. ~~miop~~ **ziop2** y3 spreada in 5/214, ~~z~~**x**(pb houst gdp ) infcat(2) ~~correlated~~ **endoswitch**

**Run estimation of two-part zero-inflated ordered probit (ZIOP-2) model with endogenous switching**

~~Run initial ZIOP estimation~~

~~Calculating initial values~~ **Computing starting values:**

~~First stage OP~~ **Independent regime equation**

Iteration 0: f(p) = -142.06173

Iteration 1: f(p) = -136.43304

Iteration 2: f(p) = -136.41659

Iteration 3: f(p) = -136.41659

~~Second stage OP~~ **Independent outcome equation**

Iteration 0: f(p) = -179.43636

Iteration 1: f(p) = -139.85907

Iteration 2: f(p) = -138.71861

Iteration 3: f(p) = -138.71211

Iteration 4: f(p) = -138.71211

Estimating ~~ZIOP~~ **ZIOP-2**  ~~core stage~~ **with exogenous switching**

Attempt 0

Iteration 0: f(p) = -170.0337

Iteration 1: f(p) = -132.4871

Iteration 2: f(p) = -131.64809

Iteration 3: f(p) = -131.58825

Iteration 4: f(p) = -131.58796

Iteration 5: f(p) = -131.58796

Calculation completed

~~ZIOP estimation completed~~ **Estimation of** **ZIOP-2** **with exogenous switching successful**

Estimating ~~ZIOPC core stage~~ **ZIOP-2** **with endogenous switching**

Attempt 0

Iteration 0: f(p) = -131.58796 (not concave)

Iteration 1: f(p) = -130.78335

Iteration 2: f(p) = -129.69522

Iteration 3: f(p) = -129.55338

Iteration 4: f(p) = -129.54751

Iteration 5: f(p) = -129.5474

Iteration 6: f(p) = -129.5474

~~Calculation~~ **Estimation** completed

**Two-part zero-inflated ordered probit model** **with endogenous switching**

**Number of observations =**

**Log likelihood =**

------------------------------------------------------------------------------

y3 | Coef. Std. Err. z P>|z| [95% Conf. Interval]

-------------+----------------------------------------------------------------

~~select~~ **Regime equation** |

spreada | 1.280861 .4493158 2.85 0.004 .4002178 2.161503

**delete this line** -------------+----------------------------------------------------------------

**/cut** |

~~\_cons~~ | -.0432652 .3058899 -0.14 0.888 -.6427984 .556268

-------------+----------------------------------------------------------------

~~y3~~ **Outcome equation** |

pb | .9285949 .2982107 3.11 0.002 .3441127 1.513077

houst | 2.905107 1.004691 2.89 0.004 .9359492 4.874264

gdp | .4767936 .0929038 5.13 0.000 .2947055 .6588816

**delete this line** -------------+----------------------------------------------------------------

**/cut1**  |

~~\_cons~~ | 5.643849 1.774094 3.18 0.001 2.166689 9.121008

**delete this line** -------------+----------------------------------------------------------------

**/cut2** |

~~\_cons~~ | 7.374571 1.776228 4.15 0.000 3.893228 10.85591

-------------+----------------------------------------------------------------

~~rho~~ **Corrrelation coefficient** |

~~\_cons~~ **rho** | -.9464713 .1026039 -9.22 0.000 -1.147571 -.7453713

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