Supplementary online appendices to

IS EUROPE GOOD FOR YOU?

EU Spending and Well-Being

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Contents

Appendix S1: Information about the Included Regions

APPENDIX S1

Table S1.1: Unit of analysis: NUTS regions in the dataset

Country	NUTS level at which funds are allocated	Corresponding pre-existing administrative unit
Austria	2	States (*Länder*)
Belgium Czech Republic	2 2	Provinces (*Provincies*) Oblasts (*Oblasti*)
Finland	1 and 2	At the level of NUTS 1: Province of Åland (*Läänit*)
France	2	Regions/Overseas Departments (*Régions/ Départements d'Outre Mer*)
Germany	1	States (*Länder*)
Greece Hungary	2 2	Regions (*Periferies*) Planning and statistical regions (*Tervezési-statisztikai régiók*)
Ireland	2	Regional Assemblies
Italy	2	Regions (*Regioni*)
Netherlands Poland	1 and 2 2	Only NUTS 2: Province of Flevoland (*Provincie*) Province (*Wojewódtwa*)
Portugal	1 and 2	At the level of NUTS 1: Autonomous Regions (Regiões Autónomas); NUTS 2: Commissions for Coordination and Regional Development (*Comissões de Cooperação e Desenvolvimento Regional*)
Spain	2	Autonomous Communities and Cities (*Comunidades Autónomas, Ciudades Autónomas* de Ceuta y Melilla)
Sweden	1 and 2	At the level of NUTS 2: Stockholm (Riksområden)
UK	1 and 2	At the level of NUTS 1: Government Office Regions, Scotland, Wales and Northern Ireland

Notes: Author's own presentation

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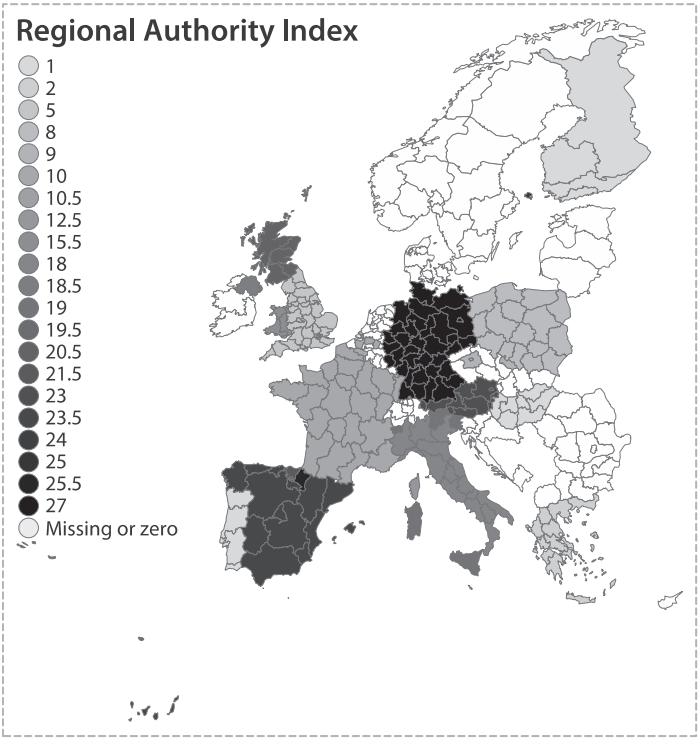
Figure S1.1: NUTS regions in the analysis, sorted by regional authority index



Notes: Own presentation based on data from Hooghe et al (2016)

Appendix S2: Data Coverage in ECHP and EU-SILC

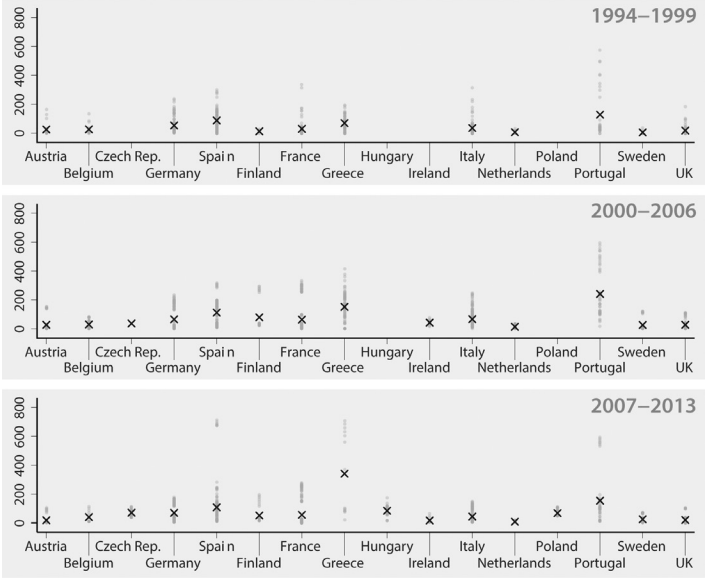
Table S2.1: **Regional data available in ECHP and EU-SILC**

Country	Level at which EU funds are allocated	Well-being measures (ECHP) 1993–2000	Well-being measures (EU-SILC) 2003–2013
Austria	NUTS 2	NUTS 1	NUTS 1
Belgium	NUTS 2	NUTS 2	NUTS 1
Czech Republic	NUTS 2	Not surveyed	NUTS 2
Finland	NUTS 2	NUTS 2	NUTS 2
France	NUTS 2	NUTS 2	NUTS 2
Germany	NUTS 1	NUTS 1	NUTS 0
Greece	NUTS 2	NUTS 2	NUTS 1
Hungary	NUTS 2	Not surveyed	NUTS 1
Ireland	NUTS 2	NUTS 0	NUTS 0
Italy	NUTS 2	NUTS 2	NUTS 1
Netherlands	NUTS 1	NUTS 0	NUTS 0
Poland	NUTS 2	Not surveyed	NUTS 1
Portugal	NUTS 2	NUTS 2	NUTS 1
Spain	NUTS 2	NUTS 2	NUTS 2
Sweden	NUTS 2	NUTS 2	NUTS 0 and 1
UK	NUTS 1 and 2	NUTS 1 and 2	NUTS 1 and 2

Notes: Several NUTS codes were changed during the time period studied, which I harmonized consistent with EU regulations. See Commission regulation No 1059/2003, No 105/2007, No 868/2014, and Commission Implementing Decision of 18 February 2014.

Appendix S3: Regional Funding

Figure S3.1: EU regional funding across regions, countries and over time



Notes: Payment data. Figures are inflation-adjusted spending per capita. Data from 16 countries; 634 regions during 1994–99, 997 during 2000–06, and 1122 during 2007–13.

Sources: European Commission DG Regio Datawarehouse C3 and EU annual reports on structural funds. 'X' denotes mean cross-regional funding within a country. Ireland received funding during the 1994–99 period, but because it counted as one region, it is excluded in the first panel of the dataset.

Appendix S4: Quantitative Data

Table S4.1: **Variable definitions and sources**

Variable	Description	Level of analysis	Source
Employment	Employment per capita, calculated as the proportion of employed persons aged 15 to 74 in the total regional population	Region	Eurostat
EU economic investments	Variable calculated by adding 0.0001 to inflation-adjusted economic funds per capita, and taking the logarithm. Covers Obj. 1+2+5 during 1994–95, and ERDF+EAGGF+FIFG from 2000, per capita, as a share of the consumer price index in a given year. See Appendix B in the book for included budgetary components.	Region	DG Regio Datawarehouse C3, Annual Structural Funds Reports from 1995–99. Consumer price index (2010 = 100) data from International Monetary Fund, International Financial Statistics and data files.
EU social investments	Variable calculated by adding 0.0001 to inflation-adjusted social funds per capita, and taking the logarithm. Obj. 3+4 during 1994–99, and ESF-spending from 2000, per capita as a share of the consumer price index in a given year. See Appendix B in the book for included budgetary components.	Region	DG Regio Datawarehouse C3, Annual Structural Funds Reports from 1995–99. Consumer price index (2010 = 100) data from International Monetary Fund, International Financial Statistics and data files.

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	Description	Level of analysis	Source
FGT (α = 0)	Headcount ratio (see above for mathematical formula and detailed description)	Region	Own calculations using data from ECHP, EU-SILC
FGT (α = 1)	Average normalized poverty gap index (see above for mathematical formula and detailed description)	Region	Own calculations using data from ECHP, EU-SILC
FGT (α = 2)	Average squared normalized poverty gap index (see above for mathematical formula and detailed description)	Region	Own calculations using data from ECHP, EU-SILC
GDP per capita	GDP per capita in constant prices, constant PPP in million, OECD base year	Region	Eurostat
GDP per capita growth	$\frac{GDP_{t-2} - GDP_{t-1}}{GDP_{t-1}}$ where GDP is GDP per capita in constant prices, constant PPP in million, OECD base year	Region	Eurostat
GE (α = 0)	Mean logarithmic deviation (see above for mathematical formula and detailed description)	Region	Own calculations using data from ECHP, EU-SILC

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	Description	Level of analysis	Source
GE ($\alpha = 1$)	Theil index (see above for mathematical formula and detailed description)	Region	Own calculations using data from ECHP, EU-SILC
GE ($\alpha = 2$)	Squared coefficient of variation (see above for mathematical formula and description)	Region	Own calculations using data from ECHP, EU-SILC
Gini	Gini coefficient (see above for mathematical formula and detailed description)	Region	Own calculations using data from ECHP, EU-SILC
Infant mortality	Infant Mortality Rate (deaths of those under 1 year of age per 1,000 live births)	Region	OECD
Material deprivation	Severe material deprivation rate as a per cent of the total regional population	Region	Eurostat
National economic spending	Total spending on national-level economic affairs. Classification of the functions of government (COFOG), which encompasses all spending categories except defense, general, public order, and social spending	Country	IMF Government Statistics

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	**Description**	**Level of analysis**	**Source**
National education spending	Total spending on education at the national level	Country	IMF Government Statistics
National health spending	Total spending on health at the national level	Country	IMF Government Statistics
National social spending	Social spending at the national level as a per cent of total expenditures. COFOG categories, which encompass: - Recreation, culture. and religion - Social protection - Health - Housing and community amenities - Education - Family and children - Social exclusion	Country	IMF Government Statistics

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	Description	Level of analysis	Source
P90/10	Percentile ratio, which is the decile ratio between the ninth and the first decile, comparing income in the highest income decile to that in the lowest income decile	Region	Own calculations using data from ECHP, EU-SILC
Population density	Population divided by the total area of a region in square kilometers	Region	Eurostat
Regional vote share	National government (coalition) intraregional vote share in parliamentary elections	Region	Own calculations using data from Norwegian Social Science Data Services (NSSD)
Self-perceived health	Per cent of regional population identifying their own health as very good or good. Question posed: ‘How is your health in general? Very Good; Good; Fair; Bad; Very Bad’. Coded as a fraction from 0 to 1.	Region	Own calculations using data from ECHP, EU-SILC

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	Description	Level of analysis	Source
Social trust	Generalized social trust, regional averages weighted by post-stratification weights. The ESS uses stratified random samples that are representative at the NUTS regional level (see www.europeansocialsurvey.org). Missing due to biennial measurement in the European Social Survey, replaced by mean trust between the measurements. Question posed: Using this card, generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people? Please tell me on a score of 0 to 10, where 0 means you can't be too careful and 10 means that most people can be trusted. Regional average values on a scale from 0–10.	Region	Calculated using European Social Survey data
Tertiary education	Percentage of the total regional population for whom tertiary education is the highest level completed	Region	Eurostat

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	**Description**	**Level of analysis**	**Source**
Tight races	Difference in intra-regional vote shares between the two major parties in parliamentary elections. The lower the value, the tighter the electoral race.	Region	Eurostat
Turnout	Turnout in national parliamentary elections	Region	Coded using electoral data from the websites of the NSSD
Unemployment	Unemployment rates, representing unemployed persons aged 15 to 74 as a percentage of the labour force, meaning the total number of people employed and unemployed. This includes people actively seeking employment (excluding, eg, students and stay-at-home parents).	Region	Eurostat
National unemployment	Unemployment rates, representing unemployed persons aged 15 to 74 as a percentage of the labour force, meaning the total number of people employed and unemployed. This includes people actively seeking employment (excluding, eg, students and stay-at-home parents).	Country	World Bank

(continued)

Table S4.1: **Variable definitions and sources (continued)**

Variable	Description	Level of analysis	Source
Union density	Ratio of wage and salary earners that are trade union members, divided by the total number of wage and salary earners	Country	OECD Labour Force Statistics
Youth inactivity	Young people (aged 15–24) neither in employment nor in education/training, as a per cent of the total population of that cohort, excluding survey respondents who did not answer the question	Region	European Union Labour Force Survey and Eurostat

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Table S4.2: **Descriptive statistics**

Variable	Min.	Mean	Max.	Std. dev.	N
Employment	-1.860	-0.900	-0.190	0.150	2308
EU economic investments	0	0.620	8.110	0.950	2581
EU social investments	0	0.100	2.040	0.180	2581
FGT (α=0)	0.010	0.160	0.430	0.080	845
FGT (α=1)	0	0.050	0.240	0.030	845
FGT (α=2)	0	0.030	0.180	0.030	802
GDP per capita	0.010	0.030	0.090	0.010	2635
GDP per capita growth	-0.140	0.020	0.190	0.030	2479
GE (α=0)	0.050	0.150	0.560	0.060	845
GE (α=1)	0.050	0.140	0.740	0.070	845
GE (α=2)	0.050	0.190	3.300	0.190	845
Gini	17.400	27.500	55.230	5.310	802
Infant mortality	0	4.650	16.700	2.080	2340
Material deprivation	0	5.700	27.400	4.770	515
National economic spending	0.270	1.530	3.230	0.280	2851
National education spending	3.540	4.990	7.650	0.870	2851
National health spending	4.250	6.280	8.440	0.950	2851
National social spending	2.140	2.830	3.220	0.200	2851
Net migration	-2.910	-0.020	1.580	0.320	1571
P90/10	2.030	3.600	9.910	1.150	800

(continued)

Table S4.2: **Descriptive statistics (continued)**

Variable	Min.	Mean	Max.	Std. dev.	N
Population density	0.620	4.860	8.860	1.260	2772
Regional vote share	0	44.770	85.41	14.300	2896
Self-perceived health	0.320	0.640	0.880	0.100	850
Social trust (average on a scale from 0–10)	1.690	4.770	6.730	0.830	1179
Tertiary education	0.020	0.220	0.540	0.100	850
Tight races	-45.390	-11.410	1	9.510	2832
Unemployment	0.800	9.800	33.300	5.450	2790
Union density	7.790	27.350	82.330	17.620	2473
Youth inactivity	2.900	12.360	34.200	4.980	1972

Table S4.3: **Correlation matrix for capability indicators**

Variables					
	1.	2.	3.	4.	5.
1. Unemployment	1.000				
2. Employment (log)	-0.646	1.000			
3. Youth inactivity	0.699	-0.746	1.000		
4. Infant mortality	0.191	-0.336	0.254	1.000	

Notes: N=1847

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Table S4.4: **Correlation matrix for all well-being indicators**

	1.	2.	3.	4.	5.
1. Unemployment	1.000				
2. Employment (log)	-0.744	1.000			
3. Youth inactivity	0.773	-0.655	1.000		
4. Infant mortality	0.049	-0.141	0.363	1.000	
5. Self-perceived health	0.201	0.020	0.246	0.060	1.000
	6.	7.	8.	9.	10.
6. FGTtwo	1.000				
7. Gini	0.537	1.000			
8. GE (α=1)	0.381	0.909	1.000		
9. GE (α=2)	0.104	0.605	0.868	1.000	
10. P90/10	0.676	0.838	0.652	0.283	1.000

Notes: N=608

Appendix S5: Robustness Checks

Addressing endogeneity. I performed a number of robustness checks in conjunction with the regression analyses of regional well-being in Chapter 5, all of which corroborate the main findings.

To begin with, I tested whether estimated results could be biased due to endogeneity of the EU funding variables. As EU funds are designed to promote socio-economic development within the European Union writ large, aspects of regional development might affect EU funding and well-being indicators at the same time but separately. In order to address this issue, I chose an instrumental variable approach. I considered running panel fixed-effects two-stage least squares models by including cluster-robust standard errors and using the first and second lag of the funds measure as instruments for EU fund expenditures (cf Bähr, 2008). However, I refrain from instrumenting social investments using lags at *t*-1 and *t*-2 in light of serial correlation. There are no straightforward third factors of EU funding patterns with direct impact on well-being outcomes that could also serve as instrumental variables.

Prior research suggests two kinds of external instrument variables. Dall'erba and Le Gallo (2008) instruments structural funds payments by regional distance to Brussels, and concludes that the spatial distribution of structural funds payments follows a centre-periphery pattern. Bouvet (2005) uses partisan affinity as an instrument for structural funds. However, the first set of instruments shows no variation over time, making it incompatible with the fixed effects models

used here. Moreover, the time differences in variables related to political affinity are low, and in fact zero in some regions (see also Mohl and Hagen, 2011). Given that GDP growth might be affected by an omitted region-specific variable that might concomitantly affect the dependent variable, GDP growth must also be part of the regression analysis. GDP was therefore included as an indicator of economic development in the robustness checks. Existing approaches to use weather shocks as an instrumental variable for economic shocks (Miguel et al, 2004) are not suitable for industrialized democracies.

In such situations, suitable instruments may be constructed by exploiting time-series properties through Generalized Method of Moments (GMM) estimators (Arellano and Bond, 1991; Arellano and Bover, 1995; Blundell and Bond, 1998; Roodman, 2006). Here, *T* ranges from 10 to 16, depending on the model, as data for some variables are not available before 2000 (Chapter 5). Where *T* is large, the impact of a one-year shock on the region's apparent fixed effect would dwindle, as would the endogeneity problem. Difference GMM is centrally purposed to transform the data thereby removing the fixed effects. Insofar as the position of any of the independent variables may be influenced by the prevailing level of well-being through political or economic mechanisms—with the possible exception of population density—a correctly specified equation should accommodate at least five endogenous policy variables (EU funding, GDP growth, union density, high-skilled workforce, and national spending). As changes in the instrumenting variables may be correlated with the fixed effects (Roodman, 2009), I refrain from using system GMM, opting instead for difference GMM. I procced to run difference GMM models that take the following generic form:

$$\Delta y_{it} = \alpha \Delta y_{i,t-1} + \Delta x_{it}^{'} \beta + \Delta v_{it} \qquad (1)$$

I also used the two-step estimator with the Windmeijer (2005) correction that prevents standard errors from being

biased downward. This two-step estimator, β_2, is efficient and robust to whatever patterns of heteroskedasticity may exist (Roodman, 2009). More traditional Huber-White standard errors are downward biased when the number of instruments is large—severely enough to make two-step GMM useless for inference (Arellano and Bond, 1991), so here it is warranted to use the two-step estimator.

These models also allow for the inclusion of a lagged dependent variable, which makes sense given that most EU fund projects are multiannual and there might be some path dependency in fund allocations per region. Many instruments can overfit the instrumented variables (Roodman, 2009), so I follow Mehrhoff (2009) and Mohl and Hagen (2011) in limiting the number of moment conditions by using the 'collapse' option developed by Roodman (2009). These steps yield no evidence of second-order serial correlation. Given first-order autocorrelation, I included a DV lagged by one year in all models. I modeled EU funding, national health and education spending, high skilled workforce, union density, and GDP growth as endogenous. With this parsimonious specification, the estimation results showed that the Hansen test of overidentifying restrictions (Hansen, 1982) is not statistically significant (ie, the null hypothesis according to which the instruments are not correlated with the residual cannot be rejected). The results for the EU funding variables are robust in almost all cases and the main conclusions do not change (see Tables S5.1–S5.5).

Controlling for national educational spending. I conduct a series of panel data regression models, and dynamic panel data models, using labour market outcomes as dependent variables and treating national educational spending is endogenous. The results remain robust throughout (Table S5.2).

Controlling for a potential trend. A series of panel data regression models, and dynamic panel data models, in which I control for a potential trend using a count variable,

suggest that the results remain largely robust, with fewer significant effects observed for the distributive justice indicators (Table S5.3).

Controlling for period dummies. I also tested all models including funding period dummies. These dummies equal 1 for a specific funding period, and 0 otherwise. The results remain robust and a larger number of statistically significant effects for the distributive justice indicators is observed (Table S5.4).

Testing the 'Kuznets curve' argument. Fifth and finally, I run the inequality models again, this time including GDP and squared GDP to test whether GDP is negatively associated with reductions in inequality, and if the positive squared GDP term is indicative of a Kuznets curve. Here, too, EU funding effects remain robust and a larger number of significant effects for the distributive justice indicators is observed (Table S5.5). This is consistent with the conclusion of Castells-Quintana et al (2015), who find no evidence for the Kuznets curve. They posit that the hypothesized inverted-U relationship between economic development and inequality may thus assume an N-shape, with inequality first increasing, then decreasing, before rising again (eg, Alderson and Doran, 2013).

Table S5.1: **Difference GMM replicating models**

Dependent variable	Poor regions	Rich regions	Full sample
Capability indicators			
Unemployment	Social funds (t-1)=-1.541 Social funds (t-2)=0.134 *N*=343	Social funds (t-1)=-1.129** Social funds (t-2)=-0.249*** *N*=889	Social funds (t-1)=-1.073*** Social funds (t-2)=-0.114* *N*=1233
Employment	Social funds (t-1)=0.008 Social funds (t-2)=-0.002 *N*=371	Social funds (t-1)=0.047** Social funds (t-2)=0.008** *N*=914	Social funds (t-1)=0.014 Social funds (t-2)=0.003** *N*=1286
Youth inactivity	Social funds (t-1)=0.544 Social funds (t-2)=-0.040 *N*=330	Social funds (t-1)=-1.348 Social funds (t-2)=-0.252 *N*=774	Social funds (t-1)=0.298 Social funds (t-2)=-0.165 *N*=1105
Infant mortality	Social funds (t-1)=-0.062 Social funds (t-2)=0.046 *N*=87	Social funds (t-1)=-0.276 Social funds (t-2)=-0.052 *N*=878	Social funds (t-1)=-0.439** Social funds (t-2)=-0.059 *N*=1274
Self-perceived health	Social funds (t-1)=-0.045 Social funds (t-2)=0.006 *N*=129	Social funds (t-1)=-0.010 Social funds (t-2)=-0.002 *N*=319	Social funds (t-1)=-0.026 Social funds (t-2)=-0.006 *N*=449

(continued)

Table S5.1: **Difference GMM replicating models (continued)**

Dependent variable	**Poor regions**	**Rich regions**	**Full sample**
Distributive justice indicators			
Squared poverty gap index	Social funds (t-1)=0.156 Social funds (t-2)=0.010 *N*=110	Social funds (t-1)=0.025 Social funds (t-2)=-0.007 *N*=273	Social funds (t-1)=0.002 Social funds (t-2)=0.001 *N*=384
Gini coefficient	Social funds (t-1)=2.886 Social funds (t-2)=3.375* *N*=109	Social funds (t-1)=-2.915 Social funds (t-2)=-0.922 *N*=279	Social funds (t-1)=1.965 Social funds (t-2)=0.214 *N*=389
Theil index	Social funds (t-1)=-0.020 Social funds (t-2)=0.370 *N*=109	Social funds (t-1)=-0.389 Social funds (t-2)=-0.151 *N*=279	Social funds (t-1)=0.294 Social funds (t-2)=0.042 *N*=389
Squared coefficient of variation	Social funds (t-1)=0.553 Social funds (t-2)=0.458* *N*=109	Social funds (t-1)=-0.567 Social funds (t-2)=-0.272 *N*=279	Social funds (t-1)=0.504 Social funds (t-2)=0.057 *N*=389
P90/10	Social funds (t-1)=0.286 Social funds (t-2)=0.076 *N*=105	Social funds (t-1)=-0.009 Social funds (t-2)=-0.010 *N*=279	Social funds (t-1)=0.112 Social funds (t-2)=0.027 *N*=385

Notes: Significance levels: $^{*}p<0.10$, $^{**}p<0.05$, $^{***}p<0.01$. Figures are unstandardized coefficients from difference GMM models, including a lagged dependent variable specifying lags of one year and deeper for the transformed equation. *N*=Number of observations. The number of observations is slightly lower than in the original regression tables due to instrumenting. Several specification tests were performed for each model. Sargan's statistic and the Hansen *J* test for overidentification underline the appropriateness of the instruments in the youth inactivity models, but indicate overidentification in the unemployment and employment models. Results are nonetheless robust with more parsimonious instrumenting (Roodman, 2009).

Table S5.2: Controlling for national educational spending in labour-market models

	Panel data models with Driscoll-Kraay standard errors			Difference GMM models		
Dependent variable	**Poor regions**	**Rich regions**	**Full sample**	**Poor regions**	**Rich regions**	**Full sample**
Unemployment	Social funds (t-1)=-0.993*** Social funds (t-2)=0.351* *N*=416	Social funds (t-1)=-0.131 Social funds (t-2)=-0.581*** *N*=995	Social funds (t-1)=-0.228** Social funds (t-2)=-0.510*** *N*=1412	Social funds (t-1)=-0.102 Social funds (t-2)=0.288 *N*=325	Social funds (t-1)=-1.059*** Social funds (t-2)=-0.214*** *N*=837	Social funds (t-1)=-0.684** Social funds (t-2)=-0.099 *N*=1163
Employment	Social funds (t-1)=0.010** Social funds (t-2)=-0.000 *N*=440	Social funds (t-1)=0.001 Social funds (t-2)=0.009*** *N*=1018	Social funds (t-1)=0.000 Social funds (t-2)=0.007*** *N*=1459	Social funds (t-1)=0.018 Social funds (t-2)=-0.002 *N*=353	Social funds (t-1)=0.030 Social funds (t-2)=0.006** *N*=862	Social funds (t-1)=0.015* Social funds (t-2)=0.001 *N*=1216
Youth inactivity	Social funds (t-1)=-0.005 Social funds (t-2)=0.247* *N*=400	Social funds (t-1)=-0.035 Social funds (t-2)=-0.562*** *N*=881	Social funds (t-1)=-0.024 Social funds (t-2)=-0.310*** *N*=1282	Social funds (t-1)=-0.582 Social funds (t-2)=-0.044 *N*=318	Social funds (t-1)=-0.275 Social funds (t-2)=-0.274*** *N*=725	Social funds (t-1)=-0.225 Social funds (t-2)=-0.265** *N*=1044

Notes: Significance levels: $^{*}p<0.10$, $^{**}p<0.05$, $^{***}p<0.01$. Figures are unstandardized coefficients from difference GMM models that include a lagged dependent variable specifying lags of one year and deeper for the transformed equation. *N*=Number of observations. The number of observations is slightly lower than it was in the original regression tables due to instrumenting. Several specification tests were performed for each model. Sargan's statistic and the Hansen *J* test for overidentification underline the appropriateness of the instruments in the youth inactivity models, but indicate overidentification in the unemployment and employment models. Results are nonetheless robust with more parsimonious instrumenting (Roodman, 2009).

Table S5.3: **Controlling for trend variable in models**

	Panel data models with Driscoll-Kraay standard errors			Difference GMM models		
Dependent variable	**Poor regions**	**Rich regions**	**Full sample**	**Poor regions**	**Rich regions**	**Full sample**
Capability indicators						
Unemployment	Social funds (t-1)= -0.481** Social funds (t-2)=-0.208 *N*=437	Social funds (t-1)=-0.213 Social funds (t-2)= -0.553*** *N*=1060	Social funds (t-1)=-0.233** Social funds (t-2)=-0.574*** *N*=1500	Social funds (t-1)=-1.541 Social funds (t-2)=0.134 *N*=343	Social funds (t-1)=-1.129** Social funds (t-2)=-0.249*** *N*=889	Social funds (t-1)=-1.073*** Social funds (t-2)=-0.114* *N*=1233
Employment	Social funds (t-1)=0.005 Social funds (t-2)=0.004 *N*=461	Social funds (t-1)=0002 Social funds (t-2)=0.009*** *N*=1083	Social funds (t-1)=0.000 Social funds (t-2)= 0.008*** *N*=1547	Social funds (t-1)=0.008 Social funds (t-2)=-0.002 *N*=371	Social funds (t-1)=0.047** Social funds (t-2)=0.008** *N*=914	Social funds (t-1)=0.014 Social funds (t-2)=0.003** *N*=1286
Youth inactivity	Social funds (t-1)=0.182 Social funds (t-2)=0.051 *N*=418	Social funds (t-1)=-0.076 Social funds (t-2)=-0.572*** *N*=938	Social funds (t-1)=-0.009 Social funds (t-2)= -0.365*** *N*=1358	Social funds (t-1)=0.544 Social funds (t-2)=0.040 *N*=330	Social funds (t-1)=-1.384 Social funds (t-2)=-0.252 *N*=774	Social funds (t-1)=0.298 Social funds (t-2)=-0.165 *N*=1105

(continued)

Table S5.3: Controlling for trend variable in models (continued)

	Panel data models with Driscoll-Kraay standard errors			**Difference GMM models**		
Infant mortality	Social funds (t-1)=-0.124 Social funds (t-2)=-0.008 *N*=459	Social funds (t-1)=0.033 Social funds (t-2)=0.025 *N*=993	Social funds (t-1)=-0.050 Social funds (t-2)=-0.037 *N*=1462	Social funds (t-1)=-0.062 Social funds (t-2)=0.046 *N*=387	Social funds (t-1)=-0.276 Social funds (t-2)=-0.052 *N*=878	Social funds (t-1)=-0.439** Social funds (t-2)=-0.059 *N*=1274
Self-perceived health	Social funds (t-1)=-0.020** Social funds (t-2)=0.041*** *N*=178	Social funds (t-1)=0.004 Social funds (t-2)=0.004 *N*=426	Social funds (t-1)=0.001 Social funds (t-2)=0.008** *N*=605	Social funds (t-1)=-0.045 Social funds (t-2)=0.006 *N*=129	Social funds (t-1)=-0.010 Social funds (t-2)=-0.002 *N*=319	Social funds (t-1)=-0.026 Social funds (t-2)=-0.006 *N*=449
Distributive justice indicators						
Squared poverty gap index	Social funds (t-1)=0.040*** Social funds (t-2)=0.009 *N*=145	Social funds (t-1)=0.000 Social funds (t-2)=0.002** *N*=434	Social funds (t-1)=0.003* Social funds (t-2)=0.002 *N*=489	Social funds (t-1)=0.156 Social funds (t-2)=0.010 *N*=110	Social funds (t-1)=-0.025 Social funds (t-2)=-0.007 *N*=273	Social funds (t-1)=0.002 Social funds (t-2)=0.001 *N*=384
Gini coefficient	Social funds (t-1)=6.682*** Social funds (t-2)=2.858*** *N*=144	Social funds (t-1)=0.694 Social funds (t-2)=-0.317 *N*=345	Social funds (t-1)=0.490 Social funds (t-2)=-0.400 *N*=490	Social funds (t-1)=2.886 Social funds (t-2)=3.375* *N*=109	Social funds (t-1)=-2.915 Social funds (t-2)=-0.922 *N*=279	Social funds (t-1)=1.965 Social funds (t-2)=0.214 *N*=389

(continued)

Table S5.3: Controlling for trend variable in models (continued)

	Panel data models with Driscoll-Kraay standard errors			Difference GMM models		
Theil index	Social funds (t-1)=0.484*** Social funds (t-2)=0.212*** *N*=144	Social funds (t-1)=0.084 Social funds (t-2)=-0.045 *N*=345	Social funds (t-1)=0.047 Social funds (t-2)=-0.060* *N*=490	Social funds (t-1)=-0.020 Social funds (t-2)=0.370 *N*=109	Social funds (t-1)=-0.389 Social funds (t-2)=-0.151 *N*=279	Social funds (t-1)=0.294 Social funds (t-2)=0.042 *N*=389
Squared coefficient of variation	Social funds (t-1)=0.697*** Social funds (t-2)=0.222** *N*=144	Social funds (t-1)=0.151 Social funds (t-2)=-0.078 *N*=345	Social funds (t-1)=0.065 Social funds (t-2)=.0.111** *N*=490	Social funds (t-1)=0.553 Social funds (t-2)=0.458 *N*=109	Social funds (t-1)=-0.567 Social funds (t-2)=-0.272 *N*=279	Social funds (t-1)=0.504 Social funds (t-2)=0.057 *N*=389
P90/10	Social funds (t-1)=0.132 Social funds (t-2)=0.055 *N*=142	Social funds (t-1)=0.004 Social funds (t-2)=0.005 *N*=345	Social funds (t-1)=0.013 Social funds (t-2)=0.023* *N*=488	Social funds (t-1)=-0.286 Social funds (t-2)=0.076 *N*=105	Social funds (t-1)=-0.009 Social funds (t-2)=-0.010 *N*=279	Social funds (t-1)=0.112 Social funds (t-2)=0.027 *N*=385

Notes: Significance levels: $^{*}p<0.10$, $^{**}p<0.05$, $^{***}p<0.01$. Figures are unstandardized coefficients from difference GMM models that include a lagged dependent variable specifying lags of one year and deeper for the transformed equation. *N*=Number of observations. The number of observations is slightly lower than in the original regression tables due to instrumenting. Several specification tests were performed for each model. Sargan's statistic and the Hansen *J* test for overidentification underline the appropriateness of the instruments in the youth inactivity models, but indicate overidentification in the unemployment and employment models. Results are nonetheless robust with more parsimonious instrumenting (Roodman, 2009).

Table S5.4: **Controlling for period dummies**

	Panel data models with Driscoll-Kraay standard errors		
Dependent variable	**Poor regions**	**Rich regions**	**Full sample**
Capability indicators			
Unemployment	Social funds (t-1)=-0481** Social funds (t-2)=-0.208 *N*=437	Social funds (t-1)=-0.213 Social funds (t-2)=-0.553*** *N*=1060	Social funds (t-1)=-0.233** Social funds (t-2)=-0.574*** *N*=1500
Employment	Social funds (t-1)=0.005 Social funds (t-2)=0.004 *N*=461	Social funds (t-1)=0.002 Social funds (t-2)=-0.009*** *N*=1083	Social funds (t-1)=0.000 Social funds (t-2)= 0.008*** *N*=1547
Youth inactivity	Social funds (t-1)=0.183 Social funds (t-2)=0.051 *N*=418	Social funds (t-1)=-0.076 Social funds (t-2)=-0.572*** *N*=938	Social funds (t-1)=-0.009 Social funds (t-2)=-0.365*** *N*=1358
Infant mortality	Social funds (t-1)=-0.124 Social funds (t-2)=-0.008 *N*=459	Social funds (t-1)=0.033 Social funds (t-2)=0.025 *N*=993	Social funds (t-1)=-0.050 Social funds (t-2)=-0.037 *N*=1462
Self-perceived health	Social funds (t-1)=-0.020** Social funds (t-2)=0.041*** *N*=178	Social funds (t-1)=0.004 Social funds (t-2)=0.004 *N*=426	Social funds (t-1)=0.001 Social funds (t-2)=0.008** *N*=605

(continued)

Table S5.4: **Controlling for period dummies (continued)**

	Panel data models with Driscoll-Kraay standard errors		
Distributive justice indicators			
Squared poverty gap index	Social funds (t-1)=0.040*** Social funds (t-2)=0.009 *N*=145	Social funds (t-1)=0.000 Social funds (t-2)=0.002** *N*=343	Social funds (t-1)=0.003* Social funds (t-2)=-0.002 *N*=489
Gini coefficient	Social funds (t-1)=6.682*** Social funds (t-2)=2.858*** *N*=144	Social funds (t-1)=0.649 Social funds (t-2)=-0.317 *N*=345	Social funds (t-1)=0.490 Social funds (t-2)=-0.400 *N*=490
Theil index	Social funds (t-1)=0.484*** Social funds (t-2)=0.212*** *N*=144	Social funds (t-1)=0.084 Social funds (t-2)=-0.045 *N*=345	Social funds (t-1)=0.047 Social funds (t-2)=-0.060* *N*=490
Squared coefficient of variation	Social funds (t-1)=0.679*** Social funds (t-2)=0.222** *N*=144	Social funds (t-1)=0.151* Social funds (t-2)=-0.078 *N*=345	Social funds (t-1)=0.065 Social funds (t-2)=-0.111** *N*=490
P90/10	Social funds (t-1)=0.132 Social funds (t-2)=0.055 *N*=142	Social funds (t-1)=0.004 Social funds (t-2)=0.005 *N*=345	Social funds (t-1)=0.013 Social funds (t-2)=0.023** *N*=488

Notes: Significance levels: *p<0.10, **p<0.05, ***p<0.01. Figures are unstandardized coefficients from difference GMM models that include a lagged dependent variable specifying lags of one year and deeper for the transformed equation. *N*=Number of observations. The number of observations is slightly lower than in the original regression tables due to instrumenting. Several specification tests were performed for each model. Sargan's statistic and the Hansen *J* test for overidentification underline the appropriateness of the instruments in the youth inactivity models, but indicate overidentification in the unemployment and employment models. Results are nonetheless robust with more parsimonious instrumenting (Roodman, 2009).

Table S5.5: **Controlling for GDP and GDP squared**

	Panel data models with Driscoll-Kraay standard errors			**Difference GMM models**		
Dependent variable	**Poor regions**	**Rich regions**	**Full sample**	**Poor regions**	**Rich regions**	**Full sample**
Capability indicators						
Unemployment	Social funds (t-1)=-0.464* Social funds (t-2)=-0.177 *N*=437	Social funds (t-1)=-0.244* Social funds (t-2)=-0.468*** *N*=1060	Social funds (t-1)=-0.243** Social funds (t-2)=-0.437*** *N*=1500	Social funds (t-1)=-1.207 Social funds (t-2)=0.222 *N*=343	Social funds (t-1)=-1.076** Social funds (t-2)=-0.347*** *N*=889	Social funds (t-1)=-0.939** Social funds (t-2)=-0.156 *N*=1233
Employment	Social funds (t-1)=0.004 Social funds (t-2)=0.001 *N*=461	Social funds (t-1)=0.003 Social funds (t-2)=0.007*** *N*=1083	Social funds (t-1)=0.000 Social funds (t-2)=0.004*** *N*=1547	Social funds (t-1)=0.003 Social funds (t-2)=-0.002 *N*=371	Social funds (t-1)=0.0020.004 Social funds (t-2)= *N*=914	Social funds (t-1)=0.010 Social funds (t-2)=0.003* *N*=1286
Youth inactivity	Social funds (t-1)= 0.211* Social funds (t-2)=0.014 *N*=418	Social funds (t-1)=-0.086 Social funds (t-2)=-0.511*** *N*=938	Social funds (t-1)=0.011 Social funds (t-2)=-0.372*** *N*=1358	Social funds (t-1)=0.845 Social funds (t-2)=0.023 *N*=330	Social funds (t-1)=-2.469* Social funds (t-2)=-0.115 *N*=774	Social funds (t-1)=-3.225* Social funds (t-2)= -0.240** *N*=1105

(continued)

Table S5.5: **Controlling for GDP and GDP squared (continued)**

	Panel data models with Driscoll-Kraay standard errors			Difference GMM models		
Infant mortality	Social funds (t-1)=-0.120 Social funds (t-2)=-0.004 *N*=459	Social funds (t-1)=0.041 Social funds (t-2)=0.023 *N*=993	Social funds (t-1)=-0.036 Social funds (t-2)=-0.031 *N*=1462	Social funds (t-1)=0.247 Social funds (t-2)=0.116 *N*=387	Social funds (t-1)=-0.430** Social funds (t-2)=-0.046 *N*=878	Social funds (t-1)=-0.348 Social funds (t-2)=-0.004 *N*=1274
Self-perceived health	Social funds (t-1)=-0.028*** Social funds (t-2)=0.031** *N*=178	Social funds (t-1)=0.004 Social funds (t-2)=0.005 *N*=426	Social funds (t-1)=0.002 Social funds (t-2)=0.008** *N*=605	Social funds (t-1)=-0.048 Social funds (t-2)=0.003 *N*=129	Social funds (t-1)=0.001 Social funds (t-2)=0.006 *N*=319	Social funds (t-1)=-0.011 Social funds (t-2)=-0.002 *N*=449
Distributive justice indicators						
Squared poverty gap index	Social funds (t-1)=0.049*** Social funds (t-2)=0.005 *N*=145	Social funds (t-1)=0.000 Social funds (t-2)=0.003** *N*=343	Social funds (t-1)=0.003* Social funds (t-2)=-0.002 *N*=489	Social funds (t-1)=0.094 Social funds (t-2)=0.012 *N*=110	Social funds (t-1)=-0.014 Social funds (t-2)=-0.004 *N*=273	Social funds (t-1)=-0.022 Social funds (t-2)=-0.005 *N*=384
Gini coefficient	Social funds (t-1)=6.906*** Social funds (t-2)=2.065*** *N*=144	Social funds (t-1)=0.849 Social funds (t-2)=-0.213 *N*=345	Social funds (t-1)=0.585 Social funds (t-2)=-0.428 *N*=490	Social funds (t-1)=1.720 Social funds (t-2)=3.436** *N*=109	Social funds (t-1)=-0.397 Social funds (t-2)=0.131 *N*=279	Social funds (t-1)=-1.957 Social funds (t-2)=-0.872 *N*=389

(continued)

Table S5.5: **Controlling for GDP and GDP squared (continued)**

	Panel data models with Driscoll-Kraay standard errors			**Difference GMM models**		
Theil index	Social funds (t-1)=0.479*** Social funds (t-2)=0.186** *N*=144	Social funds (t-1)=0.095 Social funds (t-2)=-0.041 *N*=345	Social funds (t-1)=0.053 Social funds (t-2)=-0.062* *N*=490	Social funds (t-1)=0.233 Social funds (t-2)=0.345*** *N*=109	Social funds (t-1)=-0.051 Social funds (t-2)=-0.023 *N*=279	Social funds (t-1)=-0.079 Social funds (t-2)=-0.056 *N*=389
Squared coefficient of variation	Social funds (t-1)=0.655** Social funds (t-2)=0.208* *N*=144	Social funds (t-1)=0.157 Social funds (t-2)=-0.082 *N*=345	Social funds (t-1)=0.075 Social funds (t-2)=-0.115** *N*=490	Social funds (t-1)=0.660 Social funds (t-2)=0.430 *N*=109	Social funds (t-1)=0.040 Social funds (t-2)=-0.016 *N*=279	Social funds (t-1)=-0.060 Social funds (t-2)=-0.089 *N*=389
P90/10	Social funds (t-1)=0.140 Social funds (t-2)=0.020 *N*=142	Social funds (t-1)=0.017 Social funds (t-2)=0.010 *N*=345	Social funds (t-1)=0.019** Social funds (t-2)=0.021 *N*=488	Social funds (t-1)=-0.228 Social funds (t-2)=0.092 *N*=105	Social funds (t-1)=-0.043 Social funds (t-2)-0.021 *N*=279	Social funds (t-1)=-0.084 Social funds (t-2)=-0.027 *N*=385

Notes: Significance levels: *p<0.10, **p<0.05, ***p<0.01. Figures are unstandardized coefficients from difference GMM models that include a lagged dependent variable specifying lags of one year and deeper for the transformed equation. *N*=Number of observations. The number of observations is slightly lower than in the original regression tables due to instrumenting. Several specification tests were performed for each model. Sargan's statistic and the Hansen *J* test for overidentification underline the appropriateness of the instruments in the youth inactivity models, but indicate overidentification in the unemployment and employment models. Results are nonetheless robust with more parsimonious instrumenting (Roodman, 2009).

Appendix S6: Survey Question Wording

Welcome to our survey. This survey is part of an international comparative research project about the EU Structural Funds. We are grateful for your participation and we thank you very much for sharing your expertise with us. Completing the questionnaire will not exceed 15 minutes.

As you know, we would like you to reflect on Structural Funds programming within your country. By this we mean the process whereby the Commission decides on the map of eligible regions and the indicative allocations to the member states, and where it negotiates and approves the national strategic reference frameworks/community support frameworks and the operational programmes proposed by the member states. By regions we mean NUTS 1-3 regions.

The information provided will be treated confidentially and no answers will be attributed to any individual in any output produced by this project. The information will not be disclosed to third parties.

General information

Q1 In which country is the administrative centre of the institution that you are currently affiliated with located? Please choose **only one** of the following:

☐ Belgium
☐ Denmark

1 ☐ Germany
2 ☐ Greece
3 ☐ Ireland
4 ☐ Italy
5 ☐ France
6 ☐ Luxembourg
7 ☐ Netherlands
8 ☐ Spain
9 ☐ Portugal
10 ☐ UK
11 ☐ Austria
12 ☐ Finland
13 ☐ Sweden
14 ☐ Cyprus
15 ☐ Czech Republic
16 ☐ Estonia
17 ☐ Hungary
18 ☐ Latvia
19 ☐ Lithuania
20 ☐ Malta
21 ☐ Poland
22 ☐ Slovak Republic
23 ☐ Slovenia
24
25 **Q2 Are you currently working in:**
26 Please choose **only one** of the following:
27
28 ☐ National administration (NUTS 0)
29 ☐ Regional public administration (NUTS 1 or 2)
30 ☐ Local public administration (NUTS 3)
31 ☐ None of the above
32
33 **Influence in the programming process**
34
35 **Q3 As you know, the Structural Funds programming**
36 **process is generally completed after 8–12 months**

of negotiations between the member states and the Commission. In your country: How influential were the following public institutions in the programming process for 2007–13?

Please choose the appropriate response for each item:

	Not at all influential	Somewhat uninfluential	Somewhat influential	Very influential	Don't know
Management authorities at the national government level					
National government					
Parliament at the national government level					
Management authorities at the regional government level					
Committee at the national government level with delegates from national government and regional governments					
Local public administration					
European Commission					
'Comitology' committees					
Committee of the Regions					
Regional offices in Brussels					

Q4 In your country: How influential, in your opinion, were the following partners in the programming process for 2007–13?

Please choose the appropriate response for each item:

	Not at all influential	Somewhat uninfluential	Somewhat influential	Very influential	Don't know
Regional authorities					
Local authorities					
Authorities responsible for the promotion of equality between men and women					
Authorities responsible for the environment					
Trade unions					
Employers associations					
Business firms					
Farmers					

Q5 With respect to the regional allocation of structural funds in your country: In general: How important is the economic performance of regions in the previous funding period for the amount of structural funding regions receive?

Please choose **only one** of the following:

☐ Not at all important
☐ Somewhat unimportant

☐ Somewhat important
☐ Very important
☐ Don't know

Q6 In general: How important are the lobbying activities of companies in regions for the amount of structural funding regions receive?

Please choose **only one** of the following:

☐ Not at all important
☐ Somewhat unimportant
☐ Somewhat important
☐ Very important
☐ Don't know

Q7 In general: How important are the selection criteria provided by the monitoring committee for the amount of structural funding regions receive?

Please choose **only one** of the following:

☐ Not at all important
☐ Somewhat unimportant
☐ Somewhat important
☐ Very important
☐ Don't know

Managing authorities at the regional level

Q8 With respect to the administrative units at the regional government level (NUTS 1 or 2) in your country responsible for structural funds management: How important, in your opinion, are the following tasks to these units in general?

[Only answer this question if you answered 'Regional public administration (NUTS 1 or 2)' or 'Local public administration (NUTS 3)' to question 2]

Please choose the appropriate response for each item:

	Not at all important	Somewhat unimportant	Somewhat important	Very important	Don't know
Public relations					
Gathering information from interest groups					
Co-ordination with a higher authority in the same institution					
Co-ordination with other institutions at the central (national) level					
Co-ordination with other institutions at the regional level					
Co-ordination with other institutions at the local level					
Co-ordination with member state delegates in Brussels					
Co-ordination with Commission officials					
Co-ordination with actors within 'comitology' committees					

	Not at all important	Somewhat unimportant	Somewhat important	Very important	Don't know
Co-ordination with actors within 'COREPER' or Council working groups					

Managing authorities at the national level

Q9 With respect to the administrative units at the national government level in your country responsible for structural funds management: How important, in your opinion, are the following tasks to these units in general?

Please choose the appropriate response for each item:

	Not at all important	Somewhat unimportant	Somewhat important	Very important	Don't know
Public relations					
Gathering information from interest groups					
Co-ordination with a higher authority in the same institution					
Co-ordination with other institutions at the central (national) level					
Co-ordination with other institutions at the regional level					

	Not at all important	Somewhat unimportant	Somewhat important	Very important	Don't know
Co-ordination with other institutions at the local level					
Co-ordination with member state delegates in Brussels					
Co-ordination with Commission officials					
Co-ordination with actors within 'comitology' committees					
Co-ordination with actors within 'COREPER' or Council working groups					

Attitudes

Q10 We are interested in your opinion with respect to the following statements on structural funds related issues. Please express your opinion on these statements by indicating the appropriate answer.

Please choose the appropriate response for each item:

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Don't know
No united Europe without a mature European structural funds policy.					

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	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Don't know
There is very much uncertainty in the programming period about the legal requirements for receiving structural funding.					
The best advice on a proposed policy comes from the affected 'partners'.					
The highly legalistic approach to the EU structural funds is very detrimental to innovative policymaking.					
The allocation of the Structural Funds is heavily influenced by partisan networks between the various government levels.					
Top-level officials in the member states should carry out the Commission decisions with absolute loyalty under all circumstances.					
The strength of Europe lies not in increased power for Brussels, but in effective government at the lowest possible level.					

	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Don't know
Some regions get more funding than others simply because they have more resources to improve the quality of their projects.					
It is imperative that the European Commission acts less as an administration and more as the government of Europe.					

General information

Q11 In order to better compile the results of this survey, it would be helpful for us to have some basic information about your professional affiliation in the context of the structural funds. Please indicate the institutions you have been affiliated with during 2000–06.

Please choose **all** that apply:

☐ Central (national) public administration (NUTS 0)
☐ Regional public administration (NUTS 1 or 2)
☐ Local public administration (NUTS 3)
☐ None of the above

Q12 Overall, how long have you been working in central administration?

[Only answer this question if you answered 'Central (national) public administration (NUTS 0)' to question 2]

☐ < 1 year
☐ 2–5 years
☐ 6–10 years
☐ 11–15 years
☐ 16–20 years
☐ > 20 years

Q13 Overall, how long have you been working in regional public administration?

[Only answer this question if you answered 'Regional public administration (NUTS 1 or 2)' to question 2]

☐ < 1 year
☐ 2–5 years
☐ 6–10 years
☐ 11–15 years
☐ 16–20 years
☐ > 20 years

Q14 Overall, how long have you been working in local public administration?

[Only answer this question if you answered 'Local public administration (NUTS 3)' to question 2]

☐ < 1 year
☐ 2–5 years
☐ 6–10 years
☐ 11–15 years

☐ 16–20 years
☐ > 20 years

Q15 We are at the end of our survey. Is there anything you would like to add with respect to structural funds programming? We are very interested in your comments.

Please write your answer here:_____
_____
_____
_____

Thank you for completing this survey.

Appendix S7: Auxiliary Regressions

In Chapter 3, I argue that the variation in EU funding distorted by vote-seeking politics should be minor, and is unlikely to undermine well-being effects of EU spending. To examine this, I have developed a measure of politically distorted funding on the basis of a series of regression models. I proceed in two steps. First, I create a variable that is the predicted value $\hat{\gamma}_{1it}$ of a cross-regional regression of EU funding using the following independent variables that previous literature suggests to shape regional funding receipts (Chalmers, 2013; Charron, 2016; Dellmuth and Stoffel, 2012; Kemmerling and Bodenstein, 2006): GDP per capita, unemployment rate, national spending on social or economic affairs, and a set of dummy variables for each year. This model was specified as follows.

Augmented Dickey-Fuller tests suggest that the data are stationary, underlining the need to modeling spending in levels ($p = 0.000$ for social and economic investments, respectively). Tests are performed seriatum using 187 panels and one lag. Given these results, and the use of inflation-adjust funding data that typically reduce the likelihood of unit roots, the next step is to specify regression models by level. Hausman tests imply that the fixed effects model is preferred over the random effects model. This choice is also theoretically motivated, as random effects models assume the intercepts to be randomly selected from a larger population, which is not the case here ($\chi^2 = 31.466$, df = 3, $p = 0.000$ for economic funds, and $\chi^2 = 91.94$, df = 3, $p = 0.000$ for social funds). Time effects are also tested, using one model that displays annual effects

and one that does not. Lagrange multiplier tests support the inclusion of year dummies in running all models ($p = 0.000$ for economic investments, $p = 0.000$ for social investments). Doing so affords the additional advantage provided by a conservative test that holds constant potentially unobserved time-specific variables, such as crisis years, that could impact the outcome.

The analysis here thus employs fixed effects models with a dummy variable included for each year (sometimes referred to as 'two-way fixed effects models'). These models index the underlying data by *t* as well as *i*, permitting the identification of observations of any given NUTS region *i* at a certain point in time:

$$y_{it} = \beta \boldsymbol{X}_{it} + \alpha_i + \delta_t + u_{it} \quad (1)$$

where y is the amount of EU funding received, $\boldsymbol{X}$ *is a vector of independent variables,* α_i is a fixed effect component meant to capture unobserved heterogeneity among EU regions, and δ_t is a fixed effect year introduced to control for unobserved factors common to all regions over time. In other words, year dummies are included to capture time-consistent variations among regions, which cannot be integrated into the model. Fixed effects models eliminate time-invariant confounding, estimating the effect of an independent variable only by the within-region, not cross-regional, variation in EU funding. By implication, the possible impact of independent variables on average changes in the dependent variable that may occur within regions should also be considered when interpreting these results.

In addition, the models were carefully examined for potential violations of regression assumptions. Crucially, multicollinearity should not bias the results, as the variance inflation factor remains under two (Fox and Monette, 1992). A Breusch-Pagan test shows that there may be issues with heteroskedastic residuals ($p = 0.000$ for economic investments,

$p = 0.000$ for social investments). These potential problems are addressed by reporting Driscoll-Kraay robust standard errors.

Equation (2) shows the predicted value of social investments for a given region-year in the baseline model:

$$\hat{\gamma}_1 = \hat{\gamma}_{it} = \beta_{1it} \ln(\text{GDP per capita})_{it} + \beta_{2it} \ln(\text{Unemployment})_{it} + \beta_{3it} \ln(\text{National social spending})_{it} + \alpha_i + \delta_t \quad (2)$$

Equation (3) shows the predicted value of economic investments for a given region-year in the baseline model:

$$\hat{\gamma}_2 = \hat{\gamma}_{it} = \beta_{1it} \ln(\text{GDP per capita})_{it} + \beta_{2it} \ln(\text{National economic spending})_{it} + \alpha_i + \delta_t \quad (3)$$

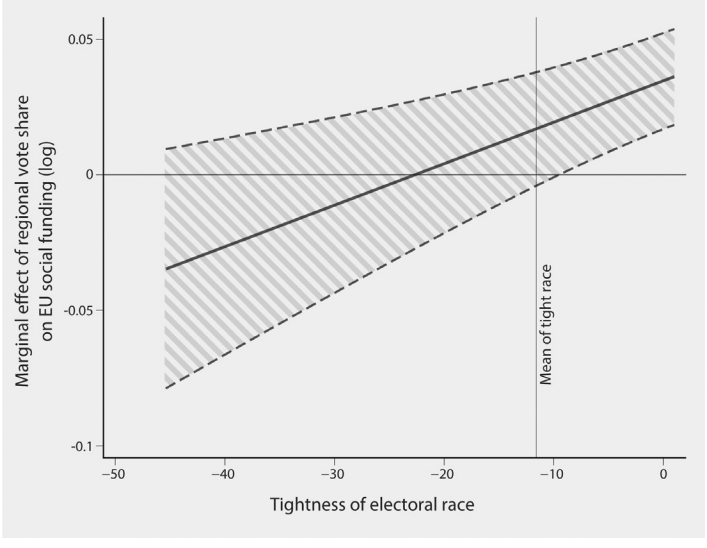
Second, I created the predicted value $\hat{\gamma}_{2it}$ of a model by adding political variables to the baseline model to account for the effect of political exigencies. A *regional vote share* variable captures the vote share of the national government or coalition in the coincident regional assembly. The concept of *tight races* is operationalized using a measure of the degree to which elections are or are not closely contested and decided by a narrower margin. To code this measure, the vote shares of the two largest parties (in terms of vote shares) in a general election are subtracted from each other (cf Bodenstein and Kemmerling, 2011). Both variables are calculated on the basis of election data derived from a database provided by the Norwegian Social Science Data Services (NSD) (see Appendix S4). With the exception of the UK, for which election results are aggregated from the constituency level to the regional NUTS 1 and 2 levels, this database contains results from national general elections at NUTS 1 and 2 levels for each of the countries under consideration. Results from general elections preceding the funding year were selected for analysis. For example, to explain variation in funding in Germany in 1995, 1996, 1997, and 1998, election results from the 1994 general elections

were used. Based on these measures, I estimated the predicted social investments based on the model adding these factors to the estimation:

$$\hat{y}_3 = \hat{y}_{it} = \beta_{1it} \ln(\text{GDP per capita})_{it} + \beta_{2it} \ln(\text{Unemployment})_{it} + \beta_{3it} \ln(\text{National social spending})_{it} + \beta_{4it} \text{Regional vote share}_{it} + \beta_{5it} \text{Tight races}_{it} + \beta_{6it} \text{Regional vote share}_{it} \star \text{Tight races}_{it} + \alpha i + \delta t \quad (4)$$

In line with previous literature, I found the interaction between regional vote share and tight races in equation (4) to have a statistically significant association with social investments (Dellmuth et al, 2017), providing a good argument for this

Figure S7.1: Marginal effect of regional vote share on EU social investments at levels of tightness of the electoral race



Notes: Based on equation (4)

model specification. Figure S7.1, plotting the interaction term, shows that the effect of core voters on EU social investments is only statistically significant in regions where electoral races are relatively tight.

I then subtract $\hat{y}_3 - \hat{y}_1$ to arrive at a difference variable d_{it} for each region:

$$d_{it} = \hat{y}_3 - \hat{y}_1 \tag{5}$$

This produces a variable that measures the additional amount of social investments that may be predicted either when political factors are added to the models, or the amount of funding estimated is diverted for political purposes. For economic investments, I calculated:

$$d_{it} = \hat{y}_3 - \hat{y}_2 \tag{6}$$

For economic funds, this included the model measuring regional vote share and the interaction between *regional vote share* and *tight races*:

$$\begin{aligned} \hat{y}_1 = \hat{y}_{it} = {} & \beta_{1it} \ln(\text{GDP per capita})_{it} + \\ & \beta_{2it} \ln(\text{National economic spending})_{it} \\ & + \beta_{3it} \ln(\text{Regional vote share})_{it} + \\ & \alpha_i + \delta_t \end{aligned} \tag{7}$$

$$\begin{aligned} \hat{y}_1 = \hat{y}_{it} = {} & \beta_{1it} \ln(\text{GDP per capita})_{it} + \\ & \beta_{2it} \ln(\text{National economic spending})_{it} \\ & + \beta_{3it} \ln(\text{Regional vote share})_{it} + \\ & \beta_{5it} \text{Tight races}_{it} + \beta_{6it} \text{Regional} \\ & \text{vote share} \star \text{Tight races}_{it} + \alpha_i + \delta_t \end{aligned} \tag{8}$$

Using these difference measures, I look at correlations between the different variants of this measure and regional context indicators, respectively. This allows me to ascertain whether funding allocated on the basis of vote-seeking

politics is correlated with certain regional context factors. The context factors considered are union density as an indicator of the degree to which organized labour could push for well-being-enhancing investment, high-skilled worker shares, population density as an indicator of technology diffusion, and GDP growth. However, the results suggest that politically biased EU funding does not flow systematically to specific types of regions, which may be more (or less) likely to use EU spending efficiently (Table S7.1). Thus, electoral politics may influence EU fund allocations but is unlikely to have consequences for the well-being effects of EU funds.

Table S7.1: Correlations between predicted values of different models

	Predicted value of social investments in models including an interaction between *Regional vote share* and *Tight races* as IVs	***p*-value**	***N***
Union density	*r*=0.071	0.005	1,585
Human capital	*r*=0.110	0.000	1,504
Population density	*r*=0.010	0.678	1,723
GDP growth	*r*=0.007	0.751	1,814
	Predicted value of social investments in models including an interaction between *Regional vote share* and *Unemployment* as IVs	*p*-value	*N*
Union density	*r*=0.094	0.000	1,645
Human capital	*r*=0.070	0.006	1,564
Population density	*r*=0.015	0.532	1,783
GDP growth	*r*=0.005	0.830	1,874

(continued)

APPENDIX S7

Table S7.1: **Correlations between predicted values of different models (continued)**

	Predicted value of social investments in models including *Regional vote share* as an IV	*p*-value	*N*
Union density	*r*=0.072	0.003	1,714
Human capital	*r*=0.040	0.108	1,598
Population density	*r*=-0.011	0.633	1,838
GDP growth	*r*=0.097	0.000	1,945
	Predicted value of social investments in models including an interaction between *Regional vote share* and *Tight races* as IVs	*p*-value	*N*
Union density	*r*=0.111	0.000	1,650
Human capital	*r*=0.074	0.004	1,538
Population density	*r*=-0.010	0.665	1,774
GDP growth	*r*=0.114	0.000	1,881

Notes*:* IV=Independent variable. Pearson's correlation coefficients *r.* See Appendix S6 for a detailed elaboration of model specification.

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