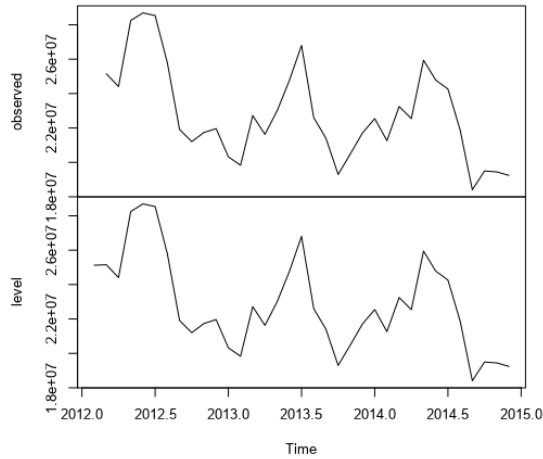


Plots of Time Series Exponential Smoothing Model ETS

In statistics, a time series is a sequence of data points measured at successive points in time spaced at uniform intervals. Examples of time series are the daily closing value of a stock market index or the annual flow volume of a river. Time series analysis comprises methods for analyzing time series data in order to extract meaningful statistics and other characteristics of the data.

Decomposition by ETS(M,N,N) method

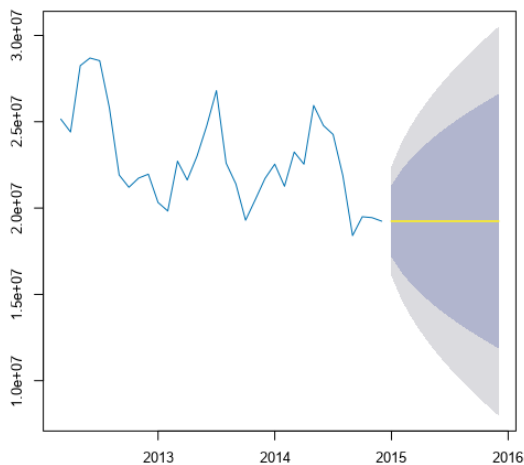


Decomposition Plot separates time series data into several components. Decomposition method is often used to yield information about time series components i.e. trend, cycle, seasonal, etc.

- Observed: This is the actual data.
- Level: This is the overall baseline without seasonal trends.
- Slope: This is the rate of change associated with the Level.
- Season: This shows the seasonal trend of the data.

Not all of the above components will occur each time.

Forecasts from ETS(M,N,N)



The Forecast Plot shows the historic data in black and the expected value in blue. The orange in the plot shows the 90% confidence interval, and the yellow shows the 95% confidence interval.

Summary of Time Series Exponential Smoothing Model ETS

Method:

ETS(M,N,N)

In-sample error measures:

ME	RMSE	MAE	MPE	MAPE	MASE	ACF1
-173033.2840989	1924745.9522939	1517881.2206956	-1.1332069	6.6945639	0.808794	0.0441979

Information criteria:

AIC	AICc	BIC
1107.9463	1108.7463	1112.5254

Smoothing parameters:

Parameter	Value
alpha	0.999899

Initial states:

State	Value
I	25122945.042931