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Module 13 Discussion

I had a similar approach as yours. I tried to show two different models, one with an additive error term and the other with a multiplicative error term. Then, I tried to show how applying the natural log transformation would lead to two new models. In the additive model, the error term is added since the original was removed after taking the expected value. On the other hand, with the multiplicative model it becomes $\ln \varepsilon$, since it wasn't removed when taking the expectation. Then we have this issue about whether $\ln \varepsilon$ has the appropriate behavior for an error term.

I actually noted this part too which confused me in my own response. I noticed that for the additive model, they take the expected value which I think they also are doing in the multiplicative model. However, in the additive model they add back a new error term, but in the multiplicative model the $\ln \varepsilon$ is said to itself be the error term. I'm not sure how this logic holds, since to me there's some opposing pattern going on here. I wonder what the underlying fundamentals are that they are skipping. It reminds me of some old mathematical statistics courses that I took where they're applying transformations to some probability distribution. I wonder then if this relates to that idea.