

## Example 5-10

September 12, 2020

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

library("plm")

[2]: ##-----Block 1-----

#### Example 5-10 ####

## -----
data("RDSpillovers", package = "pder")
pehs <- pdata.frame(RDSpillovers, index = c("id", "year"))
ehsfm <- lny ~ ln1 + lnk + lnrd

# Hausman test without correcting for the use of highly heteroskedastic data
phptest(ehsfm, pehs, method = "aux")
```

Regression-based Hausman test

```
data: ehsfm
chisq = 53.281, df = 3, p-value = 1.597e-11
alternative hypothesis: one model is inconsistent
```

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

# Hausman test with robust covariance
phptest(ehsfm, pehs, method = "aux", vcov = vcovHC)
```

Regression-based Hausman test, vcov: vcovHC

```
data: ehsfm
chisq = 2.3056, df = 3, p-value = 0.5114
alternative hypothesis: one model is inconsistent
```