Examen final

Saturday, January 8, 2022 9:07 AM

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Notes:
      1.  Unicode is supported; see help unicode_advice.
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      3.  Maximum number of variables is set to 5000; see help set_maxvar.

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. use "D:\SERIE 400\ECONOMETRÍA I\PRACTICA CALIFICADA 3\Supply_y_Demand.dta"

. log using practica3
-------------------------------------------------------------------------------
-------------------------------------------------
      name:  <unnamed>
       log:  D:\SERIE 400\ECONOMETRÍA I\PRACTICA CALIFICADA 3\practica3.smcl
  log type:  smcl
 opened on:   8 Jan 2022, 07:03:09

. Evaluamos la condicion de orden, para ello primero debemos identificar las
exogenas y endogenas

. Q=α1+α2*P+α3*ps+α4*di+ed

. Q=β1+β2*P+β3*pf+es

Variables endógenas:ps di pf
Variables exógenas: P Q

- Condición de orden de la 1ra ecuación
  Número de variables excuidas en la 1ra ecuación: 1
```

```
  Número de variables endógenas al lado derecho de la 1ra ecuación: 1
como ambos valores son iguales, se concluye que la ecuación esta exactamente
identificada

- Condición de orden de la 1ra ecuación
  Número de variables excuidas en la 1ra ecuación: 2
  Número de variables endógenas al lado derecho de la 1ra ecuación: 1
como ambos valores son iguales, se concluye que la ecuación esta sobre identificada


. ****PREGUNTA 2****

. ***APLICANDO MCI***

. ***PARA ELLO, USAMOS ECUACIONES REDUCIDAS**

. reg p ps pf di

      Source |       SS           df       MS      Number of obs   =        30
-------------+----------------------------------   F(3, 26)        =     69.07
       Model |  9033.01906         3  3011.00635   Prob > F        =    0.0000
    Residual |  1133.45369        26  43.5943729   R-squared       =    0.8885
-------------+----------------------------------   Adj R-squared   =    0.8756
       Total |  10166.4728        29  350.568026   Root MSE        =    6.6026

------------------------------------------------------------------------------
           p |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ps |   1.712487   .3507337     4.88   0.000     .9915438    2.433431
          pf |   1.354409   .2982102     4.54   0.000      .741429    1.967389
          di |   7.759804    1.75577     4.42   0.000     4.150768    11.36884
       _cons |  -32.95381   7.971495    -4.13   0.000    -49.33945   -16.56817
------------------------------------------------------------------------------
. predict p_est
(option xb assumed; fitted values)


. reg q ps pf di

      Source |       SS           df       MS      Number of obs   =        30
-------------+----------------------------------   F(3, 26)        =     19.16
       Model |  424.909115         3  141.636372   Prob > F        =    0.0000
    Residual |  192.227696        26  7.39337293   R-squared       =    0.6885
-------------+----------------------------------   Adj R-squared   =    0.6526
       Total |  617.136811        29  21.2805797   Root MSE        =    2.7191

------------------------------------------------------------------------------
           q |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          ps |   .6659558   .1444387     4.61   0.000     .3690577    .9628538
```

```
          pf |  -.4966312   .1228085    -4.04   0.000    -.7490678   -.2441947
          di |   2.112489   .7230588     2.92   0.007     .6262203    3.598758
       _cons |    7.69336   3.282811     2.34   0.027     .9454456    14.44127
------------------------------------------------------------------------------
. predict q_est
(option xb assumed; fitted values)
```

PREGUNTA C

- P=(Q-α1-α3*ps-α4*di-ed)/α2

```
reg p q ps di

      Source |       SS           df       MS      Number of obs   =        30
-------------+----------------------------------   F(3, 26)        =     34.95
       Model |  8146.18316         3  2715.39439   Prob > F        =    0.0000
    Residual |   2020.2896        26  77.7034462   R-squared       =    0.8013
-------------+----------------------------------   Adj R-squared   =    0.7783
       Total |  10166.4728        29  350.568026   Root MSE        =     8.815

------------------------------------------------------------------------------
           p |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
           q |   .1991848   .4981431     0.40   0.693    -.8247631    1.223133
          ps |   1.330692   .5954783     2.23   0.034     .1066686    2.554715
          di |   12.58389   1.858965     6.77   0.000     8.762735    16.40505
       _cons |  -14.30451   9.102456    -1.57   0.128    -33.01488    4.405853
------------------------------------------------------------------------------
```

- P=(Q-β1-β3*pf-es)/β2

```
 reg p q pf

      Source |       SS           df       MS      Number of obs   =        30
-------------+----------------------------------   F(2, 27)        =    271.16
       Model |  9684.32509         2  4842.16254   Prob > F        =    0.0000
    Residual |   482.14767        27  17.8573211   R-squared       =    0.9526
-------------+----------------------------------   Adj R-squared   =    0.9491
       Total |  10166.4728        29  350.568026   Root MSE        =    4.2258

------------------------------------------------------------------------------
           p |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
           q |    2.66509   .1722035    15.48   0.000     2.311758    3.018423
          pf |   2.922851   .1491423    19.60   0.000     2.616836    3.228865
       _cons |  -52.94449   5.055725   -10.47   0.000    -63.31798     -42.571
------------------------------------------------------------------------------
```

PREGUNTA D

Teniendo las ecuaciones de oferta y demanda en funcion de su precio, hacemos la regresión

```
 ivregress 2sls p (q= pf) ps di

Instrumental variables (2SLS) regression          Number of obs   =         30
                                                  Wald chi2(3)    =      57.63
                                                  Prob > chi2     =     0.0000
                                                  R-squared       =     0.5375
                                                  Root MSE        =     12.519

------------------------------------------------------------------------------
           p |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
           q |  -2.727192    1.13854    -2.40   0.017     -4.95869   -.4956942
          ps |   3.528677   1.078955     3.27   0.001     1.413963    5.64339
          di |   13.52097   2.655544     5.09   0.000     8.316197    18.72574
       _cons |  -11.97254     12.947    -0.92   0.355     -37.3482    13.40312
------------------------------------------------------------------------------
Instrumented:  q
Instruments:   ps di pf

. ivregress 2sls p (q= ps di)

Instrumental variables (2SLS) regression          Number of obs   =         30
                                                  Wald chi2(1)    =      15.93
                                                  Prob > chi2     =     0.0001
                                                  R-squared       =     0.0354
                                                  Root MSE        =      18.08

------------------------------------------------------------------------------
           p |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
           q |   4.138825   1.036959     3.99   0.000     2.106423    6.171228
       _cons |  -13.67182   19.42309    -0.70   0.481    -51.74037    24.39674
------------------------------------------------------------------------------
Instrumented:  q
Instruments:   ps di

.
```