

# [Example11-4] Lag Dependent Model(AR(p))

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```
load("~/計量経済学演習/R data sets for 5e/nyse.RData")
nyse<-data
```

```
library(dynlm);library(stargazer)
```

```
## Loading required package: zoo
```

```
##
## Attaching package: 'zoo'
```

```
## The following objects are masked from 'package:base':
##
##   as.Date, as.Date.numeric
```

```
##
## Please cite as:
```

```
## Hlavac, Marek (2018). stargazer: Well-Formatted Regression and Summary Statistics Tables.
```

```
## R package version 5.2.2. https://CRAN.R-project.org/package=stargazer
```

## AR(1),AR(2),AR(3)

```
tsdata <- ts(nyse)
reg1 <- dynlm(return~L(return) , data=tsdata)
reg2 <- dynlm(return~L(return)+L(return,2) , data=tsdata)
reg3 <- dynlm(return~L(return)+L(return,2)+L(return,3), data=tsdata)
stargazer(reg1, reg2, reg3, type="text",
           keep.stat=c("n","rsq","adj.rsq","f"))
```

```
##
## =====
##               Dependent variable:
##      -----
##               return
##      (1)      (2)      (3)
## -----
## L(return)    0.059    0.060    0.061
##              (0.038)   (0.038)   (0.038)
##
## L(return, 2)      -0.038    -0.040
##                  (0.038)   (0.038)
##
## L(return, 3)              0.031
##                        (0.038)
##
## Constant      0.180**    0.186**    0.179**
##              (0.081)   (0.081)   (0.082)
##
## -----
## Observations    689      688      687
## R2              0.003    0.005    0.006
## Adjusted R2     0.002    0.002    0.001
## F Statistic  2.399 (df = 1; 687) 1.659 (df = 2; 685) 1.322 (df = 3; 683)
## =====
## Note:                *p<0.1; **p<0.05; ***p<0.01
```

ほぼ変わらんしどのモデルのどのlagもsignificantじゃない。