Econometric estimation

Pooled estimator

Random effects estimator

Fixed effects estimator

Poisson pseudo-maximum-likelihood estimator

For regressors not in logs, the semi-elasticity is given by 100*(exp(beta) - 1)%.

https://www.statalist.org/forums/forum/general-stata-discussion/general/1458657-interpretation-of-coefficients-in-gravity-model-using-ppml-dummies

Hausman test

```
resettest(formula_poisson, power = 2, type = 'regressor', data = gravity)
```

RESET test

```
##
##  RESET test
##
## data:  formula_poisson
## RESET = 21.839, df1 = 9, df2 = 1542, p-value < 2.2e-16
```

Results

% Table created by stargazer v.5.2.3 by Marek Hlavac, Social Policy Institute. E-mail: marek.hlavac at gmail.com % Date and time: Fri, Jul 01, 2022 - 10:09:21

Table 1:

	POLS	REE	FEE	PPML
	(1)	(2)	(3)	(4)
Suma bilateral del producto interno bruto	2.428***	1.718***	1.674***	0.971***
	(0.476)	(0.093)	(0.077)	(0.017)
Diferencia en la dotación relativa de factores	0.434	−0.125	−0.170	0.168**
	(0.539)	(0.187)	(0.154)	(0.081)
Similitud en el tamaño de las economías	11.410***	5.441***	5.045***	2.483***
	(4.197)	(0.786)	(0.514)	(0.247)
Distancia entre principales centros urbanos	−2.092***	−2.554***	−2.589***	−1.117***
	(0.307)	(0.092)	(0.113)	(0.054)
Fronteras en común	−0.752	−1.632***	−1.703***	−0.275**
	(0.677)	(0.165)	(0.117)	(0.111)
Lenguaje en común	3.914**	1.136***	0.947***	0.041
	(1.744)	(0.179)	(0.119)	(0.205)
Colonizador en común	−2.320**	−0.923***	−0.858***	0.632***
	(1.072)	(0.220)	(0.218)	(0.089)
Índice de similitud en creencias religiosas	−1.991	−1.269***	−1.215***	0.199
	(1.878)	(0.234)	(0.162)	(0.323)
Acuerdos comerciales regionales	0.579	0.671*	0.689*	0.565***
	(0.450)	(0.368)	(0.353)	(0.090)
Constante	−33.028**	−9.726***		
	(14.829)	(2.343)		
N	1,560	1,560	1,560	1,560
R^2	0.640	0.613	0.559	
Adjusted R^2	0.638	0.611	0.548	
F Statistic	306.748***	1,956.964***	214.204***	
Pseudo R^2				0.915

Notes:
***Significant at the 1 percent level.
**Significant at the 5 percent level.
*Significant at the 10 percent level.