

Examples 7-2 & 7-3

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```
[ ]: # install the following packages and libraries
install.packages("plm")
install.packages("pder")

library("plm")

# import the data
data("DemocracyIncome", package = "pder")
```

```
[3]: ##-----Block 1-----

#### Example 7-2 ####

## -----

# OLS pooling model with lags
mco <- plm(democracy ~ lag(democracy) + lag(income) + year - 1,
           DemocracyIncome, index = c("country", "year"),
           model = "pooling", subset = sample == 1)

## -----

# same model using the "within" and "time" for the model and effect options
mco <- plm(democracy ~ lag(democracy) + lag(income),
           DemocracyIncome, index = c("country", "year"),
           model = "within", effect = "time",
           subset = sample == 1)
coef(summary(mco))
```

	Estimate	Std. Error	t-value	Pr(> t)
lag(democracy)	0.70636982	0.024293078	29.07700	6.978578e-133
lag(income)	0.07231846	0.008342943	8.66822	1.915051e-17

```
[4]: ##-----Block 2-----

#### Example 7-3 ####

## -----
```

```
# two-ways within model
within <- update(mco, effect = "twoways")
coef(summary(within))
```

	Estimate	Std. Error	t-value	Pr(> t)
lag(democracy)	0.37862837	0.03344426	11.3211770	1.251513e-27
lag(income)	0.01041497	0.02640112	0.3944898	6.933266e-01