Appendix for "The emergence of regulatory regionalism: transnational networks and the diffusion of regulatory agencies within regions"

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Supplemental Online material, not meant for publication

Abstract

Technical documentation of the article "The emergence of regulatory regionalism: transnational networks and the diffusion of regulatory agencies within regions" (`http://dx.doi.org/10.1080/13569775.2015.1010776`), including description of the database and models for robustness checks.

1 Agency coverage by country

	Country	Agencification
1	Norway	1.00
2	Portugal	1.00
3	United Kingdom	1.00
4	Slovak Republic	1.00
5	Argentina	0.93
6	Ireland	0.93
7	Sweden	0.93
8	Australia	0.93
9	Hungary	0.93
10	Brazil	0.87
11	Chile	0.87
12	Mexico	0.87
13	Denmark	0.87
14	France	0.87
15	United States	0.87
16	Czech Republic	0.87
17	Poland	0.87
18	Colombia	0.80
19	Austria	0.80
20	Belgium	0.80
21	Finland	0.80
22	Germany	0.80
23	Netherland	0.80
24	Iceland	0.80
25	Bolivia	0.73
26	Costa Rica	0.73
27	Peru	0.73
28	Italy	0.73
29	Luxembourg	0.73
30	Korea	0.73
31	Malaysia	0.73
32	Singapore	0.73
33	Dominican Republic	0.67
34	Uruguay	0.67
35	Venezuela	0.67
36	Greece	0.67
37	Japan	0.67
38	Philippines	0.67
39	Nicaragua	0.60
40	Panama	0.60
41	Spain	0.60
42	New Zealand	0.60
43	Canada	0.60
44	China	0.60
45	Thailand	0.60
46	Hondouras	0.53
47	Switzerland	0.53
48	El Salvador	0.47
49	Turkey	0.47
50	Laos	0.47
51	Ecuador	0.40
52	Paraguay	0.40
53	Indonesia	0.40
54	Vietnam	0.33
55	Cuba	0.27
56	Guatemala	0.27
57	Cambodia	0.20
58	Brunei	0.07
59	Myanmar	0.07

Table 1: Agency coverage by country in 2007.

2 General Time Evolution and Country Differences

All the models include both a temporal dynamic (expressed by δ) in the equations and the errors clustered by country (expressed by ϕ_c). Those parameters, while being part of the estimation processes, are not really relevant for the substantial analysis. They are shown for the model represented by Equation 1 in Figures 1 and 2, respectively.

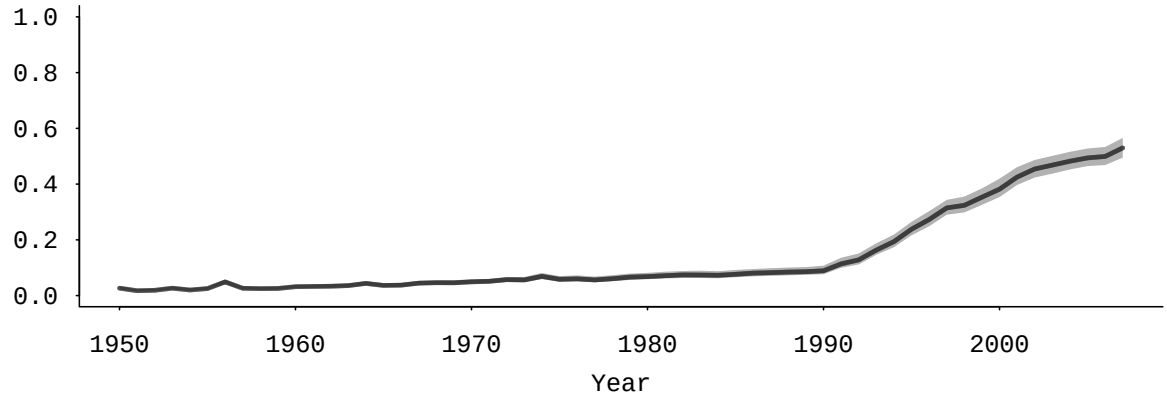

Figure 1: Expected probability of agency coverage for the mean countries. Line represents the mean and grey areas the 95% credible intervals of the posterior for the parameters of the temporal dimension of diffusion of regulatory agencies, represented by the δ_t parameters (Equation 1).

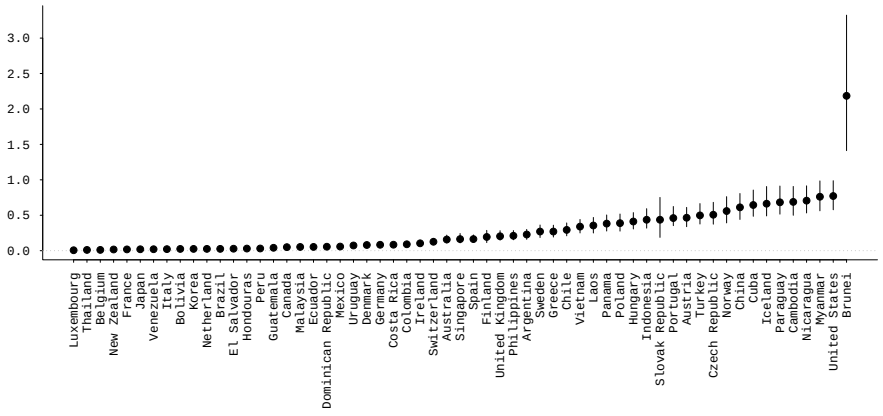

Figure 2: Error ($1/\phi_c$) for every country in the basic model (Equation 1).

3 Robustness checks

3.1 OLS estimation

Table 2 presents the OLS results of basic model in Equation 1. The model is estimated with simple linear regression without clustering and without the Kalman filter for the time trend.

3.2 Linear Models

Figure 3 shows the comparison between the simple model presented in the article (Equation 1) and the simple model estimated with Bayesian inference, clustering within countries, a Kalman filter but with the outcome being distributed normally (as in OLS regression), instead of using beta regression.

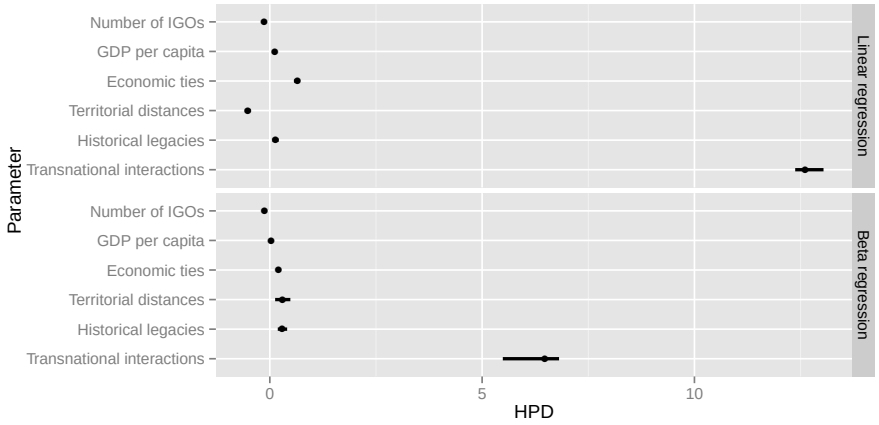

Figure 3: Comparison between two models: the article Beta regression model and a linear regression one.

	Estimate	Std. Error	t value	Pr(>|t|)
(Intercept)	-8.86	0.37	-23.97	0.000
as.factor(d.time)2	-1.71	0.46	-3.68	0.000
as.factor(d.time)3	-1.42	0.46	-3.08	0.002
as.factor(d.time)4	0.08	0.46	0.18	0.860
as.factor(d.time)5	-1.26	0.46	-2.72	0.007
as.factor(d.time)6	-1.02	0.46	-2.23	0.026
as.factor(d.time)7	3.16	0.47	6.70	0.000
as.factor(d.time)8	-0.98	0.46	-2.13	0.033
as.factor(d.time)9	-0.86	0.46	-1.87	0.062
as.factor(d.time)10	-0.84	0.46	-1.82	0.069
as.factor(d.time)11	0.17	0.46	0.37	0.711
as.factor(d.time)12	0.20	0.46	0.45	0.655
as.factor(d.time)13	0.16	0.46	0.35	0.724
as.factor(d.time)14	0.30	0.46	0.67	0.504
as.factor(d.time)15	1.34	0.46	2.93	0.003
as.factor(d.time)16	0.27	0.45	0.59	0.556
as.factor(d.time)17	0.34	0.45	0.74	0.460
as.factor(d.time)18	1.10	0.45	2.41	0.016
as.factor(d.time)19	0.89	0.45	1.95	0.051
as.factor(d.time)20	0.82	0.45	1.80	0.073
as.factor(d.time)21	1.21	0.45	2.67	0.008
as.factor(d.time)22	1.27	0.45	2.81	0.005
as.factor(d.time)23	1.62	0.45	3.58	0.000
as.factor(d.time)24	1.26	0.45	2.80	0.005
as.factor(d.time)25	2.03	0.45	4.49	0.000
as.factor(d.time)26	1.01	0.45	2.25	0.025
as.factor(d.time)27	1.34	0.45	2.99	0.003
as.factor(d.time)28	1.05	0.45	2.33	0.020
as.factor(d.time)29	1.36	0.45	3.03	0.002
as.factor(d.time)30	1.60	0.45	3.54	0.000
as.factor(d.time)31	1.64	0.45	3.64	0.000
as.factor(d.time)32	1.73	0.45	3.84	0.000
as.factor(d.time)33	1.84	0.45	4.09	0.000
as.factor(d.time)34	1.86	0.45	4.12	0.000
as.factor(d.time)35	1.91	0.45	4.24	0.000
as.factor(d.time)36	2.11	0.45	4.69	0.000
as.factor(d.time)37	2.22	0.45	4.93	0.000
as.factor(d.time)38	2.33	0.45	5.19	0.000
as.factor(d.time)39	2.39	0.45	5.30	0.000
as.factor(d.time)40	2.40	0.45	5.33	0.000
as.factor(d.time)41	2.63	0.45	5.84	0.000
as.factor(d.time)42	3.34	0.45	7.41	0.000
as.factor(d.time)43	3.44	0.45	7.63	0.000
as.factor(d.time)44	4.26	0.45	9.50	0.000
as.factor(d.time)45	4.70	0.45	10.45	0.000
as.factor(d.time)46	5.34	0.45	11.82	0.000
as.factor(d.time)47	5.58	0.45	12.36	0.000
as.factor(d.time)48	6.09	0.45	13.43	0.000
as.factor(d.time)49	6.00	0.45	13.26	0.000
as.factor(d.time)50	6.20	0.45	13.71	0.000
as.factor(d.time)51	6.28	0.45	13.89	0.000
as.factor(d.time)52	6.51	0.45	14.39	0.000
as.factor(d.time)53	6.70	0.45	14.79	0.000
as.factor(d.time)54	6.93	0.45	15.26	0.000
as.factor(d.time)55	7.00	0.45	15.46	0.000
as.factor(d.time)56	7.22	0.45	15.92	0.000
as.factor(d.time)57	7.24	0.45	15.98	0.000
as.factor(d.time)58	7.46	0.45	16.44	0.000
log.gdp.cap.sc	0.50	0.05	10.71	0.000
igo.number.sc	0.07	0.04	1.61	0.107
d.W.dist.sc	-1.02	0.23	-4.52	0.000
d.W.imp.sc	1.27	0.06	20.65	0.000
d.W.igo.sector.economic.sc	20.74	1.07	19.33	0.000
d.W.hist.sc	0.93	0.12	7.63	0.000

Table 2: OLS estimates for the simple model in Equation 1.