

# Over/Under-reaction and Judgment Noise in Expectations Formation

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  - One possible extension.



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Meaning OLS-estimator is:

$$\hat{\beta} = \frac{\text{cov}(\tilde{x}_t, y_t)}{\text{var}(\tilde{x}_t)} = \frac{\text{cov}(x_t + u_t, \beta x_t + \epsilon_t)}{\text{var}(x_t + u_t)}$$

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But likewise  $\text{sgn}(\hat{\beta}) = \text{sgn}(\beta)$ .



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But also possibly  $\text{sgn}(\hat{\beta}) \neq \text{sgn}(\beta)$ !

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- Individual idiosyncratic and fixed shocks wash out.
- Reconciles some issues, but doesn't seem like the end of the story.

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- Information disclosure increases investor overreaction (Ho et al)



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$$E_{i,t}w_{t+1} = w_t + \underbrace{\eta_{i,t}(e_t)}_{\text{idiosyncratic learning noise}} + \underbrace{\phi_i(e_t)}_{\text{systematic tendencies}}$$

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- What is the sign/shape of  $\mathbb{E}[\phi_i(e_t)]$ ?

# Conclusion

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- Still a lot of pieces of evidence to go...