

スクリプト：

```
data_6 = read.csv("9_2_life_xt.csv", header = TRUE, sep = ",");
data_6;
reg10_1 = plm(life ~ income + shock, data = data_6, index =
c("id","t"), model = "random")
summary(reg10_1)
reg10_2 = plm(life ~ income + shock, data = data_6, index =
c("id","t"), model = "within")
summary(reg10_2)
phtest(reg10_1,reg10_2)
```

結果：

```
reg10_1 = plm(life ~ income + shock, data = data_6, index =
c("id","t"), model = "random")
summary(reg10_1)
Oneway (individual) effect Random Effect Model
(Swamy-Arora's transformation)
```

Call:

```
plm(formula = life ~ income + shock, data = data_6, model = "random",
index = c("id", "t"))
```

Balanced Panel: n = 3020, T = 2, N = 6040

Effects:

```
var std.dev share
idiosyncratic 0.87044 0.93297 0.966
individual    0.03031 0.17409 0.034
theta: 0.0331
```

Residuals:

```
Min. 1st Qu. Median 3rd Qu. Max.
-2.81988 -0.59932 0.32589 0.43194 1.51693
```

Coefficients:

```
Estimate Std. Error z-value Pr(>|z|)
(Intercept) 2.5549e+00 2.1796e-02 117.2192 < 2.2e-16 ***
income      3.2447e-04 5.1973e-05 6.2430 4.292e-10 ***
shock       -5.4222e-02 2.5265e-02 -2.1462 0.03186 *
```

signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

Total Sum of Squares:    5293.1
Residual Sum of Squares: 5254.3
R-Squared:              0.007329
Adj. R-Squared: 0.0070001
Chisq: 44.5716 on 2 DF, p-value: 2.096e-10
reg10_2 = plm(life ~ income + shock, data = data_6, index =
c("id","t"), model = "within")
summary(reg10_2)
oneway (individual) effect within Model

```

```

Call:
plm(formula = life ~ income + shock, data = data_6, model = "within",
     index = c("id", "t"))

```

Balanced Panel: n = 3020, T = 2, N = 6040

```

Residuals:
    Min. 1st Qu.  Median 3rd Qu.    Max.
-2.0425 -0.5000  0.0000  0.5000  2.0425

```

```

Coefficients:
            Estimate Std. Error t-value Pr(>|t|)
income 0.00042483 0.00015987  2.6574 0.007916 **
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

```

```

Total Sum of Squares:    2634
Residual Sum of Squares: 2627.9
R-Squared:              0.0023336
Adj. R-Squared: -0.99566
F-statistic: 7.06173 on 1 and 3019 DF, p-value: 0.0079163
phtest(reg10_1,reg10_2)
Hausman Test

```

```

data: life ~ income + shock
chisq = 0.44072, df = 1, p-value = 0.5068
alternative hypothesis: one model is inconsistent

```