

# Appendix A

## Descriptive Statistics

Table A.1: Descriptive Statistics of variable *WELLBEING* by country

<i>Country</i>	<i>N</i>	<i>mean</i>	<i>sd</i>	<i>min</i>	<i>max</i>
Austria	9	1.082	.689	-.33	2.139
Belgium	9	.463	.335	.046	1.07
Czech Republic	8	-3.486	.681	-4.263	-2.639
Denmark	8	4.279	.994	2.611	6.268
Estonia	9	-8.571	1.704	-11.664	-6.604
Finland	9	.934	.839	-.215	2.29
France	9	1.594	.616	.233	2.36
Germany	8	4.163	.528	3.307	4.903
Greece	9	-7.9	2.482	-12.031	-5.424
Iceland	0	.	.	.	.
Ireland	9	-1.388	1.911	-4.509	1.619
Italy	8	-3.244	.654	-4.019	-2.148
Luxembourg	9	2.914	1.502	.783	4.838
Netherlands	7	3.253	.409	2.555	3.937
Poland	8	-8.938	1.497	-11.13	-6.965
Portugal	9	-1.677	1.715	-3.59	1.659
Slovak Republic	8	-7.305	.857	-8.594	-6.132
Slovenia	7	-1.788	1.06	-2.621	.271
Spain	7	-1.09	1.572	-3.586	.985
Sweden	8	7.98	.327	7.46	8.292
Switzerland	0	.	.	.	.
United Kingdom	7	4.489	.44	3.909	5.228

Table A.2: Descriptive Statistics of expenditure variable over years 2004-2012 by country

<i>Country</i>	<i>N</i>	<i>mean</i>	<i>sd</i>	<i>min</i>	<i>max</i>
Austria	9	-.861	.41	-1.244	.021
Belgium	9	9.551	.815	8.193	10.501
Czech Republic	9	-1.867	.889	-3.014	-.604
Denmark	9	3.125	.806	1.374	3.999
Estonia	9	-5.434	1.55	-8.137	-4.148
Finland	0	.	.	.	.
France	9	-.707	.511	-1.547	-.173
Germany	9	11.77	.52	11.163	12.455
Greece	9	-11.264	1.414	-13.479	-9.446
Iceland	6	-4.362	1.301	-5.996	-2.353
Ireland	9	-5.632	2.549	-8.741	-2.5
Italy	9	-.003	.344	-.362	.68
Luxembourg	0	.	.	.	.
Netherlands	9	2.166	2.156	-.791	3.866
Poland	9	.097	1.167	-1.397	1.649
Portugal	9	-5.174	.481	-5.973	-4.578
Slovak Republic	9	-6.049	.577	-6.77	-4.945
Slovenia	9	-6.748	.522	-7.382	-5.621
Spain	9	8.641	1.319	6.42	9.837
Sweden	9	2.671	.993	1.333	4.03
Switzerland	9	13.338	1.035	11.773	14.551
United Kingdom	9	-.989	1.036	-2	1.373

Table A.3: Descriptive Statistics of variable *BLI* by country

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<i>Country</i>	<i>N</i>	<i>mean</i>	<i>sd</i>	<i>min</i>	<i>max</i>
Austria	14	3.348	1.036	1.874	5.104
Belgium	13	2.281	.341	1.839	2.849
Czech Republic	12	-1.849	1.596	-3.608	.985
Denmark	13	5.944	1.627	3.768	9.522
Estonia	13	-5.036	1.771	-7.764	-1.975
Finland	12	3.079	1.22	1.897	6.315
France	13	2.436	.546	1.257	3.294
Germany	12	5.227	1.219	3.413	6.879
Greece	13	-3.406	2.033	-7.345	-.815
Iceland	5	6.363	3.043	1.913	9.077
Ireland	13	1.231	1.352	-.837	3.348
Italy	12	.316	.714	-.707	1.618
Luxembourg	12	4.425	1.429	2.718	7.343
Netherlands	11	4.691	1.578	2.097	8.544
Norway	5	1.404	.642	.388	1.997
Poland	13	-5.044	2.174	-7.707	-1.417
Portugal	13	-3.195	2.581	-7.187	-.264
Slovak Republic	12	-3.944	2.561	-6.243	1.868
Slovenia	11	-.56	1.447	-2.251	3.117
Spain	11	.598	1.567	-1.746	2.801
Sweden	13	4.867	.986	3.094	6.53
Switzerland	5	6.693	.652	5.661	7.225
United Kingdom	11	5.582	1.798	3.275	8.572

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Table A.4: Descriptive Statistics of expenditure variable over years 2013-2017 by country

<i>Country</i>	<i>N</i>	<i>mean</i>	<i>sd</i>	<i>min</i>	<i>max</i>
Austria	14	-.776	1.276	-4.717	.583
Belgium	13	10.208	1.384	8.193	12.707
Czech Republic	13	-1.758	.736	-3.014	-.836
Denmark	14	2.91	1.841	-2.781	5.007
Estonia	13	-5.123	1.378	-8.137	-3.746
Finland	0	.	.	.	.
France	13	-.535	.484	-1.547	.26
Germany	13	12.464	1.045	11.163	14.046
Greece	13	-10.583	1.405	-13.479	-8.677
Iceland	10	-3.624	1.263	-5.996	-2.067
Ireland	13	-7.125	3.114	-11.567	-2.5
Italy	13	-.026	.329	-.475	.68
Luxembourg	4	-5.454	3.61	-8.192	-.256
Netherlands	13	1.566	3.172	-7.128	4.106
Norway	5	.149	1.635	-2.737	1.27
Poland	14	-1.313	2.438	-5.025	1.927
Portugal	13	-5.374	.673	-6.282	-4.113
Slovak Republic	13	-5.882	.532	-6.496	-4.823
Slovenia	13	-6.364	.821	-7.382	-4.598
Spain	13	8.91	1.168	6.42	9.837
Sweden	14	3.015	1.369	.175	4.472
Switzerland	14	13.707	1.177	11.773	15.096
United Kingdom	13	-1.279	.998	-2.474	1.373

# Appendix B

## Estimated models

Table B.1: Pooling Regression of the Expenditure over Wellbeing

	(1)	(2)
	WELLBEING	BLI
Expenditure_res	0.111 <sup>+</sup> (0.0632)	
Expenditure_res <sub>t-1</sub>	0.0794** (0.0267)	
Expenditure_rec		0.272** (0.0763)
Expenditure_rec <sub>t-1</sub>		0.0288 (0.0488)
_cons	0.0539 (0.565)	1.607* (0.680)
<i>N</i>	104	101
<i>R</i> <sup>2</sup>	0.092	0.244
adj. <i>R</i> <sup>2</sup>	0.074	0.229
F	6.741	6.451

Standard errors in parentheses

<sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.2: Regression model of the expenditure over the Wellbeing's dimensions

	(1) WELLBEING	(2) BLI
Expenditure_Income	0.0618 (1.096)	1.087 (0.784)
Expenditure_Satisfaction	-2.673 <sup>+</sup> (1.277)	-2.051 <sup>+</sup> (0.981)
Expenditure_Work-life-balance	0.303 (1.070)	0.633 (0.782)
Expenditure_Safety	2.926* (1.305)	3.278** (0.976)
Expenditure_Job	-1.098 (1.500)	-0.509 (0.999)
Expenditure_Environment	1.187* (0.455)	0.641 <sup>+</sup> (0.332)
Expenditure_Community	0.259 (1.314)	-0.906 (0.855)
Expenditure_Education	-2.013 (1.222)	-2.531** (0.852)
Expenditure_Civic Engagement	5.461*** (1.301)	4.520*** (1.011)
Expenditure_Housing	1.351* (0.512)	1.211** (0.358)
Expenditure_Health	1.035 (1.617)	0.0435 (0.951)
_cons	-0.404 (0.940)	0.938 (0.636)
<i>N</i>	134	134
<i>R</i> <sup>2</sup>	0.602	0.687
adj. <i>R</i> <sup>2</sup>	0.566	0.658
F	7.904	12.68

Standard errors in parentheses

<sup>+</sup>  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.3: Pooling Regression of the Expenditure over Wellbeing with the shock

	(1)	(2)
	WELLBEING	BLI
Expenditure_RES	0.437** (0.114)	
D	-0.102 (0.488)	
D×Expenditures_RES	-0.105+ (0.0598)	
Expenditure_RES <sub>t-1</sub>	-0.0383 (0.0319)	
Expenditure_REC		0.376*** (0.0934)
Expenditure_REC <sub>t-1</sub>		-0.0229 (0.0314)
_cons	-0.861 (1.015)	0.617 (0.798)
<i>N</i>	131	116
<i>R</i> <sup>2</sup>	0.280	0.303
adj. <i>R</i> <sup>2</sup>	0.257	0.291
F	4.553	8.103

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.4: Regression model for 'Income'

	(1)	(2)	(3)	(4)
	res_Income <b>Fixed effect</b>	res_Income <b>Random effect</b>	rec_Income <b>Fixed effect</b>	rec_Income <b>Random effect</b>
Expenditure_Income_res	0.0841+ (0.0459)	0.0864+ (0.0459)		
D	-0.00623 (0.0345)	-0.00632 (0.0345)		
D × Expenditure_Income_res	-0.0569 (0.0339)	-0.0568+ (0.0340)		
Expenditure_Income_res <sub>t-1</sub>	0.0145 (0.0155)	0.0145 (0.0154)		
Expenditure_Income_rec			0.0492+ (0.0272)	0.0528+ (0.0271)
Expenditure_Income_rec <sub>t-1</sub>			0.00331 (0.0154)	0.00296 (0.0155)
_cons	0.0121** (0.00409)	-0.0120 (0.218)	-0.0233+ (0.0138)	-0.0178 (0.213)
N	174	174	159	159
R <sup>2</sup>	0.080		0.024	
adj. R <sup>2</sup>	0.058		-0.134	
F	1.579		1.668	

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.5: Regression model for 'Job'

	(1)	(2)	(3)	(4)
	res_Job	res_Job	rec_Jobs	rec_Job
	Fixed effect	Random effect	Fixed effect	Random effect
Expenditure_Job	0.140 (0.0899)	0.137 (0.0879)		
D × Expenditure_Job	-0.113* (0.0434)	-0.118** (0.0450)		
Expenditure_Job_rest <sub>t-1</sub>	0.00670 (0.0219)	0.00842 (0.0222)		
D	0.0335 (0.0383)	0.0356 (0.0385)		
Expenditure_Job_rec			0.130* (0.0524)	0.127* (0.0511)
Expenditure_Job_rec <sub>t-1</sub>			0.0116 (0.0264)	0.0133 (0.0263)
_cons	-0.00468 (0.00590)	0.00895 (0.212)	-0.00120 (0.0226)	0.0130 (0.213)
<i>N</i>	160	160	160	160
<i>R</i> <sup>2</sup>	0.061		0.043	
adj. <i>R</i> <sup>2</sup>	0.037		-0.110	
F	2.123		3.091	

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.6: Regression model for 'Civic-Engagement'

	(1)	(2)	(3)	(4)
	res_Civicensgement	res_Civicensgement	rec_Civicensgement	rec_Civicensgement
	<b>Fixed effect</b>	<b>Random effect</b>	<b>Fixed effect</b>	<b>Random effect</b>
Expenditure_Civicensgag_res	1.048** (0.276)	0.276 (0.199)		
D	0.000689 (0.0796)	0.00192 (0.138)		
D × Expenditure_Civicensgag_res	-0.0824 (0.0521)	-0.0702 (0.137)		
Expenditure_Civicensgag_rest - 1	0.0750 (0.0703)	0.0245 (0.0903)		
Expenditure_Civicensgag_rec			1.076*** (0.259)	0.288+ (0.160)
Expenditure_Civicensgag_rec - 1			0.0956+ (0.0479)	0.00420 (0.0629)
_cons	0.0214 (0.0205)	-0.0362 (0.216)	0.0327+ (0.0171)	-0.0310 (0.202)
N	155	155	154	154
R <sup>2</sup>	0.055		0.062	
adj. R <sup>2</sup>	0.030		0.050	
F	4.789		11.49	

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.7: Regression model for 'Safety'

	(1)	(2)	(3)	(4)
	res_ip_Safety	res_ip_Safety	ip_rec_Safety	ip_rec_Safety
	<b>Fixed effect</b>	<b>Random effect</b>	<b>Fixed effect</b>	<b>Random effect</b>
Expenditure_Safety_res	-0.0758 (0.252)	0.0886 (0.187)		
D	0.0168 (0.127)	0.0157 (0.130)		
D× Expenditure_Safety_res	-0.172+ (0.0898)	-0.171+ (0.0914)		
Expenditure_Safety_res <sub>t-1</sub>	-0.00509 (0.0399)	-0.00951 (0.0394)		
Expenditure_Safety_rec			0.245 (0.172)	0.239* (0.116)
Expenditure_Safety_rec <sub>t-1</sub>			0.0566 (0.0381)	0.0597 (0.0379)
_cons	0.00145 (0.0152)	0.0151 (0.191)	1.259*** (0.0356)	1.295*** (0.150)
<i>N</i>	171	171	170	170
<i>R</i> <sup>2</sup>	0.019		0.028	
adj. <i>R</i> <sup>2</sup>	-0.005		-0.118	
F	3.886		2.087	

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.8: Regression model for 'Work-life-Balance'

	(1)	(2)	(3)	(4)
	WorkLifeBalance_res	WorkLifeBalance_res	WorkLifeBalance_rec	WorkLifeBalance_rec
Expenditure_Worklifebalance_res	0.227 <sup>+</sup> (0.124)	0.127 (0.106)		
	<b>Fixed effect</b>	<b>Random effect</b>	<b>Fixed effect</b>	<b>Random effect</b>
D	-0.0381 (0.143)	-0.0396 (0.143)		
D×Expenditure_worklifebalance_res	-0.0447 (0.141)	-0.0460 (0.141)		
Expenditure_worklifebalance_res <sub>t-1</sub>	0.0308 (0.0483)	0.0284 (0.0482)		
Expenditure_worklifebalance_rec			0.00329 <sup>+</sup> (0.00167)	0.00144 (0.00116)
Expenditure_worklifebalance_rec <sub>t-1</sub>			0.0000185 (0.000703)	-0.0000291 (0.000689)
_cons	-0.0669 (0.0477)	-0.0532 (0.183)	0.0417 <sup>***</sup> (0.0000503)	0.0418 <sup>***</sup> (0.00233)
N	169	169	169	169
R <sup>2</sup>	0.025		0.020	
adj. R <sup>2</sup>	-0.137		0.008	
F	0.937		2.022	

Standard errors in parentheses

+  $p < 0.10$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table B.9: Data Source and Variables Definition

<i>Variable</i>	<i>Description</i>	<i>Data Source</i>
Res_Housing	Wellbeing for dimension "Housing" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_Income	Wellbeing for dimension "Income" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_Community	Wellbeing for dimension "Community" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_Education	Wellbeing for dimension "Education" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_Civic Engagement	Wellbeing for dimension "Civic Engagement" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_Health	Wellbeing for dimension "Health" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_LifeSatisfaction	Wellbeing for dimension "Life Satisfaction" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Res_WorkLifeBalance	Wellbeing for dimension "WorkLifeBalance" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Rec_Housing	Wellbeing for dimension "Housing" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_Income	Wellbeing for dimension "Income" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_Community	Wellbeing for dimension "Community" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_Education	Wellbeing for dimension "Education" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_Civic Engagement	Wellbeing for dimension "Civic Engagement" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_Health	Wellbeing for dimension "Health" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_LifeSatisfaction	Wellbeing for dimension "Life Satisfaction" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_Safety	Wellbeing for dimension "Safety" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Rec_WorkLifeBalance	Wellbeing for dimension "WorkLifeBalance" over years 2013-2017	EUROSTAT: Sustainable Development Indicators
Expenditure_Housing_res	Decentralized measure for measure "Housing" over years 2004-2012	EUROSTAT: Sustainable Development Indicators
Expenditure_Income_res	Decentralized measure for measure "Income" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_Community_res	Decentralized measure for measure "Community" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_Education_res	Decentralized measure for measure "Education" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_CivicEngag._res	Decentralized measure for measure "Civic Engagement" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_Health_res	Decentralized measure for measure "Health" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_LifeSatisfaction_res	Decentralized measure for measure "LifeSatisfaction" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_Safety_res	Decentralized measure for measure "Safety" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_WorkLifeBalance_res	Decentralized measure for measure "WorkLifeBalance" over years 2004-2012	IMF:Fiscal decentralization dataset
Expenditure_Housing_rec	Decentralized measure for measure "Housing" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_Income_rec	Decentralized measure for measure "Income" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_Community_rec	Decentralized measure for measure "Community" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_Education_rec	Decentralized measure for measure "Education" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_CivicEngag._rec	Decentralized measure for measure "Civic Engagement" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_Health_rec	Decentralized measure for measure "Health" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_LifeSatisfaction_rec	Decentralized measure for measure "LifeSatisfaction" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_Safety_rec	Decentralized measure for measure "Safety" over years 2013-2017	IMF:Fiscal decentralization dataset
Expenditure_WorkLifeBalance_rec	Decentralized measure for measure "WorkLifeBalance" over years 2013-2017	IMF:Fiscal decentralization dataset

