

Contextual and Individual Determinants of Redistributive and Economic Preferences: Evidence from Panel Data

Appendix: Supplementary Material

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1 Changes in left-wing economic preferences in the UK

1.1 Political parties: The Comparative Manifesto Data

Table 1 gives the list of all issue categories that would be a candidate for the inclusion in the economic and social policy index. I mark the items included with either a “L” or a “R” depending on whether they were associated with the left or the right side of the policy spectrum. I also mention the items that were not included because they tap into valence issues such as “growth” or education and technology. I also mention additional items that could have been included without changing the results but were not because of the potential ambiguity in their substantive interpretation. Table 2 gives an overview of the categories used to compute the salience measure for the security/culture/moral issue areas.

1.2 The media: The National Election Campaigns Dataset (Kriesi et al. (2012b))

The data collection project by Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012b) is explicitly aimed at approximating how political competition among candidates affects the types of political claims and statements voters get exposed to. It does so by using a textual analysis of mainstream newspapers in the two months preceding major elections. Researchers coded headlines and the lead of the article. Each observation in the dataset is a sentence coded to measure what the issue mentioned in the sentence is (e.g. redistribution) and the “direction” of the statement, i.e. whether it can be understood as left or right-wing. Among the issues coded, two stand out for our endeavor. One is the issue area called “economic liberalism” that covers topics related to market regulation, economic protectionism, de-regulation, competition and privatization (Figure 1.A). The second issue is called “welfare” and covers welfare state expansion, positive mentions of its redistributive character and what the authors of the dataset have called “calls for employment and health-care programs” (Figure 1.B). We have re-coded the direction variable such that 1 captures a more right-wing position and -1 a more left-wing position on these three issue areas, which is described in more details below. The higher the mean of this direction variable in a given year, the higher the share of conservative statements. Figure 1 presents changes average sentence directions for these two issues, covering all years available in the dataset.

As we can see from Figure 1.A, there is a clear conservative shift in economic liberalism starting in 1997. By 2005, the number of core-sentences that take a conservative stance on economic liberalism clearly outweighs the number of sentences that take a liberal stance. The welfare issue area illustrated in Figure 1.B, shows a similar trend, starting in 1992. One exception is the 2005 general elections. Among the New Labour’s campaign promises that year was an increase in spending for education and health, the bulk of it through the extension of private/public partnership and financial support for the British equivalent of charter schools. The coding for this dataset is unfortunately

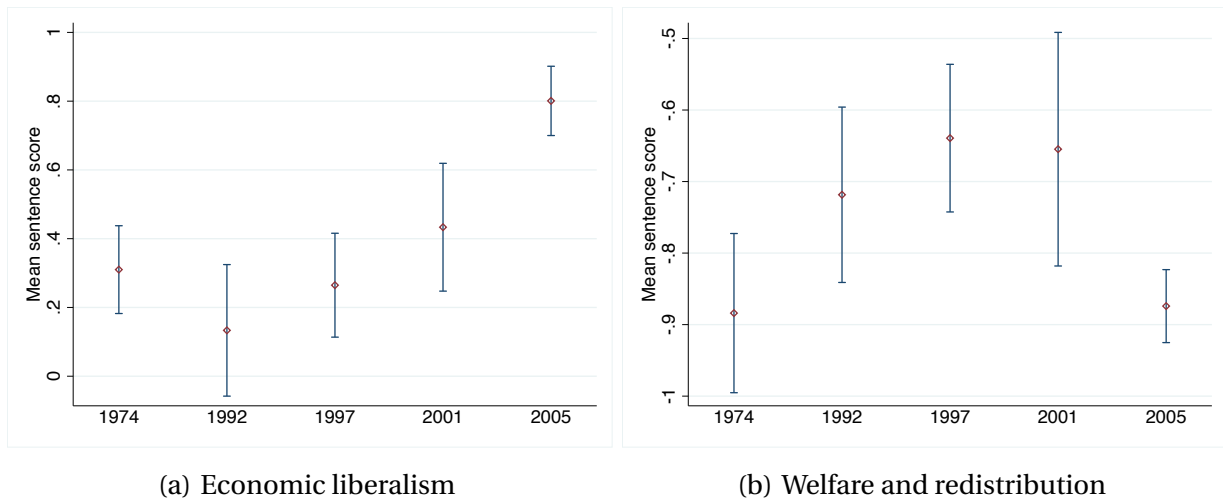
Table 1: Categories used to compute left-wing and right-wing economic policy indices

Issue category	Used in the final analyses	
Free Enterprise	R	
Incentives	R	
Market Regulation	R (and New left)	
Economic Planning	L	
Corporatism		Not included, too specific to Germany
Protectionism : positive	L	
Protectionism : negative	R	
Economic goals		Residual category, meaning ambiguous
keynesian Demand Management	L	
Productivity	R (and New left)	
Technology and Infrastructure		Valence issue
Controlled Economy	L	
Nationalisation	L	
Economic Orthodoxy	R	
Marxist Analysis		Did not appear in neither UK nor DE
Anti-Growth Economy : positive		Did not appear in neither UK nor DE
Social Justice	L	
Welfare State Expansion	L	
Welfare State Limitation	R	
Education Expansion		Valence issue
Education Limitation		Did not appear in neither UK nor DE
Labour Groups: positive	L	
Labour Gorups: negative	R	
Underprivileged Minority Groups		Not included in the final index because non-economic minority groups

Table 2: Categories used to compute security/cultural/moral salience index

Military: pos	Military: neg
Internationalism: pos	Internationalism: neg
National Way of Life: pos	National Way of Life: neg
Traditional Morality : pos	Traditional Morlaity: neg
Law and Order	Multiculturalism: pos
Multiculturalism: neg	

Figure 1: Changes in the average direction of media reports relating to economic and social policy issues



On the y-axis, positive values indicate that conservative statements outweigh liberal statement. Source: Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012b)

too coarse to capture this distinction between an increase in public investment and a retreat from traditional left-wing forms of government involvement.

1.2.1 Coding: The National Election Campaigns Dataset

The dataset by Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012b) , entitled "National political change in a globalizing world supply-side data on national election campaigns " is described in chapter 2 of Kriesi, Grande, Dolezal, Helbling, Hoglinger, Hutter and Wuest (2012). All articles published in the selected journals during the two months before the national election constitute the universe of observation. Researchers selected and coded all articles that contain any reference to national elections, to a national political party or a candidate. Because of the time intensity of the coding procedure, only the headline and the lead of the article were coded , though the whole article was coded for the tabloid newspaper.

Coders were asked to code the articles according to the core-sentence approach. This approach "is designed to code every relationship between 'political objects that appears in a text, either between two political actors or between a political actor and a political issue." In this analysis, I am mainly interested in the actor-issue sentences. "In this method, each sentence of an article is reduced to its most basic 'core-sentence' that contains only the subject (the actor) , the object (the issue) and the direction of the relationship between the two." The number of core sentences is thus different from the number of grammatical sentences in the article. For example, the sentence: "The pro-European Lib Dems tend to do less well in European elections, but, as with some smaller parties they may have gained from opposition to the Iraq war" is coded as Liberal Democrats/+1/European and Liberal Democrats/-1/Iraq War. For the issues variables I use in this analyses, coder disagreement was 0.85 (all citations and references above are from (Kriesi, Grande, Dolezal, Helbling, Hoglinger, Hutter and Wuest 2012: 42-43)).

Table 3: Issue Areas used in the newspaper dataset by Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012b)

Welfare	Support for expansion of the welfare state; objection to WS retrenchment , support for tax reform with a redistributive character, calls for employment and health-care programs
Economic liberalism	Opposition to market regulation, opposition to economic protectionism, support for deregulation, more competition and privatization
Budget	Support for rigid budgetary policy, reduction of the state deficit, cuts in expenditures, reduction of taxes without direct effect on redistribution
Other major issues covered	Anti-immigration, Europe, Cultural liberalism, Culture, Army , Security, Environment, Institutional reform, Infrastructure

Researcher have used 12 “meta-categories” to capture the thematic conflicts articulated in the political arena during elections. Each category denotes a particular direction either in support or opposition. The categories used are reproduced in Table 3 above. To measure the salience of issue A, we computed the share of all core-sentences that mention issue A. The direction measure computes the average score (- 1 or 1) for all sentences that mention this issue. It has been computed such that a value of 1 captures support for issue A, with issue A associated with the *right* of the political spectrum. The value -1 captures opposition to a rightward policy as it applies to issue area A. Thus, in the case of economic liberalism, 1 is equal to opposition to market regulation, economic protectionism and support for deregulation, etc...while -1 is equal to support for market regulation, economic protectionism and opposition to deregulation.

1.3 The voters: The British Election Study (Milazzo et al. 2012)

Table 4 reports the mean positions that British Election Survey respondents assigned to the Labour and Conservative parties along four policy scales relating to preferences for providing social services versus cutting taxes; support for income redistribution; preferences for fighting inflation versus lowering unemployment; and support for nationalization of industry. Unfortunately, the items are only comparable across these four waves (see (Milazzo, Adams and Green 2012: 266)). The scale runs from 1 to 11 with higher values indicating more right-wing positions on these policy issues. For all items, except for the one on privatization, the biggest changes in perceived differences are around the time of the 1997 and 2001 elections.

Table 4: British Election Study Respondents' Mean Placements of the Labour and Conservative Parties, 1987–2001

policy		1987	1991	1997	2001
Social Services	Labour	3.03	2.83	3.59	4.17
	Conservative	7.16	7.06	6.94	6.21
	Difference	4.13	4.23	3.35	2.04
Nationalization	Labour	2.92	3.59	4.66	5.45
	Conservative	9.14	8.38	8.00	7.50
	Difference	6.22	4.79	3.34	2.05
Inflation/unemployment	Labour	2.33	2.98	3.14	3.73
	Conservative	6.38	6.44	6.16	5.88
	Difference	4.05	3.46	3.02	2.15
Redistribution	Labour	2.95	3.08	3.49	4.65
	Conservative	8.43	7.90	8.21	7.47
	Difference	5.48	4.82	4.72	2.82
Average Lab-Con gap		4.97	4.33	3.61	2.27

“Difference” report the difference between the mean placements of the Conservative Party and the mean placement of the Labour Party. All four scales are from 1 to 11, with higher numbers denoting more right-wing responses. Source: British Election Survey, reproduced from Milazzo, Adams and Green (2012).

2 Measurements

2.1 Latent class model of economic policy preferences

2.1.1 Model fit comparison

We estimated the optimum number of latent classes that provides the best fit to our data. Table 5 provides a comparison of fit between models with 1 up to 5 classes. Model fit greatly improves if we hypothesize the existence of 3 different classes. The rate at which the BIC changes clearly decreases above three classes. Increasing the number of latent classes beyond three only results in the break down of the non-ideologue residual category, while the proportion of the sample composed of left and right-wingers stays the same.

Table 5: Model Fit comparison: Measurement Model

# Latent Classes	LogLik	BIC	AIC	Npar
1	-327,148	654,511	654,344	24
2	-309,464	619,447	619,045	58
3	-303,215	607,360	606,639	104
4	-299,631	600,710	599,586	162
5	-297,338	596,748	595,140	232

2.1.2 Estimates from the Latent Class measurement model

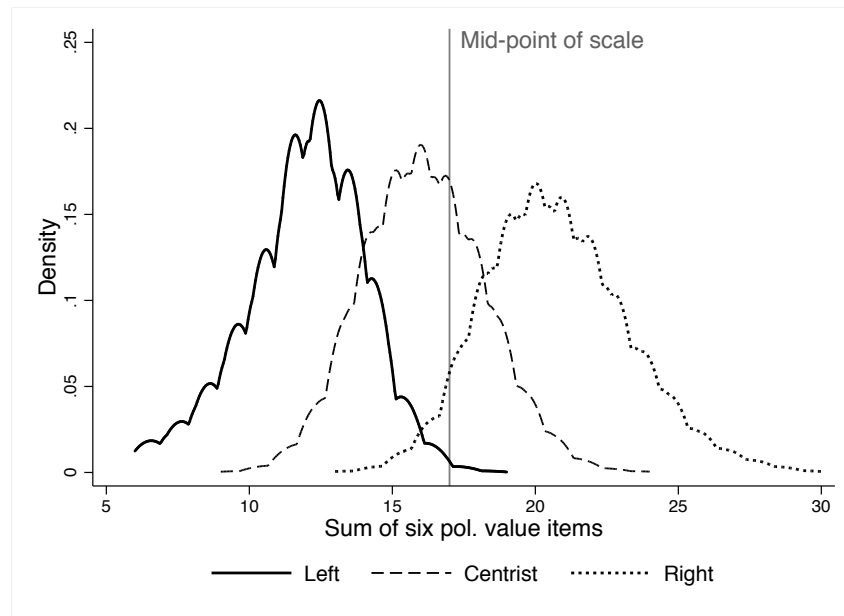
The estimates from the Latent Class measurement model are shown in table 6 below. The entries are the estimated response probabilities for each categorical answer of the survey items for people in that class. Individuals in class 1 and 3 have mirroring response patterns. For instance, individuals in class 1 have a probability of 0.67 to agreeing or agreeing strongly with the claim that public services should be state owned. Individuals in class 3, have a probability of disagreeing or disagreeing strongly of 0.62. This is the same patterns for all questions except for questions A and B, which show a strong bias in favor of a left-wing answer. These two questions were the only one where disagreeing was associated not with an economically conservative but an economically liberal position, potentially explaining this bias. However, overall, individuals in class 3, are still much less likely to take on a 'liberal' position on these two questions (0.38 vs 0.95 for individuals in class 1 for item A). We consequently identify individuals in class 1 as holding left-wing economic preferences and individuals in class 3 as holding right-wing economic preferences. Of interest is the very low probability of the left-wingers to ever take a 'neither-nor' position (response 3).

Latent class 2 stands out for its low probability of taking 'extreme' positions (answer 1 or 5) on any of the six items. These individuals have a higher propensity of rejecting both extreme liberal and conservative positions. There is a left bias in this category, confirming here the claim that, on average, the British population is in favor of government intervention and is aware of social inequality. We call this class non-ideologue centrists.

Table 6: Estimates from the Latent Class measurement model

	Ideology: Classification			
	Leftist	Centrist	Rightist	Overall
<i>Proportion</i>	<i>0.20</i>	<i>0.58</i>	<i>0.22</i>	
Item A				
1	0.40	0.06	0.03	0.12
2	0.55	0.54	0.40	0.51
3	0.04	0.26	0.31	0.23
4	0.00	0.13	0.25	0.13
5	0.00	0.01	0.01	0.01
Mean	1.65	2.48	2.81	2.38
Item B				
1	0.12	0.03	0.00	0.04
2	0.51	0.30	0.06	0.29
3	0.32	0.47	0.34	0.41
4	0.05	0.19	0.50	0.23
5	0.00	0.01	0.10	0.03
Mean	2.30	2.87	3.64	2.93
Item C				
1	0.46	0.09	0.04	0.15
2	0.51	0.55	0.39	0.51
3	0.03	0.21	0.25	0.18
4	0.00	0.14	0.28	0.15
5	0.00	0.01	0.04	0.02
Mean	1.58	2.44	2.90	2.37
Item D				
1	0.16	0.05	0.01	0.06
2	0.51	0.33	0.11	0.32
3	0.25	0.35	0.28	0.31
4	0.08	0.25	0.50	0.27
5	0.00	0.02	0.10	0.04
Mean	2.26	2.87	3.59	2.91
Item E				
1	0.13	0.06	0.00	0.06
2	0.53	0.40	0.08	0.36
3	0.17	0.21	0.13	0.19
4	0.16	0.30	0.62	0.35
5	0.01	0.02	0.16	0.05
Mean	2.39	2.83	3.85	2.97
Item F				
1	0.23	0.08	0.01	0.09
2	0.60	0.48	0.14	0.43
3	0.13	0.26	0.24	0.23
4	0.03	0.17	0.48	0.21
5	0.00	0.02	0.14	0.04
Mean	1.97	2.56	3.61	2.68

Figure 2: Distribution of three classes of political values on additive index of observed survey items



Source : BHPS, 1991-2008

2.1.3 Distribution of latent classes over additive index

Figure 2 plots the distribution of our three latent classes - leftist, centrist and rightist - on the additive index of the six single items that were utilized here. The additive index is a commonly adopted approach when using these Likert scale items. As Figure 2 shows very clearly, the latent class model distinguishes very well between three types of respondents. Especially those with clear economic policy preferences are very well separated, with only a small minority overlapping in the middle of the scale. As expected the centrist class also expresses mid-range scores. Hardly anybody in this classification is below 12 or above 20 on the 6-30 scale. Based on this result, we feel confident that the classifications estimated using latent class modeling make a meaningful distinction between different economic policy preferences.

2.2 Measuring material hardship

1. *Income drop ("Drop of income by at least 25%")*
 - $\text{Inc}(t) / \text{Inc}(t-1) < 0.751$
 - 15.8% have income drop of 25% or more
2. *Unemployment ("Lost job")*
 - We simply classified people into three different categories: employed in t-1 and t (98%); unemployed in t-1 and t (0.5%); became unemployed (1.2%)
3. *Subjective financial situation (Got worse)*

- Using question about current financial situation, which was dichotomized to those responding that situation is difficult (response cat 4 and 5)
- $Finsit(t-1) = 0 \rightarrow Finsit(t) = 1$
- Only about 2.6% changed from a good/ok financial situation to a difficult one.

4. *Subjective job security (Got worse)*

- Using question about subjective job security, which was dichotomized to those responding that job got less secure (response cat 1 to 3)
- $Jobinsec(t-1) = 0 \rightarrow Jobinsec(t) = 1$
- Only about 3.1% changed from a good/ok job security to a difficult one

2.3 Other longitudinal measures of economic preferences in the UK

2.3.1 The British Social Attitude Survey

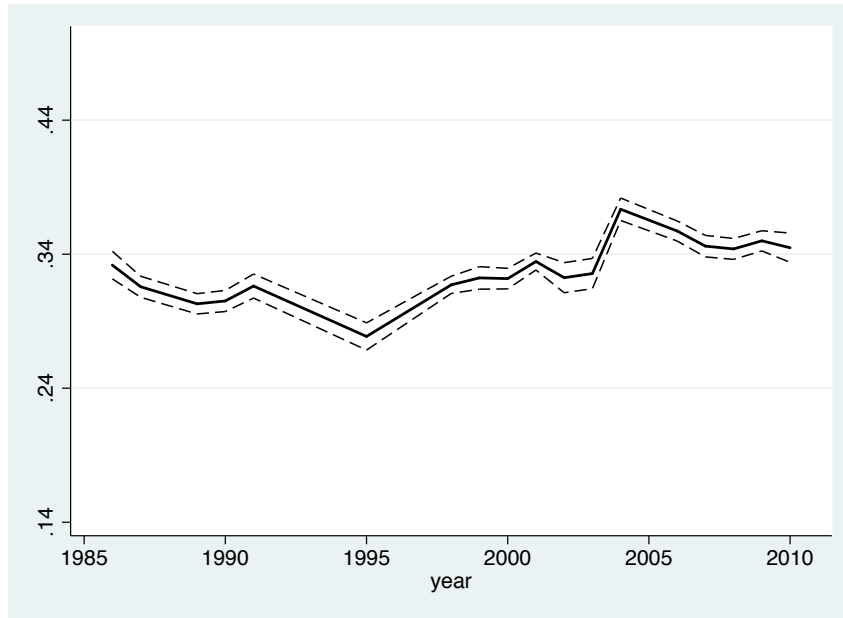
The British Social Attitude Survey (BSAS) provides 6 items that are comparable to the ones used in the BHPS. Respondents were asked to answer the following questions: "How much do you agree or disagree that... :"

- Government should redistribute income from the better-off to those who are least well-off?
- Management will always try to get the better of employees if it gets the chance
- There is one law for rich and one for poor?
- Working people not get fair share of nation's wealth
- The gap between high and low incomes is too large
- Do you think it should or should not be the government's responsibility to provide a job for everyone who wants one.

These items all load on the same dimension. For each available year, the Cronbach alpha is always very high (between 0.74 and 0.8). Figure 3 plots the factor scores, using the same factor loadings across all years. The y-axis is scaled to be centered around the mean, plus or minus one standard deviation (obtained from the full distribution of scores when pooling all years). Higher values indicate more conservative patterns of answer. The decline in left-wing survey answers happens in the mid to late 1990s. Figure

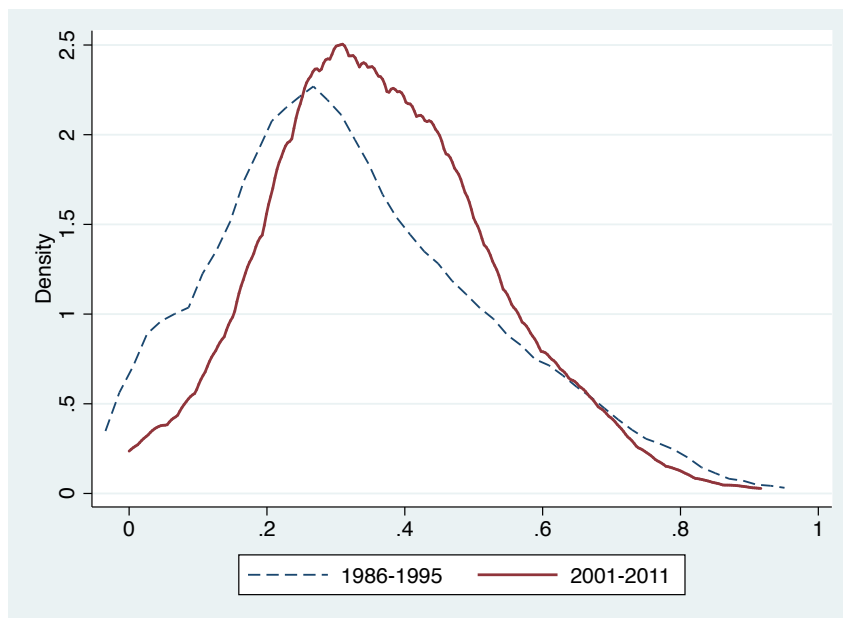
Figure 4 plots the kernel density for selected years, contrasting the post and the pre-1997 periods. The shift to the right is here more obvious: because most of the shift has been away from the "left/liberal" tail without a mirroring increase in the "conservative" tail of the distribution, the mean does not capture the full extent of the change. In the UK, the conservative shift seems to have been mainly about a decrease in "consistent" liberal patterns of answers in favor of less constrained response patterns : what was a left-skewed distribution is now normally distributed. The result is a decrease in the standard deviation representing 15 percent of the average standard deviation of the variable over the full period (not shown).

Figure 3: Trends in the BSAS redistribution indices - UK



Source : BSAS longitudinal dataset.

Figure 4: Density plot of the BSAS redistribution index for selected years - UK



Source : BSAS longitudinal dataset.

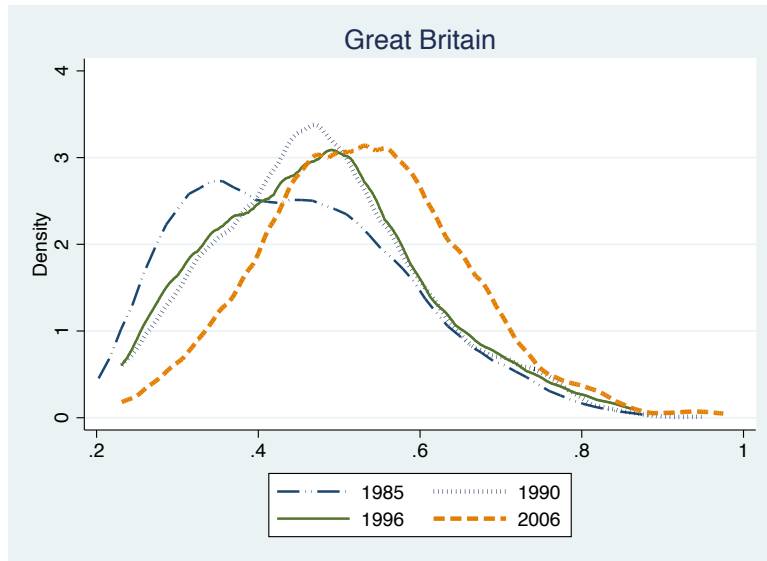
2.3.2 The International Social Survey Programme

The ISSP Role of government module provides an interesting final overview of the timing of attitudinal in UK. It was filed in 1985, 1990, 1996 and 2006. We use 8 questions which ask respondents whether they agreement or disagreement with the following statements:

- V51 : Government control prices
- V52: Government provide health care for sick
- V53: Government provide living standard for the old
- V54 : Government help industry grow
- V30 : Government finance projects for jobs
- V33 : Support declining industries to protect jobs
- V50 : Government provide jobs for everyone
- V41 : Spend more money on unemployment benefits
- V56 : Government responsibility to reduce diff Rich Poor
- V55 : Government living standards of the unemployed

Using both exploratory and confirmatory (on the US data) factor analysis on the pooled survey waves, we find that all these questions load on a single dimension. Cronbach's alpha is over 0.75 on average. We thus compute a simple mean index using all the available questions. Figure 5 plots density scores for all years. For the UK, the conservative shift appears much more consequential using this index than using any of the other measures presented above. While there is a shift to the right comparing 1990 to 1985, there is no evidence of change between 1990 and 1996. Ten years later in 2006, there is a substantial shift away from left-wing economic policy attitudes. Remember that 1893 was a year of intense polarization, with the Labour party pushing a redistributive agenda. That year, the left tail of the density curve (i.e. left-wing attitudes) is at its peak. Unfortunately, our panel data does not allow us to examine the 1985-1990 shift. Our model would predict that the decline observed between 1985 and 1990's is most likely the reflection of the moderation of the Labour party's agenda in the late 1980's than its trigger.

Figure 5: Support for Government Funded Income Protection in the UK 1985-2006



Source: ISSP Role of Government I / II / III / IV.

3 Results main models: UK

3.1 Covariates on initial state

Table 7: Covariates on initial state

	LIBERAL		CENTRIST		CONSERVATIVE	
	<i>coef.</i>	<i>s.e.</i>	<i>coef.</i>	<i>s.e.</i>	<i>coef.</i>	<i>s.e.</i>
Intercept	-0.61*	0.25	2.85***	0.21	-2.24***	0.29
Age	0.01***	0.00	-0.03***	0.00	0.02***	0.00
Female	0.08**	0.03	0.13***	0.02	-0.21***	0.03
Education: Primary educ	0.26***	0.06	0.24***	0.05	-0.49***	0.07
Low sec-voc	-0.10*	0.05	0.14***	0.04	-0.04	0.05
High sec, mid voc	-0.16*	0.07	-0.13*	0.06	0.28***	0.06
Higher voc	-0.05	0.06	-0.07	0.05	0.11*	0.05
Degree	0.05	0.07	-0.19**	0.06	0.14*	0.06
Class: Service	-0.22***	0.06	-0.11*	0.05	0.33***	0.06
Intermediate	-0.10	0.06	-0.04	0.06	0.13*	0.06
Self-employed	-0.47***	0.09	-0.14	0.07	0.61***	0.08
Lower sales services	-0.04	0.07	0.08	0.06	-0.04	0.09
Technicians	0.42***	0.09	0.14	0.08	-0.56***	0.11
Manual workers	0.40***	0.07	0.08	0.07	-0.48***	0.10
Housing: Own	-0.41***	0.07	0.11	0.06	0.30***	0.07
Mortgage	-0.28***	0.04	-0.05	0.04	0.33***	0.05
Social	0.54***	0.07	0.14*	0.07	-0.68***	0.11
Rented	0.14*	0.06	-0.20**	0.06	0.05	0.08
Logged income	0.03	0.03	-0.13***	0.02	0.10**	0.03

Significance levels: * $p < .05$, ** $p < .01$ *** $p < .001$. Data: BHPS (1901-2007).

Note: Effect coding! All variables are measured at the time when respondents entered the panel. N obs.: 7,582.

3.2 Transition probabilities over time

Figure 6: Leftist Realignment (Centrist in $t - 1$; Leftist in t)

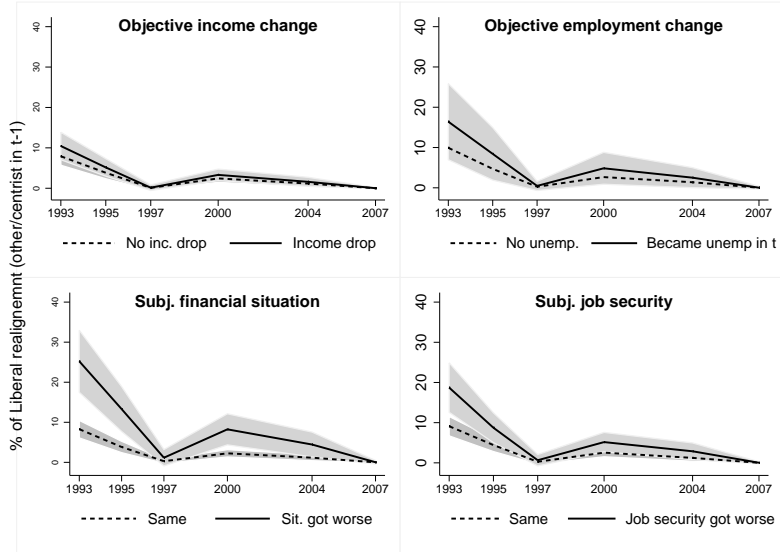
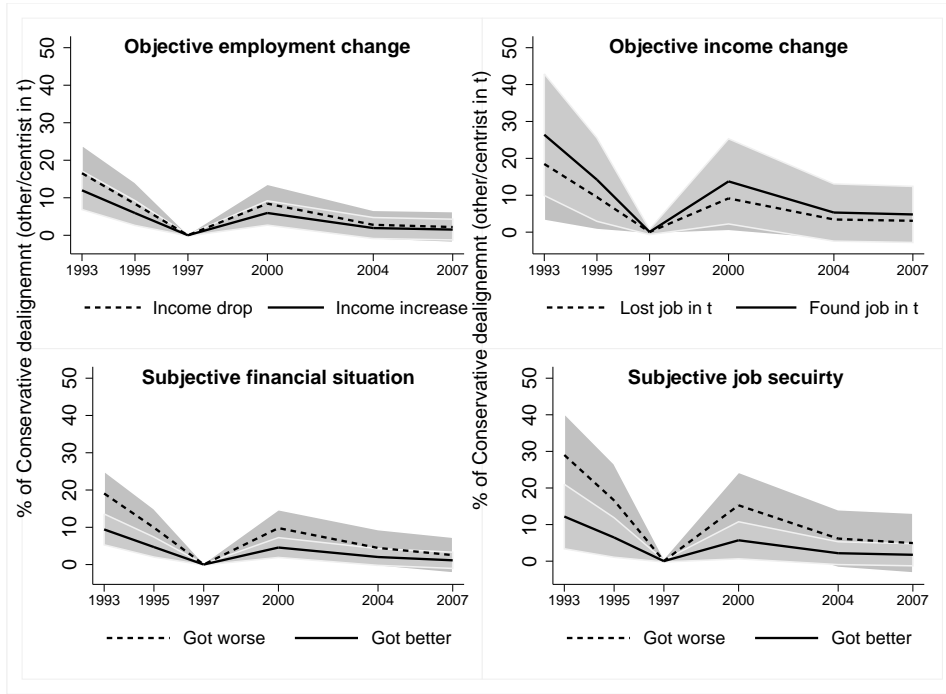
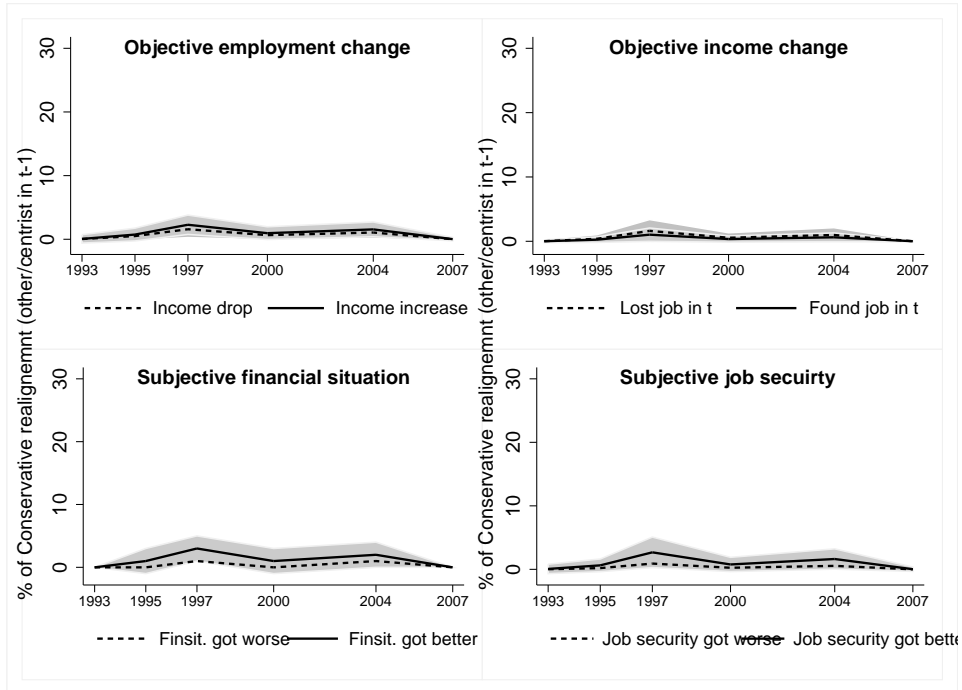


Figure 7: Changes in Rightist Economic Preferences



(a) Rightist Dealignment (Rightist in t-1; Centrist in t)



(b) Rightist Realignment (Centrist in t; Rightist in t)

Figure 8: Predicted probabilities of movement out of and into conservative ideology over time based on changes in material interest (incl. 95% C.I.)

4 Additional robustness checks for UK

4.1 Predicting transition probabilities: Conditioning on political interest

	Pol. int.	LEFT-WING		CENTRIST		RIGHT-WING	
		<i>coef.</i>	<i>s.e.</i>	<i>coef.</i>	<i>s.e.</i>	<i>coef.</i>	<i>s.e.</i>
Unemployment							
Employed in t and t-1	1=not int.	-0.157	0.481	1.078*	0.491	-0.921	0.888
	2	-1.023*	0.512	0.617	0.519	0.405	0.955
	3	-1.084*	0.467	-0.400	0.459	1.484	0.854
	4=very int.	-0.309	0.538	-1.688***	0.464	1.997*	0.893
Unemp in T and T-1	1=not int.	-0.169	1.120	-0.228	0.970	0.397	1.772
	2	0.954	1.040	-0.960	1.091	0.007	2.036
	3	-1.426	0.884	1.242	0.845	0.184	1.511
	4=very int.	1.798	1.354	-1.907	1.459	0.109	2.523
Became unemp in T	1=not int.	-0.383	1.082	-0.007	0.915	0.390	1.631
	2	1.131	1.111	-0.265	1.698	-0.866	2.665
	3	0.939	0.596	-0.713	0.632	-0.226	1.058
	4=very int.	-3.485***	0.940	-0.657	0.819	4.142**	1.437
Found job in T	1=not int.	0.708	0.728	-0.842	0.686	0.134	1.225
	2	-1.062	2.137	0.608	2.784	0.454	4.744
	3	1.571**	0.563	-0.130	0.632	-1.441	1.040
	4=very int.	1.996	1.775	4.252*	1.806	-6.248	3.350
Income							
No significant changes	1=not int.	0.680*	0.307	1.135**	0.351	-1.814***	0.549
	2	-0.117	0.274	0.680*	0.301	-0.563	0.481
	3	0.002	0.275	-0.334	0.308	0.332	0.488
	4=very int.	-0.077	0.444	-0.566	0.394	0.642	0.639
Drop by at last 25%	1=not int.	-0.005	0.452	-1.058**	0.369	1.063	0.622
	2	0.617	0.395	0.264	0.420	-0.881	0.600
	3	0.181	0.423	0.501	0.498	-0.681	0.717
	4=very int.	-0.513	0.587	2.186***	0.469	-1.673*	0.828
Increase by at last 25%	1=not int.	-0.675	0.425	-0.076	0.373	0.751	0.591
	2	-0.500	0.369	-0.944**	0.333	1.444**	0.524
	3	-0.183	0.401	-0.167	0.440	0.349	0.652
	4=very int.	0.589	0.492	-1.620***	0.414	1.031	0.664

Significance levels: * $p < .05$, ** $p < .01$, *** $p < .001$. Data: BHPS (1991-2007).

Note: Effect coding! All variables are measured as the time difference between two surveys that included the redistribution items. N obs.: 5,745.

	Pol. int.	LEFT-WING		CENTRIST		RIGHT-WING	
		coef.	s.e.	coef.	s.e.	coef.	s.e.
Job security							
Unchanged	1=not int.	0.094	0.325	1.317***	0.338	-1.412**	0.517
	2	-0.862**	0.305	0.698*	0.301	0.164	0.505
	3	-0.522*	0.265	0.304	0.275	0.218	0.436
	4=very int.	0.503	0.335	-1.211***	0.308	0.709	0.497
Got worse	1=not int.	0.270	0.510	-0.555	0.404	0.285	0.644
	2	-0.101	0.448	-0.583	0.432	0.684	0.700
	3	-0.037	0.388	1.254**	0.385	-1.217	0.593
	4=very int.	0.831	0.533	1.761**	0.539	-2.592***	0.655
Got better	1=not int.	-0.364	0.520	-0.763*	0.393	1.126	0.603
	2	0.963*	0.447	-0.116	0.512	-0.848	0.817
	3	0.559	0.375	-1.558***	0.339	0.999	0.572
	4=very int.	-1.334*	0.532	-0.550	0.505	1.883**	0.584
Financial situation							
About same	1=not int.	0.061	0.180	0.382*	0.165	-0.442	0.256
	2	-0.185	0.127	0.134	0.124	0.052	0.184
	3	-0.131	0.112	-0.040	0.110	0.170	0.150
	4=very int.	0.417	0.238	0.134	0.249	-0.551	0.345
Worse off	1=not int.	0.433**	0.161	-0.365*	0.153	-0.068	0.220
	2	0.407**	0.134	-0.063	0.141	-0.345	0.213
	3	0.440***	0.129	0.234	0.139	-0.673***	0.206
	4=very int.	0.426	0.252	0.050	0.258	-0.476	0.357
Better off	1=not int.	-0.494**	0.174	-0.017	0.141	0.510**	0.192
	2	-0.222	0.135	-0.071	0.128	0.293	0.181
	3	-0.309*	0.127	-0.194	0.119	0.503**	0.157
	4=very int.	-0.843***	0.240	-0.184	0.213	1.027***	0.278

Significance levels: * $p < .05$, ** $p < .01$ *** $p < .001$. Data: BHPS (1991-2007).

Note: Effect coding! All variables are measured as the time difference between two surveys that included the redistribution items. N obs.: 5,745.

4.2 Placebo test: Over time changes in gender attitudes

In order to test whether 1997 was an exceptional year, as people generally moved away from liberal values, we rerun our analysis using a different dependent variable – gender values. Respondents of the BHPS were asked in nine waves whether they 1=strongly disagree or 5=strongly agree with the following items:

- Pre-school child suffers if mother works
- Family suffers if mother works full-time
- Woman and family happier if she works
- Husband and wife should both contribute
- Full time job makes woman independent
- Husband should earn, wife stay at home
- Children need father as much as mother
- Employers should help with childcare
- Single parents are as good as couples

These nine items load very strongly on one underlying factor. Parallel to our main analysis, we estimated a three-class latent class Markov Chain model. Figure 9 plots the proportion of respondents that in each wave change their gender values from either conservative or liberal to centrist. This is the same plot as presented in Figure 2 of the manuscript. As Figure 9 clearly shows, there are no trends in gender values that are comparable to the one exhibited for redistribution preferences. We argue here that this should not be the case, as the elite did not address the issue of gender equality as a particular important political issue in the time period analyzed here.

Figure 9: Value dealignment (Centrist in t ; Liberal or Conservative in $t - 1$)

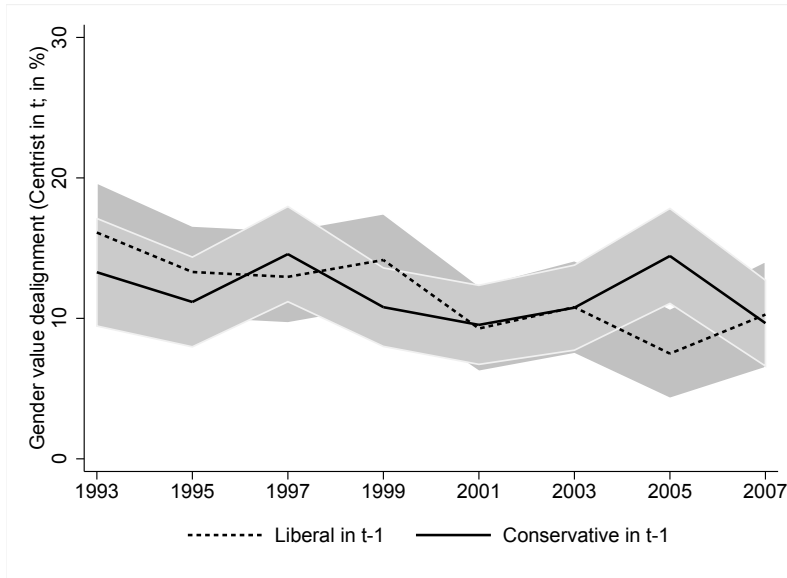
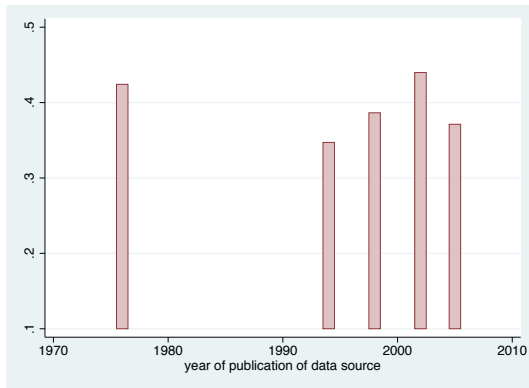
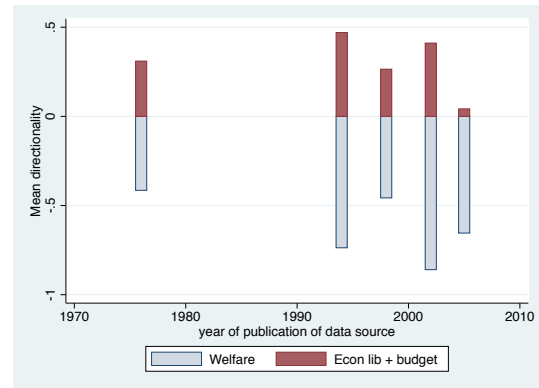


Figure 10: Saliency and average direction of sentences relating to economic and social policy issues - Germany



(a) Total share of economic policies



(b) Relative share of welfare and liberal policies

Figure on the left plots share of sentences addressing relating to welfare policies and economic liberalism. Figure on the right plots the average direction of each sentence. Source: Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012b)

5 Changes in left-wing economic preferences in Germany

5.1 The media 1: The National Election Campaigns Dataset (Kriesi et al. (2012b))

Figure 10, plots the share of all coded sentences that allude to one of the two economic and social policy categories, namely welfare and economic liberalism. We examine change over time in the saliency of these three categories and find any major differences between these two issue areas. We consequently plot them jointly as an overall measure of the saliency of economic and social policy issues.¹

The figure on the right plots the average left-right directions of the newspaper sentences sampled that address either of the two issue areas. Similarly to the UK, most of the change applies to the economic liberalism issue area, which experienced a sharp left-wing shift in 2005, the year *Die Linke* joins the electoral race. We could not document any variation over time in the directionality of sentences that apply to social policies.

¹ The small decrease in saliency in 2005 can be traced back to an increase in the share of sentences that coders have defined as “non attachable,” namely issues that do not mention neither right-wing nor left-wing policies. While we are tempted to draw a parallel with the political authority variable in the manifesto data, having not done the coding myself, we are limited in my interpretation. Interestingly the SPD is often the main source of these “non attachable” comments. Remains to be seen whether this is the SPD walking the fine line between a policy shift to the right and a rhetorical shift to the left in 2005 or just a common occurrence for any party in power for more than a term.

5.2 The media 2: The Public Debates Dataset (Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest 2012a)

The dataset by Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012a), entitled "National Political Change in a Globalizing World. Public debates data" is described in chapter 2 of Kriesi, Grande, Dolezal, Helbling, Hoglinger, Hutter and Wuest (2012). All articles published in the years 2004, 2005 and 2006, in the selected journals are part of the universe of observations. The selection of articles for analyzing the debates on issues related to globalization (and more specifically domestic and international liberalization) was done differently from the selection of articles in the election campaign data. Researchers selected and coded all articles that substantively deal with the issues of interest (including its sub-issues), i. e. with European integration, immigration and economic liberalization. First, the researchers identified relevant events in each country through year books, as well as the national reviews of the newspapers in the sample. This formed the basis for an extensive keyword list for each country, which then helped to identify all relevant articles pertaining to these issues. Researchers then chronologically took a random sample of 1200 articles out of all the selected articles. The coding procedure is identical to the one used for the election campaign dataset. However, the issue areas have been restricted to economic liberalism, immigration and European integration. Economic liberalism was further divided between international and domestic liberalism.

We used this data to better assess changes in the discursive context before and after the 2005 elections, we turn to a different dataset. Kriesi and his team also gathered three years worth of newspaper articles from the *Suddeutsche Zeitung*, one of the largest German national subscription daily newspapers in Germany a center-left newspaper with a little less of 500 000 copies sold daily.² This dataset (Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest 2012a) is different in that it is not limited to the election period but covers the whole year. In contrast to the election newspaper data, the research team only examined the economic liberalism issue area. They further distinguished between domestic economic liberalism and international liberalism, allowing us to better examine whether this change in discourse is indeed related to the Hartz IV reforms.

Using this data, we can document an increase in the number of sampled sentences that allude to economic liberalism. While researchers coded 520 such sentences in 2004, the number jumped to 842 in 2005 and 965 in 2006. In contrast the number of sentences that alludes to the other two issues also considered in this analysis (i.e. Europe and immigration) remained around a thousand each. Given an increase in the number of sentences that allude to economic liberalism, does the average direction taken in these sentences also changes over time? Table 8 provides the mean for the domestic liberalism sub-topic. This documents a sharp increase, in 2006, in "left-wing" (equal to -1) core-sentences on the issue of domestic economic liberalism. This shift to the left does not seem to have taken the shape of an opposition to international liberalism (e.g. an increase in protectionism). Not only does this match our expectations about the centrality of Hartz IV, it is also in line with the importance of exports and free-trade for the German economy.

In contrast to the election newspaper data, there is no evidence of a shift starting in 2005. This can be traced back to the differences between the two datasets in the data collection process. Indeed in the year-long data half of the sentences in 2005 come from a pre-election sample (elections in

² It is called the "New York Times of Munich" in an online profile available on the Goethe Institute website: <http://www.goethe.de/wis/med/pnt/zuz/en556318.htm>, retrieved on July 10th 2014.

Table 8: Average direction in statements on domestic economic liberalism

Variable	Obs	Mean	Confidence Interval	
2004	208	.25	.12	.38
2005	302	.252	.15	.36
2006	382	.054	-.04	.15

Large value indicate more conservative statements on average. Source Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012a)

2005 were held in late September). The election data thus has an over-representation of political actors in full campaign mode while this second dataset collects statements from a more diverse set of actors. Once we break the core-sentences down as a function of whom was the statement source is, we document a similar left-wing shift from political actors (and unions) but no such shift in sentences coming from the Executive in power or business leaders.

5.3 Cross-country comparison: Is Germany an exceptional case?

Key to our argument about Germany is the claim that the salience of economic and redistributive issues increased in 2005-2006 and that this resulted in a shift to the left in terms of the mix of considerations individuals are exposed to (as proxied by newspaper data). In other words, the argument rests on the fact that the left turn we find in 2005 in the National Elections Campaign (NEC) data and in 2006 in the Public Debates (PD) data, are not a blip. To do so we examine whether other countries in the datasets have experienced year specific leftward shifts in economic issue areas (welfare, economic liberalism and budget). Also, are the trends in other countries in line with what we know about this countries, further confirming that newspapers are a good proxy for measuring changes in the discursive context. We first examine evidence of left-wing shifts on these issues, then evidence of a left-wing shifts. The countries are France, Germany, UK, The Netherlands, Austria and Switzerland.

- Right-wing shift: For France, the NEC data indicates a conservative shift on economic liberalism in 2002, when Sarkozy comes to power on a “make work pay” platform. In the UK, the PD data (not used in the UK case study) further documents a conservative shift on economic liberalism.
- Left-wing shift: Switzerland appears to have experienced a leftward shift on economic liberalism in 2003 (this category also increases in salience). Relative to 2002, the 2006 election in Austria also appears to have been one where economic liberalism has increased in salience and experienced a leftward turn. We can also confirm this shift for Austria in 2005 using the PD data. In other words, for the for the PD data out of six countries covering three years (i.e. 18 country/years) we could only document three left-wing turns.
- Stability: For the Netherlands, standard errors are too big to capture any change between two years. To the exception of the four cases above (to which we add Germany), we could not document evidence of change in salience of any of these three economic issue areas. In all countries the welfare category is clearly left-wing and relatively stable.

Table 9: Average direction in statements on economic liberalism, by actors

Year	Nber Obs	Mean	Confidence Interval	
parties				
2004	75	0.39	0.17	0.60
2005	135	0.09	-0.08	0.25
2006	136	-0.10	-0.27	0.05
union				
2004	55	-0.62	-0.82	-0.41
2005	50	-0.48	-0.72	-0.24
2006	73	-0.71	-0.87	-0.55
business				
2004	111	0.46	0.30	0.62
2005	202	0.36	0.24	0.49
2006	143	0.32	0.16	0.47
The executive				
2004	26	0.46	0.11	0.81
2005	89	0.34	0.14	0.54
2006	105	0.44	0.28	0.60

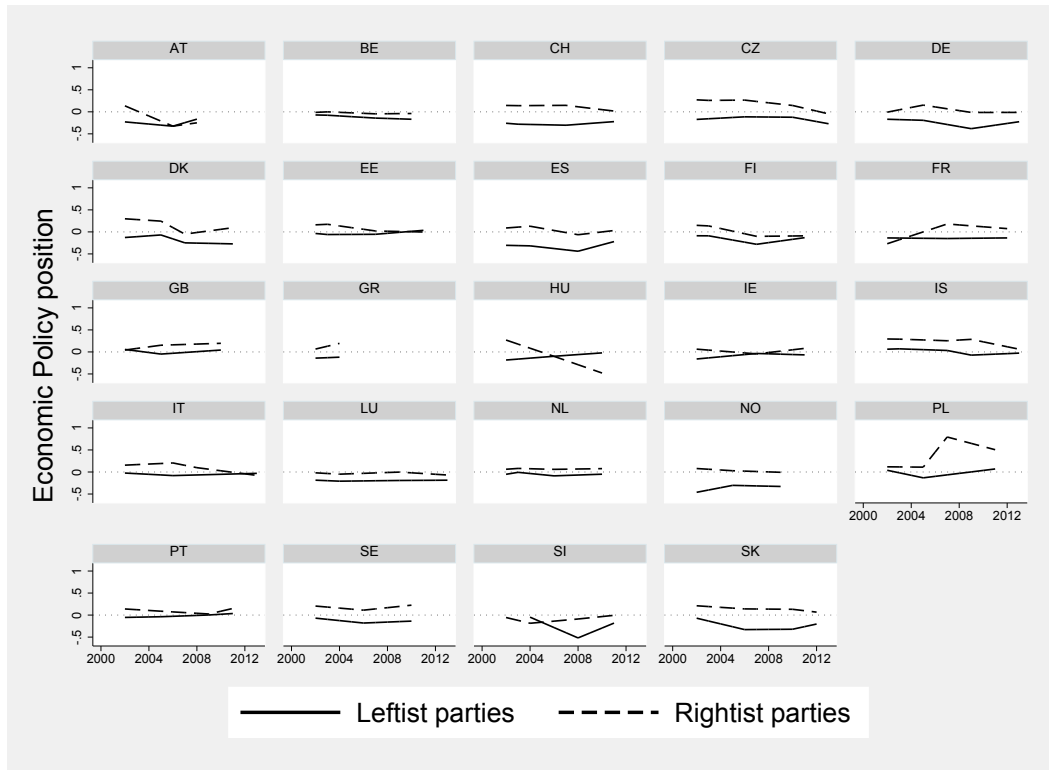
The actors above represent over 75 percent of all the core-sentences coded as relating to domestic economic liberalism.

Source: Kriesi, Grande, Donezald, Helbling, Hoeglinger, Hutter and Wueest (2012a)

6 European Cross-sectional Analysis

6.1 Economic Policy Positions across countries

Figure 11: Weighted mean economic policy positions of leftist and rightist parties over time by country



Source: CMP. Only Western European countries. Using Lowe et al. (2011) formula. Each dot represents the mean positions of all leftist and all rightist political parties in each election. The lines represent lowess functions.

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