data(Investment, package="sandwich")

Investment\_data <- data.frame(Years=c(1963:1982),Investment)

# Investments in the USA, an annual time series from 1963 to 1982 with 7 variables.

# Please investigate factors related to investments in the USA, create visualization using lattice package.

**#Graph 1**

library(latticeExtra)

a<-xyplot(GNP~Investment,Investment\_data, pch=0)

b<-xyplot(Interest~Investment, Investment\_data, pch=1)

c<-c(a, b, layout = 1:2)

update(c, scales = list(y = list(rot = 0)), ylab = c("GNP", "Interest Rate"))

*This plot shows dependency of GNP an interest rate from the investement*

A screenshot of a cell phone

Description automatically generated

**#Graph 2**

library(latticeExtra)

a<-xyplot(Investment~Years,Investment\_data, pch=0)

b<-xyplot(RealInt~Years, Investment\_data, pch=1)

c<-xyplot(GNP~Years, Investment\_data, pch=2)

graph<-c(a, b, c, layout=c(1, 3))

update(graph, scales = list(y = list(rot = 0)), ylab = c("Investments", "Real Interest","GNP"),

panel=function(x, y) {

panel.loess(x, y)

panel.xyplot(x, y)

})

*This graph shows how GNP, Real Interest and Investments changed during years*

A close up of a map

Description automatically generated

**#Graph 3**

xyplot(Investment~GNP, Investment\_data, pch=0,

panel=function(x, y) {

panel.lmline(x, y)

panel.xyplot(x, y)

})

*This graph shows dependency of GDP and Investments*

A close up of a map

Description automatically generated

**#Graph 4**

xyplot(Interest~Years,Investment\_data, type="l")

*Graph shows change of Interest rate over the years*

A close up of a map

Description automatically generated