```
  ___  ____  ____  ____  ____(R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/
  Statistics/Data analysis

    User: HASIL JAWA
```

```
  ___  ____  ____  ____  ____ ©
 /__    /   ____/   /   ____/      17.0
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Notes:
      1. Unicode is supported; see help unicode_advice.
      2. More than 2 billion observations are allowed; see help obs_advice.
      3. Maximum number of variables is set to 5,000; see help set_maxvar.

1 . import excel "D:\SEMESTER 2-3\TEORI HARGA\Copy of DATA_HARGA_THP_DI_PULAU_JAWA(1).xlsx", sheet("
  > PRODUSEN JAWA BARAT") firstrow
  (14 vars, 1,342 obs)

2 . drop Tanggal

3 . tsset Periode

  Time variable: Periode, 1 to 1276
          Delta: 1 unit

4 . dfuller KUALITAS1

  Dickey–Fuller test for unit root        Number of obs  = 1,275
  Variable: KUALITAS1                     Number of lags =     0

  H0: Random walk without drift, d = 0
```

	Test statistic	Dickey–Fuller critical value 1%	5%	10%
Z(t)	**-1.912**	**-3.430**	**-2.860**	**-2.570**

MacKinnon approximate *p*-value for Z(t) = **0.3262**.

```
5 . dfuller d.KUALITAS1

  Dickey–Fuller test for unit root        Number of obs  = 1,274
  Variable: D.KUALITAS1                   Number of lags =     0

  H0: Random walk without drift, d = 0
```

	Test statistic	Dickey–Fuller critical value 1%	5%	10%
Z(t)	**-39.340**	**-3.430**	**-2.860**	**-2.570**

MacKinnon approximate *p*-value for Z(t) = **0.0000**.

```
6 . reg d.KUALITAS1 periode
  variable periode not found
  r(111);

7 . reg d.KUALITAS1 Periode

      Source |       SS           df       MS      Number of obs   =     1,275
-------------+----------------------------------   F(1, 1273)      =      0.42
       Model |  229271.023         1  229271.023   Prob > F        =    0.5180
    Residual |   698053079     1,273  548352.772   R-squared       =    0.0003
-------------+----------------------------------   Adj R-squared   =   -0.0005
       Total |   698282350     1,274  548102.316   Root MSE        =    740.51

------------------------------------------------------------------------------
  D.KUALITAS1 | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Periode |  -.0364334    .056345    -0.65   0.518    -.1469727    .0741059
       _cons |   39.28096      41.55     0.95   0.345    -42.23303     120.795
------------------------------------------------------------------------------

8 . estat sbsingle
  ----+--- 1 ---+--- 2 ---+--- 3 ---+--- 4 ---+--- 5
  ..................................................    50
  ..................................................   100
  ..................................................   150
  ..................................................   200
  ..................................................   250
  ..................................................   300
  ..................................................   350
  ..................................................   400
  ..................................................   450
  ..................................................   500
  ..................................................   550
  ..................................................   600
  ..................................................   650
  ..................................................   700
  ..................................................   750
  ..................................................   800
  ..................................................   850
  .........................................

  Test for a structural break: Unknown break date
  Full sample:      2 thru 1276
  Trimmed sample: 194 thru 1085
  Estimated break date: 626

  H0: No structural break

                        Number of obs = 1,275
  -------------------------------------------
               Test    Statistic     p-value
  -------------------------------------------
      Supremum Wald       2.1404      0.9820
  -------------------------------------------
  Exogenous variables: Periode
  Coefficients included in test: Periode _cons
```

```
 9 . dfuller KUALITAS2

   Dickey–Fuller test for unit root        Number of obs  = 1,275
   Variable: KUALITAS2                     Number of lags =     0

   H0: Random walk without drift, d = 0

                                        Dickey–Fuller
                      Test      ———————— critical value ————————
                 statistic           1%           5%          10%
   ——————————————————————————————————————————————————————————————
    Z(t)            -1.680       -3.430       -2.860       -2.570
   ——————————————————————————————————————————————————————————————
   MacKinnon approximate p-value for Z(t) = 0.4415.

10 . dfuller d.KUALITAS2

   Dickey–Fuller test for unit root        Number of obs  = 1,274
   Variable: D.KUALITAS2                   Number of lags =     0

   H0: Random walk without drift, d = 0

                                        Dickey–Fuller
                      Test      ———————— critical value ————————
                 statistic           1%           5%          10%
   ——————————————————————————————————————————————————————————————
    Z(t)           -40.273       -3.430       -2.860       -2.570
   ——————————————————————————————————————————————————————————————
   MacKinnon approximate p-value for Z(t) = 0.0000.

11 . reg d.KUALITAS2 Periode

         Source │       SS           df       MS      Number of obs   =     1,275
   ─────────────┼──────────────────────────────────   F(1, 1273)      =      0.24
          Model │  126050.648         1  126050.648   Prob > F        =    0.6255
       Residual │   673374562     1,273  528966.663   R-squared       =    0.0002
   ─────────────┼──────────────────────────────────   Adj R-squared   =   -0.0006
          Total │   673500613     1,274  528650.402   Root MSE        =     727.3

   ─────────────┬──────────────────────────────────────────────────────────────
    D.KUALITAS2 │ Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
   ─────────────┼──────────────────────────────────────────────────────────────
        Periode │  -.0270146   .0553401    -0.49   0.626    -.1355823    .0815532
          _cons │   35.69368   40.80892     0.87   0.382    -44.36645    115.7538
   ─────────────┴──────────────────────────────────────────────────────────────

12 . estat sbsingle
   ————┼———— 1 ————┼———— 2 ————┼———— 3 ————┼———— 4 ————┼———— 5
   ..................................................    50
   ..................................................   100
   ..................................................   150
   ..................................................   200
   ..................................................   250
   ..................................................   300
   ..................................................   350
   ..................................................   400
   ..................................................   450
   ..................................................   500
   ..................................................   550
   ..................................................   600
   ..................................................   650
   ..................................................   700
   ..................................................   750
   ..................................................   800
   ..................................................   850
```

....

```
Test for a structural break: Unknown break date
Full sample:       2 thru 1276
Trimmed sample: 194 thru 1085
Estimated break date: 540

H0: No structural break
```

Number of obs = **1,275**

Test	Statistic	p-value
Supremum Wald	**2.1321**	**0.9826**

Exogenous variables: **Periode**
Coefficients included in test: **Periode _cons**

```
13 . tsline d.KUALITAS1

14 . tsline d.KUALITAS2

15 . import excel "D:\SEMESTER 2-3\TEORI HARGA\Copy of DATA_HARGA_THP_DI_PULAU_JAWA(1).xlsx", sheet("
   > PRODUSEN JAWA TENGAH") firstrow clear
   (4 vars, 1,342 obs)

16 . drop Tanggal

17 . tsset Periode

   Time variable: Periode, 1 to 1276
           Delta: 1 unit

18 . dfuller KUALITAS1

   Dickey-Fuller test for unit root        Number of obs  = 1,275
   Variable: KUALITAS1                     Number of lags =     0

   H0: Random walk without drift, d = 0
```

	Test statistic	Dickey-Fuller critical value 1%	5%	10%
Z(t)	**-1.555**	**-3.430**	**-2.860**	**-2.570**

MacKinnon approximate *p*-value for Z(t) = **0.5064**.

```
19 . dfuller d.KUALITAS1

   Dickey-Fuller test for unit root        Number of obs  = 1,274
   Variable: D.KUALITAS1                   Number of lags =     0

   H0: Random walk without drift, d = 0
```

	Test statistic	Dickey-Fuller critical value 1%	5%	10%
Z(t)	**-36.031**	**-3.430**	**-2.860**	**-2.570**

MacKinnon approximate *p*-value for Z(t) = **0.0000**.

```
20 . reg d.KUALITAS1 Periode

      Source |       SS           df       MS      Number of obs   =     1,275
-------------+----------------------------------   F(1, 1273)      =      0.11
       Model |  15123.1118         1  15123.1118   Prob > F        =    0.7422
    Residual |   177786551     1,273  139659.506   R-squared       =    0.0001
-------------+----------------------------------   Adj R-squared   =   -0.0007
       Total |   177801675     1,274  139561.754   Root MSE        =    373.71

------------------------------------------------------------------------------
 D.KUALITAS1 | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Periode |  -.0093572   .0284355    -0.33   0.742    -.0651428    .0464284
       _cons |   18.29298   20.96893     0.87   0.383    -22.84448    59.43043
------------------------------------------------------------------------------

21 . estat sbsingle
----+--- 1 ---+--- 2 ---+--- 3 ---+--- 4 ---+--- 5
..................................................    50
..................................................   100
..................................................   150
..................................................   200
..................................................   250
..................................................   300
..................................................   350
..................................................   400
..................................................   450
..................................................   500
..................................................   550
..................................................   600
..................................................   650
..................................................   700
..................................................   750
..................................................   800
..................................................   850
.........................................

Test for a structural break: Unknown break date
Full sample:      2 thru 1276
Trimmed sample: 194 thru 1085
Estimated break date: 366

H0: No structural break

                      Number of obs = 1,275
-------------------------------------------
              Test    Statistic     p-value
-------------------------------------------
     Supremum Wald       2.7420      0.9230
-------------------------------------------
Exogenous variables: Periode
Coefficients included in test: Periode _cons
```

```
22 . tsline d.KUALITAS1

23 . dfuller KUALITAS2

   Dickey–Fuller test for unit root        Number of obs  = 1,275
   Variable: KUALITAS2                     Number of lags =     0

   H0: Random walk without drift, d = 0

                                           Dickey–Fuller
                       Test        ──────── critical value ─────────
                  statistic            1%           5%          10%
   ──────────────────────────────────────────────────────────────────
    Z(t)             -1.434        -3.430       -2.860       -2.570
   ──────────────────────────────────────────────────────────────────
   MacKinnon approximate p-value for Z(t) = 0.5661.

24 . dfuller d.KUALITAS2

   Dickey–Fuller test for unit root        Number of obs  = 1,274
   Variable: D.KUALITAS2                   Number of lags =     0

   H0: Random walk without drift, d = 0

                                           Dickey–Fuller
                       Test        ──────── critical value ─────────
                  statistic            1%           5%          10%
   ──────────────────────────────────────────────────────────────────
    Z(t)            -39.382        -3.430       -2.860       -2.570
   ──────────────────────────────────────────────────────────────────
   MacKinnon approximate p-value for Z(t) = 0.0000.

25 . reg d.KUALITAS2 Periode

         Source │       SS           df       MS      Number of obs   =     1,275
   ─────────────┼──────────────────────────────────   F(1, 1273)      =      0.10
          Model │  19516.2473         1  19516.2473   Prob > F        =    0.7516
       Residual │   247893354     1,273  194731.622   R-squared       =    0.0001
   ─────────────┼──────────────────────────────────   Adj R-squared   =   -0.0007
          Total │   247912871     1,274   194594.09   Root MSE        =    441.28

   ─────────────┬──────────────────────────────────────────────────────────────
    D.KUALITAS2 │ Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
   ─────────────┼──────────────────────────────────────────────────────────────
        Periode │  -.0106298   .0335771    -0.32   0.752    -.0765024    .0552429
          _cons │    21.7336   24.76049     0.88   0.380    -26.84225    70.30945
   ─────────────┴──────────────────────────────────────────────────────────────

26 . estat sbsingle
   ────┼─── 1 ───┼─── 2 ───┼─── 3 ───┼─── 4 ───┼─── 5
   ..................................................    50
   ..................................................   100
   ..................................................   150
   ..................................................   200
   ..................................................   250
   ..................................................   300
   ..................................................   350
   ..................................................   400
   ..................................................   450
   ..................................................   500
   ..................................................   550
   ..................................................   600
   ..................................................   650
   ..................................................   700
   ..................................................   750
```

```
.................................................   800
.................................................   850
........................................

Test for a structural break: Unknown break date
Full sample:      2 thru 1276
Trimmed sample: 194 thru 1085
Estimated break date: 366

H0: No structural break

                      Number of obs = 1,275
-------------------------------------------
             Test    Statistic      p-value
-------------------------------------------
    Supremum Wald       4.2220       0.6888
-------------------------------------------
Exogenous variables: Periode
Coefficients included in test: Periode _cons

27 . tsline d.KUALITAS2

28 . import excel "D:\SEMESTER 2-3\TEORI HARGA\Copy of DATA_HARGA_THP_DI_PULAU_JAWA(1).xlsx", sheet("
   > PRODUSEN JAWA TIMUR") firstrow clear
   (4 vars, 1,342 obs)

29 . drop Tanggal

30 . tsset Periode

   Time variable: Periode, 1 to 1276
           Delta: 1 unit

31 . dfuller KUALITAS1

   Dickey-Fuller test for unit root        Number of obs  = 1,275
   Variable: KUALITAS1                     Number of lags =     0

   H0: Random walk without drift, d = 0

                                         Dickey-Fuller
                     Test        -------- critical value ---------
                statistic           1%           5%           10%
   ----------------------------------------------------------------
    Z(t)           -2.345       -3.430       -2.860        -2.570
   ----------------------------------------------------------------
   MacKinnon approximate p-value for Z(t) = 0.1580.

32 . dfuller d.KUALITAS1

   Dickey-Fuller test for unit root        Number of obs  = 1,274
   Variable: D.KUALITAS1                   Number of lags =     0

   H0: Random walk without drift, d = 0

                                         Dickey-Fuller
                     Test        -------- critical value ---------
                statistic           1%           5%           10%
   ----------------------------------------------------------------
    Z(t)          -38.776       -3.430       -2.860        -2.570
   ----------------------------------------------------------------
   MacKinnon approximate p-value for Z(t) = 0.0000.
```

```
33 . reg d.KUALITAS1 Periode

      Source |       SS           df       MS      Number of obs   =     1,275
-------------+----------------------------------   F(1, 1273)      =      0.04
       Model |  8312.0776         1  8312.0776   Prob > F        =    0.8404
    Residual |  260663362     1,273  204763.05   R-squared       =    0.0000
-------------+----------------------------------   Adj R-squared   =   -0.0008
       Total |  260671675     1,274  204608.85   Root MSE        =    452.51

------------------------------------------------------------------------------
  D.KUALITAS1 | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Periode |   .0069371   .0344311     0.20   0.840    -.0606109    .0744851
       _cons |   1.880895   25.39024     0.07   0.941    -47.93041     51.6922
------------------------------------------------------------------------------

34 . estat sbsingle
----+--- 1 ---+--- 2 ---+--- 3 ---+--- 4 ---+--- 5
..................................................    50
..................................................   100
..................................................   150
..................................................   200
..................................................   250
..................................................   300
..................................................   350
..................................................   400
..................................................   450
..................................................   500
..................................................   550
..................................................   600
..................................................   650
..................................................   700
..................................................   750
..................................................   800
..................................................   850
.........................................

Test for a structural break: Unknown break date
Full sample:      2 thru 1276
Trimmed sample: 194 thru 1085
Estimated break date: 866

H0: No structural break

                      Number of obs = 1,275
-------------------------------------------
             Test    Statistic      p-value
-------------------------------------------
    Supremum Wald       1.2205       1.0000
-------------------------------------------
Exogenous variables: Periode
Coefficients included in test: Periode _cons
```

```
35 . tsline d.KUALITAS1

36 . dfuller KUALITAS2

   Dickey–Fuller test for unit root        Number of obs  = 1,275
   Variable: KUALITAS2                     Number of lags =     0

   H0: Random walk without drift, d = 0

                                        Dickey–Fuller
                      Test    ──────── critical value ─────────
                 statistic           1%           5%          10%
   ─────────────────────────────────────────────────────────────
    Z(t)            -4.812       -3.430       -2.860       -2.570
   ─────────────────────────────────────────────────────────────
   MacKinnon approximate p-value for Z(t) = 0.0001.

37 . reg KUALITAS2 Periode

         Source │       SS           df       MS      Number of obs   =     1,276
   ─────────────┼──────────────────────────────────   F(1, 1274)      =     52.17
          Model │  3.8174e+09         1  3.8174e+09   Prob > F        =    0.0000
       Residual │  9.3216e+10     1,274  73168243.2   R-squared       =    0.0393
   ─────────────┼──────────────────────────────────   Adj R-squared   =    0.0386
          Total │  9.7034e+10     1,275  76104887.2   Root MSE        =    8553.8

   ─────────────┬──────────────────────────────────────────────────────────────
      KUALITAS2 │ Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
   ─────────────┼──────────────────────────────────────────────────────────────
        Periode │   4.695674   .6500939     7.22   0.000     3.420302    5.971047
          _cons │   99879.79   479.2049   208.43   0.000     98939.67    100819.9
   ─────────────┴──────────────────────────────────────────────────────────────

38 . estat sbsingle
   ────┼─── 1 ───┼─── 2 ───┼─── 3 ───┼─── 4 ───┼─── 5
   ..................................................    50
   ..................................................   100
   ..................................................   150
   ..................................................   200
   ..................................................   250
   ..................................................   300
   ..................................................   350
   ..................................................   400
   ..................................................   450
   ..................................................   500
   ..................................................   550
   ..................................................   600
   ..................................................   650
   ..................................................   700
   ..................................................   750
   ..................................................   800
   ..................................................   850
   .........................................

   Test for a structural break: Unknown break date
   Full sample:      1 thru 1276
   Trimmed sample: 193 thru 1085
   Estimated break date: 409

   H0: No structural break
```

```
                     Number of obs = 1,276
-------------------------------------------
            Test    Statistic      p-value
-------------------------------------------
    Supremum Wald    239.8299       0.0000
-------------------------------------------
Exogenous variables: Periode
Coefficients included in test: Periode _cons

39 . tsline KUALITAS2

40 . import excel "D:\SEMESTER 2-3\TEORI HARGA\Copy of DATA_HARGA_THP_DI_PULAU_JAWA(1).xlsx", sheet("
   > PRODUSEN BANTEN") firstrow clear
   (4 vars, 1,342 obs)

41 . drop Tanggal

42 . tsset Periode

   Time variable: Periode, 1 to 1276
           Delta: 1 unit

43 . dfuller KUALITAS1

   Dickey-Fuller test for unit root        Number of obs  = 1,275
   Variable: KUALITAS1                     Number of lags =     0

   H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                      Test     -------- critical value ---------
                 statistic           1%           5%          10%
   -------------------------------------------------------------
    Z(t)            -2.183       -3.430       -2.860       -2.570
   -------------------------------------------------------------
   MacKinnon approximate p-value for Z(t) = 0.2126.

44 . dfuller d.KUALITAS1

   Dickey-Fuller test for unit root        Number of obs  = 1,274
   Variable: D.KUALITAS1                   Number of lags =     0

   H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                      Test     -------- critical value ---------
                 statistic           1%           5%          10%
   -------------------------------------------------------------
    Z(t)           -35.154       -3.430       -2.860       -2.570
   -------------------------------------------------------------
   MacKinnon approximate p-value for Z(t) = 0.0000.

45 . reg d.KUALITAS1 Periode

         Source |       SS           df       MS      Number of obs   =     1,275
   -------------+----------------------------------   F(1, 1273)      =      0.70
          Model |  597057.503         1  597057.503   Prob > F        =    0.4038
       Residual |  1.0898e+09     1,273  856097.729   R-squared       =    0.0005
   -------------+----------------------------------   Adj R-squared   =   -0.0002
          Total |  1.0904e+09     1,274  855894.401   Root MSE        =    925.26
```

D.KUALITAS1	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
Periode	**-.0587941**	**.0704023**	**-0.84**	**0.404**	**-.1969115**	**.0793233**
_cons	**49.33412**	**51.91617**	**0.95**	**0.342**	**-52.51654**	**151.1848**

```
46 . estat sbsingle
────┼──── 1 ───┼─── 2 ───┼─── 3 ───┼─── 4 ───┼─── 5
..................................................    50
..................................................   100
..................................................   150
..................................................   200
..................................................   250
..................................................   300
..................................................   350
..................................................   400
..................................................   450
..................................................   500
..................................................   550
..................................................   600
..................................................   650
..................................................   700
..................................................   750
..................................................   800
..................................................   850
.........................................
```

Test for a structural break: Unknown break date
Full sample: **2** thru **1276**
Trimmed sample: **194** thru **1085**
Estimated break date: **366**

H0: No structural break

Number of obs = **1,275**

Test	Statistic	p-value
Supremum Wald	**5.1516**	**0.5351**

Exogenous variables: **Periode**
Coefficients included in test: **Periode _cons**

47 . tsline d.KUALITAS1

48 . dfuller KUALITAS2

Dickey-Fuller test for unit root   Number of obs = **1,275**
Variable: **KUALITAS2**   Number of lags =   **0**

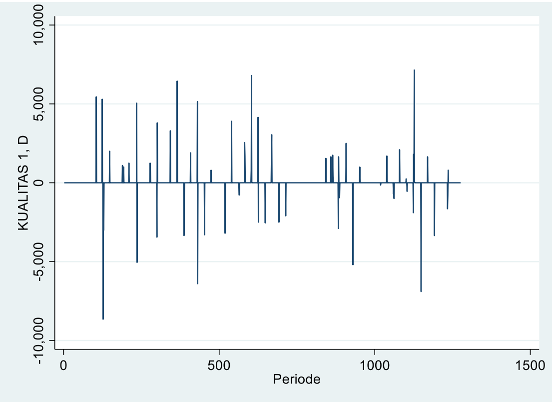
H0: Random walk without drift, d = 0

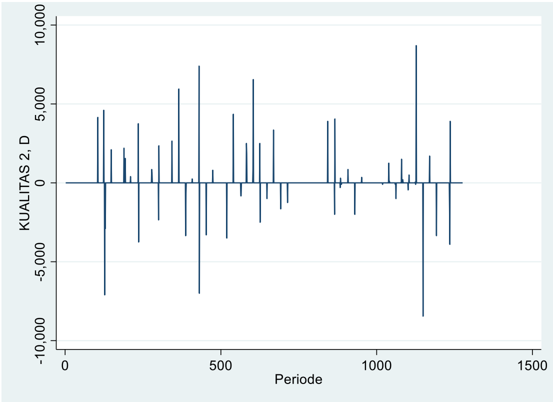
	Test statistic	Dickey-Fuller critical value 1%	5%	10%
Z(t)	**-3.050**	**-3.430**	**-2.860**	**-2.570**

MacKinnon approximate *p*-value for Z(t) = **0.0305**.

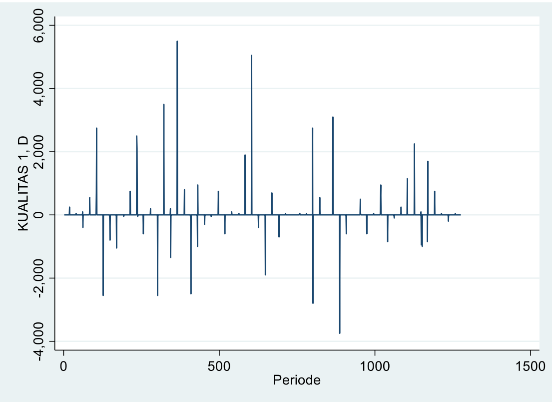
```
49 . reg KUALITAS2 Periode

      Source |       SS           df       MS      Number of obs   =     1,276
-------------+----------------------------------   F(1, 1274)      =      6.12
       Model |  1.7375e+09         1  1.7375e+09   Prob > F        =    0.0135
    Residual |  3.6154e+11     1,274   283786457   R-squared       =    0.0048
-------------+----------------------------------   Adj R-squared   =    0.0040
       Total |  3.6328e+11     1,275   284926627   Root MSE        =     16846

------------------------------------------------------------------------------
   KUALITAS2 | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
     Periode |   3.167944   1.280297     2.47   0.013      .656223    5.679666
       _cons |   110902.7   943.7475   117.51   0.000     109051.2    112754.1
------------------------------------------------------------------------------

50 . estat sbsingle
----+--- 1 ---+--- 2 ---+--- 3 ---+--- 4 ---+--- 5
..................................................    50
..................................................   100
..................................................   150
..................................................   200
..................................................   250
..................................................   300
..................................................   350
..................................................   400
..................................................   450
..................................................   500
..................................................   550
..................................................   600
..................................................   650
..................................................   700
..................................................   750
..................................................   800
..................................................   850
..........................................

   Test for a structural break: Unknown break date
   Full sample:      1 thru 1276
   Trimmed sample: 193 thru 1085
   Estimated break date: 279

   H0: No structural break

                         Number of obs = 1,276
   -------------------------------------------
                Test    Statistic      p-value
   -------------------------------------------
       Supremum Wald    1479.1632       0.0000
   -------------------------------------------
   Exogenous variables: Periode
   Coefficients included in test: Periode _cons

51 . tsline KUALITAS2

52 .
```

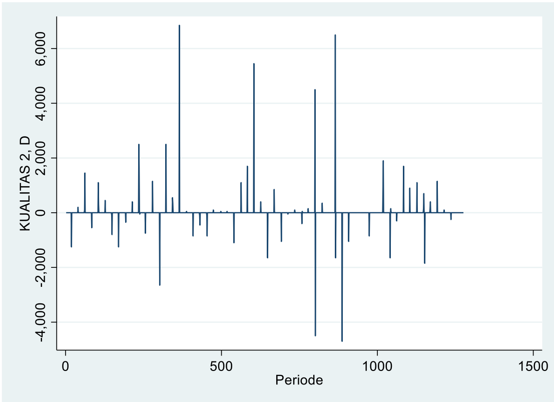
1. JAWA BARAT



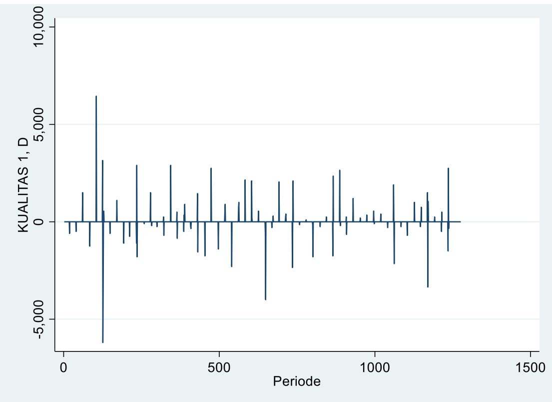


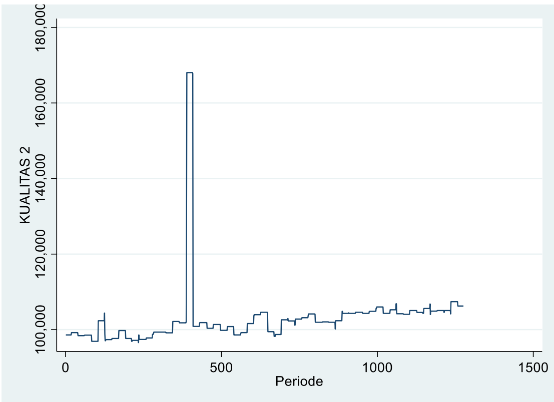
2. JAWA TENGAH



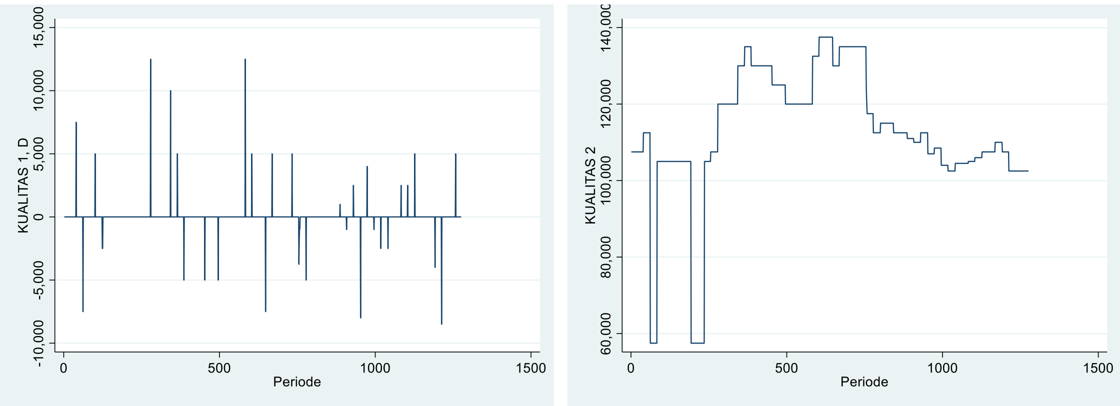


3. JAWA TIMUR





4. BANTEN



KUALITAS 1, D
15,000
10,000
5,000
0
-5,000
-10,000
0
500
1000
1500
Periode
KUALITAS 2
140,000
120,000
100,000
80,000
60,000
0
500
1000
1500
Periode

```
                                                                        ___  ____  ____  ____  ____(R)
                                                                       /__    /   ____/   /   ____/
                                                                      ___/   /   /___/   /   /___/
                                                                        Statistics/Data analysis

                                                                          User: Fajar
                                                                       Project: Banten
```

```
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 /__    /   ____/   /   ____/      17.0
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Notes:
      1. Unicode is supported; see help unicode advice.
      2. More than 2 billion observations are allowed; see help obs advice.
      3. Maximum number of variables is set to 5,000; see help set maxvar.

  1 . edit

  2 . *(1 variable, 1276 observations pasted into data editor)

  3 . *(3 variables, 1276 observations pasted into data editor)

  4 . tsset periode

    Time variable: periode, 1 to 1276
            Delta: 1 unit

  5 . gen ln_pp_banten = ln(pp_banten)

  6 . gen ln_pb_banten = ln(pb_banten)

  7 . gen ln_pt_banten = ln(pt_banten)
    (1 missing value generated)

  8 . foreach var in ln_pp_banten ln_pb_banten ln_pt_banten {
    2.
  9 .     dfuller `var'
    3.
 10 . }

    Dickey—Fuller test for unit root        Number of obs  = 1,275
    Variable: ln_pp_banten                  Number of lags =     0

    H0: Random walk without drift, d = 0

                                           Dickey—Fuller
                       Test      ——————— critical value ————————
                  statistic           1%           5%          10%
    ————————————————————————————————————————————————————————————————
     Z(t)            -2.183       -3.430       -2.860       -2.570
    ————————————————————————————————————————————————————————————————
    MacKinnon approximate p-value for Z(t) = 0.2125.

    Dickey—Fuller test for unit root        Number of obs  = 1,275
    Variable: ln_pb_banten                  Number of lags =     0

    H0: Random walk without drift, d = 0

                                           Dickey—Fuller
                       Test      ——————— critical value ————————
                  statistic           1%           5%          10%
    ————————————————————————————————————————————————————————————————
     Z(t)            -1.422       -3.430       -2.860       -2.570
    ————————————————————————————————————————————————————————————————
    MacKinnon approximate p-value for Z(t) = 0.5716.
```

```
Dickey–Fuller test for unit root        Number of obs  = 1,274
Variable: ln_pt_banten                  Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey–Fuller
                   Test      ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)            -3.038       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0315.

11 . foreach var in d.ln_pp_banten d.ln_pb_banten ln_pt_banten {
  2.
12 .     dfuller `var'
  3.
13 . }

Dickey–Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_pp_banten                Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey–Fuller
                   Test      ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)           -35.166       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey–Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_pb_banten                Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey–Fuller
                   Test      ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)           -35.684       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey–Fuller test for unit root        Number of obs  = 1,274
Variable: ln_pt_banten                  Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey–Fuller
                   Test      ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)            -3.038       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0315.

14 . var ln_pp_banten ln_pb_banten ln_pt_banten

Vector autoregression

Sample: 3 thru 1275                             Number of obs     =      1,273
Log likelihood =   13447.39                     AIC               =  -21.09409
FPE            =   1.39e-13                     HQIC              =  -21.06218
Det(Sigma_ml)  =   1.34e-13                     SBIC              =  -21.00914

Equation           Parms      RMSE     R-sq      chi2     P>chi2
────────────────────────────────────────────────────────────────
ln_pp_banten          7     .007534   0.9903   130497.1   0.0000
ln_pb_banten          7     .005344   0.9966   368455.7   0.0000
ln_pt_banten          7     .009185   0.9775   55421.15   0.0000
────────────────────────────────────────────────────────────────
```

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
ln_pp_banten						
ln_pp_banten						
L1.	**1.000819**	**.0280611**	**35.67**	**0.000**	**.9458197**	**1.055817**
L2.	**-.0202314**	**.0280068**	**-0.72**	**0.470**	**-.0751237**	**.0346609**
ln_pb_banten						
L1.	**-.0394444**	**.0389508**	**-1.01**	**0.311**	**-.1157865**	**.0368977**
L2.	**.0305698**	**.0382528**	**0.80**	**0.424**	**-.0444043**	**.1055438**
ln_pt_banten						
L1.	**.0233152**	**.0225675**	**1.03**	**0.302**	**-.0209163**	**.0675467**
L2.	**.0074814**	**.0229926**	**0.33**	**0.745**	**-.0375833**	**.0525462**
_cons	**-.0317465**	**.0451757**	**-0.70**	**0.482**	**-.1202892**	**.0567962**
ln_pb_banten						
ln_pp_banten						
L1.	**-.0153044**	**.0199045**	**-0.77**	**0.442**	**-.0543165**	**.0237077**
L2.	**.0084483**	**.019866**	**0.43**	**0.671**	**-.0304883**	**.0473849**
ln_pb_banten						
L1.	**.9595106**	**.0276288**	**34.73**	**0.000**	**.9053591**	**1.013662**
L2.	**.019699**	**.0271337**	**0.73**	**0.468**	**-.0334821**	**.07288**
ln_pt_banten						
L1.	**.1400367**	**.0160077**	**8.75**	**0.000**	**.1086622**	**.1714113**
L2.	**-.1010116**	**.0163093**	**-6.19**	**0.000**	**-.1329772**	**-.069046**
_cons	**-.1357844**	**.0320443**	**-4.24**	**0.000**	**-.1985901**	**-.0729787**
ln_pt_banten						
ln_pp_banten						
L1.	**.0473657**	**.0342098**	**1.38**	**0.166**	**-.0196844**	**.1144157**
L2.	**-.0123285**	**.0341436**	**-0.36**	**0.718**	**-.0792487**	**.0545918**
ln_pb_banten						
L1.	**-.0620489**	**.0474856**	**-1.31**	**0.191**	**-.155119**	**.0310212**
L2.	**.088213**	**.0466347**	**1.89**	**0.059**	**-.0031892**	**.1796152**
ln_pt_banten						
L1.	**1.110679**	**.0275125**	**40.37**	**0.000**	**1.056755**	**1.164602**
L2.	**-.1966969**	**.0280307**	**-7.02**	**0.000**	**-.2516362**	**-.1417577**
_cons	**.2976157**	**.0550745**	**5.40**	**0.000**	**.1896717**	**.4055598**

15 . varsoc

Lag-order selection criteria

Sample: **3** thru **1275** Number of obs = **1,273**

Lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	**6202.39**				**1.2e-08**	**-9.73981**	**-9.73526**	**-9.72768**
1	**13401.8**	**14399**	**9**	**0.000**	**1.5e-13**	**-21.0367**	**-21.0184**	**-20.9881**
2	**13447.4**	**91.109***	**9**	**0.000**	**1.4e-13***	**-21.0941***	**-21.0622***	**-21.0091***

* optimal lag
Endogenous: **ln_pp_banten ln_pb_banten ln_pt_banten**
Exogenous: **_cons**

```
16 . vecrank ln_pp_banten ln_pb_banten ln_pt_banten, trend(constant)

   Johansen tests for cointegration
   Trend: Constant                         Number of obs  = 1,273
   Sample: 3 thru 1275                     Number of lags =     2
   ─────────────────────────────────────────────────────────────
                                                         Critical
   Maximum                                       Trace      value
     rank  Params        LL  Eigenvalue      statistic         5%
        0      12  13392.075           .      110.6218      29.68
        1      17  13439.836     0.07229      15.1001*      15.41
        2      20  13445.699     0.00917       3.3736        3.76
        3      21  13447.386     0.00265
   ─────────────────────────────────────────────────────────────
   * selected rank

17 . vec ln_pp_banten ln_pb_banten ln_pt_banten, trend(constant)

   Vector error-correction model

   Sample: 3 thru 1275                        Number of obs     =      1,273
                                              AIC               =  -21.08851
   Log likelihood =  13439.84                 HQIC              =  -21.06268
   Det(Sigma_ml)  =  1.36e-13                 SBIC              =  -21.01975

   Equation           Parms      RMSE     R-sq      chi2     P>chi2
   ────────────────────────────────────────────────────────────────
   D_ln_pp_banten        5    .007544   0.0085   10.84021   0.0546
   D_ln_pb_banten        5    .005355   0.0714    97.4781   0.0000
   D_ln_pt_banten        5    .009186   0.0659   89.44679   0.0000
   ────────────────────────────────────────────────────────────────
```

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
D_ln_pp_banten						
_ce1 L1.	-.0108752	.0034579	-3.15	0.002	-.0176525	-.0040979
ln_pp_banten LD.	.0159281	.0279986	0.57	0.569	-.0389481	.0708043
ln_pb_banten LD.	-.0322047	.0383978	-0.84	0.402	-.107463	.0430537
ln_pt_banten LD.	-.0077409	.0230745	-0.34	0.737	-.0529662	.0374843
_cons	.0000976	.0002115	0.46	0.644	-.0003169	.0005122
D_ln_pb_banten						
_ce1 L1.	-.0141186	.0024544	-5.75	0.000	-.018929	-.0093081
ln_pp_banten LD.	-.0034677	.0198732	-0.17	0.861	-.0424184	.035483
ln_pb_banten LD.	-.0198244	.0272545	-0.73	0.467	-.0732422	.0335934
ln_pt_banten LD.	.10224	.0163781	6.24	0.000	.0701395	.1343405
_cons	.0001142	.0001501	0.76	0.447	-.00018	.0004085
D_ln_pt_banten						
_ce1 L1.	.0303659	.0042107	7.21	0.000	.0221131	.0386188
ln_pp_banten LD.	.0164627	.0340941	0.48	0.629	-.0503606	.083286
ln_pb_banten LD.	-.0893626	.0467574	-1.91	0.056	-.1810054	.0022803

ln_pt_banten						
LD.	**.1981975**	**.0280981**	**7.05**	**0.000**	**.1431262**	**.2532688**
_cons	**.0000881**	**.0002576**	**0.34**	**0.732**	**-.0004168**	**.0005929**

Cointegrating equations

Equation	Parms	chi2	P>chi2
_ce1	**2**	**252.5606**	**0.0000**

Identification: beta is exactly identified

Johansen normalization restriction imposed

beta	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
_ce1						
ln_pp_banten	**1**	**.**	**.**	**.**	**.**	**.**
ln_pb_banten	**1.064261**	**.1421697**	**7.49**	**0.000**	**.7856136**	**1.342909**
ln_pt_banten	**-2.809257**	**.2117893**	**-13.26**	**0.000**	**-3.224356**	**-2.394157**
_cons	**8.938132**	**.**	**.**	**.**	**.**	**.**

```
18 . var ln_pp_banten ln_pb_banten ln_pt_banten, lags(2) rank(1)
option rank() not allowed
r(198);

19 . var ln_pp_banten ln_pb_banten ln_pt_banten, lags(2)
```

Vector autoregression

Sample: **3** thru **1275**		Number of obs =	**1,273**
Log likelihood =	**12041.22**	AIC =	**-18.89902**
FPE =	**1.24e-12**	HQIC =	**-18.88079**
Det(Sigma_ml) =	**1.22e-12**	SBIC =	**-18.85048**

Equation	Parms	RMSE	R-sq	chi2	P>chi2
ln_pp_banten	**4**	**.010664**	**0.9806**	**64340.53**	**0.0000**
ln_pb_banten	**4**	**.007599**	**0.9930**	**181150.3**	**0.0000**
ln_pt_banten	**4**	**.013884**	**0.9486**	**23477.09**	**0.0000**

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
ln_pp_banten						
ln_pp_banten						
L2.	**.9630803**	**.0074652**	**129.01**	**0.000**	**.9484488**	**.9777118**
ln_pb_banten						
L2.	**-.015899**	**.0067533**	**-2.35**	**0.019**	**-.0291352**	**-.0026628**
ln_pt_banten						
L2.	**.0563648**	**.0131895**	**4.27**	**0.000**	**.0305139**	**.0822158**
_cons	**-.0458545**	**.0628177**	**-0.73**	**0.465**	**-.168975**	**.077266**
ln_pb_banten						
ln_pp_banten						
L2.	**-.0122614**	**.0053196**	**-2.30**	**0.021**	**-.0226876**	**-.0018352**
ln_pb_banten						
L2.	**.9577185**	**.0048123**	**199.02**	**0.000**	**.9482867**	**.9671504**
ln_pt_banten						
L2.	**.0763423**	**.0093986**	**8.12**	**0.000**	**.0579213**	**.0947632**
_cons	**-.2601395**	**.0447629**	**-5.81**	**0.000**	**-.3478732**	**-.1724059**

```
ln_pt_banten |
ln_pp_banten |
         L2. |   .0674997   .0097198     6.94   0.000     .0484493    .0865502
             |
ln_pb_banten |
         L2. |   .0473558   .0087928     5.39   0.000     .0301222    .0645895
             |
ln_pt_banten |
         L2. |   .8368917   .0171729    48.73   0.000     .8032335      .87055
             |
       _cons |   .5784814   .0817894     7.07   0.000     .4181771    .7387858
--------------------------------------------------------------------------------

20 . vargranger

   Granger causality Wald tests
```

Equation	Excluded	chi2	df	Prob > chi2
ln_pp_banten	ln_pb_banten	5.5426	1	0.019
ln_pp_banten	ln_pt_banten	18.263	1	0.000
ln_pp_banten	ALL	19.171	2	0.000
ln_pb_banten	ln_pp_banten	5.3129	1	0.021
ln_pb_banten	ln_pt_banten	65.978	1	0.000
ln_pb_banten	ALL	81.601	2	0.000
ln_pt_banten	ln_pp_banten	48.227	1	0.000
ln_pt_banten	ln_pb_banten	29.006	1	0.000
ln_pt_banten	ALL	72.073	2	0.000

```
21 . predict ecm_resid, resid
   (2 missing values generated)

22 . dfuller ecm_resid

   Dickey-Fuller test for unit root        Number of obs  = 1,273
   Variable: ecm_resid                     Number of lags =     0

   H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                  Test      ──────── critical value ─────────
             statistic           1%           5%          10%
   ───────────────────────────────────────────────────────────
    Z(t)       -20.209       -3.430       -2.860       -2.570
   ───────────────────────────────────────────────────────────
   MacKinnon approximate p-value for Z(t) = 0.0000.

23 . gen lag_ecm_resid = l.ecm.resid
   l:  operator invalid
   r(198);

24 . gen lag_ecm_res = l.ecm.resid
   l:  operator invalid
   r(198);

25 . gen lag_ecm_res = L.ecm.resid
   L:  operator invalid
   r(198);
```

```
26 . gen lag_ecm_res = l.ecm.resid
   l:  operator invalid
   r(198);

27 . gen lag_ecm_res = l.ecm_resid
   (3 missing values generated)

28 . regress d.ln_pp_banten d.ln_pb_banten ln_pt_banten lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,272
-------------+----------------------------------   F(3, 1268)      =      0.02
       Model |  4.3015e-06         3  1.4338e-06   Prob > F        =    0.9947
    Residual |  .072765054     1,268  .000057386   R-squared       =    0.0001
-------------+----------------------------------   Adj R-squared   =   -0.0023
       Total |  .072769355     1,271  .000057254   Root MSE        =    .00758

------------------------------------------------------------------------------
D.           |
ln_pp_banten | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ln_pb_banten |
         D1. |   .0001915   .0383756     0.00   0.996    -.0750952    .0754782
             |
ln_pt_banten |  -.0008977   .0034869    -0.26   0.797    -.0077385     .005943
 lag_ecm_res |  -.0016711   .0199532    -0.08   0.933    -.0408161    .0374738
       _cons |   .0107068   .0411887     0.26   0.795    -.0700987    .0915122
------------------------------------------------------------------------------

29 .
30 . regress d.ln_pb_banten d.ln_pp_banten ln_pt_banten lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,272
-------------+----------------------------------   F(3, 1268)      =      1.79
       Model |  .000164656         3  .000054885   Prob > F        =    0.1480
    Residual |  .038966638     1,268  .000030731   R-squared       =    0.0042
-------------+----------------------------------   Adj R-squared   =    0.0019
       Total |  .039131294     1,271  .000030788   Root MSE        =    .00554

------------------------------------------------------------------------------
D.           |
ln_pb_banten | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ln_pp_banten |
         D1. |   .0001026   .0205506     0.00   0.996    -.0402144    .0404196
             |
ln_pt_banten |   .0058778   .0025464     2.31   0.021     .0008821    .0108734
 lag_ecm_res |  -.0036383   .0146012    -0.25   0.803    -.0322835    .0250068
       _cons |   -.069301   .0300793    -2.30   0.021    -.1283116   -.0102904
------------------------------------------------------------------------------

31 .
32 . regress ln_pt_banten d.ln_pb_banten d.ln_pp_banten lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,272
-------------+----------------------------------   F(3, 1268)      =      2.27
       Model |  .025317447         3  .008439149   Prob > F        =    0.0790
    Residual |  4.71954438     1,268  .003722038   R-squared       =    0.0053
-------------+----------------------------------   Adj R-squared   =    0.0030
       Total |  4.74486182     1,271  .003733172   Root MSE        =    .06101

------------------------------------------------------------------------------
ln_pt_banten | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ln_pb_banten |
         D1. |   .7119003   .3084135     2.31   0.021     .1068434    1.316957
             |
ln_pp_banten |
         D1. |  -.0582259    .226161    -0.26   0.797    -.5019168    .3854649
             |
 lag_ecm_res |   .1922058   .1606045     1.20   0.232     -.122874    .5072855
       _cons |   11.81223   .0017112  6902.84   0.000     11.80887    11.81558
------------------------------------------------------------------------------
```

```
33 .
34 . bgodfrey

   Breusch–Godfrey LM test for autocorrelation
   ---------------------------------------------------------------------------
       lags(p)  |          chi2               df                 Prob > chi2
   -------------+-------------------------------------------------------------
          1     |       1233.119               1                   0.0000
   ---------------------------------------------------------------------------
                           H0: no serial correlation

35 .
36 . estat hettest

   Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
   Assumption: Normal error terms
   Variable: Fitted values of ln_pt_banten

   H0: Constant variance

       chi2(1) =   0.08
   Prob > chi2 = 0.7796

37 . regress d.ln_pp_banten d.ln_pb_banten d.ln_pt_banten lag_ecm_res

         Source |       SS           df       MS      Number of obs   =     1,272
   -------------+----------------------------------   F(3, 1268)      =      0.69
          Model |  .000118351         3  .00003945   Prob > F        =    0.5591
       Residual |  .072651004     1,268  .000057296   R-squared       =    0.0016
   -------------+----------------------------------   Adj R-squared   =   -0.0007
          Total |  .072769355     1,271  .000057254   Root MSE        =    .00757

   ------------------------------------------------------------------------------
   D.           |
   ln_pp_banten | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
   -------------+----------------------------------------------------------------
   ln_pb_banten |
            D1. |  -.0007364   .0382657    -0.02   0.985    -.0758076    .0743347
                |
   ln_pt_banten |
            D1. |   .0321872   .0224426     1.43   0.152    -.0118416     .076216
                |
    lag_ecm_res |   -.004229   .0199956    -0.21   0.833    -.0434571    .0349991
          _cons |   .0001005   .0002123     0.47   0.636     -.000316     .000517
   ------------------------------------------------------------------------------

38 .
39 . regress d.ln_pb_banten d.ln_pp_banten d.ln_pt_banten lag_ecm_res

         Source |       SS           df       MS      Number of obs   =     1,272
   -------------+----------------------------------   F(3, 1268)      =      0.02
          Model |  2.0107e-06         3  6.7022e-07   Prob > F        =    0.9957
       Residual |  .039129283     1,268  .000030859   R-squared       =    0.0001
   -------------+----------------------------------   Adj R-squared   =   -0.0023
          Total |  .039131294     1,271  .000030788   Root MSE        =    .00556

   ------------------------------------------------------------------------------
   D.           |
   ln_pb_banten | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
   -------------+----------------------------------------------------------------
   ln_pp_banten |
            D1. |  -.0003966   .0206096    -0.02   0.985    -.0408294    .0400361
                |
   ln_pt_banten |
            D1. |   .0030994   .0164835     0.19   0.851    -.0292386    .0354374
                |
    lag_ecm_res |   -.002749   .0146746    -0.19   0.851    -.0315382    .0260401
          _cons |   .0001288   .0001558     0.83   0.409    -.0001768    .0004344
   ------------------------------------------------------------------------------
```

40 .
41 . regress d.ln_pt_banten d.ln_pb_banten d.ln_pp_banten lag_ecm_res

Source	SS	df	MS
Model	**.00097935**	**3**	**.00032645**
Residual	**.113571799**	**1,268**	**.000089568**
Total	**.114551149**	**1,271**	**.000090127**

Number of obs	=	**1,272**
F(3, 1268)	=	**3.64**
Prob > F	=	**0.0123**
R-squared	=	**0.0085**
Adj R-squared	=	**0.0062**
Root MSE	=	**.00946**

D. ln_pt_banten	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_pb_banten						
D1.	**.0089959**	**.047843**	**0.19**	**0.851**	**-.0848643**	**.1028561**
ln_pp_banten						
D1.	**.0503167**	**.0350835**	**1.43**	**0.152**	**-.0185114**	**.1191448**
lag_ecm_res	**.0741975**	**.024914**	**2.98**	**0.003**	**.0253204**	**.1230747**
_cons	**.0000635**	**.0002655**	**0.24**	**0.811**	**-.0004573**	**.0005843**

42 .
43 . bgodfrey

Breusch-Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	**25.567**	**1**	**0.0000**

H0: no serial correlation

44 .
45 . estat hettest

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of **D.ln_pt_banten**

H0: Constant variance

chi2(**1**) = **4.23**
Prob > chi2 = **0.0398**

46 . summarize ln_pt_banten ln_pb_banten ln_pp_banten

Variable	Obs	Mean	Std. dev.	Min	Max
ln_pt_banten	**1,275**	**11.81206**	**.0612465**	**11.70561**	**12.01884**
ln_pb_banten	**1,276**	**11.77124**	**.090881**	**11.65269**	**11.92172**
ln_pp_banten	**1,276**	**11.71671**	**.0765559**	**11.58525**	**11.8494**

47 . summarize pt_banten pb_banten pp_banten

Variable	Obs	Mean	Std. dev.	Min	Max
pt_banten	**1,275**	**135119.1**	**8126.688**	**121250**	**165850**
pb_banten	**1,276**	**130007.8**	**11731.97**	**115000**	**150500**
pp_banten	**1,276**	**122958.5**	**9232.326**	**107500**	**140000**

```
48 . * PERSAMAAN ASIMETRI HARGA

49 .
50 . gen d_ln_p_banten = ln_p_banten - ln_p_banten[_n-1]
   ln_p_banten not found
   r(111);

51 .
52 . gen d_ln_p_banten_pos = cond(d_ln_p_banten > 0, d_ln_p_banten, 0)
   d_ln_p_banten not found
   r(111);

53 .
54 . gen d_ln_p_banten_neg = cond(d_ln_p_banten < 0, d_ln_p_banten, 0)
   d_ln_p_banten not found
   r(111);

55 .
56 . gen d_ln_pb_banten = ln_pb_banten - ln_pb_banten[_n-1]
   (1 missing value generated)

57 .
58 . gen d_ln_pb_banten_pos = cond(d_ln_pb_banten > 0, d_ln_pb_banten, 0)
   (1 missing value generated)

59 .
60 . gen d_ln_pb_banten_neg = cond(d_ln_pb_banten < 0, d_ln_pb_banten, 0)

61 .
62 . gen d_ln_t_banten = ln_t_banten - ln_t_banten[_n-1]
   ln_t_banten not found
   r(111);

63 .
64 . gen d_ln_t_banten_pos = cond(d_ln_t_banten > 0, d_ln_t_banten, 0)
   d_ln_t_banten not found
   r(111);

65 .
66 . gen d_ln_t_banten_neg = cond(d_ln_t_banten < 0, d_ln_t_banten, 0)
   d_ln_t_banten not found
   r(111);

67 .
68 . * REGRESI MODEL HOUCK

69 .
70 . * 1 MODEL TERHADAP PRODUSEN

71 .
72 . reg ln_p_banten d_ln_pb_banten_pos d_ln_pb_banten_neg d_ln_t_banten_pos d_ln_t_banten_neg
   variable ln_p_banten not found
   r(111);

73 .
74 . * Uji Asimetri dengan Wald

75 .
76 . test d_ln_pb_banten_pos = d_ln_pb_banten_neg
   d_ln_pb_banten_pos not found
   r(111);
```

```
.
. * Berdasarkan uji wald diketahui bahwa nilai statistik PB_banten yaitu 0,3985 > 0,05, maka ped
> agang besar tidak memiliki asimetri harga terhadap pasar produsen

.
. test d_ln_t_banten_pos = d_ln_t_banten_neg
d_ln_t_banten_pos not found
r(111);

.
. * Berdasarkan uji wald diketahui bahwa nilai statistik T_banten yaitu 0,2022 > 0,05, maka peda
> gang besar tidak memiliki asimetri harga terhadap pasar produsen dan tidak ada efek perubahan
> postif dan negatif terhadap Produsen

.
. * ________________________________________________________

.
. * MODEL TERHADAP PEDAGANG BESAR

.
. reg ln_pb_banten d_ln_p_banten_pos d_ln_p_banten_neg d_ln_t_banten_pos d_ln_t_banten_neg
variable d_ln_p_banten_pos not found
r(111);

.
. test d_ln_p_banten_pos = d_ln_p_banten_neg
d_ln_p_banten_pos not found
r(111);

.
. * Berdasarkan uji wald diketahui bahwa nilai statistik P_banten yaitu 0,4354 > 0,05, maka Prod
> usen tidak memiliki asimetri harga terhadap Pedagang Besar

.
. test d_ln_t_banten_pos = d_ln_t_banten_neg
d_ln_t_banten_pos not found
r(111);

.
. * Berdasarkan uji wald diketahui bahwa nilai statistik T_banten yaitu 0,1423 > 0,05, maka Pasa
> r Tradisional tidak memiliki asimetri harga terhadap pasar pedagang besar dan tidak ada efek p
> erubahan postif dan negatif

.
. * ________________________________________________________

.
. * MODEL TERHADAP PASAR TRADISIONAL

.
. reg ln_t_banten d_ln_p_banten_pos d_ln_p_banten_neg d_ln_pb_banten_pos d_ln_pb_banten_neg
variable ln_t_banten not found
r(111);

.
. test d_ln_p_banten_pos = d_ln_p_banten_neg
d_ln_p_banten_pos not found
r(111);

.
. test d_ln_pb_banten_pos = d_ln_pb_banten_neg
d_ln_pb_banten_pos not found
r(111);
```

```
107 .
108 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_banten yaitu 0,6096 > 0,05, maka Prod
    > usen tidak memiliki asimetri harga terhadap pasar tradisional dan tidak ada efek perubahan pos
    > tif dan negatif

109 .
110 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_banten yaitu 0,0024 < 0,05, maka Pas
    > ar Tradisional memiliki asimetri harga terhadap pasar tradisional dalam ada efek perubahan pos
    > tif dan negatif

111 .
112 . * ______________________________________________________________________________

113 .
114 . * SELESAI

115 . * PERSAMAAN ASIMETRI HARGA

116 .
117 . gen d_ln_pp_banten = ln_pp_banten - ln_pp_banten[_n-1]
    (1 missing value generated)

118 .
119 . gen d_ln_pp_banten_pos = cond(d_ln_pp_banten > 0, d_ln_pp_banten, 0)
    (1 missing value generated)

120 .
121 . gen d_ln_pp_banten_neg = cond(d_ln_pp_banten < 0, d_ln_pp_banten, 0)

122 .
123 . gen d_ln_pb_banten = ln_pb_banten - ln_pb_banten[_n-1]
    variable d_ln_pb_banten already defined
    r(110);

124 .
125 . gen d_ln_pb_banten_pos = cond(d_ln_pb_banten > 0, d_ln_pb_banten, 0)
    variable d_ln_pb_banten_pos already defined
    r(110);

126 .
127 . gen d_ln_pb_banten_neg = cond(d_ln_pb_banten < 0, d_ln_pb_banten, 0)
    variable d_ln_pb_banten_neg already defined
    r(110);

128 .
129 . gen d_ln_pt_banten = ln_pt_banten - ln_pt_banten[_n-1]
    (2 missing values generated)

130 .
131 . gen d_ln_pt_banten_pos = cond(d_ln_pt_banten > 0, d_ln_pt_banten, 0)
    (2 missing values generated)

132 .
133 . gen d_ln_pt_banten_neg = cond(d_ln_pt_banten < 0, d_ln_pt_banten, 0)

134 . * REGRESI MODEL HOUCK

135 .
136 . * 1 MODEL TERHADAP PRODUSEN

137 .
138 . reg ln_pp_banten d_ln_pb_banten_pos d_ln_pb_banten_neg d_ln_pt_banten_pos d_ln_pt_banten_neg

          Source |       SS           df       MS      Number of obs   =     1,274
    -------------+----------------------------------   F(4, 1269)      =      1.46
           Model |  .034149688         4  .008537422   Prob > F        =    0.2121
        Residual |   7.4210742     1,269   .00584797   R-squared       =    0.0046
    -------------+----------------------------------   Adj R-squared   =    0.0014
           Total |  7.45522389     1,273  .005856421   Root MSE        =    .07647
```

ln_pp_banten	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_pb_banten_pos	**.9864738**	**.5091874**	**1.94**	**0.053**	**-.0124678**	**1.985415**
d_ln_pb_banten_neg	**-.7264399**	**.6144036**	**-1.18**	**0.237**	**-1.931798**	**.4789186**
d_ln_pt_banten_pos	**.0475342**	**.2949106**	**0.16**	**0.872**	**-.5310318**	**.6261001**
d_ln_pt_banten_neg	**-.1518779**	**.3679501**	**-0.41**	**0.680**	**-.8737353**	**.5699794**
_cons	**11.71612**	**.0021902**	**5349.38**	**0.000**	**11.71182**	**11.72042**

```
139 .
140 . * Uji Asimetri dengan Wald

141 .
142 . test d_ln_pb_banten_pos = d_ln_pb_banten_neg

 ( 1)  d_ln_pb_banten_pos - d_ln_pb_banten_neg = 0

       F(  1,  1269) =    4.55
            Prob > F =    0.0331

143 .
144 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_banten yaitu 0,3985 > 0,05, maka ped
    > agang besar tidak memiliki asimetri harga terhadap pasar produsen

145 .
146 . test d_ln_pt_banten_pos = d_ln_pt_banten_neg

 ( 1)  d_ln_pt_banten_pos - d_ln_pt_banten_neg = 0

       F(  1,  1269) =    0.17
            Prob > F =    0.6776

147 .
148 . * Berdasarkan uji wald diketahui bahwa nilai statistik pt_banten yaitu 0,2022 > 0,05, maka ped
    > agang besar tidak memiliki asimetri harga terhadap pasar produsen dan tidak ada efek perubahan
    >  postif dan negatif terhadap Produsen

149 .
150 . * ________________________________________________________

151 .
152 . * MODEL TERHADAP PEDAGANG BESAR

153 .
154 . reg ln_pb_banten d_ln_pp_banten_pos d_ln_pp_banten_neg d_ln_pt_banten_pos d_ln_pt_banten_neg
```

Source	SS	df	MS			
				Number of obs	=	**1,274**
				F(4, 1269)	=	**1.96**
Model	**.064656678**	**4**	**.01616417**	Prob > F	=	**0.0979**
Residual	**10.449893**	**1,269**	**.008234746**	R-squared	=	**0.0061**
				Adj R-squared	=	**0.0030**
Total	**10.5145497**	**1,273**	**.008259662**	Root MSE	=	**.09075**

ln_pb_banten	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_pp_banten_pos	**-.3157371**	**.4254473**	**-0.74**	**0.458**	**-1.150395**	**.5189204**
d_ln_pp_banten_neg	**-.3932698**	**.5583549**	**-0.70**	**0.481**	**-1.48867**	**.7021305**
d_ln_pt_banten_pos	**-.8367227**	**.3487519**	**-2.40**	**0.017**	**-1.520916**	**-.1525289**
d_ln_pt_banten_neg	**.3945394**	**.4303394**	**0.92**	**0.359**	**-.4497155**	**1.238794**
_cons	**11.77243**	**.0026164**	**4499.55**	**0.000**	**11.7673**	**11.77756**

155 .
156 . test d_ln_pp_banten_pos = d_ln_pp_banten_neg

(1) **d_ln_pp_banten_pos - d_ln_pp_banten_neg = 0**

F(1, 1269) =   **0.01**
Prob > F =   **0.9125**

157 .
158 . * Berdasarkan uji wald diketahui bahwa nilai statistik pp_banten yaitu 0,4354 > 0,05, maka Pro
> dusen tidak memiliki asimetri harga terhadap Pedagang Besar

159 .
160 . test d_ln_pt_banten_pos = d_ln_pt_banten_neg

(1) **d_ln_pt_banten_pos - d_ln_pt_banten_neg = 0**

F(1, 1269) =   **4.85**
Prob > F =   **0.0278**

161 .
162 . * Berdasarkan uji wald diketahui bahwa nilai statistik pt_banten yaitu 0,1423 > 0,05, maka Pas
> ar Tradisional tidak memiliki asimetri harga terhadap pasar pedagang besar dan tidak ada efek
> perubahan postif dan negatif

163 .
164 . * ____

165 .
166 . * MODEL TERHADAP PASAR TRADISIONAL

167 .
168 . reg ln_pt_banten d_ln_pp_banten_pos d_ln_pp_banten_neg d_ln_pb_banten_pos d_ln_pb_banten_neg

Source	SS	df	MS
Model	**.061410617**	**4**	**.015352654**
Residual	**4.70618598**	**1,269**	**.003708578**
Total	**4.7675966**	**1,273**	**.003745166**

Number of obs	=	**1,274**
F(4, 1269)	=	**4.14**
Prob > F	=	**0.0025**
R-squared	=	**0.0129**
Adj R-squared	=	**0.0098**
Root MSE	=	**.0609**

ln_pt_banten	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_pp_banten_pos	**-.0248387**	**.2850519**	**-0.09**	**0.931**	**-.5840635**	**.534386**
d_ln_pp_banten_neg	**-.1137888**	**.3746512**	**-0.30**	**0.761**	**-.8487927**	**.6212152**
d_ln_pb_banten_pos	**1.554217**	**.3982485**	**3.90**	**0.000**	**.7729194**	**2.335515**
d_ln_pb_banten_neg	**-.5555347**	**.4886216**	**-1.14**	**0.256**	**-1.51413**	**.4030603**
_cons	**11.81142**	**.0017332**	**6814.68**	**0.000**	**11.80802**	**11.81482**

169 .
170 . test d_ln_pp_banten_pos = d_ln_pp_banten_neg

(1) **d_ln_pp_banten_pos - d_ln_pp_banten_neg = 0**

F(1, 1269) =   **0.04**
Prob > F =   **0.8509**

171 .
172 . test d_ln_pb_banten_pos = d_ln_pb_banten_neg

(1) **d_ln_pb_banten_pos - d_ln_pb_banten_neg = 0**

F(1, 1269) =   **11.14**
Prob > F =   **0.0009**

```
173 .
174 . * Berdasarkan uji wald diketahui bahwa nilai statistik pp_banten yaitu 0,6096 > 0,05, maka Pro
    > dusen tidak memiliki asimetri harga terhadap pasar tradisional dan tidak ada efek perubahan po
    > stif dan negatif

175 .
176 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_banten yaitu 0,0024 < 0,05, maka Pas
    > ar Tradisional memiliki asimetri harga terhadap pasar tradisional dalam ada efek perubahan pos
    > tif dan negatif

177 .
178 . * ______________________________________________________________________________

179 .
180 . * SELESAI

181 .
```

```
                                                  ___  ____  ____  ____  ____(R)
                                                 /__    /   ____/   /   ____/
                                                ___/   /   /___/   /   /___/
                                                  Statistics/Data analysis

                                            User: Uji ECM Stata Provinsi Jawa Barat
                                         Project: Uji ECM Stata Provinsi Jawa Barat

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Notes:
      1. Unicode is supported; see help unicode advice.
      2. More than 2 billion observations are allowed; see help obs advice.
      3. Maximum number of variables is set to 5,000; see help set maxvar.
      4. New update available; type -update all-

 1 . * Olah Data ECM menggunakan Software StataMP-17 pendekatan Retizi dan Panagopoulus (2008)

 2 .
 3 . * Kelompok Komoditas Daging Sapi di Indonesia

 4 .
 5 . * Provinsi Jawa Barat

 6 .
 7 . * Oleh Fajar Andriansyah; Asifa; Luluk Isnaini

 8 .
 9 . * Start 23 Desember 2024

10 . edit

11 . use "C:\Users\hp\Downloads\Jawa Barat.dta"

12 . describe

Contains data from C:\Users\hp\Downloads\Jawa Barat.dta
 Observations:         1,276
    Variables:             9                  20 Dec 2024 20:02
------------------------------------------------------------------------------------------
Variable      Storage   Display    Value
    name         type    format    label      Variable label
------------------------------------------------------------------------------------------
periode         int     %8.0g                 Periode
p_jabar         long    %8.0g                 P_Jabar
pb_jabar        long    %8.0g                 PB_Jabar
t_jabar         long    %8.0g                 T_Jabar
ln_p_jabar      float   %9.0g
ln_pb_jabar     float   %9.0g
ln_t_jabar      float   %9.0g
ecm_resid       float   %9.0g                 Residuals
lag_ecm_res     float   %9.0g
------------------------------------------------------------------------------------------
Sorted by: periode
```

```
13 . * Data yang digunakan yaitu dengan persamaan data Logaritma Natural (LN)

14 .
15 . * Model percobaan 1

16 .
17 . * ______________________________________________________________________________

18 .
19 . * Uji Stasioneritas Data

20 .
21 .
22 . foreach var in d.ln_p_jabar d.ln_pb_jabar d.ln_t_jabar {
  2.
23 .     dfuller `var'
  3.
24 . }

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_p_jabar                  Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test      -------- critical value ---------
              statistic           1%           5%          10%
--------------------------------------------------------------
 Z(t)           -39.516       -3.430       -2.860       -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_pb_jabar                 Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test      -------- critical value ---------
              statistic           1%           5%          10%
--------------------------------------------------------------
 Z(t)           -35.716       -3.430       -2.860       -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_t_jabar                  Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test      -------- critical value ---------
              statistic           1%           5%          10%
--------------------------------------------------------------
 Z(t)           -31.275       -3.430       -2.860       -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000.
```

```
25 .
26 . * Berdasarkan uji stasioneritas data berdasarkan ADF, diketahui bahwa data tidak stasioner pada tingkat level dan
   > st Difference

27 . var ln_p_jabar ln_pb_jabar ln_t_jabar

   Vector autoregression

   Sample: 3 thru 1276                              Number of obs     =      1,274
   Log likelihood =   14856.87                      AIC               =  -23.29021
   FPE            =   1.54e-14                      HQIC              =  -23.25833
   Det(Sigma_ml)  =   1.49e-14                      SBIC              =  -23.20533

   Equation           Parms      RMSE     R-sq      chi2     P>chi2
   ----------------------------------------------------------------
   ln_p_jabar           7     .006202   0.9935   194902.4   0.0000
   ln_pb_jabar          7     .004249   0.9944   227279.2   0.0000
   ln_t_jabar           7     .004731   0.9927     173910   0.0000
   ----------------------------------------------------------------

   ------------------------------------------------------------------------------
                |  Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
   -------------+----------------------------------------------------------------
   ln_p_jabar   |
     ln_p_jabar |
            L1. |   .8653216   .0279705    30.94   0.000     .8105005    .9201427
            L2. |   .0943771   .0275444     3.43   0.001     .0403912    .1483631
                |
    ln_pb_jabar |
            L1. |   -.033509   .0396118    -0.85   0.398    -.1111466    .0441286
            L2. |   .0435883   .0376845     1.16   0.247    -.0302719    .1174485
                |
     ln_t_jabar |
            L1. |   .0410464   .0367004     1.12   0.263    -.0308851    .1129779
            L2. |   .0023883   .0388507     0.06   0.951    -.0737578    .0785343
                |
          _cons |  -.1623555   .0442258    -3.67   0.000    -.2490364   -.0756745
   -------------+----------------------------------------------------------------
   ln_pb_jabar  |
     ln_p_jabar |
            L1. |   -.024185   .0191612    -1.26   0.207    -.0617404    .0133703
            L2. |   .0120406   .0188693     0.64   0.523    -.0249426    .0490239
                |
    ln_pb_jabar |
            L1. |   .8343206   .0271361    30.75   0.000     .7811348    .8875065
            L2. |   .0896263   .0258158     3.47   0.001     .0390282    .1402244
                |
     ln_t_jabar |
            L1. |   .3950329   .0251417    15.71   0.000      .345756    .4443097
            L2. |  -.3011261   .0266148   -11.31   0.000    -.3532902   -.2489621
                |
          _cons |   -.075876    .030297    -2.50   0.012     -.135257    -.016495
   -------------+----------------------------------------------------------------
   ln_t_jabar   |
     ln_p_jabar |
            L1. |  -.0312711   .0213356    -1.47   0.143    -.0730881    .0105459
            L2. |   .0404571   .0210106     1.93   0.054    -.0007228    .0816371
                |
    ln_pb_jabar |
            L1. |  -.1557905   .0302155    -5.16   0.000    -.2150117   -.0965693
            L2. |   .1415052   .0287453     4.92   0.000     .0851654    .1978451
                |
     ln_t_jabar |
            L1. |    1.15179   .0279947    41.14   0.000     1.096922    1.206659
            L2. |  -.1538942   .0296349    -5.19   0.000    -.2119776   -.0958107
```

_cons	**.0858101**	**.033735**	**2.54**	**0.011**	**.0196907**	**.1519294**

```
28 .
29 . varsoc
```

Lag-order selection criteria

Sample: **3** thru **1276**   Number of obs = **1,274**

Lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	**8260.27**				**4.7e-10**	**-12.9627**	**-12.9582**	**-12.9506**
1	**14773.2**	**13026**	**9**	**0.000**	**1.7e-14**	**-23.173**	**-23.1547**	**-23.1245**
2	**14856.9**	**167.38***	**9**	**0.000**	**1.5e-14***	**-23.2902***	**-23.2583***	**-23.2053***

* optimal lag
Endogenous: **ln_p_jabar ln_pb_jabar ln_t_jabar**
Exogenous: **_cons**

```
30 . vecrank ln_p_jabar ln_pb_jabar ln_t_jabar, trend(constant)
```

Johansen tests for cointegration
Trend: Constant   Number of obs = **1,274**
Sample: **3** thru **1276**   Number of lags = **2**

Maximum rank	Params	LL	Eigenvalue	Trace statistic	Critical value 5%
0	**12**	**14786.361**	**.**	**141.0107**	**29.68**
1	**17**	**14838.293**	**0.07829**	**37.1481**	**15.41**
2	**20**	**14855.405**	**0.02651**	**2.9237***	**3.76**
3	**21**	**14856.867**	**0.00229**		

* selected rank

```
31 . * Berdasarkan uji pendekatan VAR dan VARSOC diketahui bahwa lag optimum pada model yang digunakan berdasarkan nila
   > an nilai terkecil berada  pada nilai lags 2

32 .
33 . * Berdasarkan uji kointegrasi dari model persamaan yang digunakan pada lags(2) dan tidak memiliki trend, diketahui
   > ni memiliki  kointegrasi atau hubungan dalam jangka panjang dalam H2 (Rank 2)

34 .
35 . * Berdasarkan data yang stasioner pada tingkat 1st Difference dan memiliki hubungan kointegrasi maka model sudah s
   > ndekatan ECM

36 .
37 . * ____________________________________________________________________________________

38 . * Model VECM
```

```
39 . vec ln_p_jabar ln_pb_jabar ln_t_jabar, trend(constant) rank(2)
```

Vector error-correction model

Sample: 3 thru 1276		Number of obs =	1,274
		AIC =	-23.28949
Log likelihood =	14855.4	HQIC =	-23.25913
Det(Sigma_ml) =	1.49e-14	SBIC =	-23.20864

Equation	Parms	RMSE	R-sq	chi2	P>chi2
D_ln_p_jabar	6	.006201	0.0400	52.81033	0.0000
D_ln_pb_jabar	6	.004247	0.2086	334.2691	0.0000
D_ln_t_jabar	6	.004733	0.0456	60.5629	0.0000

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
D_ln_p_jabar						
_ce1 L1.	-.0395195	.0064293	-6.15	0.000	-.0521207	-.0269182
_ce2 L1.	.010388	.0131601	0.79	0.430	-.0154053	.0361813
ln_p_jabar LD.	-.0947701	.0276095	-3.43	0.001	-.1488837	-.0406565
ln_pb_jabar LD.	-.0439514	.0377777	-1.16	0.245	-.1179943	.0300915
ln_t_jabar LD.	-.0020755	.0389479	-0.05	0.958	-.0784119	.074261
_cons	.0000395	.0001749	0.23	0.821	-.0003034	.0003824
D_ln_pb_jabar						
_ce1 L1.	-.0121609	.0044035	-2.76	0.006	-.0207917	-.0035302
_ce2 L1.	-.0760596	.0090135	-8.44	0.000	-.0937258	-.0583934
ln_p_jabar LD.	-.0120323	.0189102	-0.64	0.525	-.0490956	.0250309
ln_pb_jabar LD.	-.0896186	.0258745	-3.46	0.001	-.1403318	-.0389055
ln_t_jabar LD.	.3011195	.026676	11.29	0.000	.2488355	.3534035
_cons	-.0000178	.0001198	-0.15	0.882	-.0002526	.0002171
D_ln_t_jabar						
_ce1 L1.	.0104967	.004908	2.14	0.032	.0008772	.0201162
_ce2 L1.	-.0137677	.0100461	-1.37	0.171	-.0334577	.0059222
ln_p_jabar LD.	-.0411159	.0210764	-1.95	0.051	-.082425	.0001931

ln_pb_jabar						
LD.	-.1421139	.0288386	-4.93	0.000	-.1986364	-.0855913
ln_t_jabar						
LD.	.1544185	.0297319	5.19	0.000	.0961451	.212692
_cons	.000128	.0001335	0.96	0.338	-.0001337	.0003898

Cointegrating equations

Equation	Parms	chi2	P>chi2
_ce1	1	401.3763	0.0000
_ce2	1	1143.242	0.0000

Identification: beta is exactly identified

Johansen normalization restrictions imposed

beta	Coefficient	Std. err.	z	P>|z|	[95% conf. interval]	
_ce1						
ln_p_jabar	1	.	.	.	.	.
ln_pb_jabar	0	(omitted)				
ln_t_jabar	-1.387558	.0692589	-20.03	0.000	-1.523303	-1.251813
_cons	4.757184	.	.	.	.	.
_ce2						
ln_p_jabar	-2.78e-17	.	.	.	.	.
ln_pb_jabar	1	.	.	.	.	.
ln_t_jabar	-1.01255	.0299466	-33.81	0.000	-1.071244	-.9538554
_cons	.2302917	.	.	.	.	.

```
40 . *______________________________________________________________________________

41 . * Uji Kausalitas

42 . var ln_p_jabar ln_pb_jabar ln_t_jabar, lags(2)
```

Vector autoregression

Sample: 3 thru 1276		Number of obs	= 1,274
Log likelihood	= 13537.23	AIC	= -21.2327
FPE	= 1.21e-13	HQIC	= -21.21449
Det(Sigma_ml)	= 1.18e-13	SBIC	= -21.1842

Equation	Parms	RMSE	R-sq	chi2	P>chi2
ln_p_jabar	4	.008225	0.9886	110008.3	0.0000
ln_pb_jabar	4	.006164	0.9882	107050.9	0.0000
ln_t_jabar	4	.007218	0.9830	73808.49	0.0000

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
ln_p_jabar						
ln_p_jabar L2.	.9260396	.0084367	109.76	0.000	.9095041	.9425752
ln_pb_jabar L2.	.0236061	.0165176	1.43	0.153	-.0087679	.05598
ln_t_jabar L2.	.0741136	.0178376	4.15	0.000	.0391524	.1090747
_cons	-.2917542	.0579393	-5.04	0.000	-.405313	-.1781953
ln_pb_jabar						
ln_p_jabar L2.	-.0185037	.0063229	-2.93	0.003	-.0308962	-.0061111
ln_pb_jabar L2.	.8222506	.0123791	66.42	0.000	.797988	.8465133
ln_t_jabar L2.	.203777	.0133684	15.24	0.000	.1775754	.2299787
_cons	-.1067064	.0434226	-2.46	0.014	-.1918132	-.0215996
ln_t_jabar						
ln_p_jabar L2.	.0254346	.0074036	3.44	0.001	.0109238	.0399453
ln_pb_jabar L2.	-.0312391	.0144951	-2.16	0.031	-.0596488	-.0028293
ln_t_jabar L2.	.9878774	.0156535	63.11	0.000	.9571972	1.018558
_cons	.2142991	.0508447	4.21	0.000	.1146453	.3139528

43 . vargranger

Granger causality Wald tests

Equation	Excluded	chi2	df	Prob > chi2
ln_p_jabar	ln_pb_jabar	2.0425	1	0.153
ln_p_jabar	ln_t_jabar	17.263	1	0.000
ln_p_jabar	ALL	70.171	2	0.000
ln_pb_jabar	ln_p_jabar	8.5643	1	0.003
ln_pb_jabar	ln_t_jabar	232.35	1	0.000
ln_pb_jabar	ALL	242.9	2	0.000
ln_t_jabar	ln_p_jabar	11.802	1	0.001
ln_t_jabar	ln_pb_jabar	4.6447	1	0.031
ln_t_jabar	ALL	13.661	2	0.001

```
44 . * Berdasarkan uji hubungan kausalitas dengan data VAR Difference, diketahui bahwa " PB Jabar - P Jabar / T Jabar +
   > Jabar/ T Jabar + PB Jabar / P Jabar + T Jabar / PB Jabar + T Jabar"

45 . * ____________________________________________________________________

46 .
47 . * Uji Model ECM

48 . regress d.ln_p_jabar d.ln_pb_jabar d.ln_t_jabar lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =      3.72
       Model |  .000441958         3  .000147319   Prob > F        =    0.0112
    Residual |  .050314881     1,269  .000039649   R-squared       =    0.0087
-------------+----------------------------------   Adj R-squared   =    0.0064
       Total |  .050756839     1,272  .000039903   Root MSE        =     .0063

------------------------------------------------------------------------------
D.ln_p_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jabar |
         D1. |  -.0563537   .0376766    -1.50   0.135     -.130269    .0175615
             |
  ln_t_jabar |
         D1. |   .0621665   .0371193     1.67   0.094    -.0106554    .1349884
             |
 lag_ecm_res |  -.0575551   .0214927    -2.68   0.008    -.0997202   -.0153901
       _cons |   .0001411   .0001765     0.80   0.424    -.0002052    .0004875
------------------------------------------------------------------------------

49 .
50 . regress d.ln_pb_jabar d.ln_p_jabar d.ln_t_jabar lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =     15.25
       Model |  .001004884         3  .000334961   Prob > F        =    0.0000
    Residual |  .027882185     1,269  .000021972   R-squared       =    0.0348
-------------+----------------------------------   Adj R-squared   =    0.0325
       Total |  .028887069     1,272   .00002271   Root MSE        =    .00469

------------------------------------------------------------------------------
D.           |
 ln_pb_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
  ln_p_jabar |
         D1. |  -.0312286   .0208786    -1.50   0.135     -.072189    .0097318
             |
  ln_t_jabar |
         D1. |   .1792891    .027201     6.59   0.000     .1259253    .2326529
             |
 lag_ecm_res |  -.0171197   .0160374    -1.07   0.286    -.0485825     .014343
       _cons |   .0000831   .0001314     0.63   0.527    -.0001748    .0003409
------------------------------------------------------------------------------
```

```
51 .
52 . regress d.ln_t_jabar d.ln_pb_jabar d.ln_p_jabar lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =     15.25
       Model |  .001035364         3  .000345121   Prob > F        =    0.0000
    Residual |  .028712914     1,269  .000022626   R-squared       =    0.0348
-------------+----------------------------------   Adj R-squared   =    0.0325
       Total |  .029748278     1,272  .000023387   Root MSE        =    .00476

------------------------------------------------------------------------------
D.ln_t_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jabar |
         D1. |   .1846309   .0280114     6.59   0.000     .1296772    .2395847
             |
  ln_p_jabar |
         D1. |   .0354762   .0211826     1.67   0.094    -.0060807    .0770331
             |
 lag_ecm_res |   .0119804   .0162784     0.74   0.462    -.0199551     .043916
       _cons |   .0000782   .0001334     0.59   0.558    -.0001834    .0003399
------------------------------------------------------------------------------

53 . bgodfrey

Breusch–Godfrey LM test for autocorrelation
---------------------------------------------------------------------------
    lags(p)  |          chi2               df                 Prob > chi2
-------------+-------------------------------------------------------------
       1     |         11.068               1                   0.0009
---------------------------------------------------------------------------
                        H0: no serial correlation

54 .
55 . estat hettest

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of D.ln_t_jabar

H0: Constant variance

    chi2(1) = 215.42
Prob > chi2 = 0.0000

56 . * Hasil Uji ECM

57 .
58 . *____________________________________________________________________________

59 . * Model Persamaan regresi Lain

60 .
```

```
61 . regress ln_p_jabar ln_pb_jabar ln_t_jabar lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =   3209.46
       Model |  6.61423915         3  2.20474638   Prob > F        =    0.0000
    Residual |  .871742681     1,269  .000686952   R-squared       =    0.8835
-------------+----------------------------------   Adj R-squared   =    0.8833
       Total |  7.48598183     1,272  .005885206   Root MSE        =    .02621

------------------------------------------------------------------------------
  ln_p_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jabar |   .5084586   .0512549     9.92   0.000      .407905    .6090122
  ln_t_jabar |   .7848804   .0525855    14.93   0.000     .6817163    .8880445
 lag_ecm_res |   .9338722   .0896044    10.42   0.000     .7580832    1.109661
       _cons |  -3.602388   .1574174   -22.88   0.000    -3.911215   -3.293561
------------------------------------------------------------------------------

62 . 
63 . regress ln_pb_jabar ln_p_jabar ln_t_jabar lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =   6715.54
       Model |  3.85265125         3  1.28421708   Prob > F        =    0.0000
    Residual |   .24267166     1,269  .000191231   R-squared       =    0.9407
-------------+----------------------------------   Adj R-squared   =    0.9406
       Total |  4.09532291     1,272  .003219593   Root MSE        =    .01383

------------------------------------------------------------------------------
 ln_pb_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
  ln_p_jabar |   .1415423   .0142681     9.92   0.000     .1135507     .169534
  ln_t_jabar |   .8101297   .0196907    41.14   0.000     .7714998    .8487597
 lag_ecm_res |  -.2348968   .0488149    -4.81   0.000    -.3306636   -.1391301
       _cons |   .5140981    .097656     5.26   0.000     .3225132     .705683
------------------------------------------------------------------------------

64 . 
65 . regress ln_t_jabar ln_pb_jabar ln_p_jabar lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =   7364.68
       Model |  3.67929983         3  1.22643328   Prob > F        =    0.0000
    Residual |  .211325331     1,269  .000166529   R-squared       =    0.9457
-------------+----------------------------------   Adj R-squared   =    0.9456
       Total |  3.89062516     1,272  .003058668   Root MSE        =     .0129

------------------------------------------------------------------------------
  ln_t_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jabar |   .7054838   .0171472    41.14   0.000     .6718438    .7391239
  ln_p_jabar |   .1902684   .0127476    14.93   0.000     .1652597    .2152772
 lag_ecm_res |  -.0861008   .0459033    -1.88   0.061    -.1761555    .0039539
       _cons |   1.325269   .0842743    15.73   0.000     1.159937    1.490601
------------------------------------------------------------------------------
```

66 .
67 . bgodfrey

Breusch–Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	**1058.303**	**1**	**0.0000**

H0: no serial correlation

68 .
69 . estat hettest

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of **ln_t_jabar**

H0: Constant variance

chi2(**1**) = **112.29**
Prob > chi2 = **0.0000**

70 . * ____

71 . summarize ln_p_jabar ln_pb_jabar ln_t_jabar

Variable	Obs	Mean	Std. dev.	Min	Max
ln_p_jabar	**1,276**	**11.67664**	**.0769013**	**11.53371**	**11.80298**
ln_pb_jabar	**1,276**	**11.76368**	**.0568375**	**11.66822**	**11.89512**
ln_t_jabar	**1,276**	**11.84604**	**.055412**	**11.73447**	**11.98293**

72 .
73 . summarize d.ln_p_jabar d.ln_pb_jabar d.ln_t_jabar

Variable	Obs	Mean	Std. dev.	Min	Max
ln_p_jabar					
D1.	**1,275**	**.0001417**	**.0063119**	**-.0790901**	**.0561199**
ln_pb_jabar					
D1.	**1,275**	**.0001013**	**.0047646**	**-.0446529**	**.1055222**
ln_t_jabar					
D1.	**1,275**	**.0000991**	**.0048327**	**-.0338888**	**.0787601**

74 .
75 . summarize p_jabar pb_jabar t_jabar

Variable	Obs	Mean	Std. dev.	Min	Max
p_jabar	**1,276**	**118131.7**	**8908.182**	**102100**	**133650**
pb_jabar	**1,276**	**128705.2**	**7238.249**	**116800**	**146550**
t_jabar	**1,276**	**139743.1**	**7613.425**	**124800**	**160000**

```
76 .
77 . summarize d.p_jabar d.pb_jabar d.t_jabar
```

Variable	Obs	Mean	Std. dev.	Min	Max
p_jabar					
D1.	**1,275**	**16**	**740.3393**	**-8650**	**7150**
pb_jabar					
D1.	**1,275**	**12.66667**	**635.3363**	**-6400**	**13750**
t_jabar					
D1.	**1,275**	**13.4902**	**692.8131**	**-4950**	**11550**

```
78 . * ______________________________________________________________________

79 . * PERSAMAAN ASIMETRI HARGA

80 . gen d_ln_p_jabar = ln_p_jabar - ln_p_jabar[_n-1]
   (1 missing value generated)

81 .
82 . gen d_ln_p_jabar_pos = cond(d_ln_p_jabar > 0, d_ln_p_jabar, 0)
   (1 missing value generated)

83 .
84 . gen d_ln_p_jabar_neg = cond(d_ln_p_jabar < 0, d_ln_p_jabar, 0)

85 . gen d_ln_pb_jabar = ln_pb_jabar - ln_pb_jabar[_n-1]
   (1 missing value generated)

86 .
87 . gen d_ln_pb_jabar_pos = cond(d_ln_pb_jabar > 0, d_ln_pb_jabar, 0)
   (1 missing value generated)

88 .
89 . gen d_ln_pb_jabar_neg = cond(d_ln_pb_jabar < 0, d_ln_pb_jabar, 0)

90 . gen d_ln_t_jabar = ln_t_jabar - ln_t_jabar[_n-1]
   (1 missing value generated)

91 .
92 . gen d_ln_t_jabar_pos = cond(d_ln_t_jabar > 0, d_ln_t_jabar, 0)
   (1 missing value generated)

93 .
94 . gen d_ln_t_jabar_neg = cond(d_ln_t_jabar < 0, d_ln_t_jabar, 0)

95 . * REGRESI MODEL HOUCK

96 . * 1 MODEL TERHADAP PRODUSEN

97 . reg ln_p_jabar d_ln_pb_pos d_ln_pb_neg d_ln_t_pos d_ln_t_neg
   variable d_ln_pb_pos not found
   r(111);
```

```
 98 . reg ln_p_jabar d_ln_pb_jabar_pos d_ln_pb_jabar_neg d_ln_t_jabar_pos d_ln_t_jabar_neg

      Source |       SS           df       MS      Number of obs   =     1,275
-------------+----------------------------------   F(4, 1270)      =      1.01
       Model |  .023940885         4  .005985221   Prob > F        =    0.3991
    Residual |  7.49814933     1,270  .005904055   R-squared       =    0.0032
-------------+----------------------------------   Adj R-squared   =    0.0000
       Total |  7.52209022     1,274  .005904309   Root MSE        =    .07684

------------------------------------------------------------------------------------
       ln_p_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
------------------+-----------------------------------------------------------------
d_ln_pb_jabar_pos |   -.0399209   .5533868    -0.07   0.943    -1.125574    1.045732
d_ln_pb_jabar_neg |    -.912064   .8673834    -1.05   0.293    -2.613726    .7895979
 d_ln_t_jabar_pos |   -.8802519   .5665789    -1.55   0.121    -1.991786    .2312817
 d_ln_t_jabar_neg |    .4041523   .8095021     0.50   0.618    -1.183956    1.992261
            _cons |    11.67727    .002253  5183.08   0.000     11.67285    11.68169
------------------------------------------------------------------------------------

 99 . * Uji Asimetri dengan Wald

100 . test d_ln_pb_jabar_pos = d_ln_pb_jabar_neg

     ( 1)  d_ln_pb_jabar_pos - d_ln_pb_jabar_neg = 0

           F(  1,  1270) =    0.71
                Prob > F =    0.3985

101 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_Jabar yaitu 0,3985 > 0,05, maka pedagang besar tidak mem
    > hadap pasar produsen

102 . test d_ln_t_jabar_pos = d_lnt_jabar_neg
    d_lnt_jabar_neg not found
    r(111);

103 . test d_ln_t_jabar_pos = d_ln_t_jabar_neg

     ( 1)  d_ln_t_jabar_pos - d_ln_t_jabar_neg = 0

           F(  1,  1270) =    1.63
                Prob > F =    0.2022

104 .
105 . * Berdasarkan uji wald diketahui bahwa nilai statistik T_Jabar yaitu 0,2022 > 0,05, maka pedagang besar tidak memi
    > adap pasar produsen dan tidak ada efek perubahan postif dan negatif terhadap Produsen

106 . * ________________________________________________________

107 . * MODEL TERHADAP PEDAGANG BESAR

108 . reg ln_pB_jabar d_ln_p_jabar_pos d_ln_p_jabar_neg d_ln_t_jabar_pos d_ln_t_jabar_neg
    variable ln_pB_jabar not found
    r(111);
```

```
109 . reg ln_pB_jabar d_ln_p_jabar_pos d_ln_p_jabar_neg d_ln_t_jabar_pos d_ln_t_jabar_neg
    variable ln_pB_jabar not found
    r(111);

110 . reg ln_pb_jabar d_ln_p_jabar_pos d_ln_p_jabar_neg d_ln_t_jabar_pos d_ln_t_jabar_neg

          Source |       SS           df       MS      Number of obs   =     1,275
    -------------+----------------------------------   F(4, 1270)      =      1.61
           Model |  .020763993         4  .005190998   Prob > F        =    0.1688
        Residual |  4.08957531     1,270  .003220138   R-squared       =    0.0051
    -------------+----------------------------------   Adj R-squared   =    0.0019
           Total |   4.1103393     1,274  .003226326   Root MSE        =    .05675

    ----------------------------------------------------------------------------------
         ln_pb_jabar | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -----------------+----------------------------------------------------------------
    d_ln_p_jabar_pos |  -.1708955   .3485862    -0.49   0.624    -.8547636    .5129726
    d_ln_p_jabar_neg |    .230096   .3727148     0.62   0.537    -.5011083    .9613004
    d_ln_t_jabar_pos |  -.2850066   .4052482    -0.70   0.482    -1.080036     .510023
    d_ln_t_jabar_neg |  -1.364819   .5982208    -2.28   0.023    -2.538428   -.1912088
               _cons |    11.7634   .0016687  7049.34   0.000     11.76012    11.76667
    ----------------------------------------------------------------------------------

111 . test d_ln_p_jabar_pos = d_ln_p_jabar_neg

     ( 1)  d_ln_p_jabar_pos - d_ln_p_jabar_neg = 0

           F(  1,  1270) =    0.61
                Prob > F =    0.4354

112 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_Jabar yaitu 0,4354 > 0,05, maka Produsen tidak memiliki a
    > edagang Besar

113 . test d_ln_t_jabar_pos = d_ln_t_jabar_neg

     ( 1)  d_ln_t_jabar_pos - d_ln_t_jabar_neg = 0

           F(  1,  1270) =    2.16
                Prob > F =    0.1423

114 . * Berdasarkan uji wald diketahui bahwa nilai statistik T_Jabar yaitu 0,1423 > 0,05, maka Pasar Tradisional tidak m
    > erhadap pasar pedagang besar dan tidak ada efek perubahan postif dan negatif

115 . * ________________________________________________________

116 .
117 . * MODEL TERHADAP PASAR TRADISIONAL

118 . reg ln_t_jabar d_ln_p_jabar_pos d_ln_p_jabar_neg d_ln_pb_jabar_pos d_ln_pb_jabar_neg

          Source |       SS           df       MS      Number of obs   =     1,275
    -------------+----------------------------------   F(4, 1270)      =      3.28
           Model |  .040000918         4  .010000229   Prob > F        =    0.0109
        Residual |  3.86694023     1,270  .003044835   R-squared       =    0.0102
    -------------+----------------------------------   Adj R-squared   =    0.0071
           Total |  3.90694115     1,274  .003066673   Root MSE        =    .05518
```

ln_t_jabar	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_p_jabar_pos	.0024557	.3374567	0.01	0.994	-.6595781	.6644896
d_ln_p_jabar_neg	.2573533	.3624589	0.71	0.478	-.4537307	.9684374
d_ln_pb_jabar_pos	1.225998	.3834794	3.20	0.001	.4736751	1.978321
d_ln_pb_jabar_neg	-1.008977	.6229169	-1.62	0.106	-2.231036	.2130828
_cons	11.8454	.0015914	7443.37	0.000	11.84228	11.84852

```
119 . test d_ln_p_jabar_pos = d_ln_p_jabar_neg

     ( 1)  d_ln_p_jabar_pos - d_ln_p_jabar_neg = 0

           F(  1,  1270) =    0.26
                Prob > F =    0.6096

120 . test d_ln_pb_jabar_pos = d_ln_pn_jabar_neg
    d_ln_pn_jabar_neg not found
    r(111);

121 . test d_ln_pb_jabar_pos = d_ln_pb_jabar_neg

     ( 1)  d_ln_pb_jabar_pos - d_ln_pb_jabar_neg = 0

           F(  1,  1270) =    9.23
                Prob > F =    0.0024

122 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_Jabar yaitu 0,6096 > 0,05, maka Produsen tidak memiliki a
    > asar tradisional dan tidak ada efek perubahan postif dan negatif

123 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_Jabar yaitu 0,0024 < 0,05, maka Pasar Tradisional memili
    > ap pasar tradisional dalam ada efek perubahan postif dan negatif

124 . * ______________________________________________________________________________

125 . * SELESAI

126 . save "C:\Users\hp\Downloads\HASIL JAWA BARAT.dta"
    file C:\Users\hp\Downloads\HASIL JAWA BARAT.dta saved

127 . * Alhamdulilah Jawa Barat sudah selesai

128 .
129 . save "C:\Users\hp\Downloads\HASIL JAWA BARAT.dta", replace
    file C:\Users\hp\Downloads\HASIL JAWA BARAT.dta saved

130 . putexcel set "C:\Users\hp\Downloads\Result Jawa Barat.xlsx"

131 .
```

```
  ___  ____  ____  ____  ____(R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/
  Statistics/Data analysis
```

User: Uji ECM Stata Provinsi Jawa Tengah
Project: Uji ECM Stata Provinsi Jawa Tengah

```
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Notes:
      1. Unicode is supported; see help unicode advice.
      2. More than 2 billion observations are allowed; see help obs advice.
      3. Maximum number of variables is set to 5,000; see help set maxvar.
      4. New update available; type -update all-

 1 . * Olah Data ECM menggunakan Software StataMP-17 pendekatan Retizi dan Panagopoulus (2008)

 2 .
 3 . * Kelompok Komoditas Daging Sapi di Indonesia

 4 .
 5 . * Provinsi Jawa Tengah

 6 .
 7 . * Oleh Fajar Andriansyah; Asifa; Luluk Isnaini

 8 .
 9 . * Start 23 Desember 2024

10 . edit

11 . *(2 variables, 1276 observations pasted into data editor)

12 . *(3 variables, 1276 observations pasted into data editor)

13 . drop tanggal

14 . tsset periode

Time variable: periode, 1 to 1276
        Delta: 1 unit

15 . gen ln_p_jateng = ln(p_jateng)

16 .
```

```
. gen ln_pb_jateng = ln(pb_jateng)

. 
. gen ln_t_jateng = ln(t_jateng)

. * Data yang digunakan yaitu dengan persamaan data Logaritma Natural (LN)

. 
. * Model percobaan 1

. 
. * ___________________________________________________________________________

. * Uji Stasioneritas Data

. 
. foreach var in ln_p_jateng ln_pb_jateng ln_t_jateng {
  2.
.     dfuller `var'
  3.
. }

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_p_jateng                   Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        -------- critical value ---------
              statistic           1%           5%            10%
--------------------------------------------------------------
 Z(t)            -1.575       -3.430       -2.860         -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.4961.

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_pb_jateng                  Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        -------- critical value ---------
              statistic           1%           5%            10%
--------------------------------------------------------------
 Z(t)            -1.892       -3.430       -2.860         -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.3361.

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_t_jateng                   Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        -------- critical value ---------
              statistic           1%           5%            10%
--------------------------------------------------------------
 Z(t)            -2.096       -3.430       -2.860         -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.2460.
```

```
30 . foreach var in d.ln_p_jateng d.ln_pb_jateng d.ln_t_jateng {
  2.
31 .     dfuller `var'
  3.
32 . }

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_p_jateng                 Number of lags =     0

H0: Random walk without drift, d = 0

                                      Dickey-Fuller
               Test       -------- critical value ---------
             statistic         1%           5%          10%
-----------------------------------------------------------------
 Z(t)          -35.726      -3.430       -2.860       -2.570
-----------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_pb_jateng                Number of lags =     0

H0: Random walk without drift, d = 0

                                      Dickey-Fuller
               Test       -------- critical value ---------
             statistic         1%           5%          10%
-----------------------------------------------------------------
 Z(t)          -40.999      -3.430       -2.860       -2.570
-----------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_t_jateng                 Number of lags =     0

H0: Random walk without drift, d = 0

                                      Dickey-Fuller
               Test       -------- critical value ---------
             statistic         1%           5%          10%
-----------------------------------------------------------------
 Z(t)          -35.532      -3.430       -2.860       -2.570
-----------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.0000.

33 . * Berdasarkan uji stasioneritas data berdasarkan ADF, diketahui bahwa data tidak stasioner pada tingkat level dan
> st Difference

34 .
35 . var ln_p_jateng ln_pb_jateng ln_t_jateng

Vector autoregression

Sample: 3 thru 1276                             Number of obs     =      1,274
Log likelihood =   15006.92                     AIC               =  -23.52577
FPE            =   1.22e-14                     HQIC              =  -23.49389
Det(Sigma_ml)  =   1.18e-14                     SBIC              =  -23.44089

Equation           Parms      RMSE     R-sq      chi2     P>chi2
-----------------------------------------------------------------
ln_p_jateng           7     .003189   0.9951   261345.5   0.0000
ln_pb_jateng          7     .006109   0.9906   134530.8   0.0000
ln_t_jateng           7     .005653   0.9891   115238.8   0.0000
-----------------------------------------------------------------
```

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
ln_p_jateng						
ln_p_jateng						
L1.	.9742117	.0280096	34.78	0.000	.9193139	1.02911
L2.	-.0080462	.027736	-0.29	0.772	-.0624078	.0463155
ln_pb_jateng						
L1.	.0020849	.0142942	0.15	0.884	-.0259313	.030101
L2.	.0082023	.0141318	0.58	0.562	-.0194955	.0359002
ln_t_jateng						
L1.	.0071925	.0158625	0.45	0.650	-.0238975	.0382825
L2.	.0086224	.0161903	0.53	0.594	-.02311	.0403548
_cons	.0884975	.0265973	3.33	0.001	.0363677	.1406273
ln_pb_jateng						
ln_p_jateng						
L1.	.0724595	.0536536	1.35	0.177	-.0326997	.1776188
L2.	-.0642729	.0531295	-1.21	0.226	-.1684049	.0398591
ln_pb_jateng						
L1.	.8049398	.0273812	29.40	0.000	.7512737	.8586059
L2.	.1363608	.0270701	5.04	0.000	.0833045	.1894172
ln_t_jateng						
L1.	.28992	.0303853	9.54	0.000	.2303659	.3494742
L2.	-.2302942	.0310132	-7.43	0.000	-.291079	-.1695094
_cons	-.1085436	.0509483	-2.13	0.033	-.2084005	-.0086867
ln_t_jateng						
ln_p_jateng						
L1.	.056093	.0496558	1.13	0.259	-.0412306	.1534166
L2.	-.0211485	.0491708	-0.43	0.667	-.1175214	.0752245
ln_pb_jateng						
L1.	.0673587	.0253409	2.66	0.008	.0176913	.117026
L2.	-.0482533	.025053	-1.93	0.054	-.0973563	.0008498
ln_t_jateng						
L1.	.9774068	.0281213	34.76	0.000	.9222902	1.032524
L2.	-.0328943	.0287024	-1.15	0.252	-.0891499	.0233613
_cons	.0206732	.0471521	0.44	0.661	-.0717432	.1130895

```
36 .
37 . varsoc
```

Lag-order selection criteria

```
   Sample: 3 thru 1276                                 Number of obs = 1,274
  +---------------------------------------------------------------------------+
  | Lag |    LL      LR      df    p      FPE       AIC       HQIC      SBIC    |
  |-----+---------------------------------------------------------------------|
  |   0 |  8736.67                       2.2e-10  -13.7106  -13.7061  -13.6985  |
  |   1 |  14966.7   12460    9  0.000 1.3e-14  -23.4768  -23.4586  -23.4283  |
  |   2 |  15006.9  80.421*   9  0.000 1.2e-14* -23.5258* -23.4939* -23.4409* |
  +---------------------------------------------------------------------------+
   * optimal lag
   Endogenous: ln_p_jateng ln_pb_jateng ln_t_jateng
    Exogenous: _cons

38 . vecrank ln_p_jateng ln_pb_jateng ln_t_jateng, trend(constant)

  Johansen tests for cointegration
  Trend: Constant                             Number of obs  = 1,274
  Sample: 3 thru 1276                         Number of lags =     2
  ---------------------------------------------------------------
                                                         Critical
  Maximum                                       Trace      value
     rank  Params         LL  Eigenvalue   statistic        5%
        0      12  14958.928           .     95.9817     29.68
        1      17  14988.221     0.04495     37.3941     15.41
        2      20  15005.996     0.02752      1.8455*     3.76
        3      21  15006.919     0.00145
  ---------------------------------------------------------------
  * selected rank

39 . * Berdasarkan uji pendekatan VAR dan VARSOC diketahui bahwa lag optimum pada model yang digunakan berdasarkan nila
  > an nilai terkecil berada  pada nilai lags 2

40 .
41 . * Berdasarkan uji kointegrasi dari model persamaan yang digunakan pada lags(2) dan tidak memiliki trend, diketahui
  > ni memiliki  kointegrasi atau hubungan dalam jangka panjang dalam H2 (Rank 2)

42 .
43 . * Berdasarkan data yang stasioner pada tingkat 1st Difference dan memiliki hubungan kointegrasi maka model sudah s
  > ndekatan ECM

44 .
45 . * ________________________________________________________________________________

46 .
47 . * Model VECM

48 . vec ln_p_jateng ln_pb_jateng ln_t_jateng, trend(constant) rank(2)

  Vector error-correction model

  Sample: 3 thru 1276                         Number of obs     =      1,274
                                              AIC               =   -23.5259
  Log likelihood =     15006                  HQIC              =  -23.49553
  Det(Sigma_ml)  =  1.18e-14                  SBIC              =  -23.44505

  Equation           Parms      RMSE     R-sq      chi2     P>chi2
  ----------------------------------------------------------------
  D_ln_p_jateng        6     .003188   0.0250   32.57562   0.0000
  D_ln_pb_jateng       6     .006107   0.1017   143.4985   0.0000
  D_ln_t_jateng        6     .005654   0.0233   30.20501   0.0000
  ----------------------------------------------------------------
```

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
D_ln_p_jateng						
_ce1						
L1.	-.03318	.0059495	-5.58	0.000	-.0448409	-.0215192
_ce2						
L1.	.0106394	.0053534	1.99	0.047	.0001469	.0211318
ln_p_jateng						
LD.	.0077514	.0278031	0.28	0.780	-.0467416	.0622444
ln_pb_jateng						
LD.	-.0083537	.0141659	-0.59	0.555	-.0361185	.019411
ln_t_jateng						
LD.	-.0085227	.0162308	-0.53	0.600	-.0403345	.023289
_cons	.0001283	.0000896	1.43	0.152	-.0000474	.000304
D_ln_pb_jateng						
_ce1						
L1.	.0094837	.0113967	0.83	0.405	-.0128535	.0318209
_ce2						
L1.	-.0580013	.0102548	-5.66	0.000	-.0781003	-.0379022
ln_p_jateng						
LD.	.0636887	.0532586	1.20	0.232	-.0406962	.1680737
ln_pb_jateng						
LD.	-.136661	.0271358	-5.04	0.000	-.1898461	-.0834758
ln_t_jateng						
LD.	.2304917	.0310911	7.41	0.000	.1695542	.2914292
_cons	.0000584	.0001717	0.34	0.734	-.0002782	.000395
D_ln_t_jateng						
_ce1						
L1.	.0366968	.0105498	3.48	0.001	.0160195	.057374
_ce2						
L1.	.0200484	.0094927	2.11	0.035	.001443	.0386539
ln_p_jateng						
LD.	.0203593	.0493008	0.41	0.680	-.0762685	.1169871
ln_pb_jateng						
LD.	.0478478	.0251193	1.90	0.057	-.001385	.0970807
ln_t_jateng						
LD.	.0331611	.0287807	1.15	0.249	-.0232479	.0895702
_cons	.0001009	.000159	0.63	0.526	-.0002107	.0004125

Cointegrating equations

```
Equation           Parms    chi2     P>chi2
-------------------------------------------
_ce1                   1   401.4445   0.0000
_ce2                   1    611.768   0.0000
-------------------------------------------

Identification:  beta is exactly identified

                 Johansen normalization restrictions imposed
------------------------------------------------------------------------------
        beta | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
_ce1         |
 ln_p_jateng |          1          .        .       .            .           .
ln_pb_jateng |          0  (omitted)
  ln_t_jateng |  -.8582339   .0428344   -20.04   0.000    -.9421879     -.77428
       _cons |  -1.580866          .        .       .            .           .
-------------+----------------------------------------------------------------
_ce2         |
 ln_p_jateng |          0  (omitted)
ln_pb_jateng |          1          .        .       .            .           .
 ln_t_jateng |  -1.174127   .0474703   -24.73   0.000    -1.267167   -1.081087
       _cons |   2.083697          .        .       .            .           .
------------------------------------------------------------------------------

49 . *_______________________________________________________________________________

50 .
51 . * Uji Kausalitas

52 .
53 . var ln_p_jateng ln_pb_jateng ln_t_jateng, lags(2)

Vector autoregression

Sample: 3 thru 1276                             Number of obs     =      1,274
Log likelihood =   13812.57                     AIC               =  -21.66495
FPE            =   7.83e-14                     HQIC              =  -21.64673
Det(Sigma_ml)  =   7.68e-14                     SBIC              =  -21.61644

Equation           Parms      RMSE     R-sq      chi2     P>chi2
----------------------------------------------------------------
ln_p_jateng            4     .004448   0.9905   133428.1   0.0000
ln_pb_jateng           4     .008204   0.9830   73847.24   0.0000
ln_t_jateng            4     .007949   0.9783   57522.59   0.0000
----------------------------------------------------------------

------------------------------------------------------------------------------
             | Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
-------------+----------------------------------------------------------------
ln_p_jateng  |
 ln_p_jateng |
         L2. |   .9343499   .0082692   112.99   0.000     .9181427    .9505572
             |
ln_pb_jateng |
         L2. |   .0202794   .0072876     2.78   0.005     .0059961    .0345627
             |
 ln_t_jateng |
         L2. |    .030256   .0086881     3.48   0.000     .0132276    .0472844
             |
       _cons |   .1730374   .0368603     4.69   0.000     .1007925    .2452822
-------------+----------------------------------------------------------------
ln_pb_jateng |
 ln_p_jateng |
         L2. |   .0213434   .0152529     1.40   0.162    -.0085518    .0512386
```

```
ln_pb_jateng |
         L2. |   .8837627   .0134423    65.74   0.000     .8574163    .9101091
             |
  ln_t_jateng |
         L2. |   .1126836   .0160257     7.03   0.000     .0812738    .1440933
             |
       _cons |  -.2114694   .0679908    -3.11   0.002     -.344729   -.0782099
-------------+----------------------------------------------------------------
ln_t_jateng  |
 ln_p_jateng |
         L2. |   .0642046   .0147795     4.34   0.000     .0352374    .0931718
             |
ln_pb_jateng |
         L2. |   .0337027    .013025     2.59   0.010     .0081741    .0592313
             |
 ln_t_jateng |
         L2. |   .8991122   .0155282    57.90   0.000     .8686774     .929547
             |
       _cons |   .0419544   .0658803     0.64   0.524    -.0871687    .1710774
------------------------------------------------------------------------------
```

54 .
55 . vargranger

Granger causality Wald tests

Equation	Excluded	chi2	df	Prob > chi2
ln_p_jateng	ln_pb_jateng	7.7437	1	0.005
ln_p_jateng	ln_t_jateng	12.128	1	0.000
ln_p_jateng	ALL	57.977	2	0.000
ln_pb_jateng	ln_p_jateng	1.958	1	0.162
ln_pb_jateng	ln_t_jateng	49.441	1	0.000
ln_pb_jateng	ALL	71.822	2	0.000
ln_t_jateng	ln_p_jateng	18.872	1	0.000
ln_t_jateng	ln_pb_jateng	6.6953	1	0.010
ln_t_jateng	ALL	38.91	2	0.000

56 . * Berdasarkan uji hubungan kausalitas dengan data Difference, diketahui bahwa " PB Jabar + P Jabar / T Jabar + P J
> r/ T Jabar + PB Jabar / P Jabar + T Jabar / PB Jabar + T Jabar"

57 .
58 . * ____

59 .
60 . * Uji Model ECM

61 . predict ecm_resid, resid
(2 missing values generated)

62 . list if missing(ecm_resid)

	periode	p_jateng	pb_jat~g	t_jateng	ln_p_j~g	ln_pb_~g	ln_t_j~g	ecm_re~d
1.	1	107300	110750	116600	11.58338	11.61503	11.6665	.
2.	2	107300	111350	116600	11.58338	11.62043	11.6665	.

63 . dfuller ecm_resid

```
Dickey-Fuller test for unit root        Number of obs  = 1,273
Variable: ecm_resid                     Number of lags =     0

H0: Random walk without drift, d = 0
```

	Test statistic	Dickey-Fuller critical value 1%	5%	10%
Z(t)	-20.403	-3.430	-2.860	-2.570

MacKinnon approximate *p*-value for Z(t) = **0.0000**.

64 . gen lag_ecm_res = l.ecm_resid
(3 missing values generated)

65 . list if missing(ecm_resid)

	periode	p_jateng	pb_jat~g	t_jateng	ln_p_j~g	ln_pb_~g	ln_t_j~g	ecm_re~d	lag_ec~s
1.	1	107300	110750	116600	11.58338	11.61503	11.6665	.	.
2.	2	107300	111350	116600	11.58338	11.62043	11.6665	.	.

66 . regress d.ln_p_jateng d.ln_pb_jateng d.ln_t_jateng lag_ecm_res

Source	SS	df	MS
Model	.000022737	3	7.5791e-06
Residual	.013183374	1,269	.000010389
Total	.013206111	1,272	.000010382

Number of obs	=	1,273
F(3, 1269)	=	0.73
Prob > F	=	0.5344
R-squared	=	0.0017
Adj R-squared	=	-0.0006
Root MSE	=	.00322

D. ln_p_jateng	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_pb_jateng D1.	-.0047002	.01411	-0.33	0.739	-.0323817	.0229813
ln_t_jateng D1.	-.0098041	.0158973	-0.62	0.538	-.0409921	.0213839
lag_ecm_res	-.0253406	.0203713	-1.24	0.214	-.0653058	.0146245
_cons	.0001089	.0000904	1.20	0.228	-.0000684	.0002862

```
67 .
68 . regress d.ln_pb_jateng d.ln_p_jateng d.ln_t_jateng lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =      3.65
       Model |  .000450269         3  .00015009   Prob > F        =    0.0122
    Residual |  .052176146     1,269  .000041116   R-squared       =    0.0086
-------------+----------------------------------   Adj R-squared   =    0.0062
       Total |  .052626415     1,272  .000041373   Root MSE        =    .00641

------------------------------------------------------------------------------
D.           |
ln_pb_jateng | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_p_jateng |
         D1. |   -.018602   .0558435    -0.33   0.739    -.1281578    .0909538
             |
 ln_t_jateng |
         D1. |   .0932667   .0315224     2.96   0.003     .0314249    .1551085
             |
 lag_ecm_res |   .0518321   .0405254     1.28   0.201    -.0276719    .1313362
       _cons |   .0001278   .0001798     0.71   0.478    -.0002251    .0004806
------------------------------------------------------------------------------

69 .
70 . regress d.ln_t_jateng d.ln_pb_jateng d.ln_p_jateng lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =      3.98
       Model |  .000386659         3  .000128886   Prob > F        =    0.0078
    Residual |  .041094678     1,269  .000032384   R-squared       =    0.0093
-------------+----------------------------------   Adj R-squared   =    0.0070
       Total |  .041481337     1,272  .000032611   Root MSE        =    .00569

------------------------------------------------------------------------------
D.           |
 ln_t_jateng | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
ln_pb_jateng |
         D1. |   .0734582   .0248275     2.96   0.003     .0247507    .1221657
             |
 ln_p_jateng |
         D1. |   -.030561   .0495546    -0.62   0.538    -.1277789    .0666569
             |
 lag_ecm_res |   .0546487   .0359558     1.52   0.129    -.0158905     .125188
       _cons |   .0000938   .0001596     0.59   0.557    -.0002194    .0004069
------------------------------------------------------------------------------

71 . * Hasil Uji ECM

72 .
73 . *____________________________________________________________________________
```

74 . bgodfrey

Breusch–Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	**0.770**	**1**	**0.3803**

H0: no serial correlation

75 .
76 . estat hettest

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of **D.ln_t_jateng**

H0: Constant variance

chi2(**1**) = **6.72**
Prob > chi2 = **0.0095**

77 .
78 . * Hasil Uji ECM

79 .
80 . *____

81 . * Model Persamaan regresi Lain

82 .
83 . regress ln_p_jateng ln_pb_jateng ln_t_jateng lag_ecm_res

Source	SS	df	MS			
				Number of obs	=	**1,273**
				F(3, 1269)	=	**3774.20**
Model	**2.38255509**	**3**	**.794185032**	Prob > F	=	**0.0000**
Residual	**.267029026**	**1,269**	**.000210425**	R-squared	=	**0.8992**
				Adj R-squared	=	**0.8990**
Total	**2.64958412**	**1,272**	**.002083006**	Root MSE	=	**.01451**

ln_p_jateng	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_pb_jateng	**.3232176**	**.0221207**	**14.61**	**0.000**	**.2798204**	**.3666148**
ln_t_jateng	**.4305402**	**.0258081**	**16.68**	**0.000**	**.3799089**	**.4811715**
lag_ecm_res	**.9087623**	**.0915262**	**9.93**	**0.000**	**.7292029**	**1.088322**
_cons	**2.821203**	**.0938849**	**30.05**	**0.000**	**2.637016**	**3.005389**

84 .
85 . regress ln_pb_jateng ln_p_jateng ln_t_jateng lag_ecm_res

Source	SS	df	MS			
				Number of obs	=	**1,273**
				F(3, 1269)	=	**5359.38**
Model	**4.66380097**	**3**	**1.55460032**	Prob > F	=	**0.0000**
Residual	**.368100083**	**1,269**	**.000290071**	R-squared	=	**0.9268**
				Adj R-squared	=	**0.9267**
Total	**5.03190105**	**1,272**	**.003955897**	Root MSE	=	**.01703**

ln_pb_jateng	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
ln_p_jateng	**.4455561**	**.0304935**	**14.61**	**0.000**	**.385733**	**.5053793**
ln_t_jateng	**.7632184**	**.0257002**	**29.70**	**0.000**	**.7127989**	**.8136379**
lag_ecm_res	**-.419056**	**.1109347**	**-3.78**	**0.000**	**-.6366916**	**-.2014204**
_cons	**-2.454234**	**.1266892**	**-19.37**	**0.000**	**-2.702777**	**-2.205691**

```
86 .
87 . regress ln_t_jateng ln_pb_jateng ln_p_jateng lag_ecm_res
```

Source	SS	df	MS			
				Number of obs	=	**1,273**
				F(3, 1269)	=	**5612.26**
Model	**3.43770414**	**3**	**1.14590138**	Prob > F	=	**0.0000**
Residual	**.25910217**	**1,269**	**.000204178**	R-squared	=	**0.9299**
				Adj R-squared	=	**0.9297**
Total	**3.69680631**	**1,272**	**.002906294**	Root MSE	=	**.01429**

ln_t_jateng	Coefficient	Std. err.	t	P>|t|	[95% conf. interval]	
ln_pb_jateng	**.5372222**	**.0180901**	**29.70**	**0.000**	**.5017324**	**.572712**
ln_p_jateng	**.4177595**	**.025042**	**16.68**	**0.000**	**.3686312**	**.4668877**
lag_ecm_res	**-.3623701**	**.0930396**	**-3.89**	**0.000**	**-.5448985**	**-.1798418**
_cons	**.5851305**	**.1198697**	**4.88**	**0.000**	**.3499659**	**.8202951**

```
88 .
89 . bgodfrey
```

Breusch-Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	**1012.499**	**1**	**0.0000**

H0: no serial correlation

```
90 .
91 . estat hettest
```

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of **ln_t_jateng**

H0: Constant variance

chi2(**1**) = **134.66**
Prob > chi2 = **0.0000**

```
92 . * ___________________________________________________________________________
```

```
 93 .
 94 . summarize ln_p_jateng ln_pb_jateng ln_t_jateng

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
 ln_p_jateng |      1,276    11.66389    .0457536   11.57778     11.724
ln_pb_jateng |      1,276    11.70921    .0629758   11.61322   11.86111
 ln_t_jateng |      1,276    11.74828    .0539929   11.63647   11.87165

 95 .
 96 . summarize d.ln_p_jateng d.ln_pb_jateng d.ln_t_jateng

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
 ln_p_jateng |
         D1. |      1,275    .0001071    .0032196  -.0308342   .0481911
             |
ln_pb_jateng |
         D1. |      1,275    .0001392    .0064288  -.0728111   .0987644
             |
 ln_t_jateng |
         D1. |      1,275    .0001003    .0057061  -.0350399   .0604801

 97 .
 98 . summarize p_jateng pb_jateng t_jateng

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
    p_jateng |      1,276    116416.6    5252.943     106700     123500
   pb_jateng |      1,276    121927.8    7644.445     110550     141650
    t_jateng |      1,276    126719.2    6778.994     113150     143150

 99 .
100 . summarize d.p_jateng d.pb_jateng d.t_jateng

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
    p_jateng |
         D1. |      1,275    12.31373    373.5796      -3750       5500
             |
   pb_jateng |
         D1. |      1,275    16.86275    808.6621      -8950      12000
             |
    t_jateng |
         D1. |      1,275    12.47059    736.5169      -4800       7650

101 .
102 . * ______________________________________________________________________

103 .
104 . * PERSAMAAN ASIMETRI HARGA

105 . gen d_ln_p_jateng = ln_p_jateng - ln_p_jateng[_n-1]
    (1 missing value generated)
```

```
106 .
107 . gen d_ln_p_jateng_pos = cond(d_ln_p_jateng > 0, d_ln_p_jateng, 0)
    (1 missing value generated)

108 .
109 . gen d_ln_p_jateng_neg = cond(d_ln_p_jateng < 0, d_ln_p_jateng, 0)

110 .
111 . gen d_ln_pb_jateng = ln_pb_jateng - ln_pb_jateng[_n-1]
    (1 missing value generated)

112 .
113 . gen d_ln_pb_jateng_pos = cond(d_ln_pb_jateng > 0, d_ln_pb_jateng, 0)
    (1 missing value generated)

114 .
115 . gen d_ln_pb_jateng_neg = cond(d_ln_pb_jateng < 0, d_ln_pb_jateng, 0)

116 .
117 . gen d_ln_t_jateng = ln_t_jateng - ln_t_jateng[_n-1]
    (1 missing value generated)

118 .
119 . gen d_ln_t_jateng_pos = cond(d_ln_t_jateng > 0, d_ln_t_jateng, 0)
    (1 missing value generated)

120 .
121 . gen d_ln_t_jateng_neg = cond(d_ln_t_jateng < 0, d_ln_t_jateng, 0)

122 . * REGRESI MODEL HOUCK

123 .
124 . * 1 MODEL TERHADAP PRODUSEN

125 .
126 . reg ln_p_jateng d_ln_pb_jateng_pos d_ln_pb_jateng_neg d_ln_t_jateng_pos d_ln_t_jateng_neg

      Source |       SS           df       MS      Number of obs   =     1,275
-------------+----------------------------------   F(4, 1270)      =      0.69
       Model |  .005759339         4  .001439835   Prob > F        =    0.6001
    Residual |   2.6568295     1,270  .002091992   R-squared       =    0.0022
-------------+----------------------------------   Adj R-squared   =   -0.0010
       Total |  2.66258884     1,274  .002089944   Root MSE        =    .04574

------------------------------------------------------------------------------------
       ln_p_jateng | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------------+----------------------------------------------------------------
d_ln_pb_jateng_pos |   .1437958   .2628114     0.55   0.584    -.3717964     .659388
d_ln_pb_jateng_neg |  -.3964772    .323925    -1.22   0.221    -1.031964    .2390098
 d_ln_t_jateng_pos |   -.051742   .2973182    -0.17   0.862    -.6350309    .5315469
 d_ln_t_jateng_neg |  -.3048269   .3780089    -0.81   0.420    -1.046418    .4367637
             _cons |   11.66345   .0013549  8608.66   0.000     11.66079     11.6661
------------------------------------------------------------------------------------
```

```
127 . * Uji Asimetri dengan Wald

128 . test d_ln_pb_jateng_pos = d_ln_pb_jateng_neg

 ( 1)  d_ln_pb_jateng_pos - d_ln_pb_jateng_neg = 0

       F(  1,  1270) =    1.62
            Prob > F =    0.2040

129 .
130 . test d_ln_t_jateng_pos = d_ln_t_jateng_neg

 ( 1)  d_ln_t_jateng_pos - d_ln_t_jateng_neg = 0

       F(  1,  1270) =    0.26
            Prob > F =    0.6102

131 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_Jabar yaitu 0,2040 > 0,05, maka pedagang besar tidak mem
    > hadap pasar produsen

132 . * Berdasarkan uji wald diketahui bahwa nilai statistik T_Jabar yaitu 0,6102 > 0,05, maka pasar tradisional tidak m
    > erhadap pasar produsen

133 . * ___________________________________________________________

134 . * 2 MODEL TERHADAP PEDAGANG BESAR

135 . reg ln_pb_jateng d_ln_p_jateng_pos d_ln_p_jateng_neg d_ln_t_jateng_pos d_ln_t_jateng_neg
```

Source	SS	df	MS
Model	.048852834	4	.012213209
Residual	4.99886127	1,270	.003936111
Total	5.04771411	1,274	.003962099

Number of obs	=	1,275
F(4, 1270)	=	3.10
Prob > F	=	0.0149
R-squared	=	0.0097
Adj R-squared	=	0.0066
Root MSE	=	.06274

ln_pb_jateng	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_p_jateng_pos	-.3078413	.6612761	-0.47	0.642	-1.605155	.9894725
d_ln_p_jateng_neg	.5690052	.9924344	0.57	0.567	-1.377986	2.515996
d_ln_t_jateng_pos	.6551694	.4003538	1.64	0.102	-.1302581	1.440597
d_ln_t_jateng_neg	-1.609228	.5143212	-3.13	0.002	-2.61824	-.6002149
_cons	11.70761	.0018613	6289.95	0.000	11.70396	11.71126

```
136 . * Uji Asimetri dengan Wald

137 . test d_ln_p_jateng_pos = d_ln_p_jateng_neg

 ( 1)  d_ln_p_jateng_pos - d_ln_p_jateng_neg = 0

       F(  1,  1270) =    0.53
            Prob > F =    0.4647
```

```
138 .
139 . test d_ln_t_jateng_pos = d_ln_t_jateng_neg

 ( 1)  d_ln_t_jateng_pos - d_ln_t_jateng_neg = 0

       F(  1,  1270) =   11.51
            Prob > F =    0.0007

140 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_Jabar yaitu 0,4647 > 0,05, maka produsen tidak memiliki a
    > edagang besar

141 .
142 . * Berdasarkan uji wald diketahui bahwa nilai statistik T_Jabar yaitu 0,0007 < 0,05, maka pasar tradisional memilik
    > p pedagang besar

143 . * ___________________________________________________________

144 .
145 . * 3 MODEL TERHADAP PASAR TRADISIONAL

146 . reg ln_t_jateng d_ln_p_jateng_pos d_ln_p_jateng_neg d_ln_pb_jateng_pos d_ln_pb_jateng_neg
```

Source	SS	df	MS			
				Number of obs	=	1,275
				F(4, 1270)	=	3.78
Model	.043625946	4	.010906486	Prob > F	=	0.0046
Residual	3.66659721	1,270	.002887084	R-squared	=	0.0118
				Adj R-squared	=	0.0086
Total	3.71022315	1,274	.002912263	Root MSE	=	.05373

ln_t_jateng	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_p_jateng_pos	-.151611	.565162	-0.27	0.789	-1.260365	.9571427
d_ln_p_jateng_neg	.4745148	.8498041	0.56	0.577	-1.19266	2.141689
d_ln_pb_jateng_pos	.9054325	.304809	2.97	0.003	.3074479	1.503417
d_ln_pb_jateng_neg	-.935151	.3746075	-2.50	0.013	-1.670069	-.2002333
_cons	11.74736	.0015507	7575.31	0.000	11.74431	11.7504

```
147 . test d_ln_p_jateng_pos = d_ln_p_jateng_neg

 ( 1)  d_ln_p_jateng_pos - d_ln_p_jateng_neg = 0

       F(  1,  1270) =    0.37
            Prob > F =    0.5421

148 .
149 . test d_ln_pb_jateng_pos = d_ln_pb_jateng_neg

 ( 1)  d_ln_pb_jateng_pos - d_ln_pb_jateng_neg = 0

       F(  1,  1270) =   14.26
            Prob > F =    0.0002
```

```
150 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_Jabar yaitu 0,5421 > 0,05, maka produsen tidak memiliki a
    > pasar tradisional

151 .
152 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_Jabar yaitu 0,0002 < 0,05, maka pedagang besar memiliki
    > ppasar tradisional

153 . * SELESAI

154 . * ALHAMDULILLAH JAWA TENGAH SUDAH SELESAI

155 . save "C:\Users\hp\Downloads\HASIL JAWA TENGAH.dta"
    file C:\Users\hp\Downloads\HASIL JAWA TENGAH.dta saved

156 .
```

```
  ___  ____  ____  ____  ____(R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/
  Statistics/Data analysis

       User: Uji ECM Stata Provinsi Jawa Timur
    Project: Uji ECM Stata Provinsi Jawa Timur
```

```
  ___  ____  ____  ____  ____ ©
 /__    /   ____/   /   ____/      17.0
___/   /   /___/   /   /___/       MP—Parallel Edition

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      1. Unicode is supported; see help unicode_advice.
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      4. New update available; type -update all-

 1 . * Olah Data ECM menggunakan Software StataMP-17 pendekatan Retizi dan Panagopoulus (2008)

 2 .
 3 . * Kelompok Komoditas Daging Sapi di Indonesia

 4 .
 5 . * Provinsi Jawa Timur

 6 .
 7 . * Oleh Fajar Andriansyah; Asifa; Luluk Isnaini

 8 .
 9 . * Start 23 Desember 2024

10 . edit

11 . *(2 variables, 1276 observations pasted into data editor)

12 . *(3 variables, 1276 observations pasted into data editor)

13 . drop tanggal

14 . tsset periode

Time variable: periode, 1 to 1276
        Delta: 1 unit

15 . describe

Contains data
 Observations:         1,276
    Variables:             4
```

Variable name	Storage type	Display format	Value label	Variable label
periode	int	%8.0g		**Periode**
p_jatim	long	%8.0g		**P_Jatim**
pb_jatim	long	%8.0g		**PB_Jatim**
t_jatim	long	%8.0g		**T_Jatim**

Sorted by: **periode**

```
     Note: Dataset has changed since last saved.

16 .
17 . gen ln_p_jatim = ln(p_jatim)

18 .
19 . gen ln_pb_jatim = ln(pb_jatim)

20 .
21 . gen ln_t_jatim = ln(t_jatim)

22 .
23 . * Data yang digunakan yaitu dengan persamaan data Logaritma Natural (LN)

24 .
25 . * Model percobaan 1

26 .
27 . * _______________________________________________________________________

28 .
29 . * Uji Stasioneritas Data

30 . describe

Contains data
 Observations:         1,276
    Variables:             7
------------------------------------------------------------------------------------------------------------------------
Variable      Storage   Display    Value
    name         type    format    label      Variable label
------------------------------------------------------------------------------------------------------------------------
periode         int     %8.0g                 Periode
p_jatim         long    %8.0g                 P_Jatim
pb_jatim        long    %8.0g                 PB_Jatim
t_jatim         long    %8.0g                 T_Jatim
ln_p_jatim      float   %9.0g
ln_pb_jatim     float   %9.0g
ln_t_jatim      float   %9.0g
------------------------------------------------------------------------------------------------------------------------
Sorted by: periode
     Note: Dataset has changed since last saved.

31 . foreach var in ln_p_jatim ln_pb_jatim ln_t_jatim {
  2.
32 .     dfuller `var'
  3.
33 . }

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_p_jatim                    Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test      -------- critical value ---------
              statistic           1%           5%          10%
--------------------------------------------------------------
 Z(t)            -2.345       -3.430       -2.860       -2.570
--------------------------------------------------------------
MacKinnon approximate p-value for Z(t) = 0.1579.

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_pb_jatim                   Number of lags =     0
```

```
H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)            -3.502       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0079.

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_t_jatim                    Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)            -1.952       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.3081.

34 . foreach var in d.ln_p_jatim ln_pb_jatim d.ln_t_jatim {
  2.
35 .     dfuller `var'
  3.
36 . }

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_p_jatim                  Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)           -38.623       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0000.

Dickey-Fuller test for unit root        Number of obs  = 1,275
Variable: ln_pb_jatim                   Number of lags =     0

H0: Random walk without drift, d = 0

                                       Dickey-Fuller
                   Test        ──────── critical value ─────────
              statistic           1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)            -3.502       -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0079.

Dickey-Fuller test for unit root        Number of obs  = 1,274
Variable: D.ln_t_jatim                  Number of lags =     0

H0: Random walk without drift, d = 0
```

```
                                        Dickey-Fuller
                   Test      ———————— critical value ————————
              statistic            1%           5%          10%
──────────────────────────────────────────────────────────────
 Z(t)           -35.115        -3.430       -2.860       -2.570
──────────────────────────────────────────────────────────────
MacKinnon approximate p-value for Z(t) = 0.0000.

37 . * Berdasarkan uji stasioneritas data berdasarkan ADF, diketahui bahwa ln_pb_jatim stasioner pada tingkat level dan
   > ata tidak stasioner pada tingkat level dan stasioner pada tingkat 1st Difference

38 . var ln_p_jateng ln_pb_jateng ln_t_jateng
variable ln_p_jateng not found
r(111);

39 .
40 . varsoc
either specify a varlist or the estimates() from either  var or  svar
r(198);

41 . var ln_p_jatim ln_pb_jatim ln_t_jatim

Vector autoregression

Sample: 3 thru 1276                              Number of obs     =      1,274
Log likelihood =    15685.6                      AIC               =   -24.5912
FPE            =   4.20e-15                      HQIC              =  -24.55932
Det(Sigma_ml)  =   4.06e-15                      SBIC              =  -24.50631

Equation           Parms      RMSE     R-sq      chi2     P>chi2
────────────────────────────────────────────────────────────────
ln_p_jatim            7     .004019   0.9816   67913.61   0.0000
ln_pb_jatim           7     .004472   0.9712   43003.91   0.0000
ln_t_jatim            7     .003601   0.9841   78753.73   0.0000
────────────────────────────────────────────────────────────────

──────────────────────────────────────────────────────────────────────────────
             │ Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
─────────────┼────────────────────────────────────────────────────────────────
ln_p_jatim   │
  ln_p_jatim │
         L1. │    .879066   .0279576    31.44   0.000     .8242701     .933862
         L2. │   .0606747   .0275255     2.20   0.028     .0067256    .1146237
             │
 ln_pb_jatim │
         L1. │  -.0129729   .0246794    -0.53   0.599    -.0613437    .0353978
         L2. │   .0192782   .0241608     0.80   0.425     -.028076    .0666324
             │
  ln_t_jatim │
         L1. │    .018916   .0314776     0.60   0.548     -.042779    .0806111
         L2. │   .0363595   .0325285     1.12   0.264    -.0273952    .1001142
             │
       _cons │  -.0206642   .0502637    -0.41   0.681    -.1191792    .0778509
─────────────┼────────────────────────────────────────────────────────────────
ln_pb_jatim  │
  ln_p_jatim │
         L1. │   .0501643   .0311116     1.61   0.107    -.0108133     .111142
         L2. │  -.0598977   .0306307    -1.96   0.051    -.1199328    .0001374
             │
 ln_pb_jatim │
         L1. │   1.027887   .0274636    37.43   0.000     .9740593    1.081714
         L2. │  -.1164742   .0268864    -4.33   0.000    -.1691705   -.0637778
             │
  ln_t_jatim │
         L1. │   .2029103   .0350287     5.79   0.000     .1342552    .2715653
```

	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
L2.	-.1188968	.0361981	-3.28	0.001	-.1898438	-.0479498
_cons	.1597076	.0559341	2.86	0.004	.0500789	.2693364
ln_t_jatim						
ln_p_jatim						
L1.	.0232715	.0250499	0.93	0.353	-.0258254	.0723684
L2.	-.0061154	.0246627	-0.25	0.804	-.0544534	.0422227
ln_pb_jatim						
L1.	.0265855	.0221126	1.20	0.229	-.0167544	.0699255
L2.	-.0317621	.0216479	-1.47	0.142	-.0741912	.010667
ln_t_jatim						
L1.	1.004186	.0282038	35.60	0.000	.948908	1.059465
L2.	-.0230797	.0291454	-0.79	0.428	-.0802036	.0340441
_cons	.0822043	.045036	1.83	0.068	-.0060647	.1704733

```
42 .
43 . varsoc
```

Lag-order selection criteria

Sample: **3** thru **1276** Number of obs = **1,274**

Lag	LL	LR	df	p	FPE	AIC	HQIC	SBIC
0	10184.7				2.3e-11	-15.9839	-15.9793	-15.9717
1	15663	10957	9	0.000	4.3e-15	-24.5698	-24.5516	-24.5213*
2	15685.6	45.238*	9	0.000	4.2e-15*	-24.5912*	-24.5593*	-24.5063

* optimal lag
Endogenous: **ln_p_jatim ln_pb_jatim ln_t_jatim**
Exogenous: **_cons**

```
44 . vecrank ln_p_jatim ln_pb_jatim ln_t_jatim, trend(constant)
```

Johansen tests for cointegration
Trend: Constant Number of obs = **1,274**
Sample: **3** thru **1276** Number of lags = **2**

Maximum rank	Params	LL	Eigenvalue	Trace statistic	Critical value 5%
0	12	15617.384	.	136.4254	29.68
1	17	15658.01	0.06179	55.1727	15.41
2	20	15684.401	0.04058	2.3919*	3.76
3	21	15685.597	0.00188		

* selected rank

```
45 . * Berdasarkan uji pendekatan VAR dan VARSOC diketahui bahwa lag optimum pada model yang digunakan berdasarkan nila
   > terkecil berada  pada nilai lags 2

46 .
47 . * Berdasarkan uji kointegrasi dari model persamaan yang digunakan pada lags(2) dan tidak memiliki trend, diketahui
   > ni memiliki  kointegrasi atau hubungan dalam jangka panjang dalam H2 (Rank 2)

48 .
49 . * Berdasarkan data yang stasioner pada tingkat 1st Difference dan memiliki hubungan kointegrasi maka model sudah s
   > ndekatan ECM

50 .
51 . * ________________________________________________________________________________

52 .
53 . * Model VECM

54 . vec ln_p_jatim ln_pb_jatim ln_t_jatim, trend(constant) rank(2)

   Vector error-correction model

   Sample: 3 thru 1276                              Number of obs     =      1,274
                                                    AIC               =   -24.5909
   Log likelihood =   15684.4                       HQIC              =  -24.56053
   Det(Sigma_ml)  =  4.07e-15                       SBIC              =  -24.51005

   Equation           Parms      RMSE     R-sq      chi2     P>chi2
   ----------------------------------------------------------------
   D_ln_p_jatim          6     .004018   0.0458   60.87762   0.0000
   D_ln_pb_jatim         6     .004471   0.0902   125.7277   0.0000
   D_ln_t_jatim          6     .003602   0.0074     9.3989   0.1524
   ----------------------------------------------------------------

   ------------------------------------------------------------------------------
                |  Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
   -------------+----------------------------------------------------------------
   D_ln_p_jatim |
           _ce1 |
            L1. |  -.0590385   .0081754    -7.22   0.000     -.075062   -.0430149
                |
           _ce2 |
            L1. |   .0063462    .009517     0.67   0.505    -.0123067    .0249991
                |
     ln_p_jatim |
            LD. |  -.0615719   .0275526    -2.23   0.025    -.1155741   -.0075697
                |
    ln_pb_jatim |
            LD. |  -.0193793   .0242206    -0.80   0.424    -.0668508    .0280922
                |
     ln_t_jatim |
            LD. |  -.0367503   .0326032    -1.13   0.260    -.1006513    .0271507
                |
          _cons |   .0000225   .0001127     0.20   0.842    -.0001985    .0002435
   -------------+----------------------------------------------------------------
   D_ln_pb_jatim |
           _ce1 |
            L1. |  -.0094959   .0090965    -1.04   0.297    -.0273247    .0083329
                |
           _ce2 |
            L1. |  -.0885794   .0105892    -8.37   0.000    -.1093337    -.067825
                |
     ln_p_jatim |
            LD. |   .0597232   .0306568     1.95   0.051    -.0003631    .1198095
                |
    ln_pb_jatim |
```

LD.	.1164545	.0269494	4.32	0.000	.0636347	.1692743
ln_t_jatim						
LD.	.1188207	.0362764	3.28	0.001	.0477204	.1899211
_cons	-2.17e-06	.0001255	-0.02	0.986	-.0002481	.0002437
D_ln_t_jatim						
_ce1						
L1.	.0198238	.0073301	2.70	0.007	.005457	.0341906
_ce2						
L1.	-.0050872	.008533	-0.60	0.551	-.0218115	.0116371
ln_p_jatim						
LD.	.0041548	.0247039	0.17	0.866	-.0442639	.0525735
ln_pb_jatim						
LD.	.0315413	.0217163	1.45	0.146	-.0110219	.0741046
ln_t_jatim						
LD.	.0222257	.0292322	0.76	0.447	-.0350683	.0795198
_cons	.0000659	.0001011	0.65	0.515	-.0001323	.000264

Cointegrating equations

Equation	Parms	chi2	P>chi2
_ce1	1	289.0716	0.0000
_ce2	1	282.3542	0.0000

Identification: beta is exactly identified

Johansen normalization restrictions imposed

beta	Coefficient	Std. err.	z	P>|z|	[95% conf.	interval]
_ce1						
ln_p_jatim	1	.	.	.	.	.
ln_pb_jatim	0	(omitted)				
ln_t_jatim	-1.045332	.0614825	-17.00	0.000	-1.165835	-.9248284
_cons	.6252053	.	.	.	.	.
_ce2						
ln_p_jatim	-1.11e-16	.	.	.	.	.
ln_pb_jatim	1	.	.	.	.	.
ln_t_jatim	-.8388432	.049921	-16.80	0.000	-.9366866	-.7409998
_cons	-1.809198	.	.	.	.	.

```
55 . *___________________________________________________________________________

56 .
57 . * Uji Kausalitas

58 .
59 . var ln_p_jatim ln_pb_jatim ln_t_jatim, lags(2)

   Vector autoregression

   Sample: 3 thru 1276                              Number of obs     =      1,274
   Log likelihood =   14393.72                      AIC               =  -22.57727
   FPE            =   3.14e-14                      HQIC              =  -22.55905
   Det(Sigma_ml)  =   3.08e-14                      SBIC              =  -22.52876

   Equation           Parms      RMSE     R-sq      chi2     P>chi2
   ----------------------------------------------------------------
   ln_p_jatim            4     .005354   0.9672   37619.14   0.0000
   ln_pb_jatim           4     .006604   0.9371   18983.23   0.0000
   ln_t_jatim            4     .005115   0.9678    38294.4   0.0000
   ----------------------------------------------------------------

   ------------------------------------------------------------------------------
                |  Coefficient  Std. err.      z    P>|z|     [95% conf. interval]
   -------------+----------------------------------------------------------------
   ln_p_jatim   |
     ln_p_jatim |
            L2. |    .887798   .0109492    81.08   0.000      .866338     .909258
                |
    ln_pb_jatim |
            L2. |   .0143794   .0122663     1.17   0.241     -.009662    .0384208
                |
     ln_t_jatim |
            L2. |   .1000298   .0141803     7.05   0.000      .072237    .1278227
                |
          _cons |  -.0353119   .0667753    -0.53   0.597    -.1661891    .0955653
   -------------+----------------------------------------------------------------
   ln_pb_jatim  |
     ln_p_jatim |
            L2. |  -.0287177   .0135061    -2.13   0.033    -.0551892   -.0022463
                |
    ln_pb_jatim |
            L2. |   .8123993   .0151307    53.69   0.000     .7827436     .842055
                |
     ln_t_jatim |
            L2. |   .1856798   .0174917    10.62   0.000     .1513966    .2199629
                |
          _cons |   .3414765    .082369     4.15   0.000     .1800362    .5029168
   -------------+----------------------------------------------------------------
   ln_t_jatim   |
     ln_p_jatim |
            L2. |   .0302739   .0104606     2.89   0.004     .0097715    .0507762
                |
    ln_pb_jatim |
            L2. |  -.0124637   .0117189    -1.06   0.288    -.0354323    .0105048
                |
     ln_t_jatim |
            L2. |   .9682751   .0135475    71.47   0.000     .9417225    .9948277
                |
          _cons |   .1648897   .0637955     2.58   0.010     .0398529    .2899266
   ------------------------------------------------------------------------------
```

```
60 .
61 . vargranger
```

Granger causality Wald tests

Equation	Excluded	chi2	df	Prob > chi2
ln_p_jatim	ln_pb_jatim	**1.3742**	**1**	**0.241**
ln_p_jatim	ln_t_jatim	**49.761**	**1**	**0.000**
ln_p_jatim	ALL	**97.037**	**2**	**0.000**
ln_pb_jatim	ln_p_jatim	**4.5211**	**1**	**0.033**
ln_pb_jatim	ln_t_jatim	**112.68**	**1**	**0.000**
ln_pb_jatim	ALL	**142.44**	**2**	**0.000**
ln_t_jatim	ln_p_jatim	**8.3758**	**1**	**0.004**
ln_t_jatim	ln_pb_jatim	**1.1312**	**1**	**0.288**
ln_t_jatim	ALL	**8.8105**	**2**	**0.012**

```
62 . * Berdasarkan uji hubungan kausalitas dengan data Difference, diketahui bahwa " PB Jabar - P Jabar / T Jabar + P J
   > r/ T Jabar + PB Jabar / P Jabar + T Jabar / PB Jabar - T Jabar"

63 .
64 . * ________________________________________________________________________

65 .
66 . * Uji Model ECM

67 . predict ecm_resid, resid
   (2 missing values generated)

68 . list if missing(ecm_resid)
```

	periode	p_jatim	pb_jatim	t_jatim	ln_p_j~m	ln_pb_~m	ln_t_j~m	ecm_re~d
1.	**1**	**106950**	**105650**	**118600**	**11.58012**	**11.56789**	**11.68351**	**.**
2.	**2**	**106950**	**108900**	**118600**	**11.58012**	**11.59819**	**11.68351**	**.**

```
69 . dfuller ecm_resid
```

Dickey–Fuller test for unit root Number of obs = **1,273**
Variable: **ecm_resid** Number of lags = **0**

H0: Random walk without drift, d = 0

	Test statistic	Dickey–Fuller critical value 1%	5%	10%
Z(t)	**-22.286**	**-3.430**	**-2.860**	**-2.570**

MacKinnon approximate *p*-value for Z(t) = **0.0000**.

```
70 . gen lag_ecm_res = l.ecm_resid
   (3 missing values generated)

71 . regress d.ln_p_jatim d.ln_pb_jatim d.ln_t_jatim lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =     10.51
       Model |  .000519998         3  .000173333   Prob > F        =    0.0000
    Residual |  .020927954     1,269  .000016492   R-squared       =    0.0242
-------------+----------------------------------   Adj R-squared   =    0.0219
       Total |  .021447952     1,272  .000016862   Root MSE        =    .00406

------------------------------------------------------------------------------
D.ln_p_jatim | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jatim |
         D1. |  -.0074329   .0245009    -0.30   0.762    -.0554996    .0406339
             |
  ln_t_jatim |
         D1. |    .021133   .0317622     0.67   0.506    -.0411792    .0834452
             |
 lag_ecm_res |  -.1187755   .0212867    -5.58   0.000    -.1605364   -.0770146
       _cons |   .0000562   .0001138     0.49   0.621    -.0001671    .0002796
------------------------------------------------------------------------------

72 .
73 . regress d.ln_pb_jatim d.ln_p_jatim d.ln_t_jatim lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =      5.86
       Model |  .000380646         3  .000126882   Prob > F        =    0.0006
    Residual |  .027470698     1,269  .000021648   R-squared       =    0.0137
-------------+----------------------------------   Adj R-squared   =    0.0113
       Total |  .027851344     1,272  .000021896   Root MSE        =    .00465

------------------------------------------------------------------------------
D.           |
 ln_pb_jatim | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
  ln_p_jatim |
         D1. |  -.0097566   .0321607    -0.30   0.762    -.0728505    .0533373
             |
  ln_t_jatim |
         D1. |   .1510181   .0361486     4.18   0.000     .0801004    .2219357
             |
 lag_ecm_res |  -.0090275   .0246842    -0.37   0.715    -.0574539    .0393988
       _cons |   .0000393   .0001304     0.30   0.763    -.0002166    .0002952
------------------------------------------------------------------------------

74 .
75 . regress d.ln_t_jatim d.ln_pb_jatim d.ln_p_jatim lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =      6.00
       Model |  .000231771         3  .000077257   Prob > F        =    0.0005
    Residual |  .016341505     1,269  .000012877   R-squared       =    0.0140
-------------+----------------------------------   Adj R-squared   =    0.0117
       Total |  .016573276     1,272  .000013029   Root MSE        =    .00359
```

D.ln_t_jatim	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_pb_jatim						
D1.	**.0898362**	**.0215037**	**4.18**	**0.000**	**.0476494**	**.132023**
ln_p_jatim						
D1.	**.0165016**	**.0248014**	**0.67**	**0.506**	**-.0321546**	**.0651579**
lag_ecm_res	**.0095336**	**.0190375**	**0.50**	**0.617**	**-.0278149**	**.0468821**
_cons	**.0000513**	**.0001006**	**0.51**	**0.610**	**-.000146**	**.0002487**

76 . bgodfrey

Breusch-Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	**0.044**	**1**	**0.8345**

H0: no serial correlation

77 .
78 . estat hettest

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of **D.ln_t_jatim**

H0: Constant variance

chi2(**1**) = **74.85**
Prob > chi2 = **0.0000**

79 . regress d.ln_p_jatim ln_pb_jatim d.ln_t_jatim lag_ecm_res

Source	SS	df	MS			
				Number of obs	=	**1,273**
				F(3, 1269)	=	**10.74**
Model	**.000531099**	**3**	**.000177033**	Prob > F	=	**0.0000**
Residual	**.020916853**	**1,269**	**.000016483**	R-squared	=	**0.0248**
				Adj R-squared	=	**0.0225**
Total	**.021447952**	**1,272**	**.000016862**	Root MSE	=	**.00406**

D.ln_p_jatim	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_pb_jatim	**.0037888**	**.0043302**	**0.87**	**0.382**	**-.0047064**	**.012284**
ln_t_jatim						
D1.	**.0208902**	**.0315541**	**0.66**	**0.508**	**-.0410138**	**.0827942**
lag_ecm_res	**-.1187157**	**.0212801**	**-5.58**	**0.000**	**-.1604638**	**-.0769675**
_cons	**-.0439945**	**.0503451**	**-0.87**	**0.382**	**-.1427633**	**.0547744**

```
80 .
81 . regress d.ln_pb_jatim ln_p_jatim d.ln_t_jatim lag_ecm_res
```

Source	SS	df	MS			
Model	.000382672	3	.000127557	Number of obs	=	1,273
Residual	.027468672	1,269	.000021646	F(3, 1269)	=	5.89
				Prob > F	=	0.0005
				R-squared	=	0.0137
				Adj R-squared	=	0.0114
Total	.027851344	1,272	.000021896	Root MSE	=	.00465

D. ln_pb_jatim	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_p_jatim	-.0019274	.0044735	-0.43	0.667	-.0107036	.0068487
ln_t_jatim						
D1.	.1504745	.0361506	4.16	0.000	.079553	.2213961
lag_ecm_res	-.0061661	.0247046	-0.25	0.803	-.0546323	.0423002
_cons	.0224129	.0519289	0.43	0.666	-.0794631	.1242889

```
82 .
83 . regress d.ln_t_jatim ln_pb_jatim d.ln_p_jatim lag_ecm_res
```

Source	SS	df	MS			
Model	.000024251	3	8.0836e-06	Number of obs	=	1,273
Residual	.016549026	1,269	.000013041	F(3, 1269)	=	0.62
				Prob > F	=	0.6022
				R-squared	=	0.0015
				Adj R-squared	=	-0.0009
Total	.016573276	1,272	.000013029	Root MSE	=	.00361

D.ln_t_jatim	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
ln_pb_jatim	-.0044266	.0038508	-1.15	0.251	-.0119813	.0031281
ln_p_jatim						
D1.	.0165279	.024965	0.66	0.508	-.0324493	.0655052
lag_ecm_res	.0089154	.0191574	0.47	0.642	-.0286682	.0464991
_cons	.0515208	.0447713	1.15	0.250	-.0363131	.1393547

```
84 . bgodfrey
```

Breusch-Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	0.264	1	0.6074

H0: no serial correlation

```
 85 .
 86 . estat hettest

    Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
    Assumption: Normal error terms
    Variable: Fitted values of D.ln_t_jatim

    H0: Constant variance

        chi2(1) =  96.15
    Prob > chi2 = 0.0000

 87 . *___________________________________________________________________________

 88 . *___________________________________________________________________________

 89 .
 90 . * Model Persamaan regresi Lain

 91 .
 92 . regress ln_p_jateng ln_pb_jateng ln_t_jateng lag_ecm_res
    variable ln_p_jateng not found
    r(111);

 93 .
 94 . regress ln_pb_jateng ln_p_jateng ln_t_jateng lag_ecm_res
    variable ln_pb_jateng not found
    r(111);

 95 .
 96 . regress ln_t_jateng ln_pb_jateng ln_p_jateng lag_ecm_res
    variable ln_t_jateng not found
    r(111);

 97 .
 98 . bgodfrey

    Breusch–Godfrey LM test for autocorrelation
```

lags(*p*)	chi2	df	Prob > chi2
1	**0.264**	**1**	**0.6074**

H0: no serial correlation

```
 99 .
100 . estat hettest

    Breusch–Pagan/Cook–Weisberg test for heteroskedasticity
    Assumption: Normal error terms
    Variable: Fitted values of D.ln_t_jatim

    H0: Constant variance

        chi2(1) =  96.15
    Prob > chi2 = 0.0000
```

```
101 .
102 . * ________________________________________________________________________

103 . regress ln_p_jatim ln_pb_jatim ln_t_jatim lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =   1786.42
       Model |  .897925438         3  .299308479   Prob > F        =    0.0000
    Residual |  .21261653      1,269  .000167547   R-squared       =    0.8085
-------------+----------------------------------   Adj R-squared   =    0.8081
       Total |  1.11054197     1,272  .000873068   Root MSE        =    .01294

------------------------------------------------------------------------------
  ln_p_jatim | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jatim |   .1652012   .0295479     5.59   0.000     .1072331    .2231692
  ln_t_jatim |   .7804919   .0272916    28.60   0.000     .7269503    .8340335
 lag_ecm_res |   .8388671    .067861    12.36   0.000     .7057351    .9719991
       _cons |   .5529467   .1611908     3.43   0.001     .2367169    .8691765
------------------------------------------------------------------------------

104 .
105 . regress ln_pb_jatim ln_p_jatim ln_t_jatim lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =   1564.37
       Model |  .692650574         3  .230883525   Prob > F        =    0.0000
    Residual |  .18728999      1,269  .000147589   R-squared       =    0.7872
-------------+----------------------------------   Adj R-squared   =    0.7867
       Total |  .879940564     1,272  .000691777   Root MSE        =    .01215

------------------------------------------------------------------------------
 ln_pb_jatim | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
  ln_p_jatim |   .1455227   .0260282     5.59   0.000     .0944597    .1965857
  ln_t_jatim |   .6835218   .0266608    25.64   0.000     .6312177    .7358258
 lag_ecm_res |  -.1687646   .0672502    -2.51   0.012    -.3006984   -.0368308
       _cons |   1.937497    .141921    13.65   0.000     1.659071    2.215922
------------------------------------------------------------------------------

106 .
107 . regress ln_t_jatim ln_pb_jatim ln_p_jatim lag_ecm_res

      Source |       SS           df       MS      Number of obs   =     1,273
-------------+----------------------------------   F(3, 1269)      =   2767.00
       Model |  .894778473         3  .298259491   Prob > F        =    0.0000
    Residual |  .136787436     1,269  .000107792   R-squared       =    0.8674
-------------+----------------------------------   Adj R-squared   =    0.8671
       Total |  1.03156591     1,272  .000810979   Root MSE        =    .01038

------------------------------------------------------------------------------
  ln_t_jatim | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
-------------+----------------------------------------------------------------
 ln_pb_jatim |   .4992108   .0194717    25.64   0.000     .4610105    .5374112
  ln_p_jatim |   .5021316   .0175581    28.60   0.000     .4676855    .5365778
 lag_ecm_res |  -.3859216   .0565871    -6.82   0.000    -.4969362   -.2749069
       _cons |   .0707133   .1298729     0.54   0.586    -.1840758    .3255025
------------------------------------------------------------------------------
```

```
108 .
109 . bgodfrey
```

Breusch-Godfrey LM test for autocorrelation

lags(*p*)	chi2	df	Prob > chi2
1	**1007.881**	**1**	**0.0000**

H0: no serial correlation

```
110 .
111 . estat hettest
```

Breusch-Pagan/Cook-Weisberg test for heteroskedasticity
Assumption: Normal error terms
Variable: Fitted values of **ln_t_jatim**

H0: Constant variance

chi2(**1**) = **50.57**
Prob > chi2 = **0.0000**

```
112 .
113 . * ________________________________________________________________________

114 . summarize ln_p_jateng ln_pb_jateng ln_t_jateng
```

variable ln_p_jateng not found
r(111);

```
115 .
116 . summarize d.ln_p_jatim ln_pb_jatim d.ln_t_jatim
```

Variable	Obs	Mean	Std. dev.	Min	Max
ln_p_jatim					
D1.	**1,275**	**.0000569**	**.0041031**	**-.0550766**	**.0590162**
ln_pb_jatim	**1,276**	**11.62631**	**.0263453**	**11.56789**	**11.73367**
ln_t_jatim					
D1.	**1,275**	**.0000564**	**.0036068**	**-.0259953**	**.0343218**

```
117 .
118 . summarize p_jatim pb_jatim t_jatim
```

Variable	Obs	Mean	Std. dev.	Min	Max
p_jatim	**1,276**	**110036**	**3250.676**	**103900**	**116250**
pb_jatim	**1,276**	**112045.7**	**2974.276**	**105650**	**124700**
t_jatim	**1,276**	**121047.5**	**3455.55**	**114350**	**131300**

```
119 .
```

```
120 . summarize d.p_jatim pb_jatim d.t_jatim

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
     p_jatim |
         D1. |      1,275    6.313725    452.3371      -6200       6450
             |
    pb_jatim |      1,276    112045.7    2974.276     105650     124700
             |
     t_jatim |
         D1. |      1,275    6.941176    440.2351      -3350       4150

121 .
122 . * ______________________________________________________________________

123 . summarize ln_p_jatim ln_pb_jatim ln_t_jatim

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
  ln_p_jatim |      1,276    11.60813    .0295443   11.55118    11.6635
 ln_pb_jatim |      1,276    11.62631    .0263453   11.56789   11.73367
  ln_t_jatim |      1,276    11.70353    .0284608   11.64702   11.78524

124 .
125 . summarize d.ln_p_jatim ln_pb_jatim d.ln_t_jatim

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
  ln_p_jatim |
         D1. |      1,275    .0000569    .0041031  -.0550766   .0590162
             |
 ln_pb_jatim |      1,276    11.62631    .0263453   11.56789   11.73367
             |
  ln_t_jatim |
         D1. |      1,275    .0000564    .0036068  -.0259953   .0343218

126 .
127 . summarize p_jatim pb_jatim t_jatim

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
     p_jatim |      1,276      110036    3250.676     103900     116250
    pb_jatim |      1,276    112045.7    2974.276     105650     124700
     t_jatim |      1,276    121047.5     3455.55     114350     131300

128 .
129 . summarize d.p_jatim pb_jatim d.t_jatim

    Variable |        Obs        Mean    Std. dev.       Min        Max
-------------+---------------------------------------------------------
     p_jatim |
         D1. |      1,275    6.313725    452.3371      -6200       6450
             |
    pb_jatim |      1,276    112045.7    2974.276     105650     124700
             |
     t_jatim |
         D1. |      1,275    6.941176    440.2351      -3350       4150
```

```
130 .
131 . * ______________________________________________________________________

132 . * PERSAMAAN ASIMETRI HARGA

133 .
134 . gen d_ln_p_jatim = ln_p_jatim - ln_p_jatim[_n-1]
    (1 missing value generated)

135 .
136 . gen d_ln_p_jatim_pos = cond(d_ln_p_jatim > 0, d_ln_p_jatim, 0)
    (1 missing value generated)

137 .
138 . gen d_ln_p_jatim_neg = cond(d_ln_p_jatim < 0, d_ln_p_jatim, 0)

139 .
140 . gen d_ln_pb_jatim = ln_pb_jatim - ln_pb_jatim[_n-1]
    (1 missing value generated)

141 .
142 . gen d_ln_pb_jatim_pos = cond(d_ln_pb_jatim > 0, d_ln_pb_jatim, 0)
    (1 missing value generated)

143 .
144 . gen d_ln_pb_jatim_neg = cond(d_ln_pb_jatim < 0, d_ln_pb_jatim, 0)

145 .
146 . gen d_ln_t_jatim = ln_t_jatim - ln_t_jatim[_n-1]
    (1 missing value generated)

147 .
148 . gen d_ln_t_jatim_pos = cond(d_ln_t_jatim > 0, d_ln_t_jatim, 0)
    (1 missing value generated)

149 .
150 . gen d_ln_t_jatim_neg = cond(d_ln_t_jatim < 0, d_ln_t_jatim, 0)

151 . * REGRESI MODEL HOUCK

152 .
153 . * 1 MODEL TERHADAP PRODUSEN

154 .
155 . reg ln_p_jatim d_ln_pb_jatim_pos d_ln_pb_jatim_neg d_ln_t_jatim_pos d_ln_t_jatim_neg

          Source |       SS           df       MS      Number of obs   =     1,275
    -------------+----------------------------------   F(4, 1270)      =      0.93
           Model |  .003236555         4  .000809139   Prob > F        =    0.4475
        Residual |  1.10887949     1,270  .000873133   R-squared       =    0.0029
    -------------+----------------------------------   Adj R-squared   =   -0.0002
           Total |  1.11211605     1,274  .000872933   Root MSE        =    .02955

    ------------------------------------------------------------------------------------
            ln_p_jatim | Coefficient  Std. err.      t    P>|t|     [95% conf. interval]
    -------------------+----------------------------------------------------------------
    d_ln_pb_jatim_pos |    .102437   .2333833     0.44   0.661    -.3554222    .5602962
    d_ln_pb_jatim_neg |  -.3727291   .2716352    -1.37   0.170    -.9056321     .160174
     d_ln_t_jatim_pos |  -.4103999   .3148649    -1.30   0.193    -1.028113    .2073127
     d_ln_t_jatim_neg |   .1589575   .3732276     0.43   0.670    -.5732529    .8911679
                _cons |   11.60836   .0008997  1.3e+04   0.000     11.60659    11.61012
    ------------------------------------------------------------------------------------
```

```
156 .
157 . * Uji Asimetri dengan Wald

158 .
159 . test d_ln_pb_jatim_pos = d_ln_pb_jatim_neg

 ( 1)  d_ln_pb_jatim_pos - d_ln_pb_jatim_neg = 0

       F(  1,  1270) =    1.74
            Prob > F =    0.1878

160 .
161 . test d_ln_t_jatim_pos = d_ln_t_jatim_neg

 ( 1)  d_ln_t_jatim_pos - d_ln_t_jatim_neg = 0

       F(  1,  1270) =    1.27
            Prob > F =    0.2606

162 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_Jabar yaitu 0,1878 > 0,05, maka pedagang besar tidak mem
    > hadap pasar produsen

163 .
164 . * Berdasarkan uji wald diketahui bahwa nilai statistik T_Jabar yaitu 0,2606 > 0,05, maka pasar tradisional tidak m
    > erhadap pasar produsen

165 .
166 . * ___________________________________________________________

167 .
168 . * 2 MODEL TERHADAP PEDAGANG BESAR

169 . reg ln_pb_jatim d_ln_p_jatim_pos d_ln_p_jatim_neg d_ln_t_jatim_pos d_ln_t_jatim_neg
```

Source	SS	df	MS			
				Number of obs	=	1,275
				F(4, 1270)	=	4.33
Model	.011859846	4	.002964962	Prob > F	=	0.0018
Residual	.869670735	1,270	.00068478	R-squared	=	0.0135
				Adj R-squared	=	0.0103
Total	.881530582	1,274	.000691939	Root MSE	=	.02617

ln_pb_jatim	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_p_jatim_pos	-.0216312	.2476127	-0.09	0.930	-.5074062	.4641438
d_ln_p_jatim_neg	.351434	.2631028	1.34	0.182	-.1647299	.8675978
d_ln_t_jatim_pos	.4636821	.2747738	1.69	0.092	-.0753784	1.002743
d_ln_t_jatim_neg	-1.226476	.3305497	-3.71	0.000	-1.874959	-.577992
_cons	11.62538	.0008014	1.5e+04	0.000	11.62381	11.62695

```
170 .
171 . * Uji Asimetri dengan Wald
```

```
172 .
173 . test d_ln_p_jatim_pos = d_ln_p_jatim_neg

 ( 1)  d_ln_p_jatim_pos - d_ln_p_jatim_neg = 0

       F(  1,  1270) =    1.05
            Prob > F =    0.3063

174 .
175 . test d_ln_t_jatim_pos = d_ln_t_jatim_neg

 ( 1)  d_ln_t_jatim_pos - d_ln_t_jatim_neg = 0

       F(  1,  1270) =   14.40
            Prob > F =    0.0002

176 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_Jabar yaitu 0,3063 > 0,05, maka produsen tidak memiliki a
    > edagang besar

177 .
178 . * Berdasarkan uji wald diketahui bahwa nilai statistik T_Jabar yaitu 0,0002 < 0,05, maka pasar tradisional memilik
    > p pedagang besar

179 .
180 . * __________________________________________________________

181 .
182 . * 3 MODEL TERHADAP PASAR TRADISIONAL

183 . reg ln_t_jatim d_ln_p_jatim_pos d_ln_p_jatim_neg d_ln_pb_jatim_pos d_ln_pb_jatim_neg
```

Source	SS	df	MS			
				Number of obs	=	1,275
				F(4, 1270)	=	6.40
Model	.020398965	4	.005099741	Prob > F	=	0.0000
Residual	1.01197118	1,270	.000796828	R-squared	=	0.0198
				Adj R-squared	=	0.0167
Total	1.03237015	1,274	.000810338	Root MSE	=	.02823

ln_t_jatim	Coefficient	Std. err.	t	P>|t|	[95% conf.	interval]
d_ln_p_jatim_pos	.0340003	.2671116	0.13	0.899	-.4900282	.5580288
d_ln_p_jatim_neg	.3919623	.2837517	1.38	0.167	-.1647113	.9486359
d_ln_pb_jatim_pos	.8999258	.2196904	4.10	0.000	.4689297	1.330922
d_ln_pb_jatim_neg	-.6823089	.2594657	-2.63	0.009	-1.191337	-.1732804
_cons	11.70303	.0008159	1.4e+04	0.000	11.70143	11.70463

```
184 .
185 . * Uji Asimetri dengan Wald

186 .
187 . test d_ln_p_jatim_pos = d_ln_p_jatim_neg

 ( 1)  d_ln_p_jatim_pos - d_ln_p_jatim_neg = 0

       F(  1,  1270) =    0.83
            Prob > F =    0.3626
```

```
188 .
189 . test d_ln_pb_jatim_pos = d_ln_pb_jatim_neg

     ( 1)  d_ln_pb_jatim_pos - d_ln_pb_jatim_neg = 0

           F(  1,  1270) =   21.35
                Prob > F =    0.0000

190 . * Berdasarkan uji wald diketahui bahwa nilai statistik P_Jabar yaitu 0,3626 > 0,05, maka produsen tidak memiliki a
    > pasar tradisional

191 .
192 . * Berdasarkan uji wald diketahui bahwa nilai statistik PB_Jabar yaitu 0,0000 < 0,05, maka pedagang besar memiliki
    > ppasar tradisional

193 . *____________________________________________________________

194 . *  Coba Uji Persamaan lain

195 . gen d_ln_pb_jatim = ln_pb_jatim - ln_pb_jatim[_n-1]
    variable d_ln_pb_jatim already defined
    r(110);

196 . gen d_ln_pb_jatim = ln_pb_jatim
    variable d_ln_pb_jatim already defined
    r(110);

197 . * SELESAI

198 . * ALHAMDULILLAH JAWA TIMUR SUDAH SELESAI

199 . save "C:\Users\hp\Downloads\HASIL JAWA TIMUR.dta"
    file C:\Users\hp\Downloads\HASIL JAWA TIMUR.dta saved

200 .
```