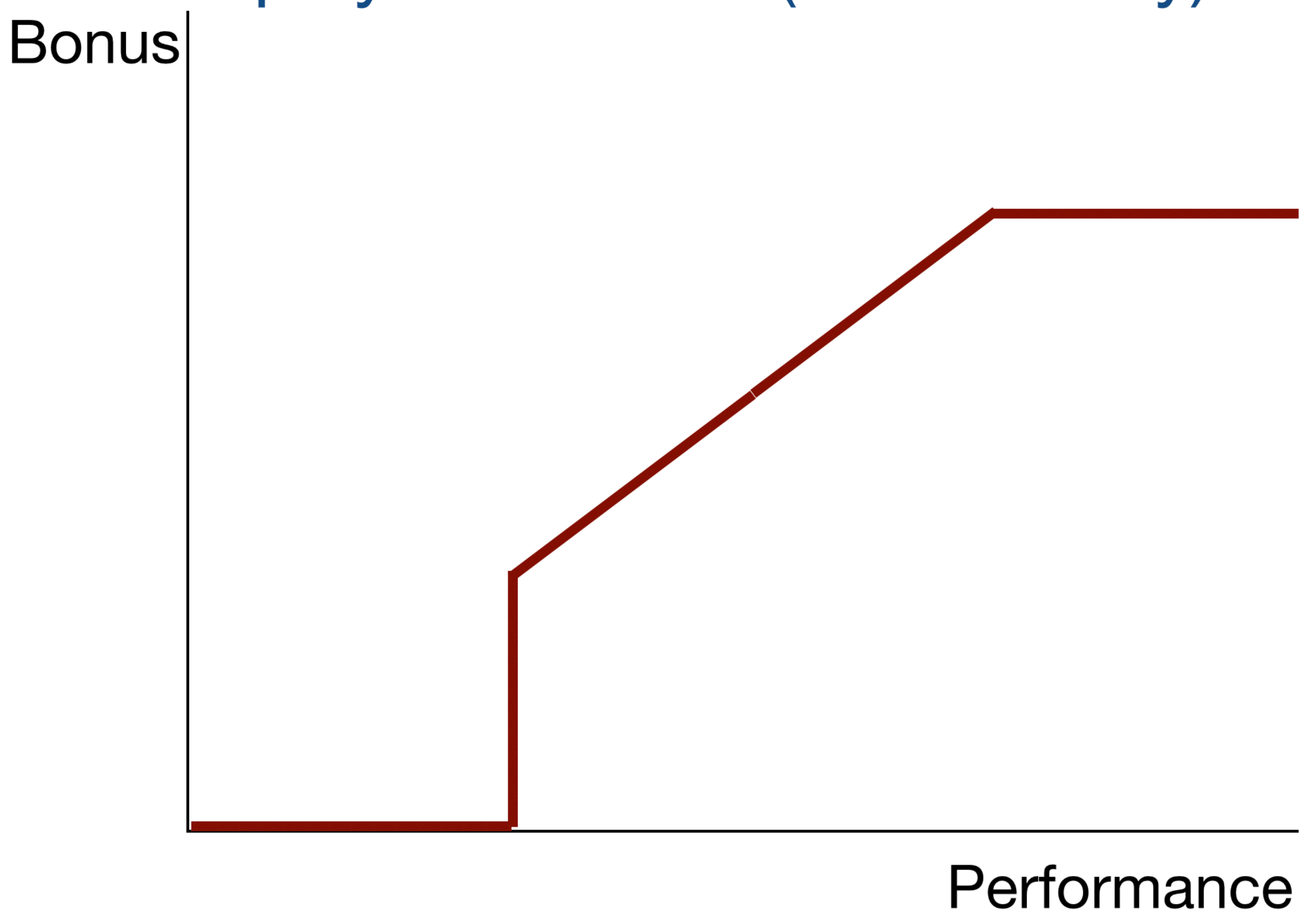

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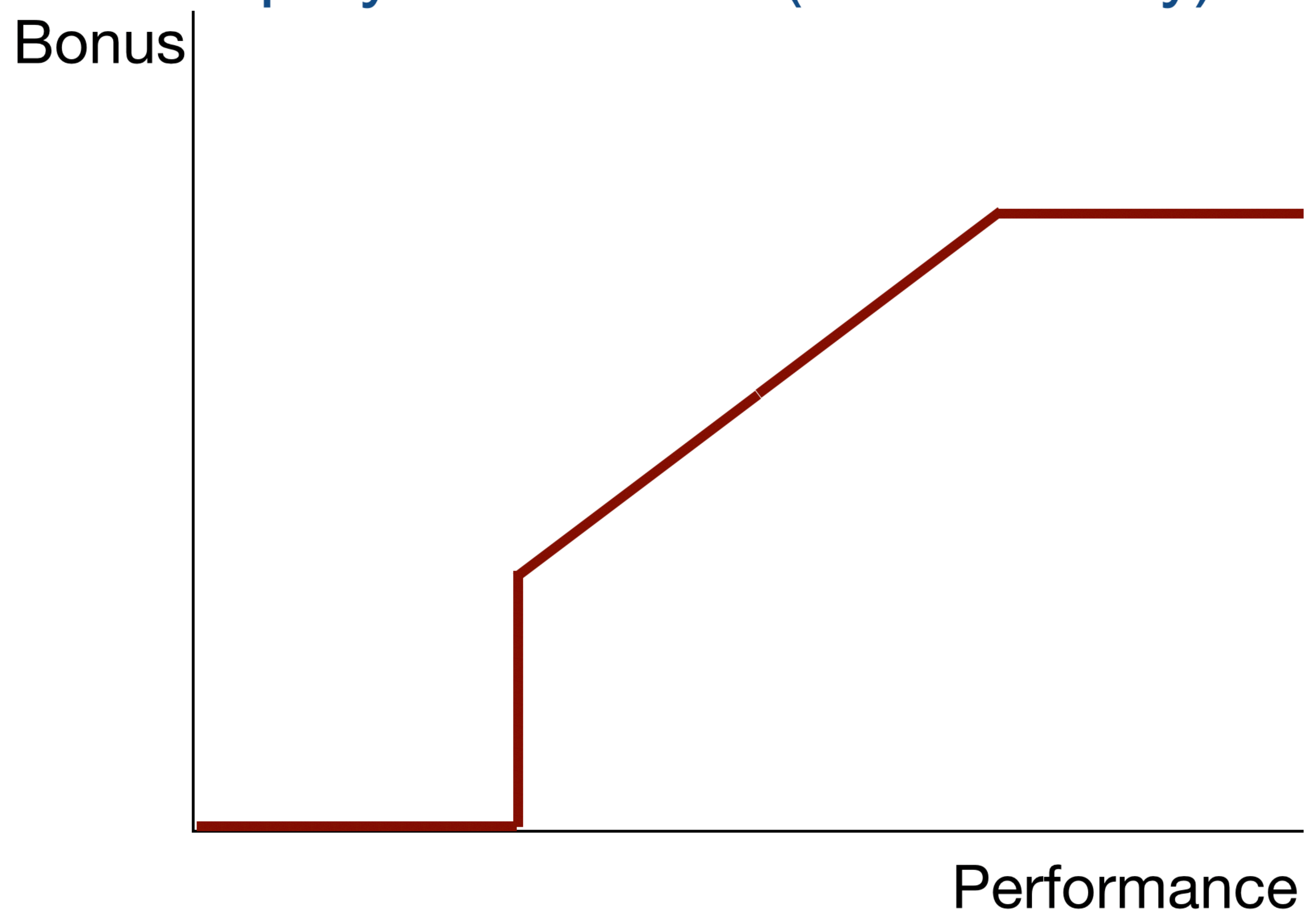

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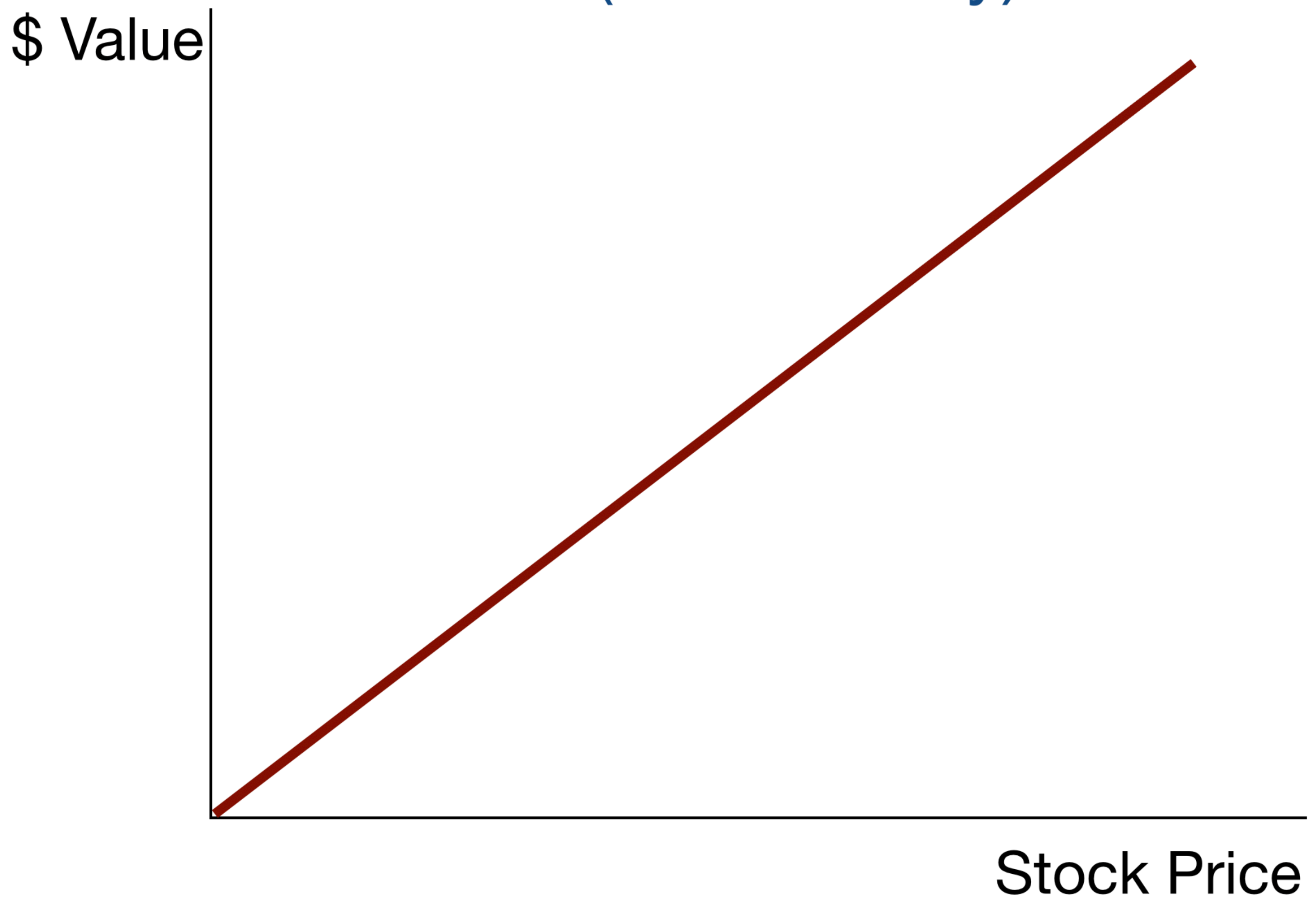

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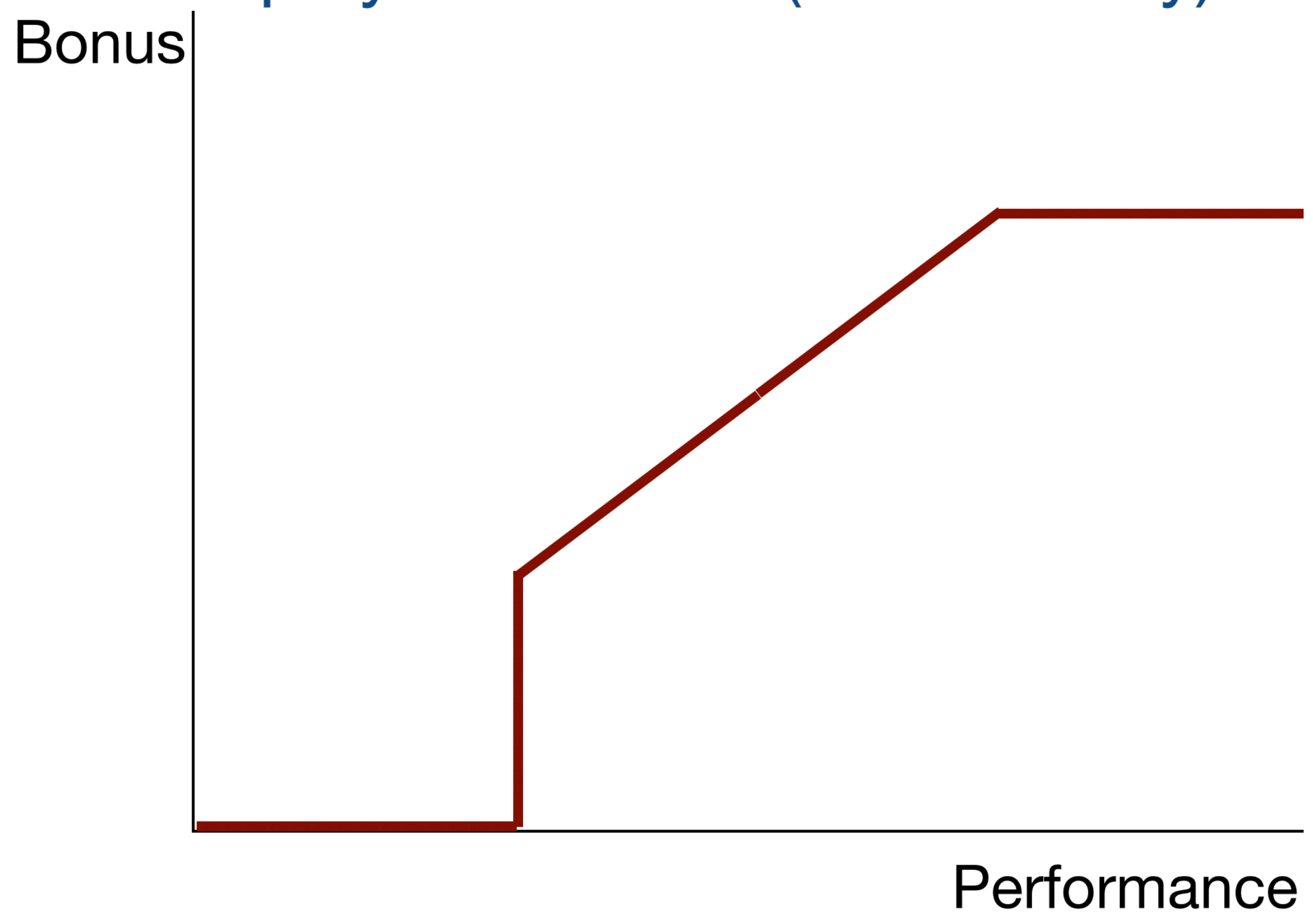

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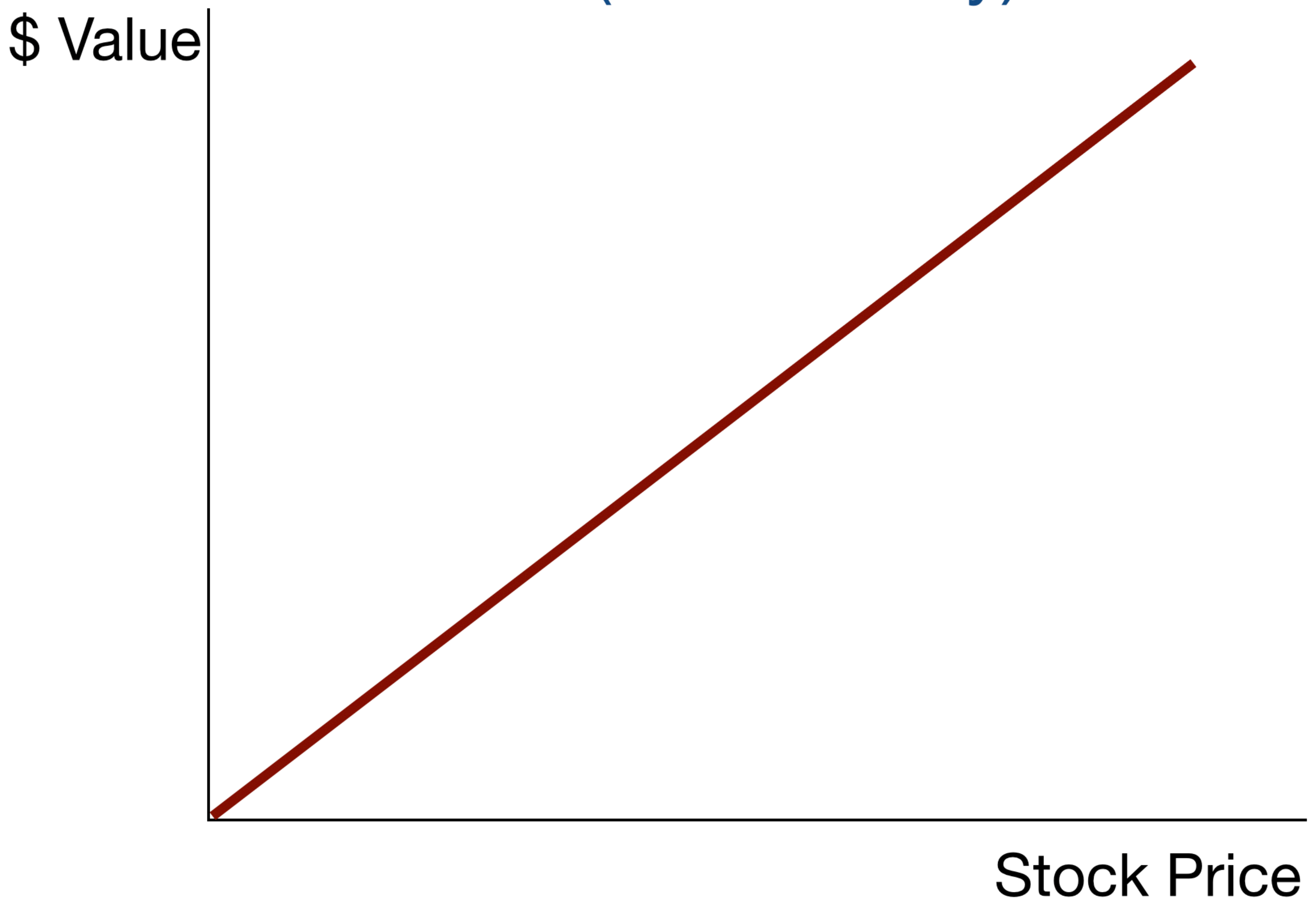

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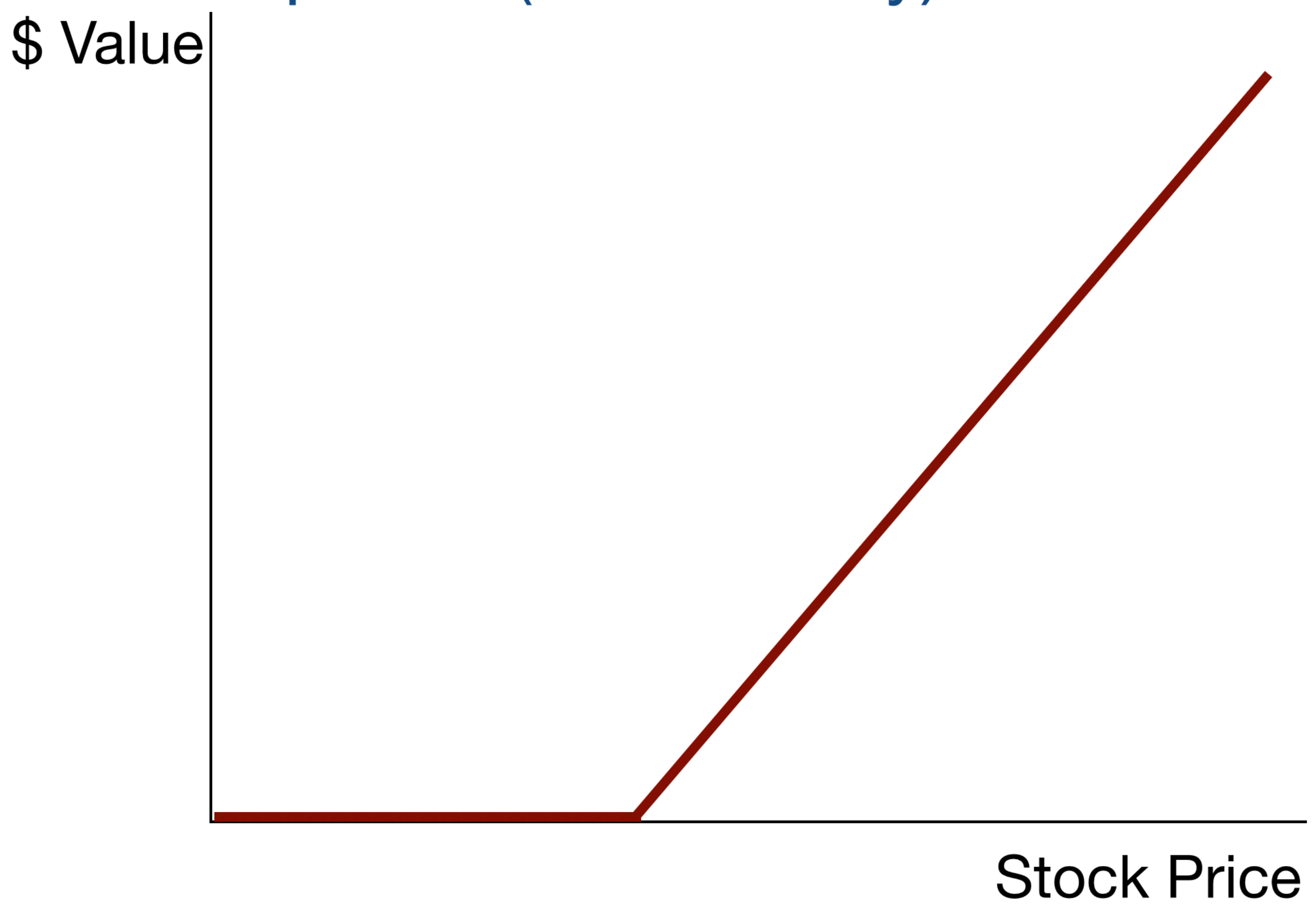

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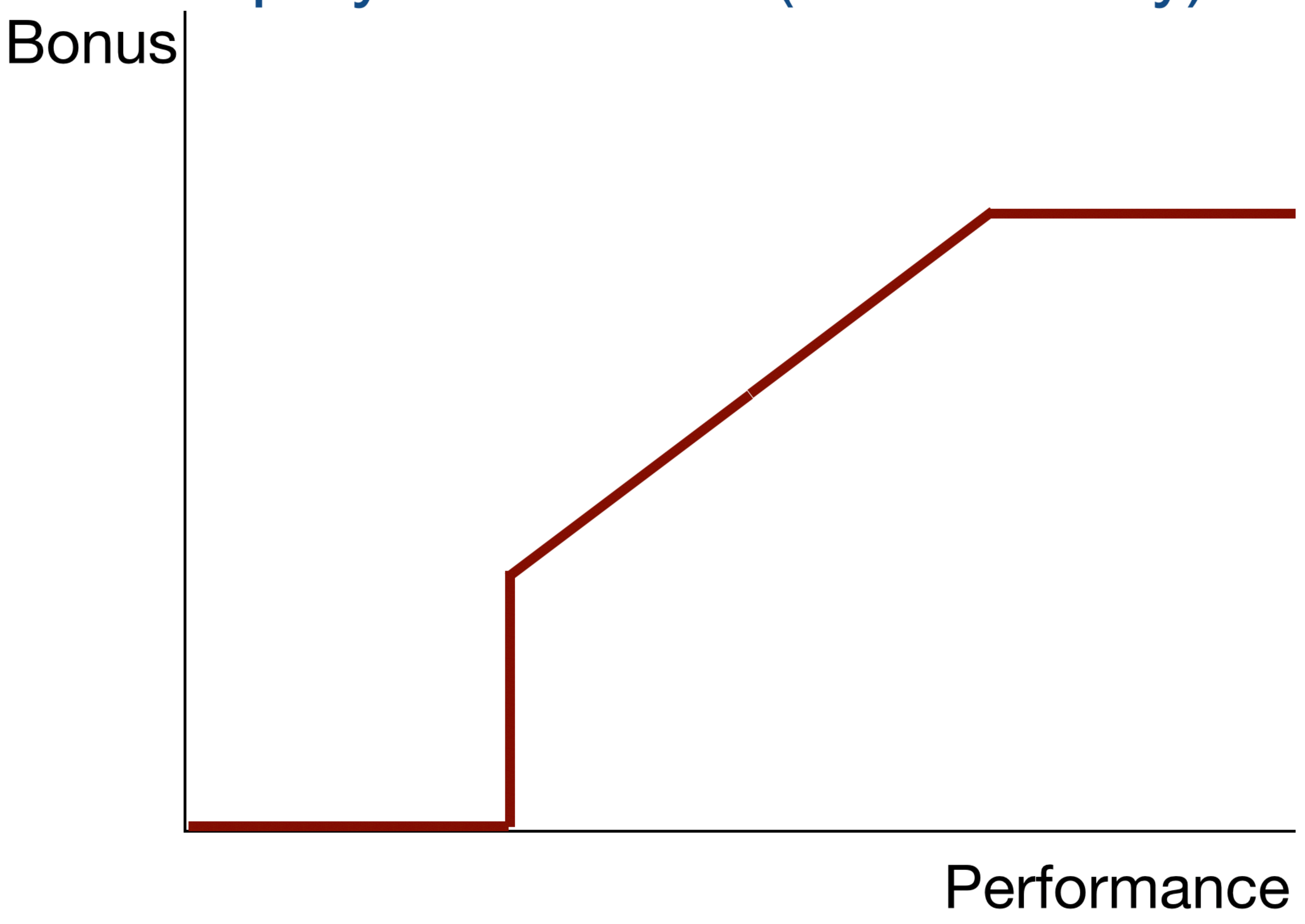

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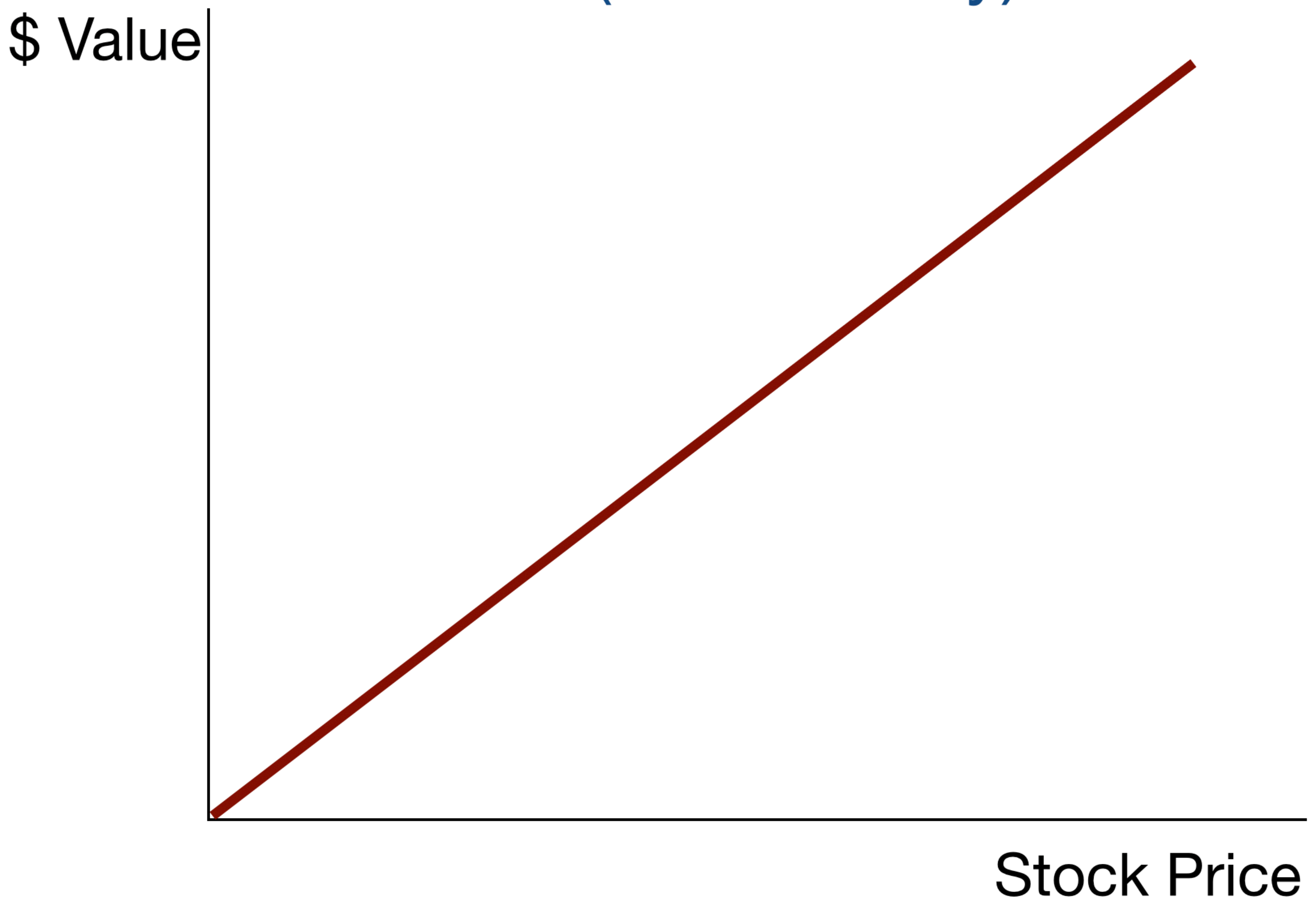

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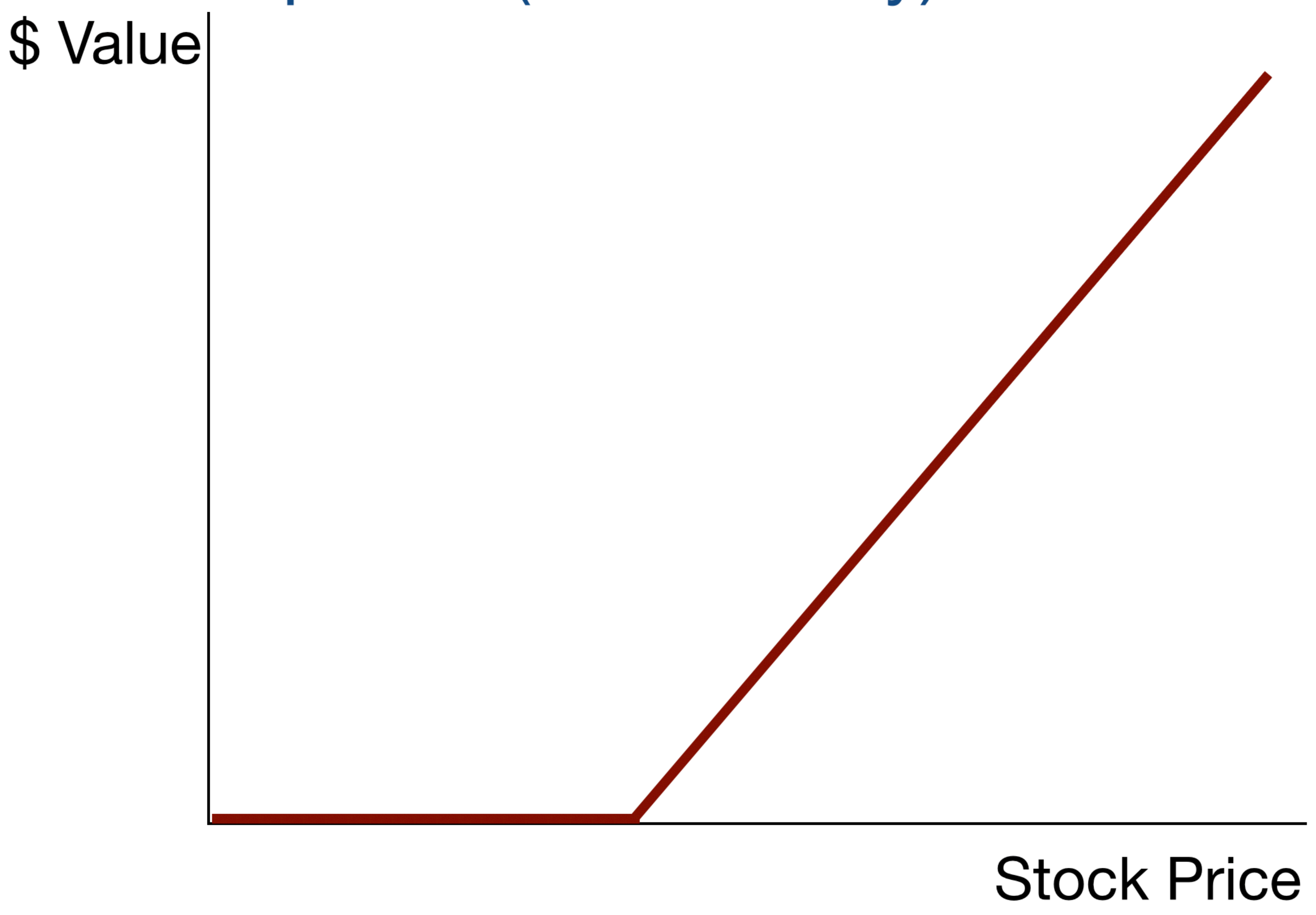

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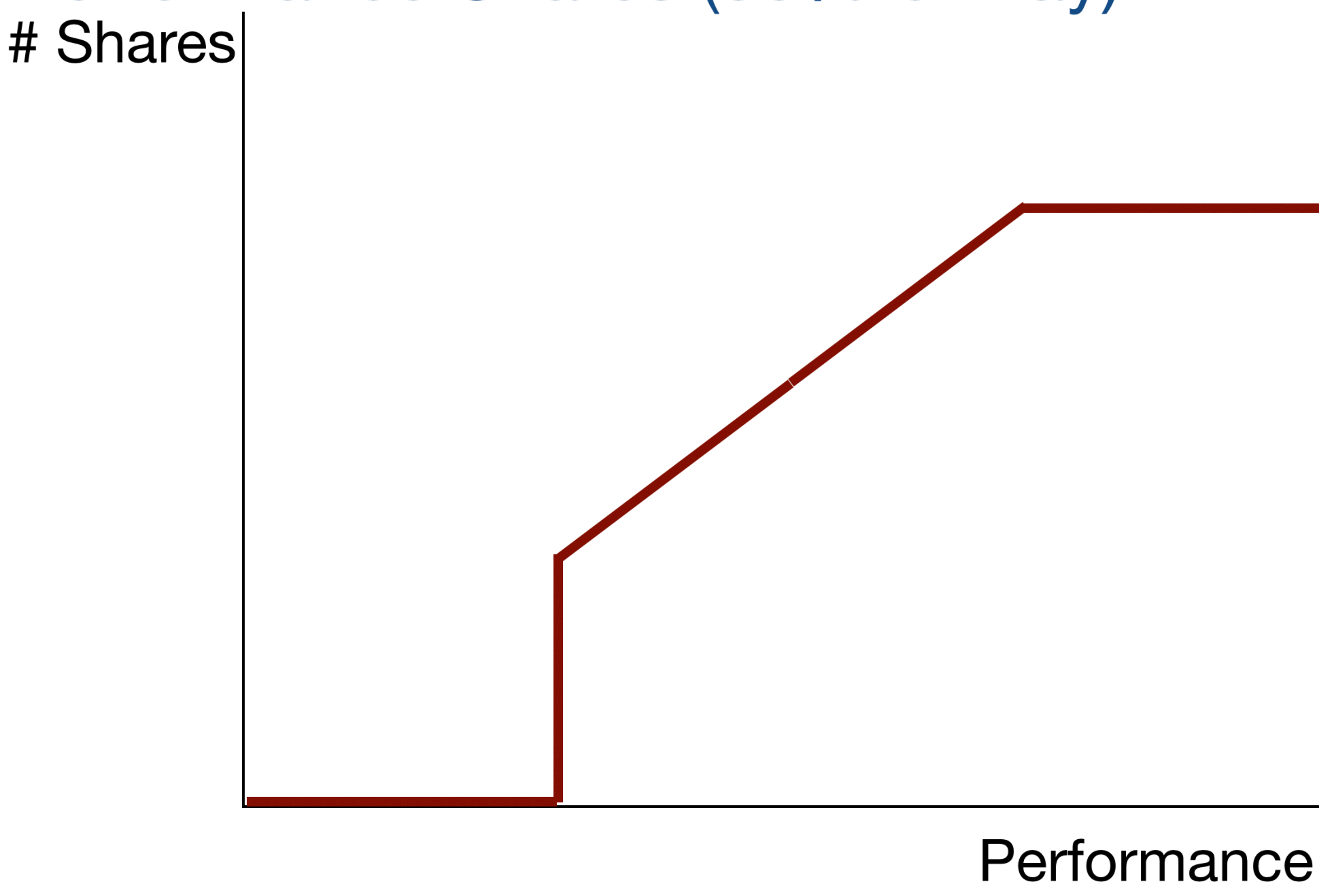

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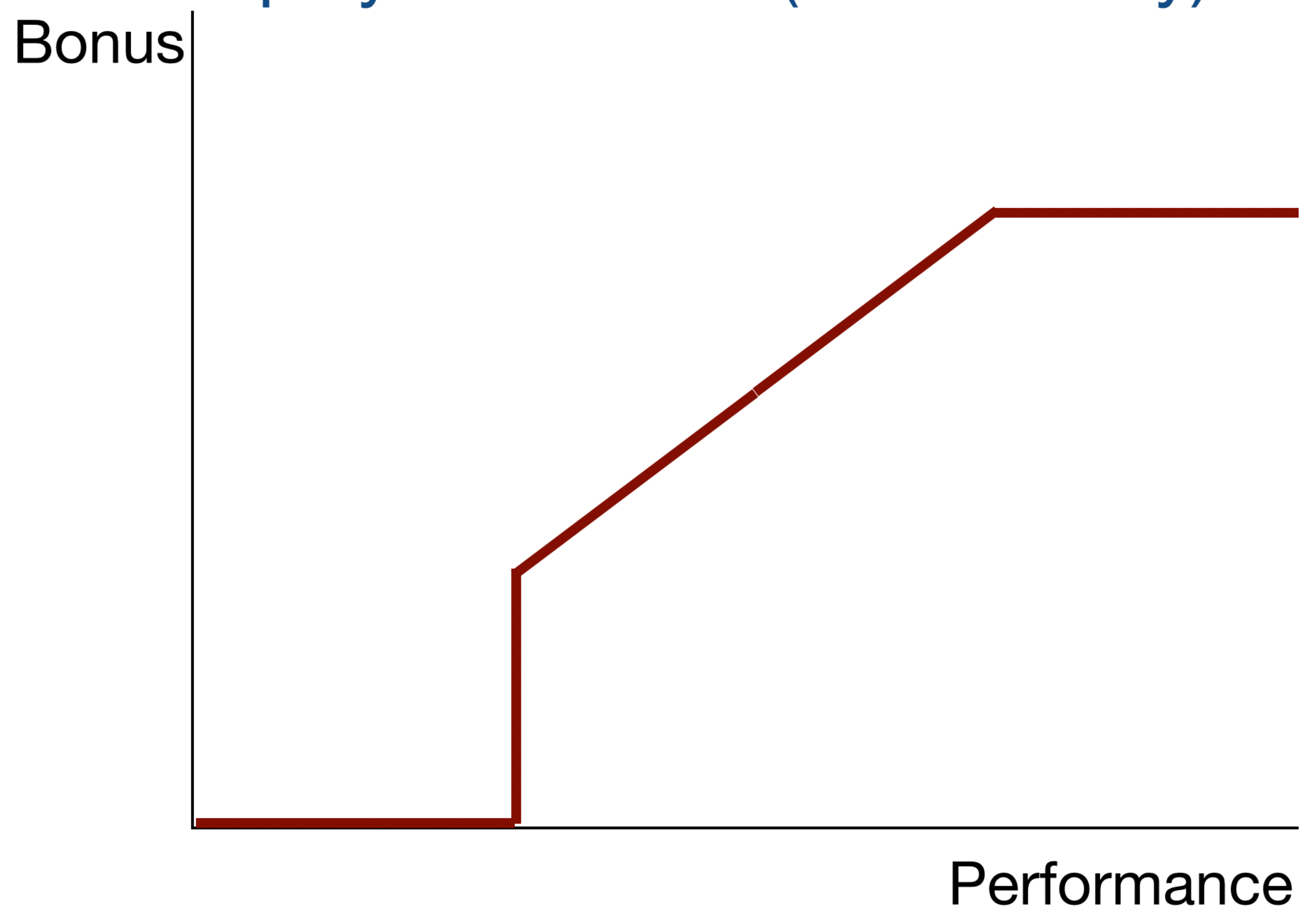

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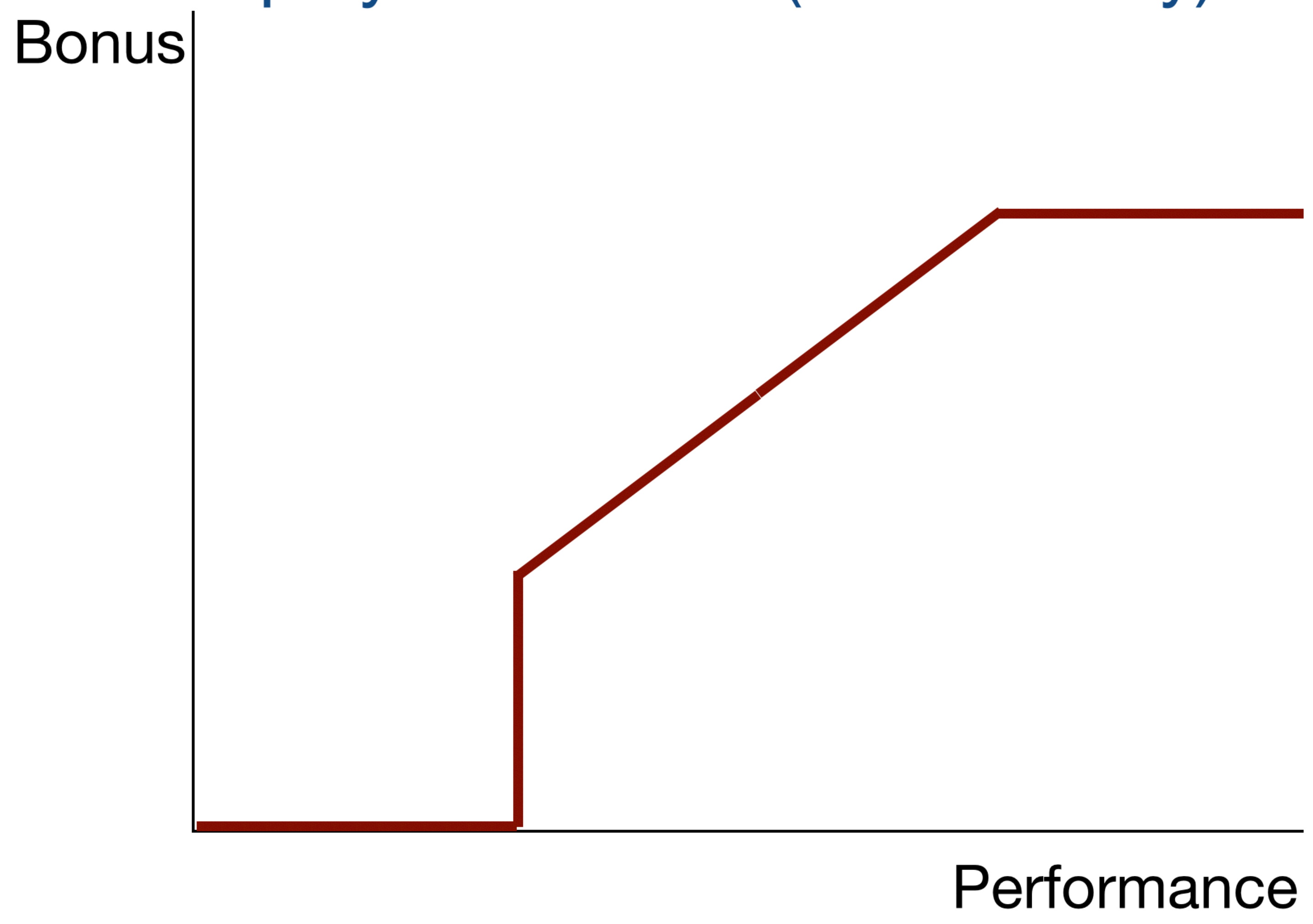

Over 90% of firms use non-GAAP or adjusted measures. How does this affect Var(Bonus)?

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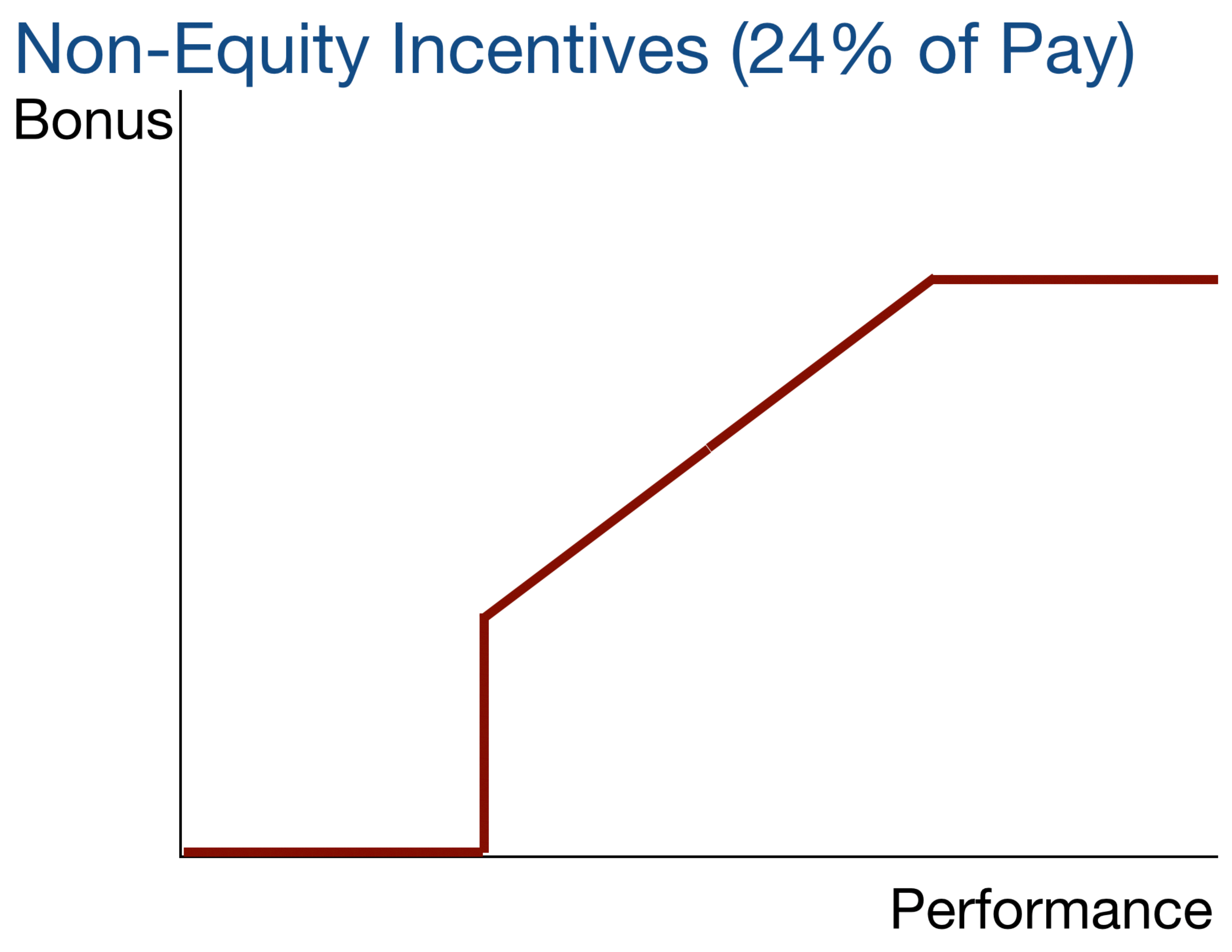

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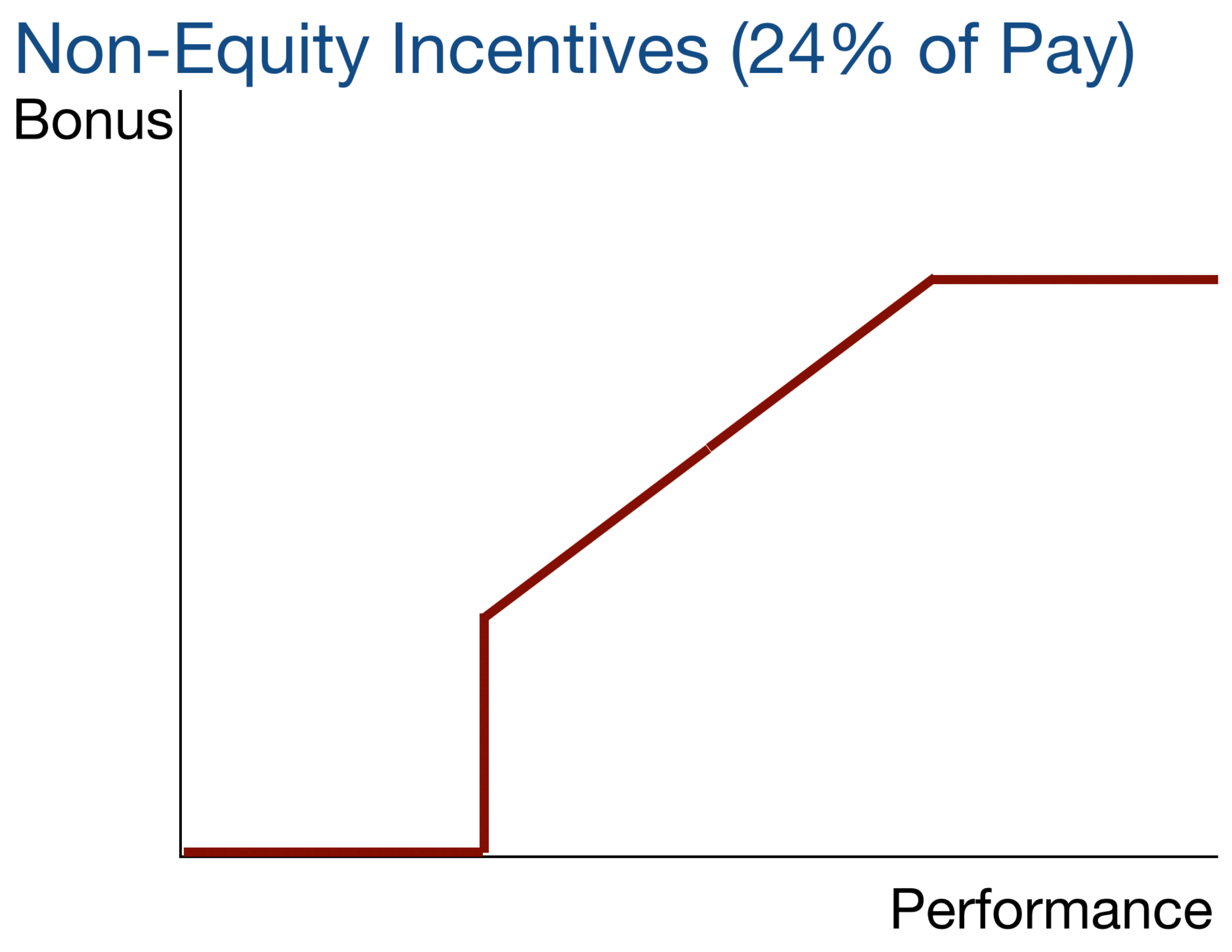

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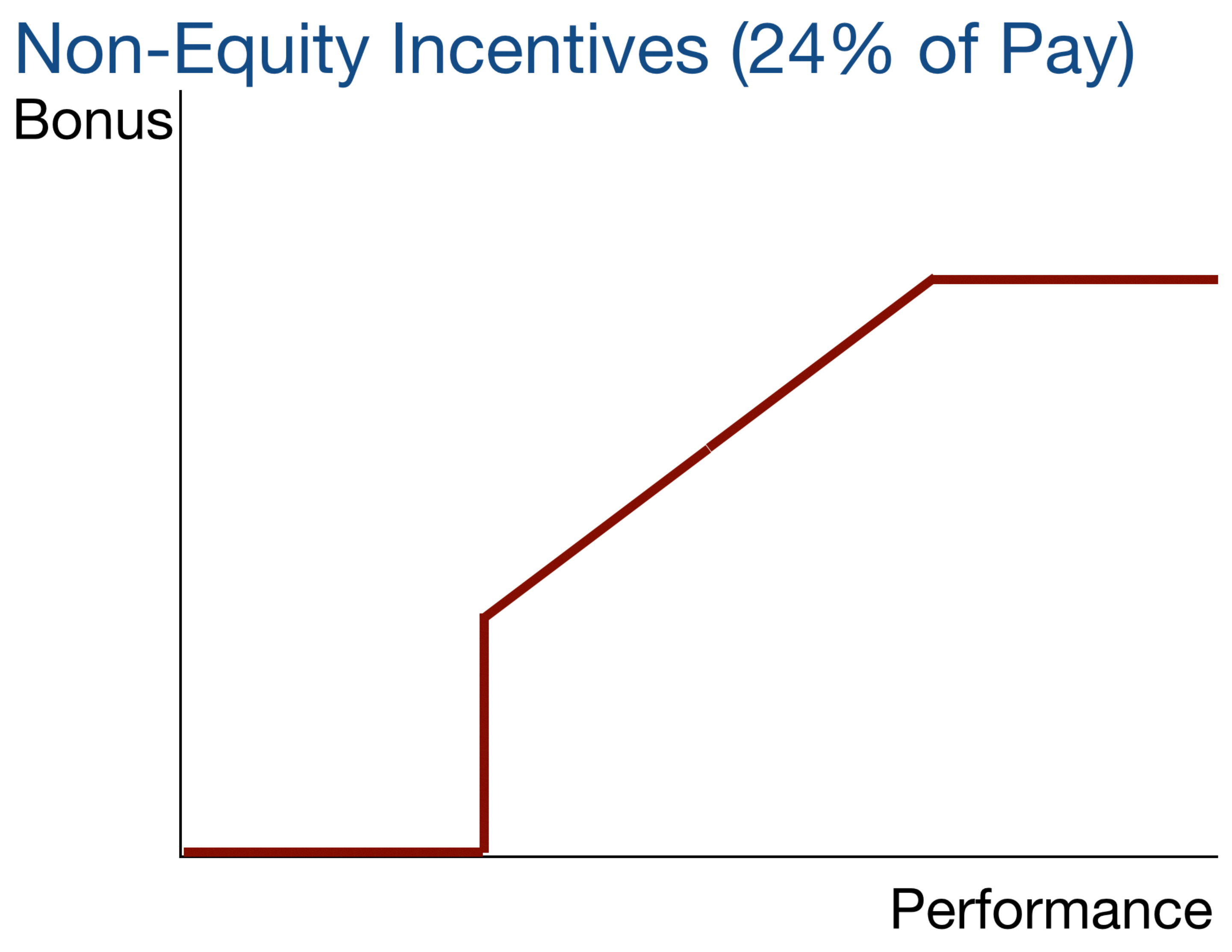

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Missing values for goals may not be random

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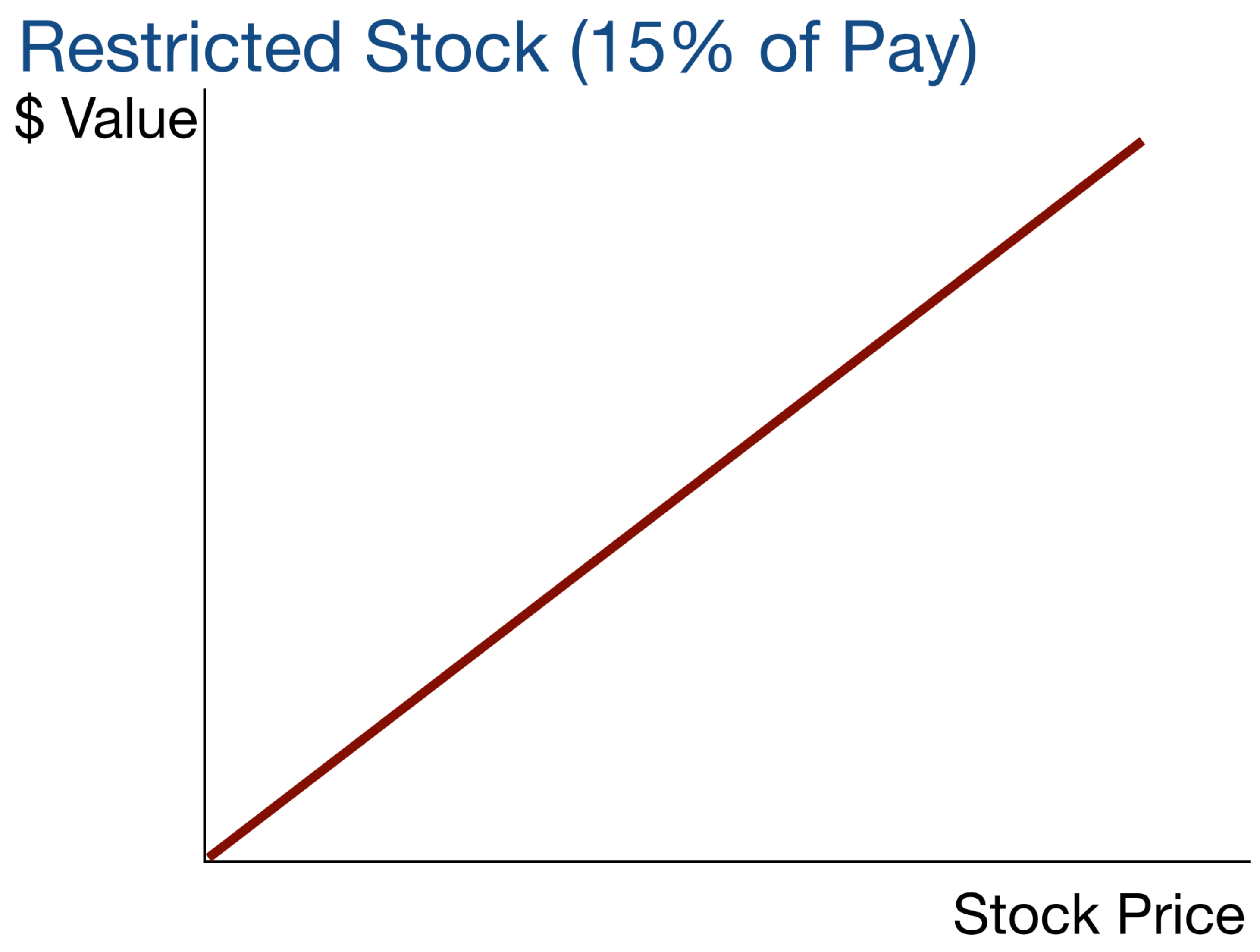

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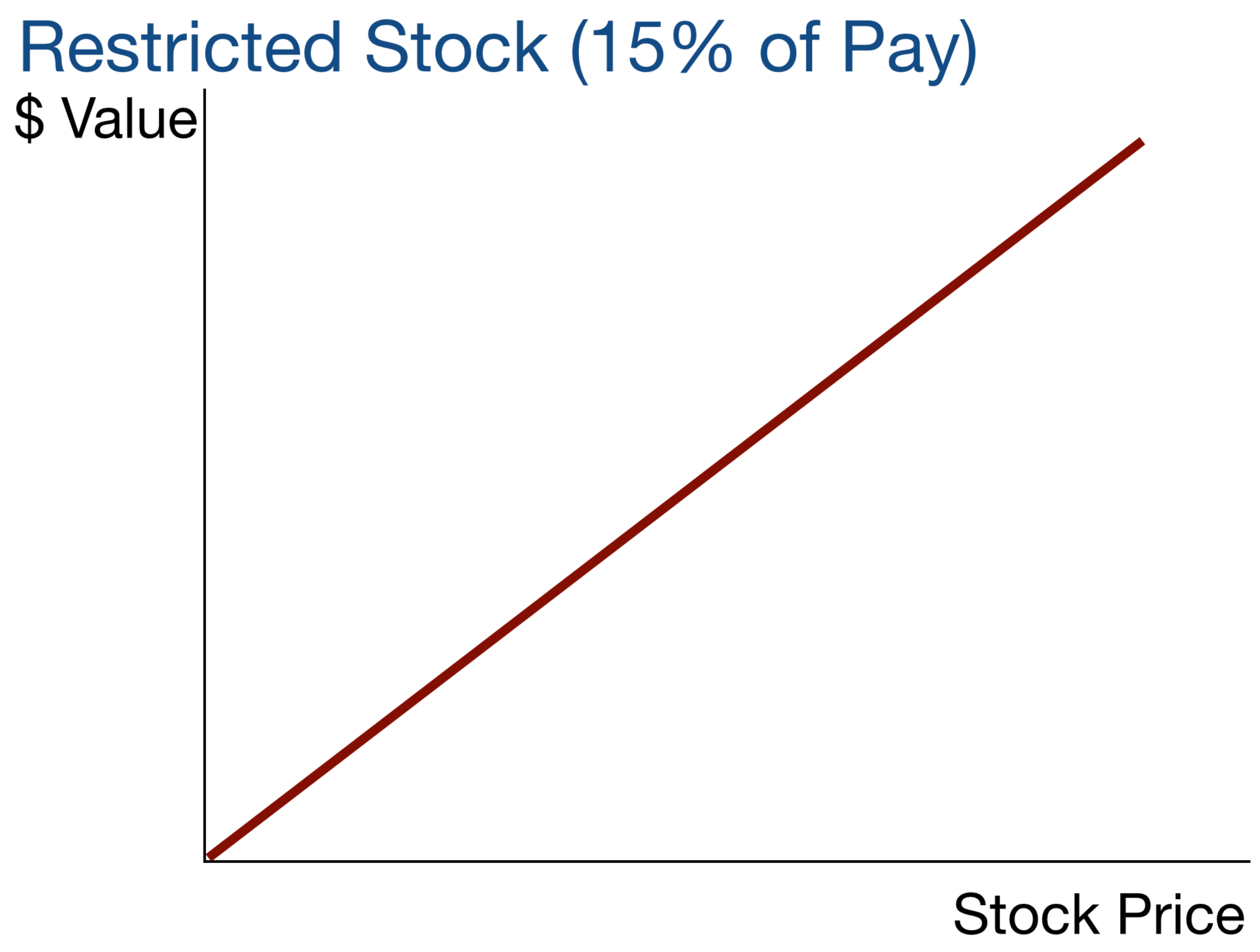
Easiest to model how Var(Stock Price) translates to Var(RSUs) . . . but you seem to ignore time-lapse restricted shares



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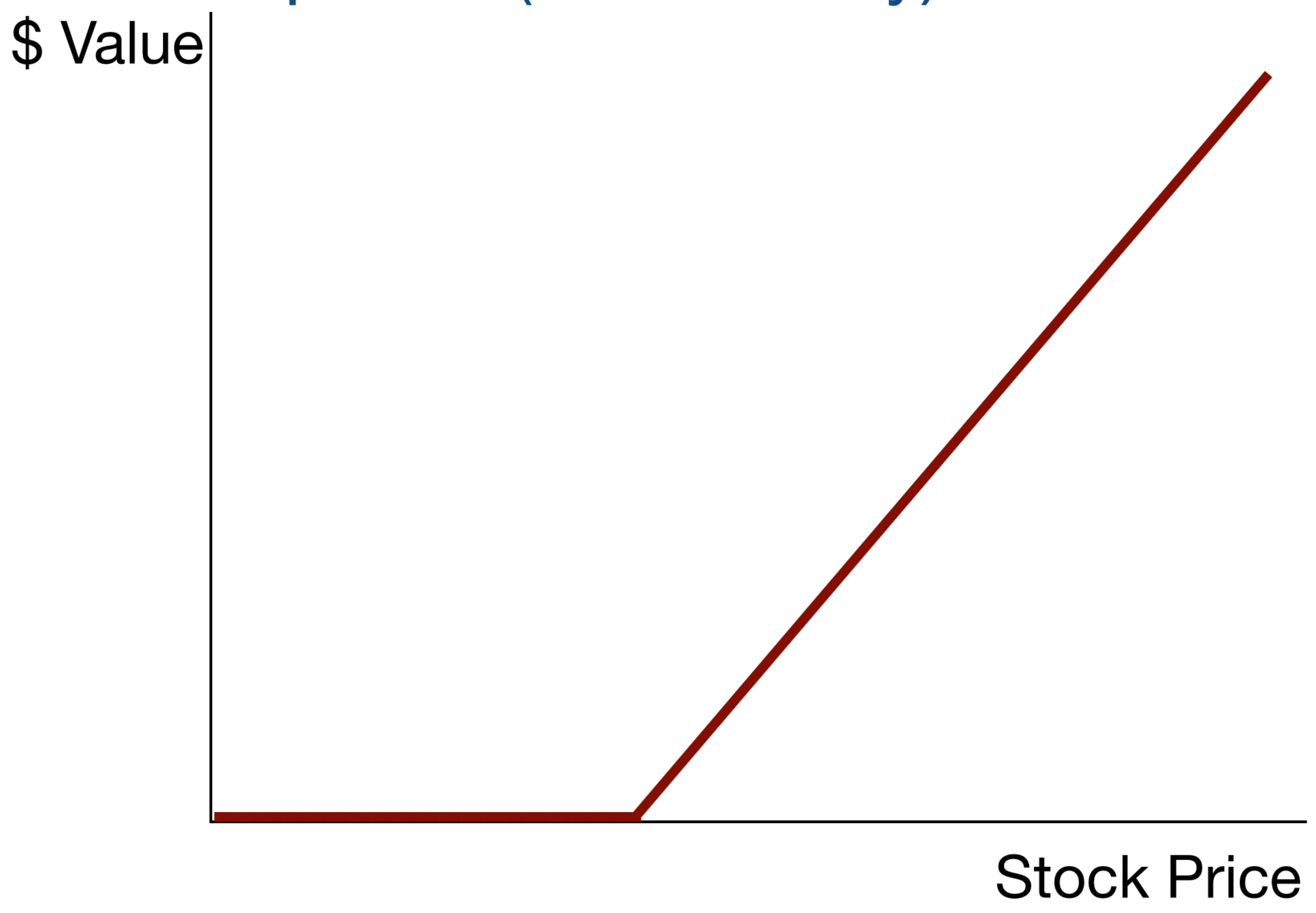

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Straightforward to model how Var(Stock Price) translates to Var(Options) . . . but is this what you are doing?

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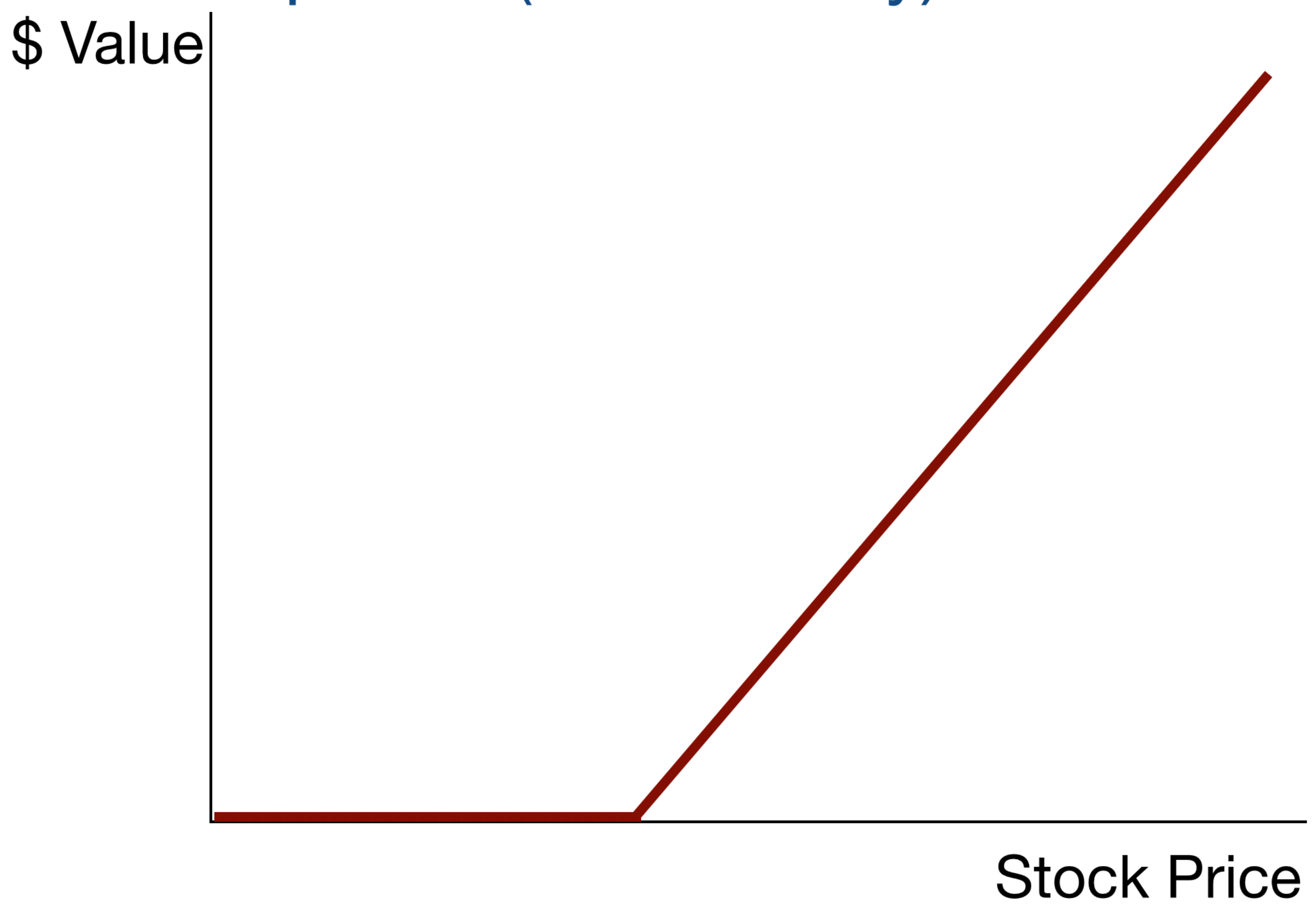

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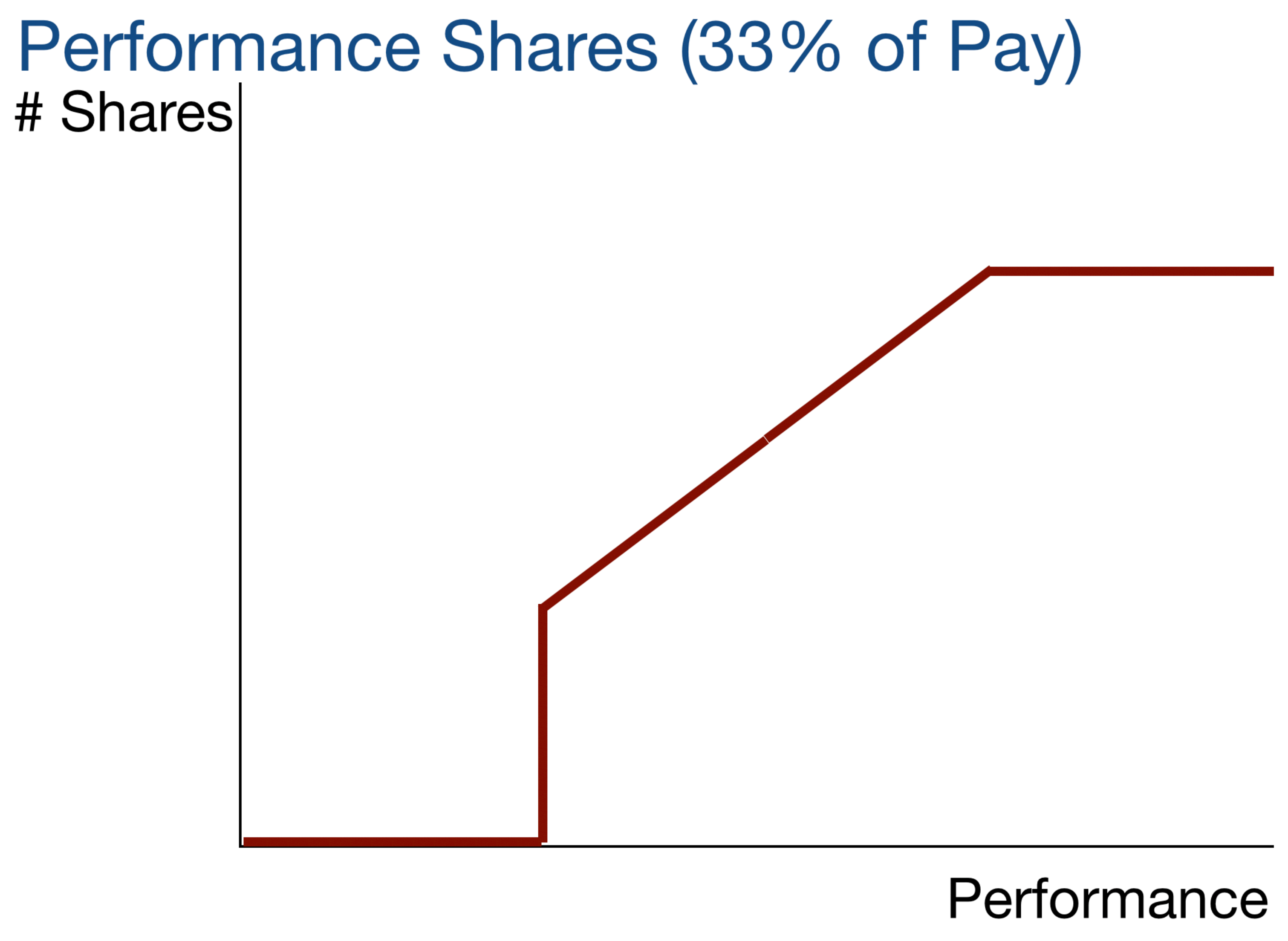

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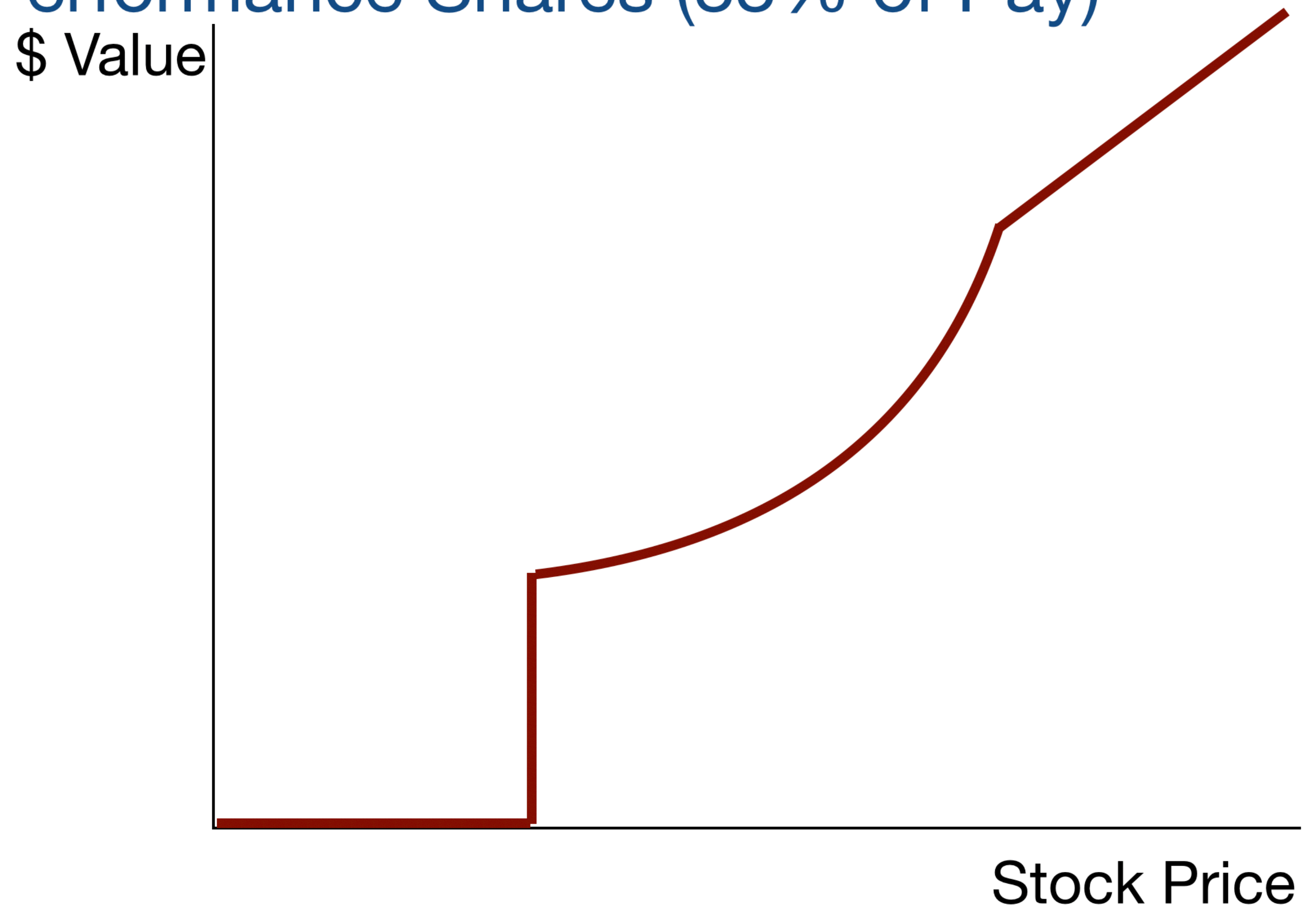

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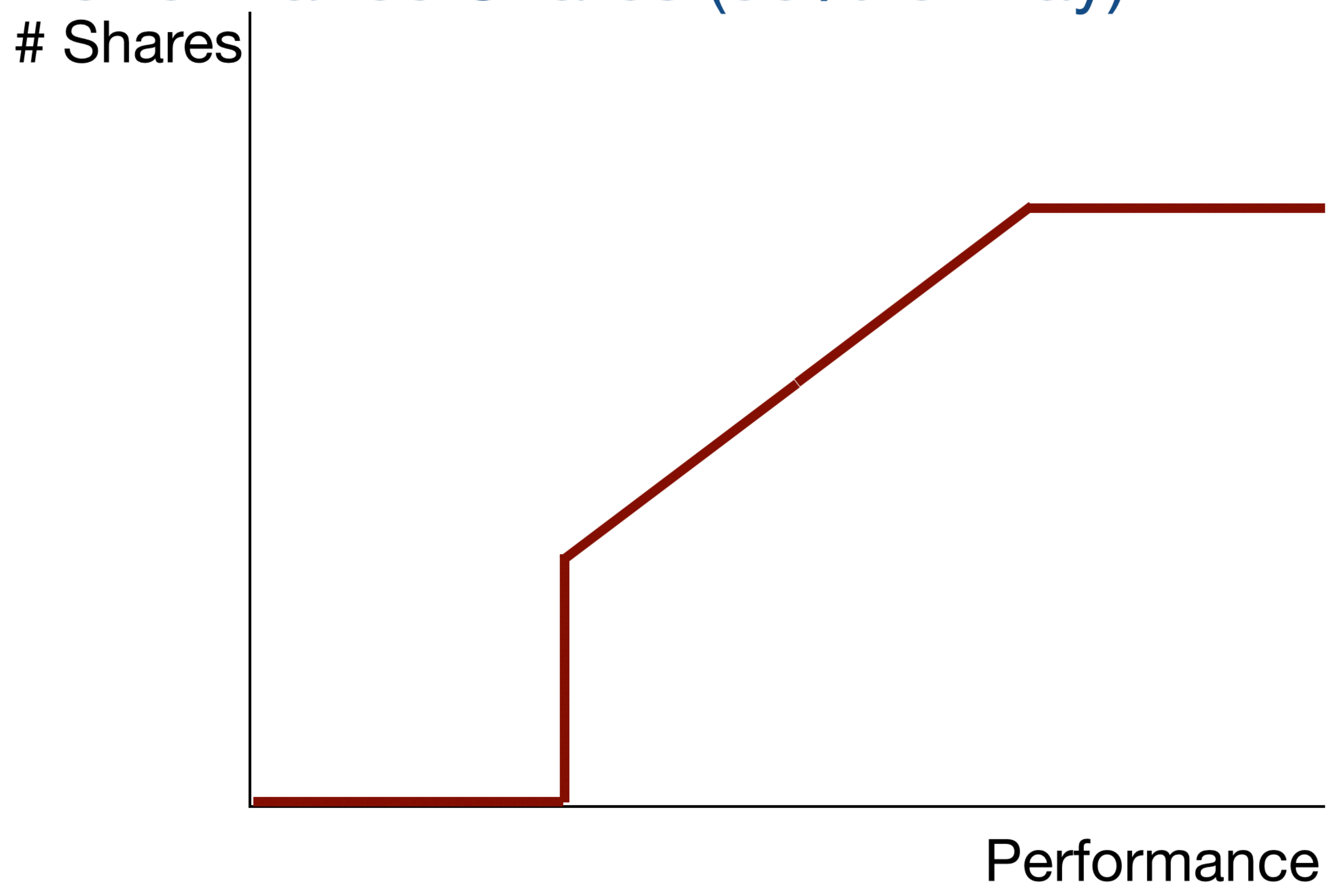

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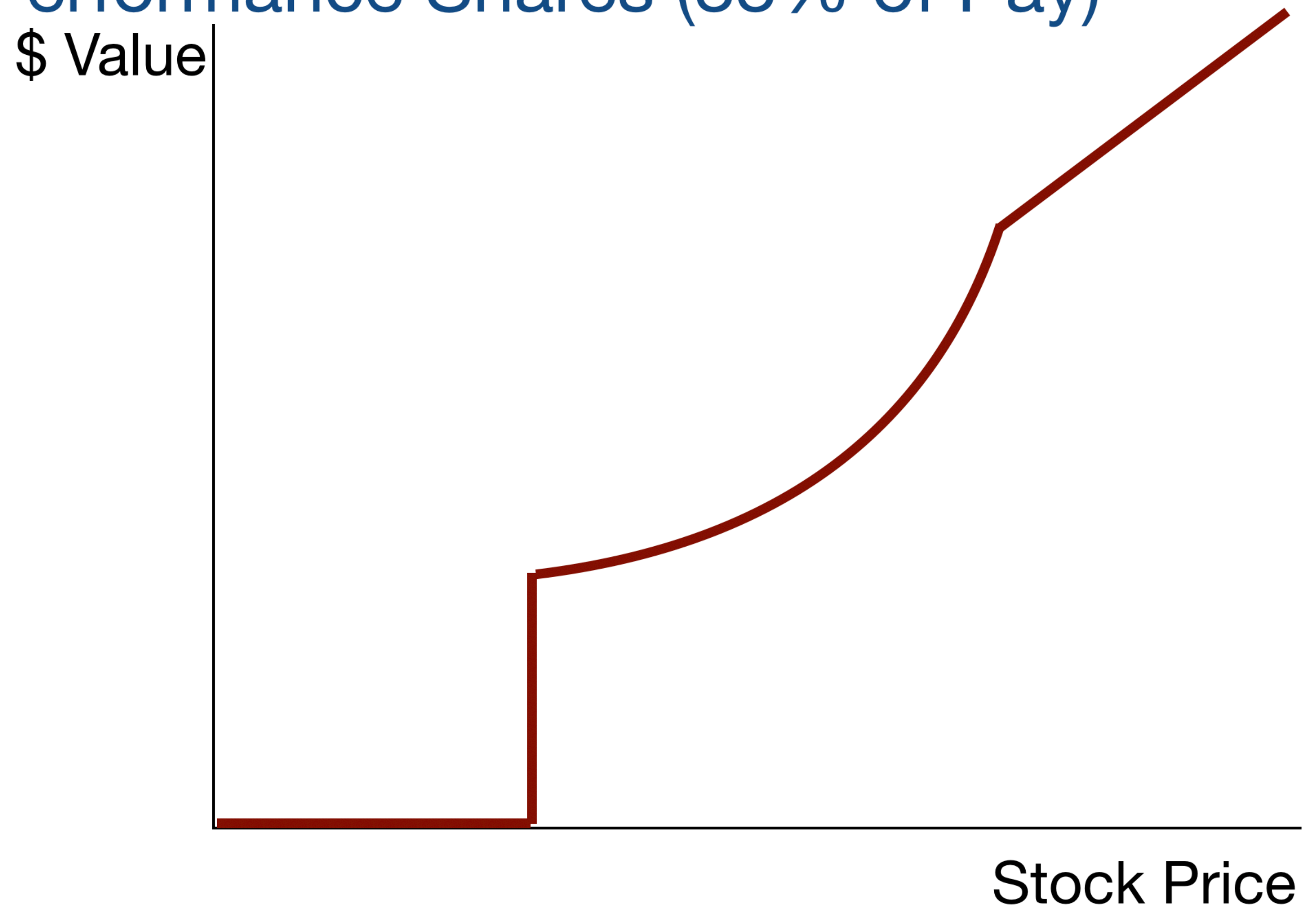

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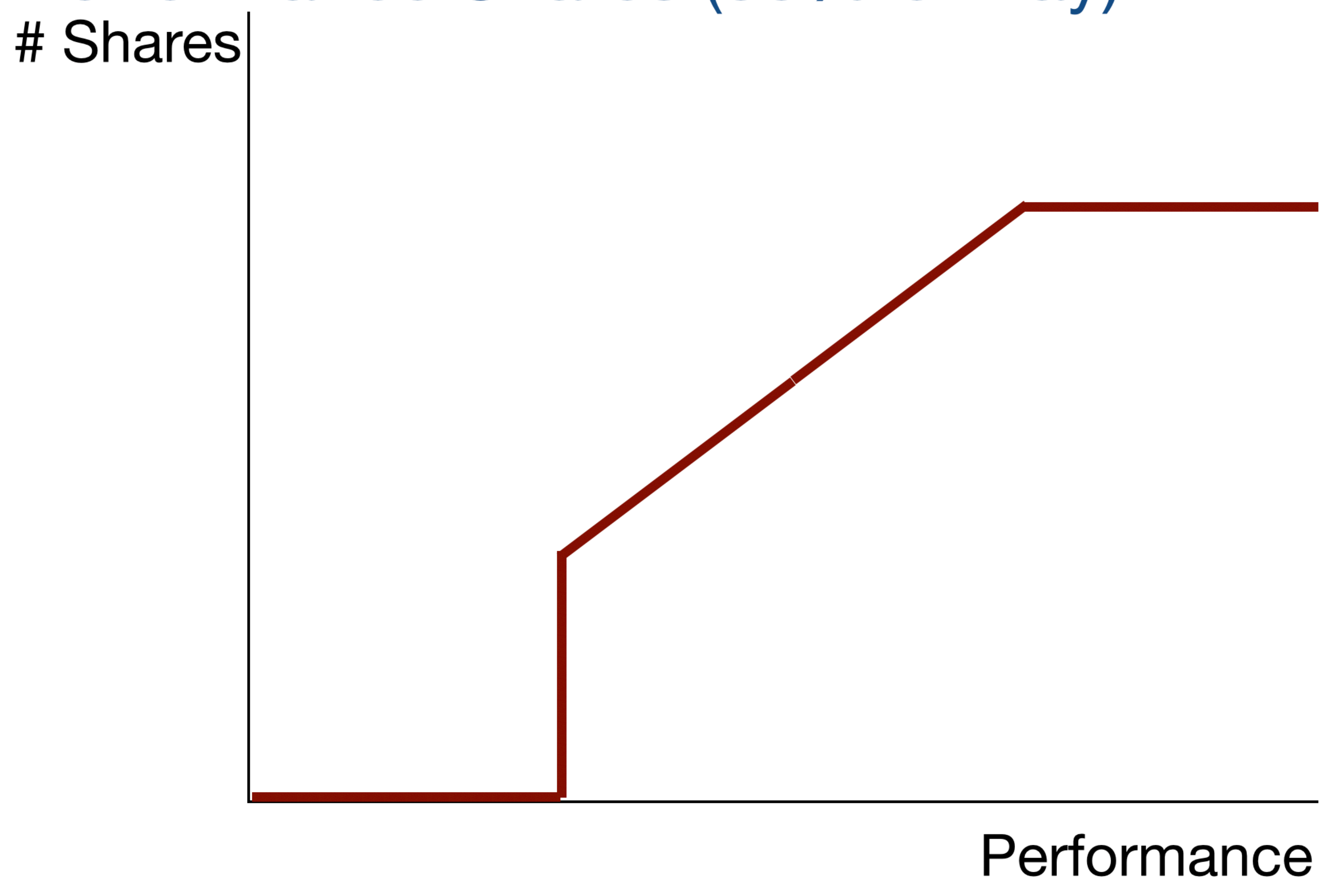

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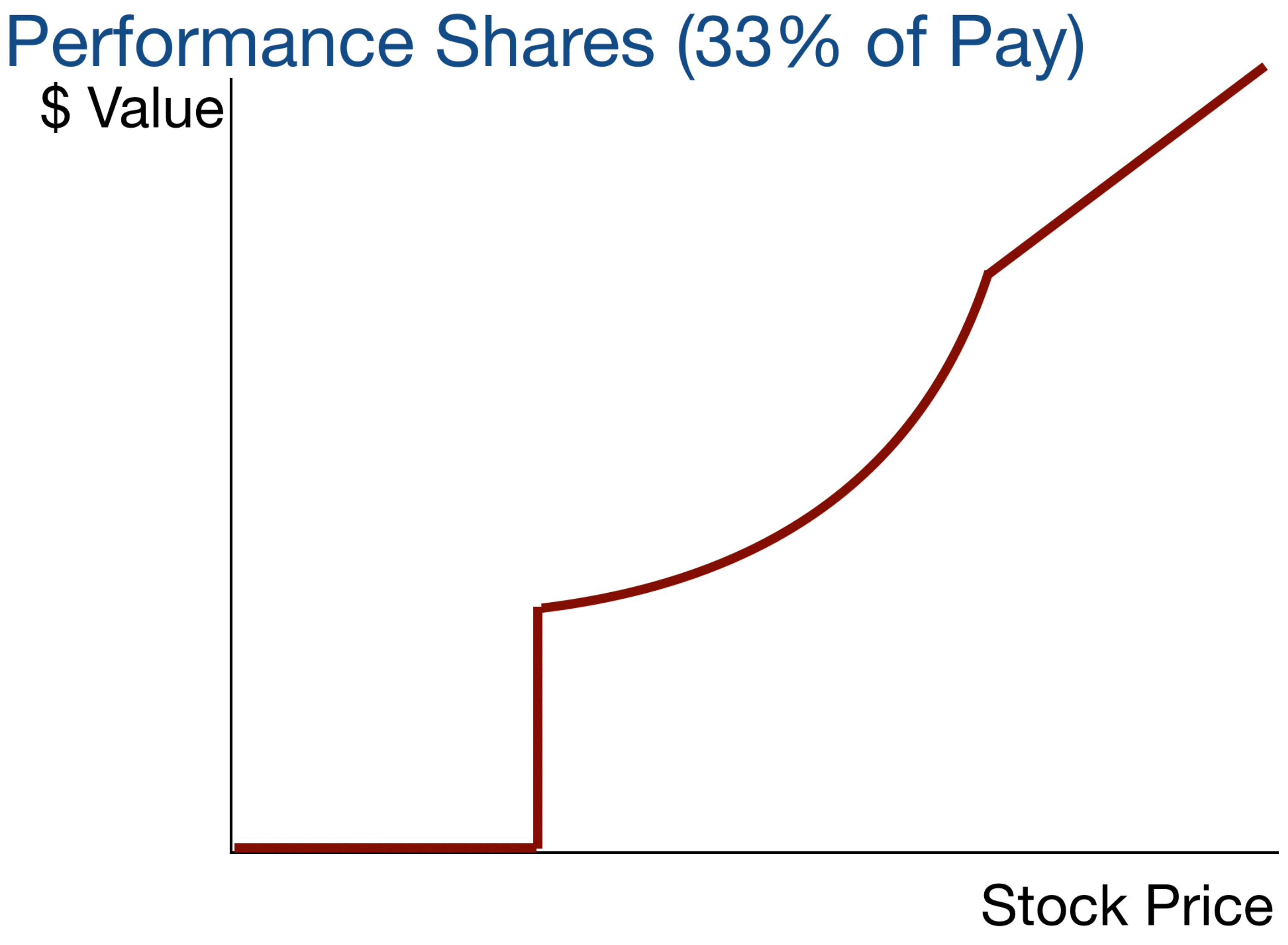
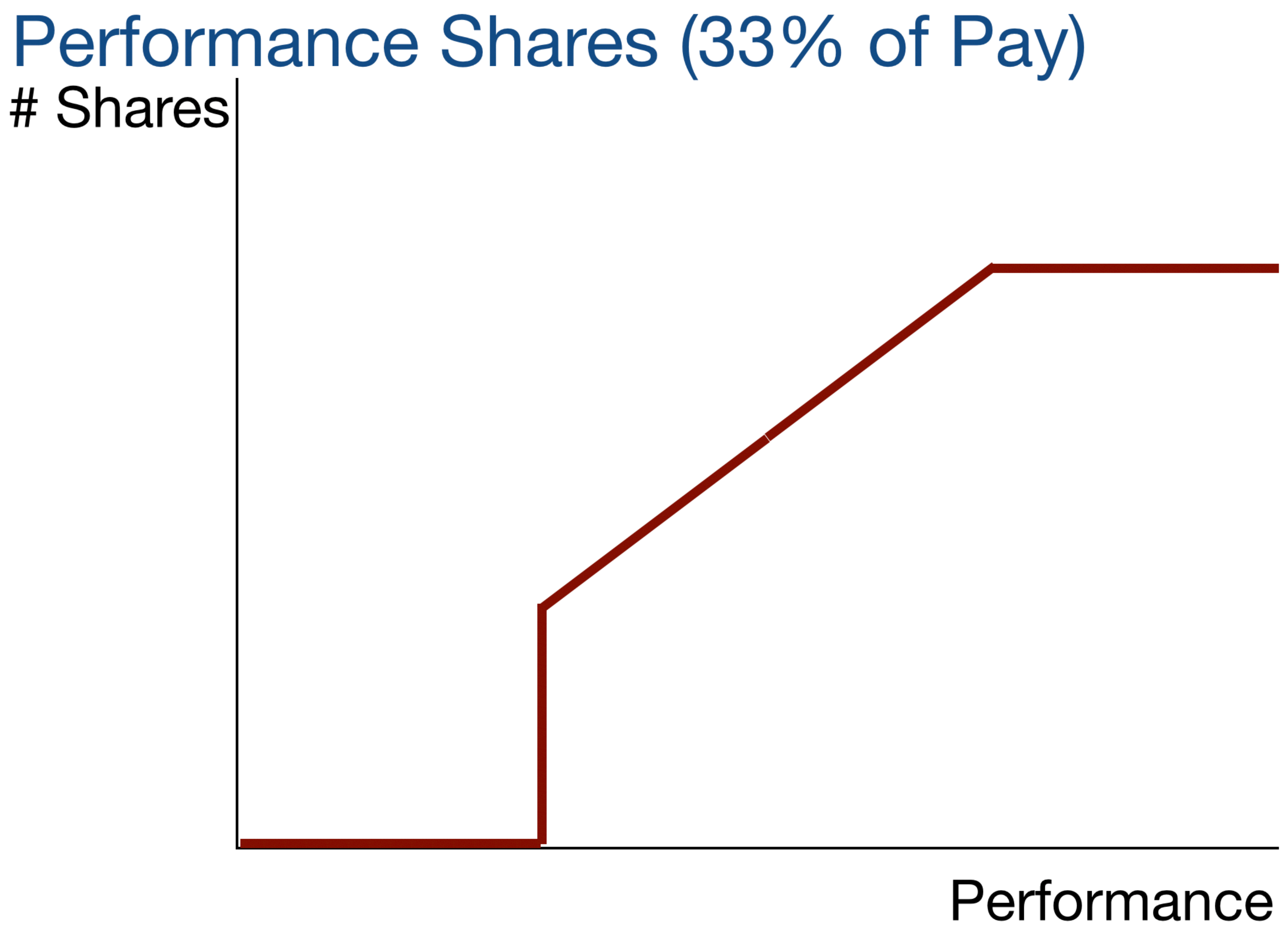
Why aren't you simulating stock prices directly (rather through a multiple of sales)?





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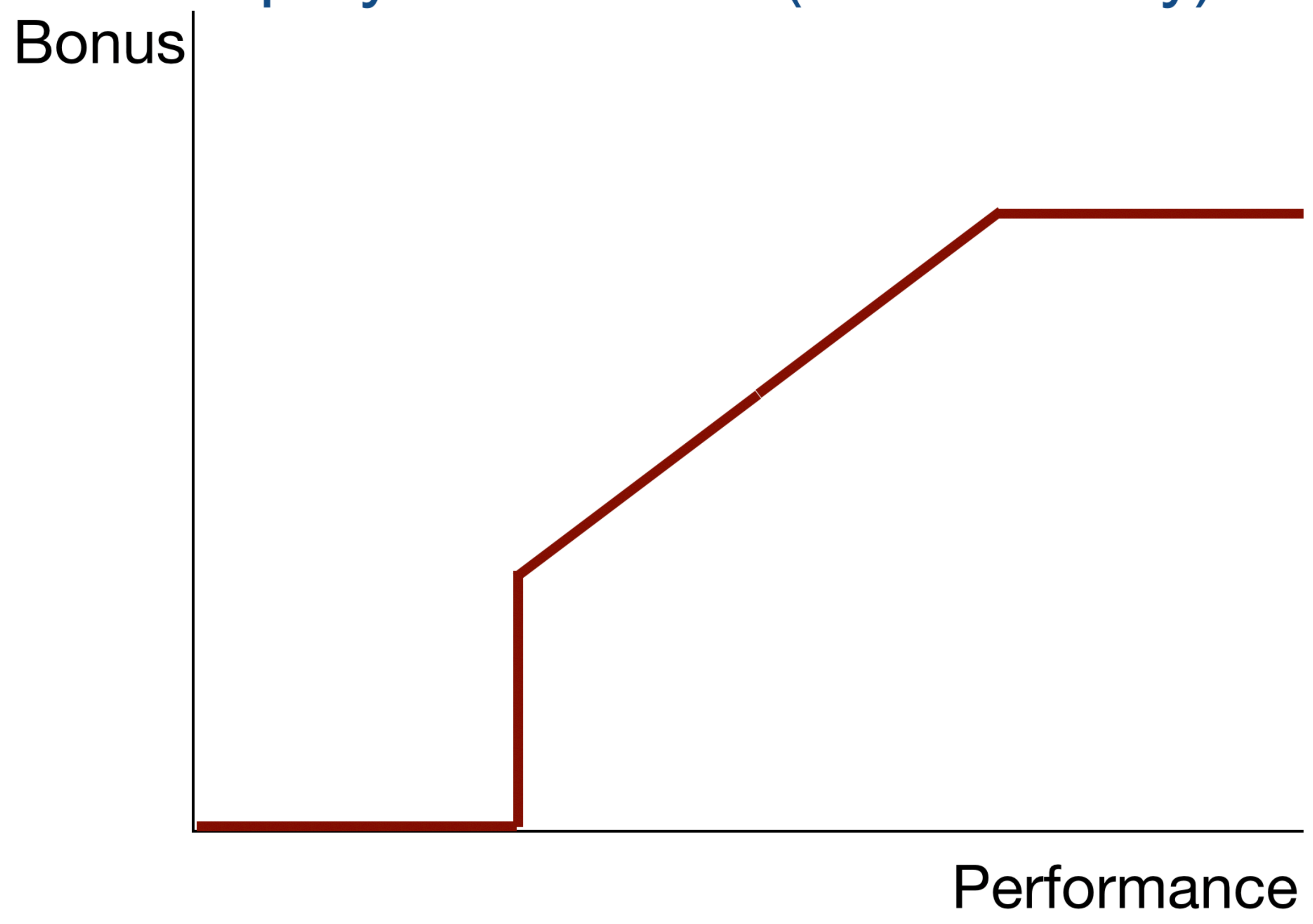

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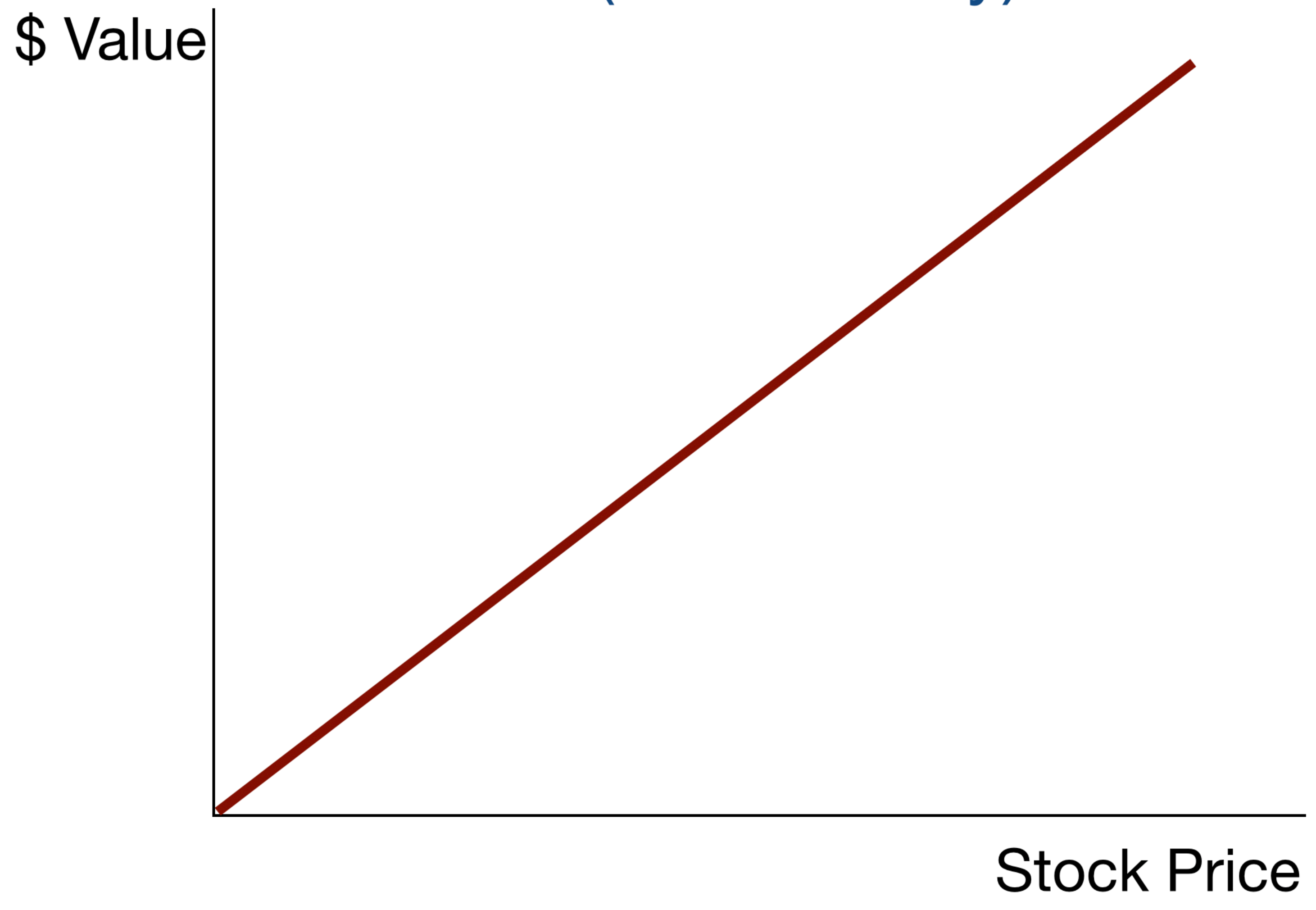

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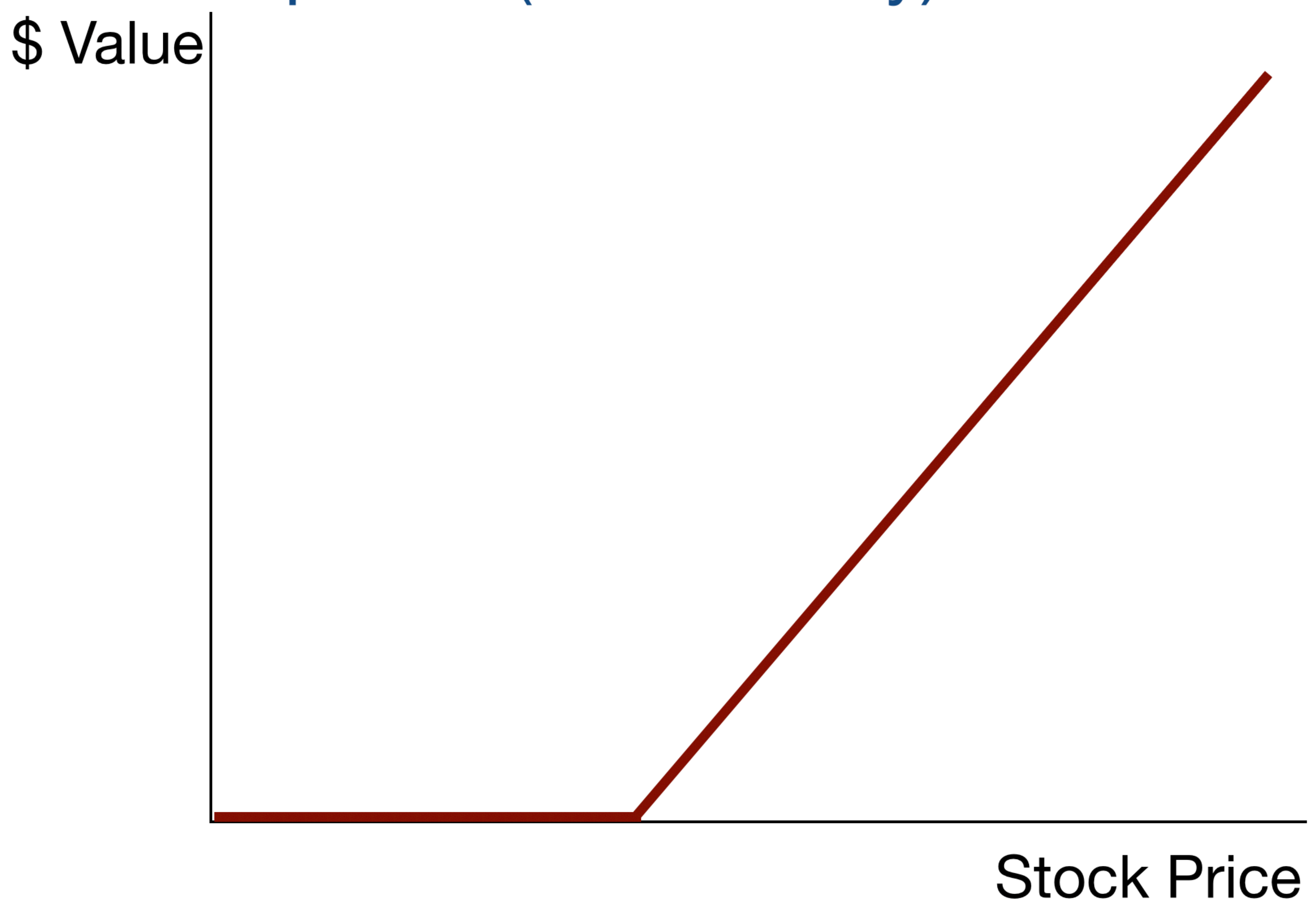

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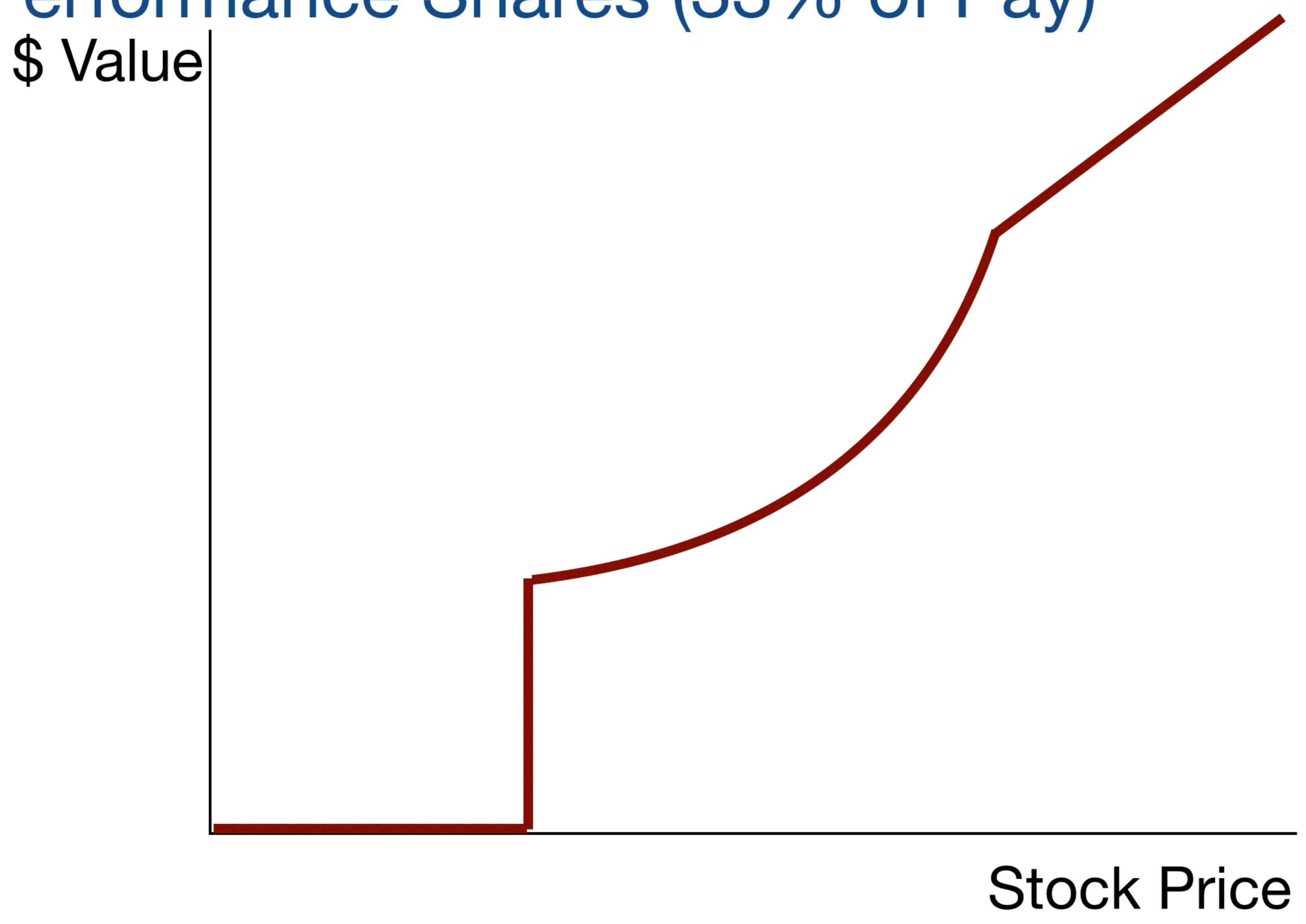

Approach 2: Realized Var(TDC1)

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Mean[TDC1] is not expected pay

- Actual bonus rather than expected or target bonus
- Black-Scholes is not the "expected value" of options, etc.

Approach 3: ARCH

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Approach new to CEO pay, but not well described

Like approach #2, seems tied to TDC1 which is problematic

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What is γ?

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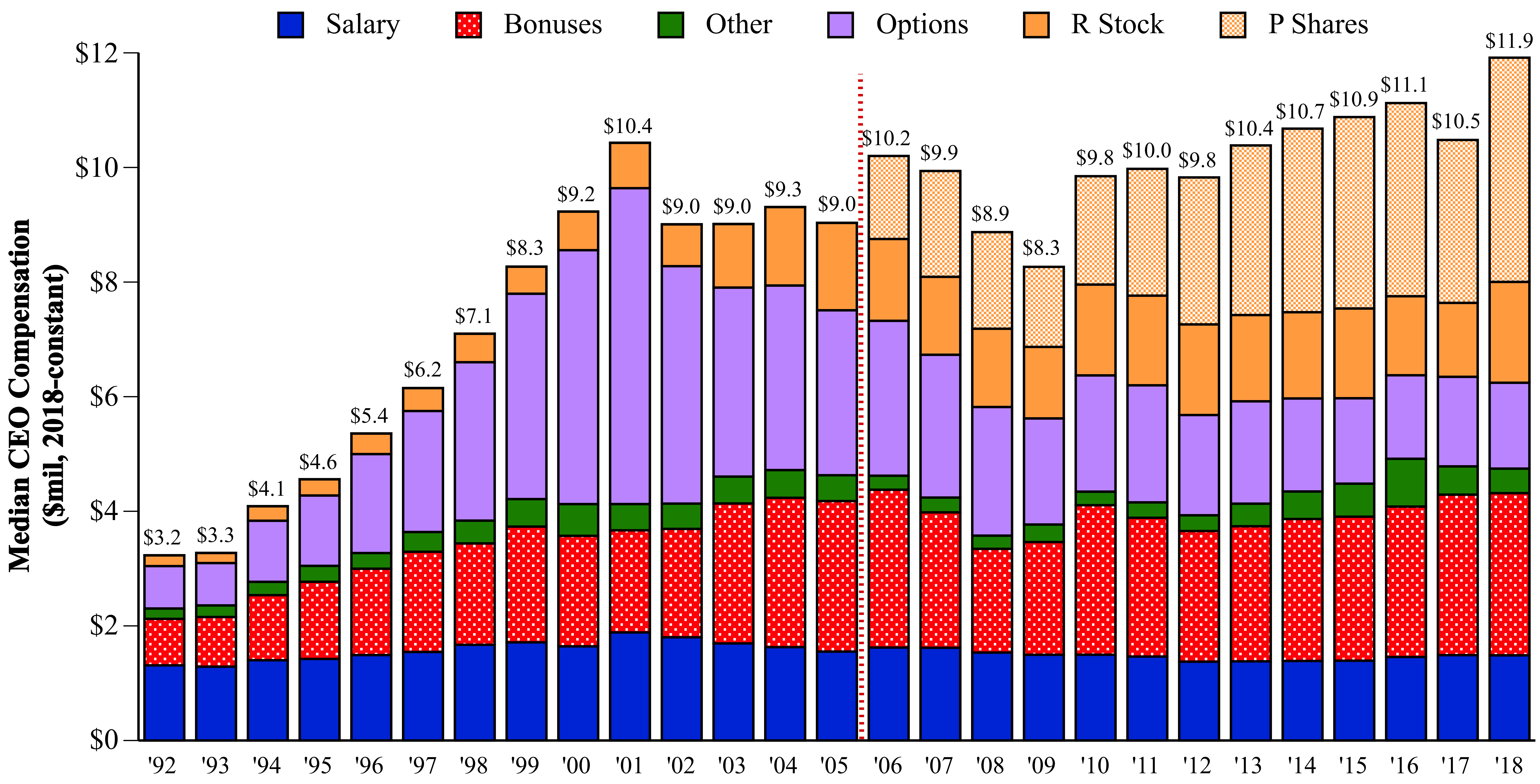
- But, would a higher elasticity "confirm" the fundamental hypothesis?

Would a higher elasticity confirm theory?



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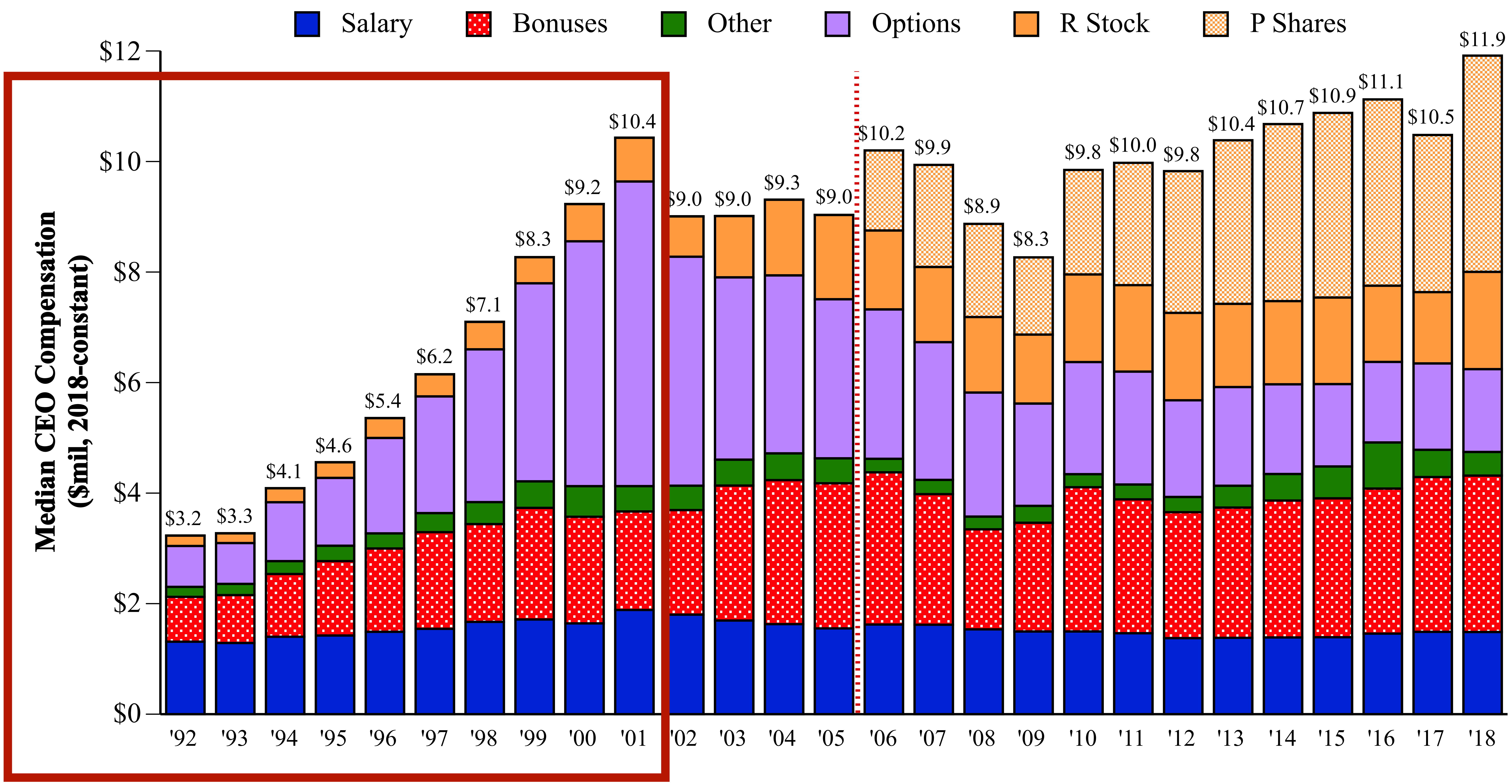

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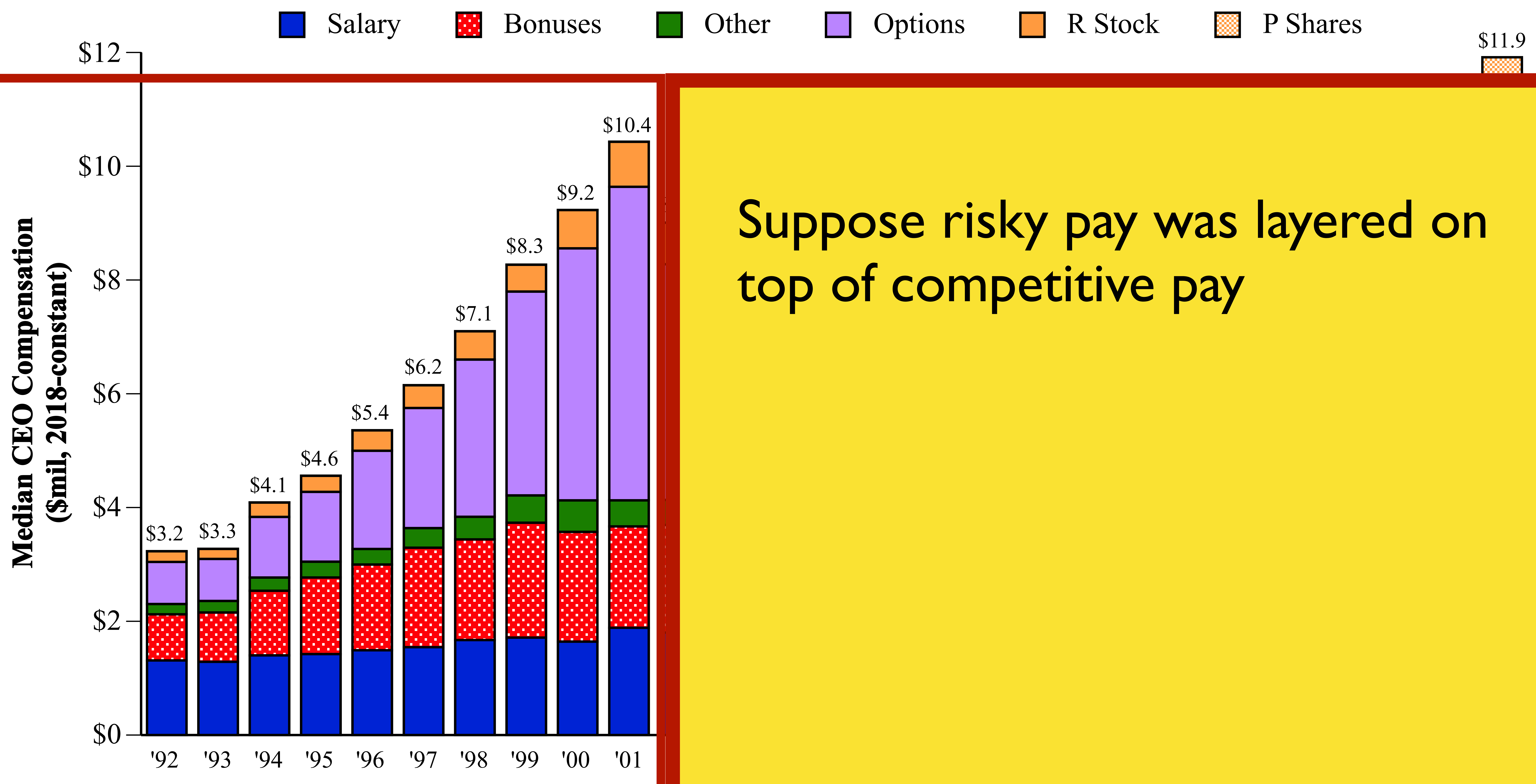

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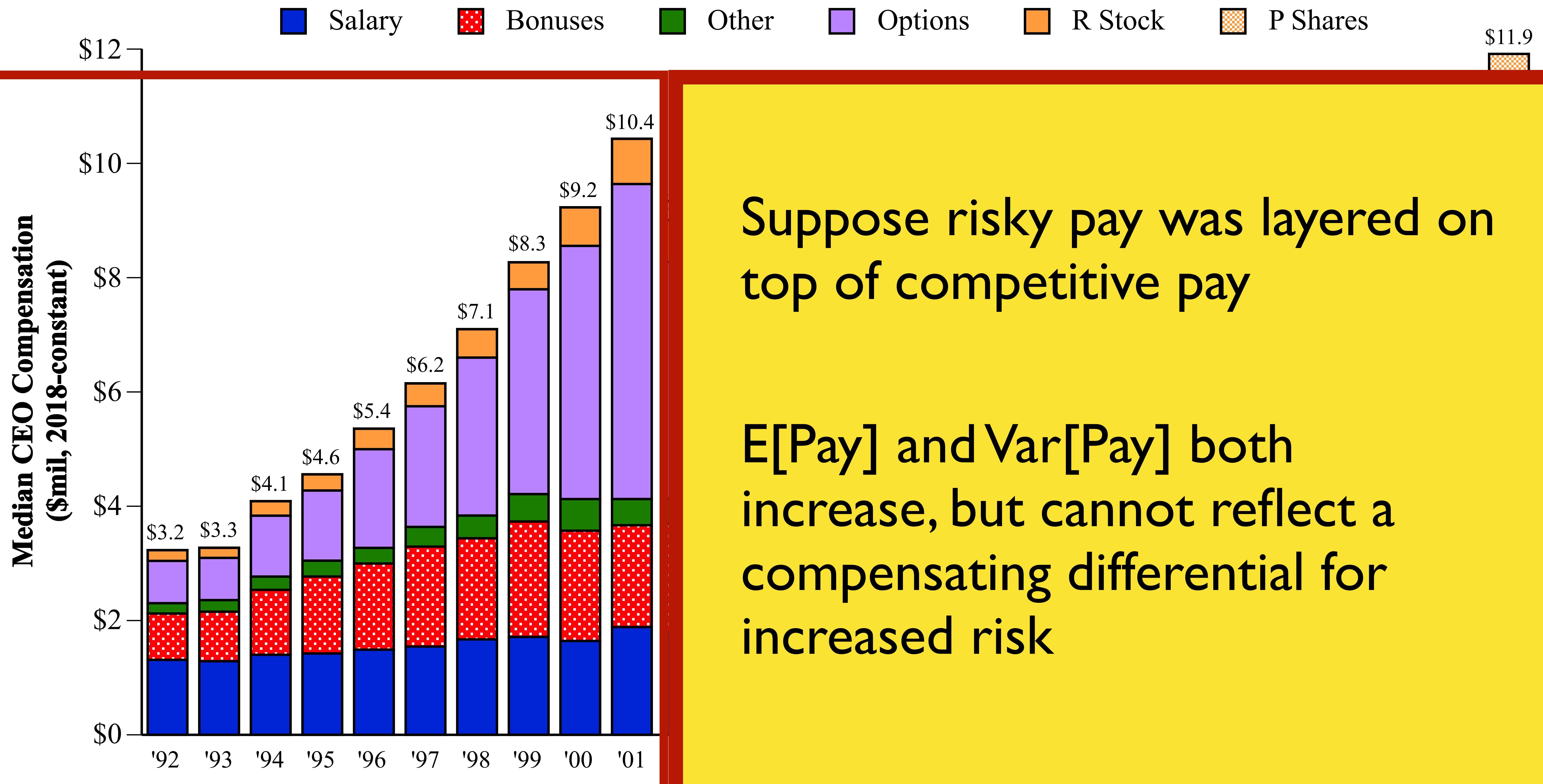

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E[Pay] and Var[Pay] both increase, but cannot reflect a compensating differential for increased risk

Evidence of Layering (Murphy-Sandino 2020)

$$\Delta E[\text{Total Pay}]_i = \alpha + \beta\Delta(\text{New Equity Grant})_i + \text{Controls}_i + \varepsilon_i$$

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E[Pay] increases, but this cannot logically be a differential for increased risk

Conclusion: Debunking Risk Aversion

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I’ve suggested some “cleaning up”, but I believe the results will hold and will be compelling