Appendix 2.

Our policy attitudinal data for the three issues are taken from the European Social Survey (ESS) and the European Values Study (EVS). We measure attitudes to immigration with a factor variable based on the six immigration items in the ESS of 2002/3 and 2018/9. Regarding unemployment, we use the ESS’s single question on the topic asked in 2008 and 2016: ‘To what extent do you think it is the responsibility of the government to ensure a reasonable standard of living for the unemployed?’, with respondents given an eleven-point scale. Finally, regarding attitudes to the environment, there are numerous sources of data measuring, for example, belief in climate change, the priority that the environment protection should be given vis-à-vis economic growth, etc. We choose a question that relates most closely to the previous policy questions: “To what extent do you agree that ‘I would give part of my income if I were certain that the money would be used to prevent environmental pollution’” as taken from the EVS in 2008/9 and 2018/19.

We display the density distributions of the resulting factor scores by country in Figure A1, arranging the countries from the most favourable to immigration to the most opposed to immigration, rather than grouping the countries by region. In fourteen of the countries, the attitude toward immigration becomes more positive over time (which is indicated by a right-ward shift of the curve), in five—Poland, Italy, Austria, Czechia and Hungary—it becomes more negative and in three the ESS only provides data for one wave. If attitudes become more positive over time in most countries, the corresponding changes are, however, not major. There is little evidence of greater polarisation: only in three countries do we see a slightly greater proportion of citizens at both extremes in 2018: Slovenia, Italy and Austria. Elsewhere it is unlikely that attitudinal polarisation has contributed to greater politicisation.

Figure A1: Changing distribution of attitudes to immigration in European countries between 2002 and 2018.



Source: European Social Survey, 2002 (2004 for Estonia) and 2018 (2016 for Slovenia, Spain and Sweden)

Next, we consider attitudinal change regarding unemployment. As shown in Figure A2, of the 20 countries considered, in order of belief in 2016 that the standard of living of the unemployed is the responsibility of the government, there is greater belief that the standard of living of the unemployed is the responsibility of the government in only three countries: Czechia, Belgium and the Netherlands. In eight countries, the reverse is true: Finland, Sweden, Estonia, Ireland, Hungary, Poland, Germany and the UK. In six countries we see no discernible change—Spain, Norway, Portugal, Slovenia, France and Switzerland—while three countries—Italy, Austria and Lithuania—were only asked this question in 2016. Regarding change in polarisation, in none of the countries do we see a greater proportion of citizens at both extremes. Instead, the distributions remain remarkably similar in most countries across the two waves. It therefore is unlikely that greater attitudinal polarisation has contributed to politicisation of the issue of unemployment after 2008.

Figure A2: Changing distribution of attitudes to government responsibility for the unemployed in European countries between 2008 and 2016.



Source: European Social Survey, 2008 and 2016

Finally, we consider attitudinal polarisation regarding the environment. We display the distributions of responses by country in Figure A3, starting with the country with the greatest willingness to sacrifice individual income for greater environmental protection in 2017/18. Of the 20 countries surveyed, twelve display greater willingness to sacrifice their income for greater environmental protection, four display no change, and four—Bulgaria, the Netherlands, Slovakia and Lithuania—report less willingness than in 2008/9. However, as with unemployment, we see no evidence of dynamic polarisation—in no countries we observe an increase in the proportion of citizens at both extremes reported.

Figure A3: Willingness to give income to prevent environmental pollution.



Source: European Values Study, 2008/9-2017/18

Overall, In 14 of 22 European countries, attitudes to immigration became more favourable and only in five did they become more negative, with evidence of greater polarisation only in three countries. There is greater belief that the standard of living of the unemployed is the responsibility of the government in only three countries of the 20 countries considered, with the reverse true in eight countries, with no countries showing greater polarisation. Twelve of twenty countries display greater willingness to sacrifice their income for greater environmental protection, four display no change, and four report less willingness in 2017/18 than in 2008/9, with no evidence of polarisation.

Panel vector autoregression models with granger causality testing

Below, in Table A1, we see the results of our six panel vector autoregression tables. Vector autoregression allows us to disentangle the causal relationship between two covarying variables but treating both variables as endogenous to each other. Panel vector autoregression allows us to make use of our panel dataset by fitting a multivariate panel regression of each dependent variable on lags of itself, lags of all other dependent variables, and lags of exogenous variables, if any. In this case we use our three societal trends as exogenous variables respectively. See Abrigo and Love (2016) for a full explanation of both panel vector autoregression and its application in Stata. Such models allow us to further test for granger causality by testing which of the two dependent variables precedes the other. These represent more robust but less efficient tests of our Hypothesis 3 since they only use lags as independent variables (aside from our exogenous societal trends) resulting in greater robustness but also a loss of observations and, theoretically, stretching the duration of the effect of our lags significantly since there are at least six months between waves.

Overall, we see that aside from the six dependent variable’s own lags—which are statistically significant in models 1, 3, and 5—on only one occasion is another independent variable statistically significant: the effect of the public issue salience of immigration on the proportion of the party system issue agenda devoted to immigration. Notably, the latter effect is even stronger than the effect of the lag of the party system issue agenda on the party system issue agenda. As such, we find evidence to support hypothesis 3a.

Table A1. Six panel vector autoregression tables

|  |  |  |
| --- | --- | --- |
|  | Public issue salience | Party system issue agenda |
| *Immigration models* | (1) | (2) |
| Lag public issue salience | 1.02\*\*\* | 1.13\*\* |
|  | (0.14) | (0.56) |
| Lag party system issue agenda | -0.03 | 1.06\*\*\* |
|  | (0.03) | (0.19) |
| Immigration rate | -0.00  (0.03) | -0.03  (0.02) |
| Observations | 486 | 486 |
| *Unemployment models* | (3) | (4) |
| Lag public issue salience | 0.94\*\*\* | 0.03 |
|  | (0.05) | (0.06) |
| Lag party system issue agenda | 0.01 | 0.96\*\*\* |
|  | (0.03) | (0.05) |
| Unemployment rate | 0.01\*\*\*  (0.00) | -0.00  (0.00) |
| Observations | 673 | 673 |
| *Environment models* | (5) | (6) |
| Lag public issue salience | -0.16\*\*\* | 0.00 |
|  | (0.05) | (0.01) |
| Lag party system issue agenda | -0.01 | 0.79\*\*\* |
|  | (0.21) | (0.08) |
| Temperature anomaly | 0.01\*\*\*  (0.00) | 0.00\*\*\*  (0.00) |
| Observations | 430 | 430 |

Notes: Standard errors in parentheses; \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table A2. Panel vector autoregression granger causality WALD tests

|  |  |  |  |
| --- | --- | --- | --- |
|  | X2 | df | Prob>X2 |
| *Immigration* | | | |
| *Public issue salience* |  |  |  |
| Party system issue agenda | 0.611 | 1 | 0.434 |
| *Party system issue agenda* |  |  |  |
| Public issue salience | 3.960 | 1 | 0.047 |
| *Unemployment* | | | |
| *Public issue salience* |  |  |  |
| Party system issue agenda | 0.015 | 1 | 0.903 |
| *Party system issue agenda* |  |  |  |
| Public issue salience | 0.244 | 1 | 0.622 |
| *Environment* | | | |
| *Public issue salience* | 0.004 | 1 | 0.951 |
| Party system issue agenda |  |  |  |
| *Party system issue agenda* | 0.720 | 1 | 0.396 |
| Public issue salience |  |  |  |
|  |  |  |  |

Fixed effects panel data models of vote switching

We use the British Election Study (BES) 2014-2021 panel study (Fieldhouse et al, 2021) to produce fixed effects logistic panel models of vote intentions for each party family (except for the radical left, which has no meaningful representation in the UK). Our dependent variable asks individuals for whom they would vote if there were an election tomorrow, except in those waves that just followed a general election in which case they are asked whom they just voted for. The estimator is logistic, owing to the binary response variable. The study asks respondents what they think is the most important issue affecting their country, with the open-ended responses of the first 13 waves of the study (up until June 2017) having been categorised and used in our analyses. For policy questions, we use a factor variable made from three questions measuring attitudes to immigration, a question on belief that ‘measures to protect the environment’ have gone too far, and a question on belief that it is not one’s own fault if one is unemployed.

Perceiving immigration or the environment as highly salient increases one’s chance of intending to vote for the radical right or greens, respectively, while both perceptions reduce one’s chance of intending to vote for the conservatives or social democrats. In terms of policy attitudes, we also see effects, highlighting once again the complementary importance of spatial as well as salience voting for electoral change: pro-immigration attitudes encourage switching to both the conservatives and social democrat parties, while reducing the chance of voting for the radical right. Increased anti-environmentalism increases one’s chance to switch to the radical right and from the greens, while unemployment attitudes only affect switching to and from both the conservative and social democrat parties. Salience and policy attitude effects on switching to and from the liberal party are not statistically significant, though the directions of effect are theoretically plausible.

**Table A3**. Fixed effects panel data model of intending to vote for each respective party family, British Election Study

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | (1) | (2) | | (3) | (4) | (5) |
|  | Conservative | Social democrat | | Liberals | Radical right | Greens |
|  |  |  |  | |  |  |
| *Most important issues* |  |  |  | |  |  |
| Immigration | -0.21\*\*\* | -0.31\*\*\* | -0.12 | | 0.53\*\*\* | -0.13 |
|  | (0.05) | (0.07) | (0.12) | | (0.05) | (0.15) |
| Environment | -0.40\*\*\* | -0.31\*\*\* | 0.15 | | -0.00 | 0.43\*\*\* |
|  | (0.15) | (0.11) | (0.16) | | (0.17) | (0.13) |
| Unemployment | 0.04 | -0.03 | 0.21 | | -0.16 | -0.28 |
|  | (0.16) | (0.10) | (0.18) | | (0.17) | (0.18) |
| *Policy attitudes* |  |  |  | |  |  |
| Immigration factor | 0.11\*\* | 0.25\*\*\* | 0.01 | | -0.36\*\*\* | 0.00 |
|  | (0.05) | (0.05) | (0.08) | | (0.05) | (0.08) |
| Anti-environmentalism | -0.00 | 0.01 | -0.03 | | 0.05\*\* | -0.20\*\*\* |
|  | (0.03) | (0.02) | (0.05) | | (0.02) | (0.05) |
| Unemployment not own fault | -0.10\*\*\* | 0.06\*\* | -0.05 | | -0.01 | 0.01 |
|  | (0.03) | (0.02) | (0.04) | | (0.03) | (0.04) |
| *Wave controls* | Yes | Yes | Yes | | Yes | Yes |
| Observations | 15,008 | 16,931 | 6,186 | | 14,604 | 6,834 |
| Number of id | 3,900 | 4,514 | 1,626 | | 3,803 | 1,828 |

Notes: Standard errors in parentheses \*\*\* p<0.01, \*\* p<0.05, \* p<0.1; wave controls not shown.