1. Question: After analyzing the graphs of the downloaded time series, comment on the covariance-stationarity properties of both prices and returns. Do prices look like a stationary process? Why? What about the returns? Why?

*The prices do not look like have a stationary process because don’t have a constant variance in long of the time. It indicates follow an explosive process due its unitary root certainly is larger than one, taking its no-contemporaneous covariances are different of zero. While the returns apparently are stationary processes, once it has constant variance about of the mean.*

1. Then, based on a 5% level test, can you conclude that prices are stationary processes? Are exchange rate returns stationary?

*Evaluating the results, we can see that prices aren’t stationary processes while the returns are because their probabilities are 99% as shown in the table below:*

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| --- |
| data\_er.aud is a non-stationary process because it has P-valor 0.61 >5% |
| data\_er.gbp is a non-stationary process because it has P-valor 0.18 >5% |
| data\_er\_ret.aud is a Stationary process with probability 99% (P-valor < 1%) |
| data\_er\_ret.gbp is a Stationary process with probability 99% (P-valor < 1%) |

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1. Is there cointegration at the 5% level? Which test statistic has superior power in a small sample? and why?