

Première partie

R functions

Time Series

Time Series Data (Introductory Time Series with R)

Time Series Data			
Function	Description	Possible Values	Example
<code>ts</code>	Produces a time series object.		<pre>series.obj <- ts(data = sample(x = seq(from = 98, to = 102), size = 10, frequency = 4, start = c(1956, 2)) series.obj ## Qtr1 Qtr2 Qtr3 Qtr4 ## 1956 98 99 98 ## 1957 102 101 98 101 ## 1958 100 102 100</pre>
<code>aggregate</code>	Creates an aggregated series.		<pre>aggregate(x = series.obj, nfrequency = 2, # aggregate by half year FUN = mean) # calculate the mean ## Time Series: ## Start = 1956.25 ## End = 1958.25 ## Frequency = 2 ## [1] 98.5 100.0 99.5 100.5 101.0</pre>
<code>ts.plot</code>	Produces a time series plot for one (or more) series.		<pre>ts.plot(series.obj)</pre>

Function	Description	Possible Values	Example
<code>window</code>	Extracts a subset of a time series.	Same arguments as the other time series functions.	<pre> window(x = series.obj, start = c(1957), end = c(1957, 4)) ## Qtr1 Qtr2 Qtr3 Qtr4 ## 1957 102 101 98 101 </pre>
<code>time</code>	Extracts the time from a time series object.		<pre> time(series.obj) ## Qtr1 Qtr2 Qtr3 Qtr4 ## 1956 1956.25 1956.50 1956.75 ## 1957 1957.00 1957.25 1957.50 1957.75 ## 1958 1958.00 1958.25 1958.50 </pre> <pre> series.obj2 <- ts(data = sample(x = seq(from = 98, to = 102), size = 10, frequency = 4, start = c(1957, 2)) ts.intersect(series.obj, series.obj2) ## series.obj series.obj2 ## 1957 Q2 101 101 ## 1957 Q3 98 100 ## 1957 Q4 101 100 ## 1958 Q1 100 98 ## 1958 Q2 102 99 ## 1958 Q3 100 100 </pre>
<code>ts.intersect</code>	Creates the intersection of one (or more) time series.	Chiffre.	
<code>cycle</code>	Returns the season for each value in a time series.	Booléen.	<code>importance = TRUE</code>
<code>decompose</code>	Decompose a time series into the components.	Chiffre.	<code>nodesize = 5</code>
<code>stl</code>	Decomposes a time series using loess smoothing.	Chiffre.	<code>nodesize = 5</code>