

Thanks for the interesting insight.

Could we also consider neutralization in terms of OLS normality?

The fact that the neutralization of numerai uses the normal equation suggests that it is the same problem as the estimation of OLS.

If so, from the viewpoint of normality, it is also assumed that the residuals ε (prediction after neutralize in numerai) follow a normal distribution.

However, there is a possibility that the neutralized ε does not follow a normal distribution depending on the features and predictions.

In order to deal with this situation, we can think of the predictions as being Gaussianized in advance. (I understand that the Box-Cox transformation is a method proposed with a similar background.)

However, the insufficient part of this idea is how it contributes to performance by guaranteeing that ε follows a normal distribution.