

Lampiran

Heteroskedastitas

. hettest

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance

Variables: fitted values of tpak

chi2(1) = 0.04

Prob > chi2 = 0.8448

Multikolinearitas

. estat vif

Variable	VIF	1/VIF
ipm	1.54	0.649791
lpdrb	1.49	0.673032
aps	1.29	0.774233
lump	1.22	0.818865
Mean VIF	1.38	

Common Effect

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. reg tpak lpdrb lump aps ipm
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Source	SS	df	MS	Number of obs =	198
Model	280.087184	4	70.0217959	F(4, 193) =	4.77
Residual	2832.57265	193	14.6765422	Prob > F =	0.0011
Total	3112.65984	197	15.8003037	R-squared =	0.0900
				Adj R-squared =	0.0711
				Root MSE =	3.831

tpak	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lpdrb	.3329196	.2375073	1.40	0.163	-.1355236	.8013628
lump	-.910265	1.000185	-0.91	0.364	-2.882962	1.062432
aps	-.0189189	.0405926	-0.47	0.642	-.0989811	.0611432
ipm	-.2788802	.0775043	-3.60	0.000	-.4317444	-.126016
_cons	95.49963	14.04179	6.80	0.000	67.80455	123.1947

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Fixed Effect

Fixed-effects (within) regression
 Group variable: prov

Number of obs = 198
 Number of groups = 39

R-sq: within = 0.3236
 between = 0.0371
 overall = 0.0451

Obs per group: min = 2
 avg = 5.1
 max = 6

corr(u_i, Xb) = -0.3883

F(4,155) = 18.54
 Prob > F = 0.0000

tpak	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lpdrb	1.296647	.2777909	4.67	0.000	.7479023	1.845392
lump	-1.674173	1.131644	-1.48	0.141	-3.909607	.561262
aps	-.176936	.0640617	-2.76	0.006	-.3034826	-.0503894
ipm	-.294591	.2850632	-1.03	0.303	-.8577012	.2685191
_cons	100.0084	14.99777	6.67	0.000	70.38198	129.6348
sigma_u	3.9926541					
sigma_e	1.171964					
rho	.92067476	(fraction of variance due to u_i)				

F test that all u_i=0: F(38, 155) = 50.19 Prob > F = 0.0000

Random Effect

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. xtreg tpak lpdrb lump aps ipm, re
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Random-effects GLS regression           Number of obs   =       198
Group variable: prov                   Number of groups =        39

R-sq:  within = 0.3181                 Obs per group:  min =         2
      between = 0.0723                               avg =         5.1
      overall  = 0.0715                               max =         6

                                           Wald chi2(4)     =       72.52
corr(u_i, X) = 0 (assumed)             Prob > chi2      =       0.0000

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tpak	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
lpdrb	1.019291	.2436764	4.18	0.000	.5416941	1.496888
lump	-1.625281	.8736581	-1.86	0.063	-3.33762	.0870573
aps	-.1112029	.0469021	-2.37	0.018	-.2031294	-.0192764
ipm	-.3917507	.1362889	-2.87	0.004	-.6588722	-.1246293
_cons	107.3798	11.86102	9.05	0.000	84.13258	130.6269
sigma_u	3.7430447					
sigma_e	1.171964					
rho	.91071828	(fraction of variance due to u_i)				

Uji Hausman

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. hausman fe re
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	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
lpdrb	1.296647	1.019291	.2773559	.1333778
lump	-1.674173	-1.625281	-.0488915	.7192629
aps	-.176936	-.1112029	-.0657331	.0436359
ipm	-.294591	-.3917507	.0971597	.2503724

b = consistent under Ho and Ha; obtained from xtreg
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(4) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 5.28 \\ \text{Prob}>\text{chi2} &= 0.2593 \end{aligned}$$

Uji Chow

 F test that all u_i=0: F(38, 155) = 50.19 Prob > F = 0.0000