

(A) Weekly cases of Middle East Respiratory Syndome (MERS) in Saudi Arabia. (B) a normal quantile plot of the residuals from fitting an ARMA(2,2) model to these data using arima(). What is the best interpretation of (B)?

A: We should consider fitting a long-tailed error distribution, such as the t distribution.

B: The model is missing seasonality, which could be critical in this situation.

C: For using ARMA methods, these data should be log-transformed to make a linear Gaussian approximation more appropriate.

D: The normal quantile plot shows a long-tailed distribution, but this is not a major problem. We have over 300 data points, so the central limit theorem should hold.

E: The normal quantile plot shows long tails, but with the right tail noticeably longer than the left tail. We should consider an asymmetric error distribution.

F: We should not interpret (B) before testing for stationarity. First run adf.test() and, if the null hypothesis is not rejected, recalculate (B) when fitting to the differenced data.