

Appendix

In this appendix I detail my case selection and sources and I provide descriptive statistics on the variables. In addition, I provide arguments for my choice for introducing four dummy variables to control for electoral alliances and I discuss the robustness of the results for the state of the economy variables and their interactions with party type.

Case selection

There are 16 Central and Eastern European countries, seven of which are small and do not have regions or have very weak regions with indirect regional elections. These countries are Albania, Bulgaria, Estonia, Latvia, Lithuania, Macedonia, and Slovenia. There are three federations in the region (Bosnia and Herzegovina, Russia, and Serbia and Montenegro until 2006) where there is a lot of stake in regional elections and this is the reason why I exclude them from the analysis; i.e. they do not approach the ideal type of a second-order election. At least three regional elections have been held in Croatia, the Czech Republic, Poland, Hungary, Romania and Slovakia.

Among the regional governments which hold direct elections Central and Eastern European regions score on the low end of Regional Authority Index (Hooghe, Liesbet, Marks, Gary, Schakel, Arjan H. (2010) *The Rise of Regional Authority. A Comparative Study of 42 Democracies*. Abingdon: Routledge). This index measures regional authority along two dimensions: self-rule –authority exercised over those people living in the region– and shared rule –authority exercised in the country as a whole. None of the regions in the six countries exercise shared rule –except for Croatia between 1993 and 1997; see below– and thereby have no direct relevance for national, first-order politics. The index scores on self-rule run from 0 to 15 and the scores for our six countries go from a minimum of six in Slovakia, through seven in the Czech Republic and Romania, and eight in Poland, to the maximum of nine in Croatia and Hungary. In comparison, the counties in Scandinavian countries, often referred to as local government, score ten.

The comparatively low regional authority index scores make regional elections in Central and Eastern European countries ideal candidates to study second-order election effects. In addition, the timing of regional elections in the national election cycle spans almost the full range of four years: regional elections take place after the preceding national election at about half a year (Hungary: 173 days on average), just after one year (Poland: 393 days except in 2010: 1154 days), around one year and a half (Croatia: 477 days), after two and a half years (Czech Republic: 860 days), at about three years (the Slovak Republic: 1062 days) and half a year before the next national election (Romania: 1251 days).

At first sight, regional turnout seems to relate to the national election cycle. Regional turnout is about 45% to 55% in Hungary, Poland and Croatia, drops to 35% and 22% in the Czech Republic and the Slovak Republic, and increases to 54% in Romania. The difference in regional turnout in the Czech Republic and the Slovak Republic on the one hand and Croatia, Hungary, Poland, and Romania on the other hand can (also) be explained by the former holding simultaneous regional elections (horizontal simultaneity) while the latter group of countries hold simultaneous regional and local elections (horizontal and vertical simultaneity). Holding elections together may increase the combined ‘stakes’ of elections and voters may be more inclined to vote (Schakel and Dandoy 2014, *West European Politics* 37(3): 605-623). A further indication for this hypothesis is given by the large standard deviation for turnout in regional elections in Croatia (figure 1). Until 2000, each county government (*županija*) had three directly

elected representatives in the upper house, the Chamber of counties (*Županijski dom*). Upper chamber elections were held simultaneously with the 1993 and 1997 county assembly elections and average regional turnout was 65% respectively 71%. Average regional turnout declined to 48%, 44% and 48% for, respectively, the 2001, 2005 and 2009 elections.

Sources election data

National election data disaggregated at the constituency level is taken from Daniel Bochsler (2010) *Territory and Electoral Rules in Post-Communist Countries*. Houndsmills: Palgrave Macmillan. Data can be downloaded from <http://www.bochsler.eu/ceedata/> Note that in this article data is aggregated to the regional level, that is, at the level where democratic institutions (elections to a regional assembly) are in place whereas Bochsler looks at the constituency level.

Regional election data and a codebook with further notes is available from <http://www.arjanschakel.nl> I am indebted to Ivan Kopric (University of Zagreb) and Irena Kravos (the State Election Commission) for help with obtaining Croatian election data; to Phillipp Studinger (University of Konstanz) for help with processing election data from the Czech Republic, Hungary, and the Slovak Republic; and to István Székely (Central European University) for retrieving Romanian electoral data.

Croatia: Državno Izbornno Povjerenstvo Republike Hrvatske (Central Electoral Commission of the Republic Croatia) <http://www.izbori.hr>

Czech Republic: Český statistický úřad (Czech Republic Statistical Office Election Server) <http://www.volby.cz/>

Hungary: Országos Választás Bizottság (Central Electoral Commission of Hungary) <http://www.valasztas.hu>

Poland: Państwowa Komisja Wyborcza (National Election Commission Poland): <http://www.pkw.gov.pl>

Romania: Biroul Electoral Central (Central Electoral Commission): <http://www.beclocale2008.ro/documm/Consilieri%20Judeteni/Partide%20Localitatii/cipartpeloc.pdf>

Slovak Republic: Štatisický úrad Slovenskej republiky (Statistical Office of the Slovak Republic) <http://portal.statistics.sk/showdoc.do?docid=5683>

Table A1: Descriptive statistics (number of observations is 4465).

Variable	Mean	Std. Dev.	Min	Max
Vote share swing	-0.27	7.76	-65.60	51.79
GDP growth	4.01	3.19	-6.95	8.49
Inflation	16.30	16.31	0.93	45.67
Unemployment	9.30	3.55	4.39	19.94
Government main	0.11	0.31	0	1
interaction GDP growth	0.42	1.61	-6.95	8.49
interaction inflation	1.37	6.13	0	45.67
interaction unemployment	1.02	3.17	0	19.94
Government other	0.18	0.38	0	1
interaction GDP growth	0.72	2.10	-6.95	8.49
interaction inflation	3.29	10.32	0	45.67
interaction unemployment	1.70	4.03	0	19.94
Opposition main	0.11	0.31	0	1
interaction GDP growth	0.42	1.62	-6.95	8.49
interaction inflation	1.37	6.14	0	45.67
interaction unemployment	1.02	3.17	0	19.94
Opposition other	0.30	0.46	0	1
interaction GDP growth	1.15	2.49	-6.95	8.49
interaction inflation	4.79	11.34	0	45.67
interaction unemployment	2.76	4.58	0	19.94
New	0.08	0.27	0	1
interaction GDP growth	0.30	1.27	-6.95	8.49
interaction inflation	1.58	7.37	0	45.67
interaction unemployment	0.79	2.89	0	19.94
No seat	0.23	0.42	0	1
interaction GDP growth	0.99	2.34	-6.95	8.49
interaction inflation	3.87	10.57	0	45.67
interaction unemployment	2.02	4.05	0	19.94
Party size	9.97	13.39	0	83.20
party size ²	279	618	0	6922
party size ³	7969	19422	0	146613
Out alliance national	0.05	0.22	0	1
In alliance national	0.12	0.33	0	1
Out alliance regional	0.11	0.31	0	1
In alliance regional	0.11	0.31	0	1
Dummy Croatia	0.17	0.38	0	1
Dummy Czech Republic	0.07	0.26	0	1
Dummy Hungary	0.15	0.36	0	1
Dummy Poland	0.10	0.30	0	1
Dummy Romania	0.46	0.50	0	1
Dummy Slovak Republic	0.05	0.22	0	1

Electoral alliances

Electoral alliances are a (very) common phenomenon in elections taking place in Central and Eastern Europe. Table A2 presents the incidence of electoral alliance strategies in six countries.

Table A2: Incidence of electoral alliances.

	Alliance		Total	% Yes
	Yes	No		
Croatia	447	327	774	57.75
Czech Republic	104	212	316	32.91
Hungary	158	518	676	23.37
Poland	80	361	441	18.14
Romania	663	1372	2035	32.58
Slovakia	129	94	223	58.85
Total	1581	2884	4465	35.41

Notes: shown are the number and percentages of vote share swings which involve electoral alliances.

Electoral alliance strategies may have varying impacts on regional and national vote shares. Table A3 illustrates this. When a party is in electoral alliance at the national, but not at the regional level, one may expect to observe a negative vote share change when one compares a regional vote share with the vote share obtained in the previous national election. In analogy, when a party is in an electoral alliance in a regional election but it was not in the previous national election, then one may expect to see a positive vote share change when vote shares between the regional and the previous national election are compared. I label the first situation ‘in alliance national’ and the second situation as ‘in alliance regional’.

Table A3: Effects of electoral alliance strategy on vote share change between the regional (R) and the previous national (N) election.

Electoral alliance strategy	Effect on vote shares		Result	Vote share change
	N	R		
In alliance national	+	>0	$N > R$	Negative
Out alliance national	>0	0	$N > R$	Negative
In alliance regional	>0	+	$N < R$	Positive
Out alliance regional	0	>0	$N < R$	Positive

Notes: + = the vote share of the electoral alliance is ascribed to the party; >0 = obtains a vote share above 0%; 0 = obtains a vote share of 0%.

Two other situations can arise as a result of electoral alliances. A party can contest a national election on its own and participate in a regional election via an electoral alliance where the vote share is ascribed to another party (‘out alliance national’). In this case, the party receives zero votes (but it does participate in the election!) in the regional election but obtains a vote share in the previous national election which has an effect that the change between the regional and the previous national election is a negative one. Similarly, a party can contest a regional election on

its own but in the previous national election it was in an electoral alliance with another party whereby the vote share is ascribed to the other party ('out alliance regional'). Now the party obtains a vote share of zero in the national election but receives some vote share in the regional election.

When studying vote shares for elections taking place in Central and Eastern Europe one has to accommodate for the abundance of electoral alliances. Unfortunately, the seat distribution cannot be used to allocate vote share across the partners of the electoral alliance because the seat distributions are not reported in official election data. A number of authors have proposed alternative strategies in order to account for electoral alliances. Bochsler (2010) assigns vote shares to the first party on the list and Koepke and Ringe (2006) distribute vote shares equally among the number of participants in the electoral alliance. These strategies are not preferred because the parties involved in an electoral alliance may differ substantially across the regions but often one ('senior') party participates in all electoral alliances across the regions. The choice of party alliance strategies is determined by how (senior) parties assess their chances for success. For example, in the 1997 county assembly elections in Croatia the HDZ, as a senior partner in electoral alliances, won absolute or relative majorities in 20 out of 21 regions. Therefore, my approach is to assign the vote share for the electoral alliance to the senior party (i.e. the party that obtained the largest vote share in the preceding national/regional election) and to include dummy variables for each of the four alliance strategies as identified above. In the next section I report on the robustness of the results when the vote shares for electoral alliances are excluded from the analysis.

Robustness

The results for the models presented in table 3 have been subject to several robustness tests. First, I have added variables to the models which tap into the extent to which second-order election effects depend on the timing of the regional election in the national election cycle. The SOE model expects that second-order effects behave in a cyclical manner: government parties lose in regional elections and this loss is highest at mid-term in the national election cycle but lower at the beginning and end. To assess this quadratic function, two variables are introduced (Marsh, 1998; Schmitt, 2005). A variable labeled 'cycle' indicates the timing of the regional election in the national election cycle. This variable is operationalized by dividing the number of days between the regional and the previous national election by the number of days in a complete national election cycle (four years in all countries). The second variable is obtained by squaring the cycle variable. Table A4 presents the results and what we may observe is that the state of the economy variables and their interactions with the party types remain statistically significant. The cycle and cycle squared variables are also statistically significant and since the main government party is the reference category these cycle variables pertain to them. However, the signs of the beta coefficient are in the opposite hypothesized direction and actually indicate that vote share swings for main government parties are highest at mid-term.

Hix and Marsh (2007) control for timing of the election by introducing an 'early' dummy variable which indicates whether the second-order election has been held within a year after the first-order election. The 'early' dummy variable is then interacted with a government dummy variable because a 'honeymoon' effect (positive vote share swing) should only occur for parties in national government within the first year after the first-order election. Table A5 presents the results when the early and early*government variables are added to the model. Similarly, to the results for the models which include the cycle variables, the early variables do not alter much of the effects of the state of the economy variables and their interactions with the party types. The

beta coefficient for the early*government variable is positive and statistically significant and thereby indicates the presence of a ‘honeymoon’ effect. However, the country dummy for Hungary is omitted from the model which is not surprising given that only regional elections in Hungary have been held within a year from national elections (see above). Inclusion of the early variable thus do not explain much variation beyond contextual differences between Hungary and the five countries and much variation in second-order election effects in the remaining five countries is still left to be explained.

Table A6 presents the results for the models when vote share swings which involve electoral alliances are excluded. A number of beta coefficients for the party dummies and their interactions with the state of the economy variables lose statistical significance. This is not surprising considering that the number of observations drop with a third (from 4465 to 2884, see table A2). Interestingly, the loss in statistical significance occurs mainly for the inflation and unemployment models. Many of the beta coefficients of the variables of interest in the GDP growth model retain or even gain statistical significance.

The results of a jackknife analysis are presented in table A7. A jackknife analysis runs the same model and excludes one regional election at the time. From this set of replicates an estimate of the variance in the beta coefficients can be calculated and these are reported in table A7. The results appear to be highly robust and exclusion of particular regional elections appears to have hardly any effect.

The state of the economy variables are measured at the national level and it changes between regional elections. This is the preferred method since the second-order election model assumes that voters react to first-order national politics. As a final robustness check, I included economic variables measured at the regional level (data obtained from Eurostat; regional level data is not available for inflation) which varies between regional elections but also across regions. The results are presented in table A8 and it appears that sign and statistical significance of the state of the economy and their interactions with the party type dummies are not affected. The size or magnitude of the beta coefficients, however, tends to be smaller which may indicate that, indeed, voters are more likely to consider the state of the economy for the country as a whole rather than for a particular region.

Table A4. A refined second-order election model: inclusion of cycle variables (Schmitt, 2005).

	GDP growth			Inflation			Unemployment		
	beta	s.e.	sig.	beta	s.e.	sig.	beta	s.e.	sig.
cycle	14.62	3.44	**	6.98	2.92	*	14.46	3.98	**
cycle ²	-12.18	2.91	**	-5.23	2.27	*	-12.56	3.32	**
state of the economy	0.36	0.18	*	-0.30	0.02	**	-0.44	0.11	**
government other	0.01	1.16		-5.87	0.84	**	-6.69	1.44	**
interaction economy	-0.39	0.18	*	0.27	0.03	**	0.56	0.13	**
opposition main	5.58	1.33	**	-2.68	1.02	**	-3.40	1.90	
interaction economy	-0.80	0.25	**	0.35	0.04	**	0.63	0.17	**
opposition other	0.46	1.14		-3.58	0.88	**	-5.19	1.37	**
interaction economy	-0.06	0.18		0.24	0.03	**	0.60	0.12	**
new	3.59	1.30	**	-3.17	0.94	**	-1.55	1.47	
interaction economy	-0.66	0.19	**	0.28	0.03	**	0.29	0.12	*
no representation	-1.90	1.21		-8.08	0.84	**	-6.51	1.34	**
interaction economy	-0.33	0.18		0.31	0.02	**	0.37	0.11	**
party size	-0.46	0.05	**	-0.42	0.05	**	-0.46	0.05	**
party size ²	0.002	0.001		0.002	0.001		0.002	0.001	**
party size ³	0.00004	0.00002	**	0.00001	0.00002		0.00005	0.00002	*
out alliance national	-5.66	0.34	**	-5.98	0.35	**	-6.27	0.34	**
in alliance national	-0.90	0.42	*	-0.08	0.40		-0.96	0.44	*
out alliance regional	3.25	0.40	**	3.59	0.39	**	3.43	0.42	**
in alliance regional	3.78	0.46	**	3.93	0.46	**	3.97	0.48	**
dummy Czech Republic	-0.33	0.39		0.02	0.39		0.00	0.41	
dummy Hungary	2.61	0.54	**	2.30	0.47	**	2.62	0.70	**
dummy Poland	1.42	0.27	**	1.44	0.25	**	1.76	0.25	**
dummy Romania	-0.38	0.47		0.52	0.38		0.32	0.46	
dummy Slovak Republic	-0.39	0.49		-0.02	0.52		0.07	0.52	
constant	-1.39	1.37		5.64	1.04	**	3.87	1.82	*
F	105**			104**			108**		
R ²	0.35			0.37			0.35		
Root MSE	6.27			6.16			6.28		

Table A5. A refined second-order election model: inclusion of early variables (Hix and Marsh, 2007)

	GDP growth			Inflation			Unemployment		
	beta	s.e.	sig.	beta	s.e.	sig.	beta	s.e.	sig.
early	-0.33	0.26		0.48	0.26		-0.30	0.31	
early*government	3.56	0.50	**	3.38	0.53	**	3.23	0.55	**
state of the economy	0.39	0.18	*	-0.30	0.02	**	-0.43	0.11	**
government other	-0.10	1.17		-6.13	0.83	**	-6.66	1.44	**
interaction economy	-0.41	0.18	*	0.27	0.03	**	0.53	0.13	**
opposition main	6.28	1.37	**	-2.00	1.04		-2.08	1.95	
interaction economy	-0.82	0.26	**	0.34	0.04	**	0.54	0.17	**
opposition other	0.86	1.16		-3.24	0.87	**	-4.48	1.39	**
interaction economy	-0.09	0.19		0.23	0.03	**	0.54	0.12	**
new	3.80	1.33	**	-2.98	0.94	**	-1.06	1.49	
interaction economy	-0.67	0.20	**	0.28	0.03	**	0.24	0.12	*
no representation	-1.62	1.23		-7.86	0.83	**	-5.65	1.35	**
interaction economy	-0.33	0.18		0.30	0.02	**	0.29	0.11	**
party size	-0.47	0.05	**	-0.43	0.05	**	-0.47	0.05	**
party size ²	0.002	0.001	*	0.002	0.001		0.002	0.001	*
party size ³	0.00004	0.00002	*	0.00000	0.00002		0.00004	0.00002	**
out alliance national	-5.72	0.34	**	-6.08	0.34	**	-6.36	0.33	**
in alliance national	-0.81	0.40	*	-0.03	0.39		-0.79	0.43	
out alliance regional	3.37	0.39	**	3.64	0.38	**	3.54	0.41	**
in alliance regional	3.74	0.46	**	3.89	0.46	**	3.89	0.48	**
dummy Czech Republic	0.26	0.28		0.50	0.29		0.26	0.34	
dummy Hungary	omitted			omitted			omitted		
dummy Poland	1.08	0.26	**	1.36	0.26	**	1.52	0.23	**
dummy Romania	-0.66	0.22	**	0.93	0.22	**	-0.48	0.31	
dummy Slovak Republic	0.26	0.39		0.57	0.42		0.61	0.41	
constant	2.02	1.29		7.38	0.88	**	7.44	1.45	**
F	105**			106**			107**		
R ²	0.36			0.38			0.35		
Root MSE	6.25			6.14			6.27		

Table A6. A refined second-order election model: vote share swings which do not involve electoral alliances (N = 2884).

	GDP growth			Inflation			Unemployment		
	beta	s.e.	sig.	beta	s.e.	sig.	beta	s.e.	sig.
state of the economy	0.81	0.37	*	-0.05	0.04		-0.23	0.12	
government other	6.67	1.99	**	1.26	1.34		0.75	1.91	
interaction economy	-0.93	0.37	**	0.07	0.04		0.15	0.16	
opposition main	12.60	2.39	**	2.74	1.30	*	5.86	1.96	**
interaction economy	-1.74	0.49	**	0.18	0.05	**	-0.07	0.15	
opposition other	6.65	1.93	**	3.53	1.35	**	0.48	1.87	
interaction economy	-0.48	0.37		0.05	0.04		0.39	0.14	**
new	11.53	2.03	**	5.59	1.35	**	6.42	1.81	**
interaction economy	-1.19	0.36	**	0.05	0.04		-0.03	0.13	
no representation	5.44	2.00	**	0.09	1.31		1.13	1.72	
interaction economy	-0.86	0.37	*	0.08	0.04	*	0.01	0.12	
party size	-0.27	0.03	**	-0.29	0.03	**	-0.29	0.03	**
party size ²	0.001	0.001		0.001	0.001		0.001	0.001	
party size ³	0.00004	0.00002	*	0.00003	0.00002		0.00003	0.00002	
dummy Czech Republic	0.03	0.42		0.38	0.41		-0.50	0.48	
dummy Hungary	-0.66	0.31	*	-0.53	0.29		-1.06	0.34	**
dummy Poland	0.76	0.33	*	1.05	0.33	**	1.14	0.33	**
dummy Romania	-0.91	0.26	**	-1.16	0.30	**	-1.47	0.33	**
dummy Slovak Republic	-2.18	0.51	**	-1.85	0.51	**	-1.75	0.52	**
constant	-4.67	2.08	*	0.02	1.33		1.78	1.84	
F	60**			68**			62**		
R ²	0.34			0.32			0.32		
Root MSE	5.50			5.12			5.12		

Table A7. A refined second-order election model: jackknife, exclusion of regional elections one at the time (482 replications).

	GDP growth			Inflation			Unemployment		
	beta	s.e.	sig.	beta	s.e.	sig.	beta	s.e.	sig.
state of the economy	0.39	0.18	*	-0.31	0.02	**	-0.49	0.11	**
government other	0.09	1.18		-5.87	0.84	**	-6.66	1.46	**
interaction economy	-0.40	0.18	*	0.27	0.03	**	0.56	0.13	**
opposition main	5.65	1.35	**	-2.65	1.02	**	-3.48	1.91	
interaction economy	-0.80	0.25	**	0.35	0.04	**	0.64	0.17	**
opposition other	0.55	1.15		-3.52	0.88	**	-5.28	1.39	**
interaction economy	-0.07	0.18		0.24	0.03	**	0.61	0.12	**
new	3.63	1.33	**	-3.16	0.95	**	-1.81	1.50	
interaction economy	-0.68	0.19	**	0.28	0.03	**	0.31	0.12	**
no representation	-1.84	1.23	*	-8.05	0.84	**	-6.47	1.35	**
interaction economy	-0.32	0.18		0.31	0.02	**	0.38	0.11	**
party size	-0.46	0.05	**	-0.42	0.05	**	-0.46	0.05	**
party size ²	0.002	0.001		0.002	0.001		0.002	0.001	
party size ³	0.00005	0.00002	**	0.00001	0.00002		0.00005	0.00002	**
out alliance national	-5.60	0.35	**	-5.97	0.35	**	-6.26	0.34	**
in alliance national	-0.95	0.41	*	-0.14	0.40		-0.93	0.44	*
out alliance regional	3.28	0.40	**	3.59	0.39	**	3.47	0.43	**
in alliance regional	3.78	0.46	**	3.92	0.46	**	3.92	0.47	**
dummy Czech Republic	0.21	0.29		0.46	0.29		0.22	0.34	
dummy Hungary	0.52	0.24	*	1.28	0.23	**	0.47	0.29	
dummy Poland	1.00	0.26	**	1.29	0.26	**	1.44	0.24	**
dummy Romania	-0.62	0.22	**	0.94	0.22	**	-0.42	0.31	
dummy Slovak Republic	0.17	0.40		0.48	0.43		0.56	0.42	
constant	2.09	1.29		7.42	0.89	**	7.93	1.46	**
F	105**			107**			111**		
R ²	0.35			0.37			0.34		
Root MSE	6.27			6.16			6.29		

Table A8. A refined second-order election model: state of the economy at the regional level (3910 vote share swings for 420 regional elections; inflation figures are not available at the regional level).

	GDP growth			Unemployment		
	beta	s.e.	sig.	beta	s.e.	sig.
state of the economy	0.18	0.06	**	-0.26	0.09	**
government other	-0.17	0.88		-5.39	1.16	**
interaction economy	-0.17	0.07	*	0.31	0.10	**
opposition main	5.44	0.92	**	-0.63	1.64	
interaction economy	-0.39	0.09	**	0.35	0.15	*
opposition other	1.02	0.90		-2.50	1.19	*
interaction economy	-0.04	0.09		0.25	0.10	*
new	3.28	0.92	**	-1.82	1.29	
interaction economy	-0.30	0.07	**	0.18	0.10	
no representation	-1.50	0.88		-6.33	1.18	**
interaction economy	-0.17	0.06	**	0.22	0.09	*
party size	-0.44	0.03	**	-0.51	0.05	**
party size ²	0.002	0.001	**	0.003	0.001	*
party size ³	0.00005	0.00002	**	0.00005	0.00002	**
out alliance national	-5.77	0.34	**	-5.75	0.33	**
in alliance national	-0.57	0.43		-1.09	0.47	*
out alliance regional	3.64	0.31	**	3.83	0.48	**
in alliance regional	4.00	0.49	**	3.75	0.48	**
dummy Czech Republic	-0.95	0.33	**	0.68	0.34	*
dummy Hungary	-0.83	0.32	**	0.75	0.28	**
dummy Poland	-0.09	0.31		1.58	0.26	**
dummy Romania	-1.65	0.29	**	0.10	0.28	
dummy Slovak Republic	-0.88	0.41	*	0.68	0.41	
constant	2.83	0.96	**	6.61	1.25	**
F	84**			97**		
R ²	0.36			0.34		
Root MSE	5.86			6.63		