

[Glossary]

Time Series Models

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Time Series Models

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Time Series Models

Glossary

1 Trend

It is a long time variation component in a time series which is the most prominent component.

2 Seasonal

Here variation is observed as per quarters or month or during seasons.

3 Cyclic

More often in business cycles we find this component present. In a way it is similar to trend in general.

4 Random

Random or irregular variation component is only accidental. It may be due to abnormal situation like flood, famine, frost, fire, strikes, Accidents etc.

5 Periodicity

It is the average of time periods between peaks or troughs when we plot the time series. It is useful for determining moving average to separate trend component.

6 Seasonal Index

It is used to separate the seasonal component for the given time series.

7 Stationary time series

A stationary time series is time invariant. It is related to stochastic series process. There are no components like trend, seasonal, and cyclic components.

8 Random walk model

An illustration for random walk model is the stock price today which is yesterday's stock price plus a random shock.

9 Correlogram

When we compute sample autocorrelation function denoted by $r_{\mathbf{k}}$ and plot it against k, we get correlogram.

10 Unit Root Test

It is a test technique which helps us to detect about stationarity of a Time series.

11 Cointegration

A combination of two (or more) time series which are individually non stationary can make it a stationary time series. It gives a long Run or equilibrium relation between them.