Is there a modernization in politics?

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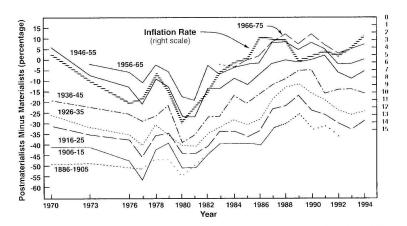


The main hypothesis.

There are large generational differences in attitudes toward materialist values (emphacising economic and physical security) vs. post-materialist values (emphacising self-expression and quality of life).

Does this entail a shift in the emphasis of political debate from economic to non-economic topics? Is this shift driven by economic development?

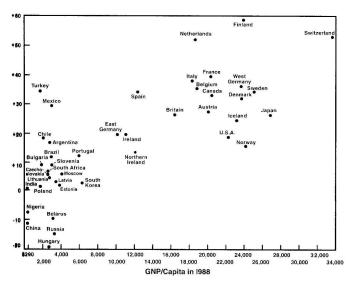
The value shift



Materialism vs. postmaterialism by birth cohort. From Inglehart (1997).



The value shift



Values vs. per capita GDP. From Inglehart (1997).



What is modernization?

- Value shift and social capital: Almond and Verba (1963), Putnam (1993), Inglehart (1990, 1997), Inglehart and Welzel (2005).
- Does economic development lead to democracy? Lipset (1959), Huntington (1991), Barro (1999), Przeworski and Limongi (1997). Equality and democracy: Boix (2003). "Critical junction" theory: Acemoglu, Johnson, Robinson, Yared (2005). "Democratic capital": Persson and Tabellini (2006). Education and democracy: Glazer, Ponzetto, and Shleifer (2005).
- Does democracy lead to development? Barro (1996), Bueno de Mesquita et.al (2003), Glazer, la Porta, Lopez-de-Silanes, and Shleifer (2004), Mulligan, Gil, and Sala-i-Martin (2003), Przeworski et.al. (2000).

What is political left and right?

Economic left/right: Redistribution and public goods production.

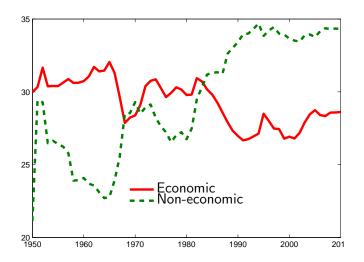
Low taxes, low public goods production vs. high taxes and public goods.

Non-economic left/right: Human rights vs. authority, morality vs. personal liberty.

The goals of this work:

- Quantify the positions of political parties in a sample of countries over a period of time.
- See which factors affect the importance of economic vs. non-economic issues.

Average salience of the two ideological dimensions for 13 countries.



Why do party ideologies change?

- The economic vote.
- Changing preferences of the electorate: Inglehart (1990, 1997)
 "value shift".
- Multi-dimensional instability McKelvey (1976), Miller and Schofield (2003).
- Changing preferences of political actors. Wittman (1983),
 Aldrich (1995), Laver and Hunt (1992).
- Various other reasons: signaling, valence, etc.

Extracting the ideological positions of political parties from the CMP data.

- The CMP project keeps track party policy mainfestos for a number of countries over a period of time.
- The unit of analysis is a party policy manifesto, usually produced in an election year.
- 56 issues, grouped into seven "policy domains"
- Each issue reflects a party's concern with some specific policy area and with direction of such policy.
- Example: If a manifesto sencence is coded as issue per202 ("democracy"), then it is deemed to contain "favorable mentions of democracy as a method or goal in national and other organizations; involvement of all citizens in decision-making, as well as generalized support of democracy in one's country".



Countries used in this study.

| Country | Years | # | Country | Years | # |
|---------------|-----------|----|-------------|-----------|----|
| Sweden | 1952-2006 | 20 | Norway | 1953-2001 | 13 |
| Denmark | 1950-2007 | 22 | Finland | 1951-2003 | 15 |
| Iceland | 1953-2003 | 16 | Belgium | 1950-2003 | 17 |
| Netherlands | 1952-2003 | 16 | Luxembourg | 1951-1999 | 11 |
| France | 1951-2007 | 15 | Italy | 1953-2006 | 14 |
| Spain | 1977-2008 | 10 | Greece | 1974-2000 | 10 |
| Germany | 1972-2009 | 11 | Austria | 1953-2002 | 16 |
| Switzerland | 1951-2003 | 14 | UK | 1950-2005 | 16 |
| Ireland | 1951-2007 | 17 | Cyprus | 1996-2001 | 2 |
| United States | 1952-2008 | 15 | Canada | 1953-2006 | 18 |
| Australia | 1951-2007 | 23 | New Zealand | 1951-2008 | 20 |
| Japan | 1960-2003 | 15 | Israel | 1951-1999 | 14 |
| Sri Lanka | 1952-1977 | 6 | Turkey | 1950-2002 | 14 |
| Albania | 1991-2001 | 5 | Armenia | 1995-2003 | 3 |
| Azerbaijan | 1995-2000 | 2 | Belarus | 1995 | 1 |
| Bosnia | 1990-2002 | 5 | Bulgaria | 1990-2009 | 7 |
| Croatia | 1990-2007 | 6 | Czech rep. | 1990-2002 | 5 |
| Portugal | 1975-2009 | 13 | Estonia | 1992-2003 | 4 |
| Georgia | 1995-2004 | 3 | Hungary | 1990-2002 | 4 |
| Latvia | 1993-2002 | 4 | Lithuania | 1996-2000 | 2 |
| Macedonia | 1990-2002 | 4 | Moldova | 1994-2005 | 4 |
| Montenegro | 1990-2002 | 5 | Poland | 1991-2007 | 6 |
| Romania | 1990-2008 | 6 | Russia | 1993-2007 | 5 |
| Slovakia | 1990-2006 | 6 | Slovenia | 1990-2008 | 6 |
| Ukraine | 1994-2007 | 5 | Korea | 1992-2008 | 5 |
| Mexico | 1952-2000 | 18 | | | |
| | | | | | |

Prior works extracting ideology from CMP data.

- Budge and Robertson (1987), Bartolini and Maier (1990), and Laver and Budge (1992): one-dimensional scales (left-right).
- Laver and Garry (2000) and McDonald and Mendes (2001): two-dimensional scales, (economic and social dimension).
- McDonald and Mendes (2001): one-dimensional scales correlate mainly with the economic dimension of the two-dimensional scale.

CMP vs. the expert survey method.

- The expert surveys: Morgan, (1978), Castles and Mair (1984), Laver and Hunt (1992) and Inglehart and Huber (1995).
- Advantages: importance of an issue to a party can be estimated directly, by asking the appropriate question.
- Disadvantage: experts can confuse the party pre-election program and the set of policies actually carried out by the party under the set of institutional constraints; expert surveys tend to be extremely stable over time (subjective evaluations).

Economic issues.

| Right | Left |
|--|--|
| Free enterprise, economy, protectionism (negative), welfare state limitation, labor groups: negative | Market regulation, economic planning, keynesian demand management, controlled economy, nationalization, marxist analysis, welfare state expansion, social justice, labor groups (positive) |

Noneconomic issues.

Right

National way of life (positive), traditional morality (positive), law and order, multiculturalism (negative), political authority, military (positive), internationalism (negative)

Left

National way of life (negative), traditional morality (negative), multiculturalism (positive), underprivileged minority groups, freedom and human rights, democracy, internationalism (positive), peace, anti-imperialism, military (negative), environmental protection

Neutral issues.

Foreign special relations (positive), foreign special relations (negative), European Community (positive), European Community (negative), constitutionalism (positive), constitutionalism (negative), centralization, decentralization, political corruption, governmental and administrative efficiency, corporatism, productivity, technology and infrastructure, anti-growth economy, culture, social justice, education expension, education limitation, agriculture and farmers, underprivileged minority groups, non-economic demographic groups, protectionism (positive), social harmony

Definition of salience.

$$\mbox{Salience} = \frac{\mbox{Number of mentions for CMP categories for that issue}}{\mbox{Number ofmentions for all CMP categories}}$$

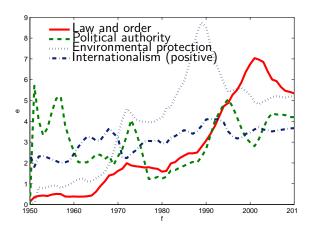
The economic dimension.

| Components of the economic dimension, 1950-2010 | | | | | |
|---|---|-----------------------------|--|--|--|
| · | Right | Left | | | |
| Declined | 401 Free enterprise 408 Economic goals | 403 Econ. planning | | | |
| | 702 Labor groups (positive) | 409 Keynesian policies | | | |
| | , | 412 Controlled economy | | | |
| | | 413 Nationalization | | | |
| Remain the | 505 Welfare state limita- | 403 Market regulation | | | |
| same | tion | | | | |
| | | 504 Welfare state expansion | | | |
| | | 503 Social justice | | | |
| | | 701 Labor groups (positive) | | | |
| Increased | 407 Protectionism (negative) | | | | |

The non-economic dimension.

| Components of the non-economic dimension, 1950–2010 | | | | | | |
|---|-----------------------------|-------------------------------------|--|--|--|--|
| | Right | Left | | | | |
| Declined | 602 National way of life | 603 Traditional morality (positive) | | | | |
| | (negative) | | | | | |
| | 106 Peace | 104 Military (positive) | | | | |
| | 103 Anti-imperialism | 109 Internationalism (positive) | | | | |
| | 105 Military (negative) | | | | | |
| | 202 Democracy | | | | | |
| Remain | 607 Multiculturalism (posi- | | | | | |
| the same | tive) | | | | | |
| | 606 Social harmony | | | | | |
| | 201 Freedom and human | | | | | |
| | rights | | | | | |
| Increased | 603 Traditional morality | 601 National way of life (positive) | | | | |
| | (negative) | | | | | |
| | 705 Minority groups | 605 Law and order | | | | |
| | 108 Interantionalism (posi- | 608 Multiculturalism (negative) | | | | |
| | tive) | | | | | |
| | | 305 Political authority | | | | |

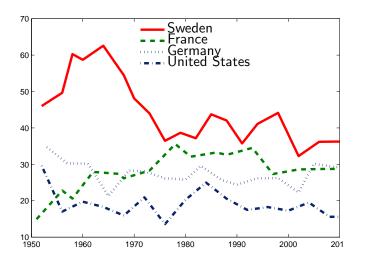
4 top non-economic issues.



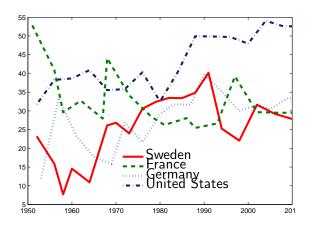
"Law and order".

- Increased: Great Britain, Denmark, Sweden, Italy, Netherlands, US.
- Remained the same: Canada, Germany, Norway.
- Declined: France.

Average saliences for 4 countries: Economic.



Average saliences for 4 countries: Non-economic.



The regression equation.

$$s_{jtk} = \alpha_k + \beta_k x_{jt} + \gamma_{kt} I_d + \delta_{kj} I_j + \epsilon_{jtk}, \tag{1}$$

- Each observation is a country at a specific time period.
 Observations from 41 countries were used. The earliest date for which data was available for at least some countries was 1950.
- The dependent variable is the average salience of ideological dimension k=1,2 for country j at time t, weighted by the vote shares of the parties in that period.
- I_d decade dummy, I_j country dummy, x_{jt} j at period t.



Country-level covariates.

- Interpersonal trust the fraction people in the country who said that "Most people can be trusted". Source: EVS/WVS waves 1-4 averages.
- Income log per capita GDP in 2005 international dollars, corrected for PPP. Source: Penn World Tables 7.0.
- Income, inflation World Bank data when available.
- Political regime characteristics. This variable ranges from 10 (full democracy) to -10 (full autocracy). Source: Polity IV.
- Log population.
- Presidential or non-presidential political system. Source: Persson and Tabellini (2003).
- Majoritatian or non-majoritarian electoral system. Source: Persson and Tabellini (2003).
- **1** Ethnic and linguistic fractionalization. Source: Roeder (2001).

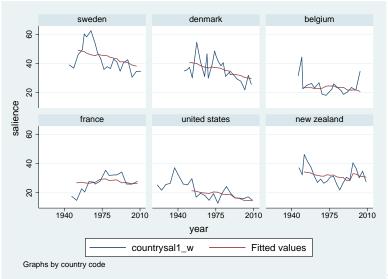


Dependent variable: weighted salience of economic issues.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|----------------|----------------|----------------|----------------|
| Log(GDP/Pop.) | 2,49 (0,090) | 2,35 (0,109) | 5,76 (0,035) | 7,56 (0,012) |
| Trust | 206,5 (0,000) | 241,3 (0,000) | | |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop}})$ | -17,91 (0,000) | -21,30 (0,000) | -22,21 (0,000) | -21,90 (0,000) |
| Presidential | -2,70 (0,045) | -2,20 (0,108) | -80,25 (0,000) | -75,00 (0,000) |
| Majority | 1,84 (0,063) | 2,22 (0,028) | -3,00 (0,218) | -4,52 (0,070) |
| Fractionalization | 0,07 (0,968) | 0,31 (0,873) | | |
| Polity IV | -0,20 (0,166) | -0,13 (0,385) | 0,02 (0,899) | 0,14 (0,526) |
| Log(Pop.) | -0,37 (0,253) | -0,41 (0,204) | -3,59 (0,159) | -3,73 (0,210) |
| Decade dummy | No | Yes | No | Yes |
| Country dummy | No | No | Yes | Yes |
| N | 447 | 447 | 447 | 447 |
| Adjusted R^2 | 0,32 | 0,33 | 0,50 | 0,51 |

- For a country with a 60% trust level (such as Sweden, Denmark or Nowray), doubling the per capita GPD is predicted to result in a 4-7% decrease in the economic dimension salience.
- For a country with a 20% trust level (such as France or Portugal) the corresponding figure would range from a 1% decrease to a 2% increase in salience.

Predicted and actual salience of economic issues for Model 4.

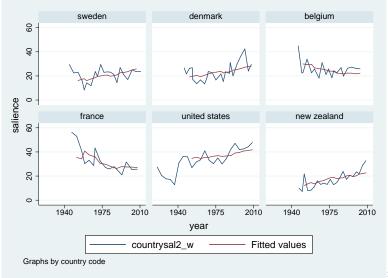


Dependent variable: weighted salience of non-economic issues.

| - | Model 1 | Model 2 | Model 3 | Model 4 |
|---|----------------|----------------|----------------|----------------|
| Log(GDP/Pop.) | -0,17 (0,930) | -0,10 (0,956) | -19,07 (0,000) | -19,51 (0,000) |
| Trust | -106,1 (0,046) | -199,7 (0,001) | | |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop}})$ | 8,53 (0,121) | 17,56 (0,003) | 38,20 (0,000) | 39,86 (0,000) |
| Presidential | 7,85 (0,000) | 6,69 (0,000) | 89,38 (0,000) | 89,28 (0,000) |
| Majority | 0,27 (0,836) | -0,64 (0,627) | 0,58 (0,837) | 1,93 (0,503) |
| Fractionalization | -1,84 (0,469) | -2,30 (0,364) | | |
| Polity IV | -0,15 (0,434) | -0,28 (0,141) | -1,25 (0,000) | -1,33 (0,000) |
| Log(Pop.) | -0,63 (0,139) | -0,55 (0,196) | 15,76 (0,000) | 17,47 (0,000) |
| Decade dummy | No | Yes | No | Yes |
| Country dummy | No | No | Yes | Yes |
| N | 447 | 447 | 447 | 447 |
| Adjusted R^2 | 0,14 | 0,17 | 0,52 | 0,52 |

- For a country with a 60% trust level (such as Sweden, Denmark or Nowray), doubling the per capita GPD is predicted to result in a 4-5% increase in the noneconomic dimension salience.
- For a country with a 20% trust level (such as France or Portugal) there would be a 9-10% decrease in salience.

Predicted and actual salience of non-economic issues for Model 4.



Religion effects.

- Can trust be a proxy for other cultural characteristics that determine the income elasticity of economic issues?
- Does the effect of income on salience depend on the country's predominant religion?

Religion effects.

| | Economic | | Non-economic | | |
|---|----------------|-----------------|-----------------|----------------|--|
| $Log(\frac{GDP}{Pop})$ | 2.28 (0.501) | 8.73 (0.079) | -5.5 (0.180) | -17.02 (0.002) | |
| Trust | 150.74 (0.045) | | -149.86 (0.099) | | |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop}})$ | -11.81 (0.129) | -24.64 (0.018) | 11.44 (0.224) | 30.94 (0.008) | |
| Presidential | -3.5 (0.015) | -170.13 (0.019) | 4.94 (0.005) | 131.49 (0.103) | |
| Majority | 1.94 (0.076) | -5.79 (0.021) | -1.85 (0.162) | 2.69 (0.334) | |
| Fractionalization | -0.2 (0.920) | | -0.72 (0.769) | | |
| Polity IV | -0.27 (0.090) | 0.09 (0.717) | -0.28 (0.147) | -1.35 (0.000) | |
| Log pop. | -0.21 (0.528) | -4.78 (0.179) | 0.38 (0.346) | 21.66 (0.000) | |
| Catholic | 9.77 (0.637) | | -31.53 (0.209) | | |
| Muslem | -44.92 (0.234) | | 23.84 (0.602) | | |
| Protestant | 26.86 (0.198) | | -70.44 (0.006) | | |
| Orthodox | 34.52 (0.201) | | -95.81 (0.004) | | |
| $Cath. \times Log(\frac{GDP}{Pop})$ | -1.12 (0.606) | 1.05 (0.677) | 2.27 (0.387) | 3.25 (0.248) | |
| $Mus. \times Log(\frac{GDP}{Pop})$ | 5.34 (0.234) | 5.47 (0.266) | -5.48 (0.313) | -11.04 (0.043) | |
| $Prot. \times Log(\frac{GDP}{Pop})$ | -3.04 (0.154) | 3.75 (0.098) | 7.01 (0.007) | 4.27 (0.089) | |
| Orth. \times Log $(\frac{GDP}{Pop})$ | -3.74 (0.199) | 9.65 (0.220) | 9.35 (0.008) | -9.23 (0.291) | |
| Decade dummy | No | Yes | No | Yes | |
| Country dummy | No | Yes | No | Yes | |
| Adjusted R ² | 0.3487 | 0.5704 | 0.2888 | 0.6062 | |
| N | 447 | 447 | 447 | 447 | |
| | | | | | |

Robustness to alternative specifications: The effect on the coefficient for log income \times trust.

| | Economic | | Non-economic | |
|---------------------|-----------------|-----------------|---------------|----------------|
| | Model 1 | Model 4 | Model 1 | Model 4 |
| No changes | -18,69 (0,000) | -19,73 (0,001) | 8,04 (0,142) | 28,80 (0,000) |
| Western Europe | -29,25 (0,000) | -24,40 (0,001) | 33,83 (0,000) | 36,46 (0,000) |
| Non-west Europe | -22,01 (0,002) | -26,76 (0,021) | 1,48 (0,895) | 43,65 (0,004) |
| Before 1985 | -7,15 (0,306) | -7,39 (0,490) | -8,61 (0,316) | 18,00 (0,125) |
| After 1985 | -21,37 (0,003) | -14,12 (0,401) | 13,24 (0,159) | 107,57 (0,000) |
| No Nordic countries | -16,88 (0,001) | -19,14 (0,013) | 4,24 (0,565) | 31,12 (0,001) |
| Log democracy age | -6,01 (0.024) | -7,80 (0.000) | 5,77 (0.096) | 5,62 (0.000) |
| Gini coefficient | -21,63 (0,000) | -16,43 (0,033) | 11,60 (0,057) | 30,10 (0,001) |
| Religion effects | -11,81 (0,129) | -24,64 (0,018) | 11,44 (0,224) | 30,94 (0,008) |
| Executive tenure | -18,272 (0,000) | -21,151 (0,001) | 7,488 (0,189) | 34,361 (0,000) |
| WB data on income | -4,50 (0,043) | -7,930 (0,001) | 2,52 (0,404) | 9,12 (0,003) |

Instrumental variables approach to predict salience.

One possible unobservable variable affecting trust and issue salience is the country's institutional environment (Keefer and Knack, 1997, Guizo, Sapienza, and Zingales, 2004).

What can be used to instrument trust?

- Sullivan (1991) the percentage of country's population belonging to the largest ethnolinguistic group.
- Keefer and Knack (1997) the number of law students in 1963, as a fraction of the total number of students.
- Hall and Jones (1996) country latitude.
- Putnam (1993), Guizo, Sapienza, and Zingales (2006) religion. Wouldn't do, as it also affects institutions (Tabellini, 2010).

Instrumental variables approach to predict salience.

- Dependent variable: Interpersonal trust, per capita GDP, interaction term.
- Independent variables: Latitude of the capital, lagged per capita GDP, interaction term.

| | Trust | Log income | $Trust {	imes} Log \; income$ |
|-------------------------|---------------|----------------|-------------------------------|
| Distance to equator | 0,006 (0,000) | 0,017 (0,150) | -0,268 (0,001) |
| Laggeg log income | | 0,096 (0,000) | -0,496 (0,213) |
| Interaction term | | -0,002 (0,179) | 0,033 (0,000) |
| N | 563 | 445 | 442 |
| Adjusted R ² | 0,19 | 0,93 | 0,42 |

The effects of IV trust and GDP on the salience of economic and non-economic issues.

| | Economic | | Non-economic | |
|--|----------------|----------------|----------------|-----------------|
| Log(GDP/Pop.) | 2,50 (0,522) | 5,77 (0,224) | 4,12 (0,349) | -16,52 (0,005) |
| Trust | 85,45 (0,004) | | 21,65 (0,512) | |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop.}})$ | -2,40 (0,426) | -8,01 (0,018) | -2,67 (0,430) | 8,91 (0,034) |
| Presidential | 0,50 (0,767) | -3,13 (0,855) | 8,67 (0,000) | -52,44 (0,014) |
| Majority | 7,13 (0,000) | -3,82 (0,123) | -0,36 (0,799) | -1,17 (0,702) |
| Fractionalization | -4,39 (0,061) | | -1,83 (0,486) | |
| Polity IV | -0,75 (0,007) | 0,07 (0,824) | -0,15 (0,616) | -1,24 (0,002) |
| Log pop. | -1,32 (0,001) | -8,02 (0,109) | 0,70 (0,127) | 25,55 (0,000) |
| Recession episode | 1,99 (0,102) | 1,46 (0,155) | 0,29 (0,827) | -0,49 (0,698) |
| Inflation episode | 0,77 (0,580) | 2,74 (0,039) | 1,31 (0,402) | 0,87 (0,595) |
| Country dummy | No | Yes | No | Yes |
| Decade dummy | No | No | No | No |
| N | 305 | 305 | 305 | 305 |
| Adjusted R^2 | 0,19 | 0,50 | 0,13 | 0,34 |

The effects of IV trust and GDP on the salience of economic and non-economic issues.

- The within-country effect persists.
- The magnitude of the effect is unchanged.

Alternative measures of social capital.

- R. Puntam: Social capital =
 - Interpersonal trust,
 - Social norms,
 - Organizational membership.

How does social capital affect growth and institutions?

- Keefer and Knack (1997), Knack (2002), Bjornskov (2006),
 La Porta et. al. (1997), Beugelsdijk et. al. (2004).
- Trust is the most important determinant of growth and governmental performance
- Social norms are less important
- Organizational membership is of marginal importance



Civic norms used instead of trust.

I follow Keefer and Knack (1997), WVS data (waves 2 and 4). I used the questions on the acceptability of the following behavior:

- Claiming government benefits,
- Avoiding a fare on public transport,
- Cheating on taxes,
- Someone accepting a bribe.

The civicness measure correlates with trust (0.44) at country level.

The effects civic norms on the salience of economic and noneconomic issues.

| | Econ | iomic | Non-ed | conomic |
|---|----------------|----------------|---------------|---------------|
| Log(GDP/Pop.) | -0,53 (0,516) | -3,14 (0,007) | 0,38 (0,650) | -3,01 (0,027) |
| Civic norms | -30,35 (0,044) | | 14,08 (0,363) | |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop}})$ | 3,54 (0,027) | -5,76 (0,009) | -1,87 (0,254) | 3,66 (0,160) |
| Presidential | -0,17 (0,909) | -14,38 (0,000) | 6,29 (0,000) | 20,93 (0,000) |
| Majority | 4,18 (0,000) | -3,05 (0,221) | -0,52 (0,646) | -0,38 (0,896) |
| Fractionalization | -4,54 (0,039) | | 0,12 (0,956) | |
| Polity IV | 0,04 (0,819) | -0,03 (0,879) | -0,18 (0,367) | -1,31 (0,000) |
| Log (Pop.) | -1,82 (0,000) | -1,72 (0,543) | 0,85 (0,022) | 12,00 (0,000) |
| Country dummy | No | Yes | No | Yes |
| Decade dummy | No | No | No | No |
| N | 432 | 432 | 432 | 432 |
| Adjusted R ² | 0,11 | 0,48 | 0,14 | 0,33 |

The effects civic norms on the salience of economic and noneconomic issues.

- The effect of civic norms on issue salience is much smaller than that of the average trust.
- The cross-income effect is significant only for economic issues; the magnitude of the effect is smaller than for trust.
- A one SD increase in norms changes economic salience by 1,7% more in the poorer country than in the richer country. The corresponding differential for a one standard deviation increase in civic norms is 1.1%.

Salience and economic conditions.

- Economy does affect the popularity of incumbents: economic voting literature — Fiorina (1981), Powell and Whitten (1993), Lewis-Beck and Paldam (2000).
- "It's the economy, stupid": issue ownership and issue trespassing. Whiteley et.al. (2005), Petrocik (1996), Riker (1993), Damore (2004, 2005), Arceneaux (2008).
- So, do episodes of high inflation and low GDP growth increase the salience of economic issues?

Defining inflation and low growth episodes.

- Only annual data from WB is available, from 1961.
- Inflation: A high-inflation episode is when average inflation is over I points over the last T years.
- Low-growth: Per-capita growth did not exceed G points over the last T years.

The following equation was estimated:

$$s_{1jt} = \alpha_1 + \beta_1 x_{jt} + \gamma_1 H_{jt} + \delta_1 D_{jt} + \epsilon_{1jt}, \qquad (2)$$

 H_{jt} and D_{jt} are the dummy variables for high-inflation and low-growth episodes.



The definitions of high inflation and low growth eposides, depending on T (t-values for γ and δ are shown in parenthesis).

| Lags | Inflation (1) | | | | Growth (G) | | | |
|------|---------------|-----------------|-------|-----|------------|-----------------|-------|-----|
| | Cutoff | coeff (p-value) | R^2 | Ν | Cutoff | coeff (p-value) | R^2 | Ν |
| 1 | 5.0% | 2.12 (0.005) | 0.47 | 338 | | | | |
| 2 | 4.0% | 2.32 (0.003) | 0.50 | 331 | 1% | 1.24 (0.167) | 0.49 | 336 |
| 3 | 4.5% | 2.16 (0.007) | 0.50 | 320 | 1% | 1.72 (0.095) | 0.50 | 329 |
| 4 | 4.0% | 2.78 (0.001) | 0.51 | 313 | 1.5% | 1.23 (0.243) | 0.48 | 323 |

- Inflation: T = 3, I = 4.5%. 225 episodes out of 373.
- Low growth: T = 3, G = 1%. 72 episodes out of 391.
- Correlation is 0.1.



The effect of inflation and low GDP growth on economic issue salience.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|----------------|-----------------|-----------------|----------------|
| $Log(\frac{GDP}{Pop})$ | 8.7 (0.031) | 8.38 (0.043) | 9.34 (0.029) | 4.36 (0.023) |
| Trust | | | | 262.03 (0.000) |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop}})$ | -34.71 (0.000) | -30.51 (0.001) | -32.13 (0.001) | -23.77 (0.000) |
| Presidential | -92.6 (0.000) | -113.37 (0.001) | -107.26 (0.002) | -2.01 (0.198) |
| Majority | -6.15 (0.011) | -6.63 (0.007) | -7.04 (0.005) | 1.59 (0.163) |
| Fractionalization | | | | -1.62 (0.437) |
| Polity IV | 0.22 (0.379) | 0.08 (0.750) | 0.22 (0.395) | -0.02 (0.895) |
| Log (Pop.) | -4.58 (0.302) | -2.4 (0.582) | -6.17 (0.186) | -0.63 (0.092) |
| Inflation | | 2.17 (0.007) | 1.85 (0.025) | 1.29 (0.146) |
| Low growth | 1.72 (0.095) | | 1.6 (0.166) | 0.84 (0.480) |
| Decade dummy | No | No | No | No |
| Country dummy | Yes | Yes | Yes | No |
| Adjusted R ² | 0.5667 | 0.5689 | 0.5724 | 0.342 |
| N | 329 | 318 | 310 | 310 |

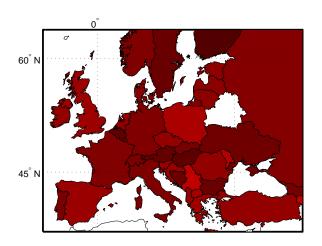
The effect of inflation and low GDP growth on non-economic issue salience.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|-------------------------------------|----------------|----------------|----------------|-----------------|
| $Log(\frac{GDP}{Pop})$ | -21.58 (0.000) | -23.25 (0.000) | -24.11 (0.000) | -0.84 (0.701) |
| Trust | | | | -154.52 (0.019) |
| $Trust \times Log(\frac{GDP}{Pop})$ | 45.68 (0.000) | 46.05 (0.000) | 46.82 (0.000) | 14.8 (0.027) |
| Presidential | 122.33 (0.000) | 94.01 (0.021) | 87.93 (0.033) | 6.4 (0.000) |
| Majority | 2.55 (0.366) | 3.1 (0.282) | 3.26 (0.261) | 0.86 (0.511) |
| Fractionalization | | | | -1.97 (0.411) |
| Polity IV | -1.6 (0.000) | -1.39 (0.000) | -1.58 (0.000) | -0.53 (0.014) |
| Log (Pop.) | 22.18 (0.000) | 22.63 (0.000) | 25.29 (0.000) | 0.73 (0.094) |
| Inflation | | -1.55 (0.103) | -1.29 (0.180) | -0.03 (0.980) |
| Low growth | -1.32 (0.280) | | -1.82 (0.179) | 1.19 (0.385) |
| Decade dummy | No | No | No | No |
| Country dummy | Yes | Yes | Yes | No |
| Adjusted R ² | 0.4689 | 0.4756 | 0.4712 | 0.2182 |
| N | 329 | 318 | 310 | 310 |

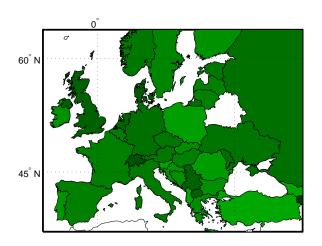
The effect of inflation and low GDP growth on economic issue salience.

- The salience of economic issues is higher in high-inflation episodes.
- Neither low-growth nor high-inflation episodes have a significant effect on the salience of non-economic issues.

Are there contagion effects? Economic salience, 2010.



Are there contagion effects? Non-economic salience, 2010.



Moran's I spatial correlation statistic.

$$I = \frac{N}{\sum_{i} \sum_{j} w_{ij}} \frac{\sum_{i} \sum_{j} w_{ij} (x_{i} - \bar{x})(x_{j} - \bar{x})}{\sum_{i} (x_{i} - \bar{x})},$$
 (3)

where \bar{x} is the expected value of x_i and w_{ij} is the distance metric. In the absence of spatial autocorrelation, the expected value of this statistic is equal to $\frac{-1}{N-1}$. If there is positive spatial autocorrelation, and neighboring observations are more highly correlated than more distant observations, then this statistic will be above $\frac{-1}{N-1}$. Metrics used:

- Proximity: 1 if two countries share a border, 0 otherwise.
- Linguistic: 1 if two countries share a language, from Frankel and Rose (2002).

Moran's I statistic for residuals.

| | Ling | guistic | Во | order |
|------|--------------|--------------|--------------|--------------|
| | Economic | Non-economic | Economic | Non-economic |
| 1950 | 0.16 (0.26) | -0.04 (0.88) | 0.16 (0.26) | -0.01 (0.71) |
| 1960 | -0.32 (0.24) | -0.08 (0.99) | -0.41 (0.04) | -0.27 (0.27) |
| 1970 | 0.36 (0.03) | -0.17 (0.53) | 0.33 (0.02) | -0.28 (0.24) |
| 1980 | 0.65 (0.00) | 0.27 (0.12) | -0.31 (0.20) | 0.02 (0.70) |
| 1990 | 0.3 (0.09) | -0.2 (0.49) | 0.38 (0.02) | 0.31 (0.04) |
| 2000 | -0.46 (0.02) | 0.01 (0.78) | 0.31 (0.01) | -0.05 (0.90) |
| 2010 | 0.36 (0.03) | -0.15 (0.70) | 0.49 (0.00) | -0.1 (0.58) |

The results.

- Trust has a compound effect on income
- It's hard to construct a measure of issue salience using WVS data
- Some counterintuitive finds: people tend to be *less* liberal on the second dimension if born at a later date, given that their age is fixed. This, however, conforms to the

Different party families: Economic.

| | Soc. Dem. | Liberal | Ch. Dem. | Conservative |
|--------------------------------------|----------------|-----------------|----------------|----------------|
| $Log(\frac{GDP}{Pop.})$ | 4.92 (0.236) | 6.91 (0.282) | -9.1 (0.116) | 23.59 (0.000) |
| $Trust \times Log(\frac{GDP}{Pop.})$ | -18.78 (0.030) | -25.33 (0.047) | -15.01 (0.226) | -40.82 (0.000) |
| Presidential | -60.12 (0.034) | -74.86 (0.011) | -38.78 (0.183) | -123.8 (0.000) |
| Majority | -7.54 (0.028) | -101.94 (0.030) | -1.61 (0.826) | -5.6 (0.092) |
| Polity IV | 0.08 (0.795) | 0.1 (0.839) | -0.13 (0.877) | -0.31 (0.502) |
| Log pop. | -1.28 (0.743) | -6.81 (0.371) | 11.03 (0.064) | -2.47 (0.656) |
| Decade dummy | Yes | Yes | Yes | Yes |
| Country dummy | Yes | Yes | Yes | Yes |
| Adjusted R ² | 0.3939 | 0.2718 | 0.424 | 0.4014 |
| Ν | 608 | 387 | 328 | 405 |

Different party families: Non-economic.

| | Soc. Dem. | Liberal | Ch. Dem. | Conservative |
|--------------------------------------|---------------|---------------|---------------|----------------|
| $Log(\frac{GDP}{Pop.})$ | -8.53 (0.132) | -17.3 (0.007) | -1.86 (0.799) | -32.15 (0.000) |
| $Trust \times Log(\frac{GDP}{Pop.})$ | 23.56 (0.046) | 32.2 (0.011) | -0.22 (0.989) | 58.55 (0.000) |
| Presidential | 60.01 (0.121) | 89.43 (0.002) | 5.69 (0.877) | 124.86 (0.002) |
| Majority | -2.54 (0.587) | 88.62 (0.056) | 9.13 (0.322) | 1.56 (0.684) |
| Polity IV | -1.16 (0.008) | -1.32 (0.010) | -1.58 (0.133) | -1.08 (0.042) |
| Log pop. | 5.62 (0.291) | 16.81 (0.026) | -8.22 (0.272) | 20.76 (0.001) |
| Decade dummy | Yes | Yes | Yes | Yes |
| Country dummy | Yes | Yes | Yes | Yes |
| Adjusted R ² | 0.3141 | 0.374 | 0.668 | 0.4313 |
| N | 608 | 387 | 328 | 405 |

Extracting the ideological positions of political parties from the CMP data: the averages method.

Assumption 1. A party manifesto is an *exact* statement of the party's position on the two ideological dimensions. Position of party *i*:

$$y_i = \sum_{k=1}^{56} w_{ik} v_k, (4)$$

where w_{ik} is the weight of issue k in party i's manifesto, v_k — position of issue k.

Economic — right 1 on dimension 1

Economic — left -1 on dimension 1

Non-economic — right 1 on dimension 2

Non-economic — left -1 on dimension 2

All other statements 0 on both dimensions



Extracting the ideological positions of political parties from the CMP data: the salience method.

Assumption 2.

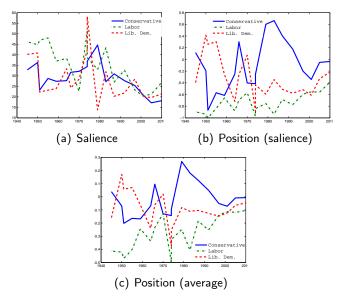
- The relative frequency of left and right statements on each ideological dimension depends on the party's ideological position.
- The total frequency of both left and right statements on each ideological dimension depends on that issue's salience to the party.

Example. Suppose that party X makes a total of 100 statements in its policy manifesto, including 5 leftist and 15 rightist statements on ideological dimension 1.

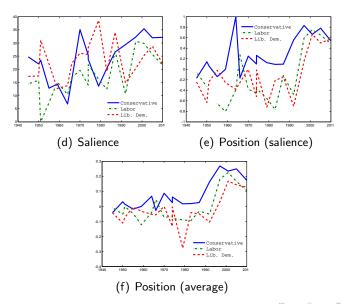
The policy position is $0.5 = (5 \cdot (-1) + 15 \cdot 1)/20$, the salience is 20% = (5 + 15)/100.

Now let there be 25 leftist and 75 rightist statements out of 100. The policy position is $0.5 = (25 \cdot (-1) + 75 \cdot 1)/20$, the salience is 100% = (25 + 75)/100.

Great Britain: Economic left-right.



Great Britain: Non-economic left-right.



The determinants of position on the economic dimension.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--|---------------|---------------|---------------|---------------|
| Log(GDP/Pop.) | -0,08 (0,119) | -0,07 (0,146) | 0,01 (0,898) | 0,00 (0,937) |
| Trust | -2,66 (0,059) | -1,98 (0,186) | | |
| $Trust \times Log(\frac{\mathit{GDP}}{\mathit{Pop.}})$ | 0,28 (0,053) | 0,22 (0,149) | -0,08 (0,703) | -0,30 (0,158) |
| Presidential | -0,01 (0,803) | -0,00 (0,829) | -1,10 (0,132) | -1,53 (0,031) |
| Majority | 0,10 (0,002) | 0,11 (0,001) | -0,05 (0,552) | -0,05 (0,517) |
| Fractionalization | 0,05 (0,439) | 0,06 (0,339) | | |
| Polity IV | -0,00 (0,746) | -0,00 (0,842) | -0,01 (0,019) | -0,01 (0,014) |
| Log (Pop.) | -0,02 (0,033) | -0,02 (0,064) | 0,13 (0,164) | -0,02 (0,793) |
| Decade dummy | No | Yes | No | Yes |
| Country dummy | No | No | Yes | Yes |
| N | 447 | 447 | 447 | 447 |
| R^2 | 0,03 | 0,12 | 0,21 | 0,31 |

The determinants of position on the non-economic dimension.

| | Model 1 | Model 2 | Model 3 | Model 4 |
|--------------------------------------|---------------|---------------|---------------|---------------|
| Log(GDP/Pop.) | -0,15 (0,026) | -0,14 (0,021) | 0,19 (0,089) | -0,00 (0,975) |
| Trust | -5,36 (0,004) | 0,39 (0,835) | | |
| $Trust \times Log(\frac{GDP}{Pop.})$ | 0,46 (0,016) | -0,07 (0,686) | -0,05 (0,818) | -0,14 (0,569) |
| Presidential | 0,15 (0,014) | 0,22 (0,000) | 1,25 (0,135) | 0,57 (0,485) |
| Majority | 0,06 (0,136) | 0,14 (0,001) | -0,17 (0,095) | -0,02 (0,837) |
| Fractionalization | -0,05 (0,551) | -0,06 (0,429) | | |
| Polity IV | 0,00 (0,162) | 0,01 (0,011) | 0,01 (0,084) | 0,00 (0,644) |
| Log (Pop.) | -0,08 (0,000) | -0,08 (0,000) | -0,13 (0,220) | -0,13 (0,252) |
| Decade dummy | No | Yes | No | Yes |
| Country dummy | No | No | Yes | Yes |
| N | 447 | 447 | 447 | 447 |
| R^2 | 0,13 | 0,29 | 0,48 | 0,53 |

The determinants of position on the economic dimension.

- The results are less significant than for salience for economic dimension.
- Trust × income not significant, once country-level effects are included.
- Time dummies are significant.

Individual-level data from World Value Survey.

Here I try to use WVS data to construct a two-dimensional measure of personal ideological preferences.

- Economic dimension
- Non-economic dimension

Then I try to see what individual-level covariates determine her ideological position.

One problem is that one cannot easity estimate issue salience with WVS data.

The first dimension.

WVS questions used:

- People who are unemployed should have to take any job available or lose their unemployment benefits vs People who are unemployed should have the right to refuse a job they do not want,
- People should take more responsibility to provide for themselves vs The government should take more responsibility to ensure that everyone is provided for,
- Private ownership of business should be increased vs Government ownership of business should be increased,
- Incomes should be made more equal vs We need larger income differences as incentives,
- Confidence in labor unions



The second dimension.

WVS questions used:

- (1) Which of the following goals are condsidered most important (A high level of economic growth (-1), Strong defence forces (-1), People have more say about how things are done (1), Trying to make our cities and countryside more beautiful (1))
- Which of the following goals are condsidered most important (Maintaining order in the nation (-1), Give people more say (1), Fighting rising prices (-1), Protecting freedom of speech (1))
- Which of the following is more important (A stable economy (-1), Progress toward a less impersonal and more humane society (1), Ideas count more than money (1), The fight against crime (-1))
- ullet Emphasis on money and material possessions (yes -1, no 1).
- Sespect for authority (yes -1, no 1).
- **1** Emphasis on family life in the future (yes -1, no 1).
- Confidence in churches (yes -1, no 1).
- Homosexuality is justifiable (yes 1, no -1).
- Abortion is justifiable (yes 1, no -1).
- Divorce is justifiable (yes 1, no -1).



The determinants of individual ideological preferences.

| | Economic | : left-right | Non-ec | conomic |
|-----------------------|-----------------|-----------------|-----------------|-----------------|
| | Averate | PCA | Average | PCA |
| Trust | 0,011 (1,93) | 0,131 (4,76) | -0,044 (-10,17) | -0,167 (-5,78) |
| Income | 0,020 (34,42) | 0,085 (27,60) | -0,009 (-21,12) | -0,066 (-21,91) |
| $Trust \times income$ | 0,000 (0,21) | -0,026 (-5,50) | -0,006 (-8,08) | -0,028 (-5,60) |
| Age | -0,019 (-38,41) | -0,025 (-10,24) | -0,001 (-5,13) | 0,020 (8,06) |
| Age squared | -0,000 (-1,70) | 0,000 (1,53) | 0,000 (18,33) | 0,000 (17,65) |
| Year of birth | -0,023 (-91,61) | -0,026 (-17,97) | 0,003 (15,17) | 0,054 (42,10) |
| Gender | -0,034 (-14,68) | -0,19 (-17,43) | -0,007 (-4,52) | -0,059 (-5,10) |
| Married | -0,001 (-0,41) | 0,050 (3,73) | 0,056 (27,38) | 0,229 (16,48) |
| Orthodox | -0,013 (-2,96) | -0,217 (-9,21) | 0,111 (30,57) | 0,536 (19,38) |
| Catholic | 0,041 (14,99) | 0,066 (5,02) | 0,035 (16,66) | 0,463 (32,84) |
| Muslem | -0,056 (-10,49) | -0,207 (-3,24) | 0,225 (71,28) | 1,214 (60,10) |
| Protestant | 0,074 (19,48) | 0,230 (12,98) | 0,045 (15,62) | 0,501 (25,82) |
| > 2 children | -0,109 (-41,38) | -0,065 (-5,11) | 0,063 (31,99) | 0,426 (33,42) |
| Educ. age | 0,006 (32,65) | 0,011 (10,93) | -0,005 (-35,20) | -0,031 (-30,22) |
| R^2 | 0,19 | 0,05 | 0,15 | 0,2 |
| N | 79779 | 51488 | 93712 | 60336 |