

Europe and the US: Preferences for Redistribution

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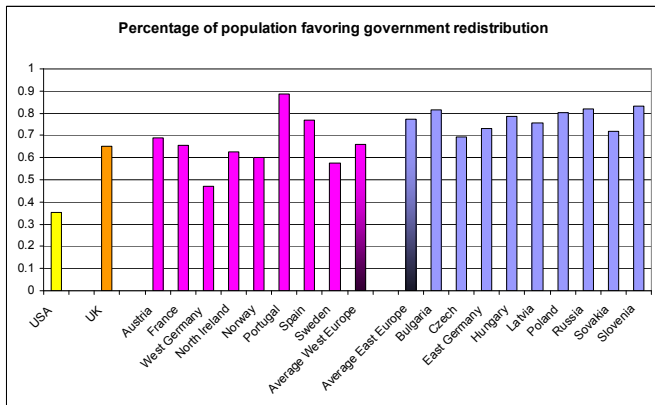
Redistribution: How to reduce income inequality?

- progressive income taxation
- transfer programmes
- public insurance
- schooling
- public transport
- public housing

Preferences for Redistribution

- International Social Survey Programme (ISSP): Cross-country survey about economic conditions and attitudes on different social sciences topics
- Question: Do you strongly agree, agree, neither nor, disagree, strongly disagree with the statement: "It is the responsibility of the government to reduce the differences in income between people with high incomes and those with low incomes"
- Preferences for redistribution: strongly agree or agree with that statement

Preferences for Redistribution in Europe and US (ISSP, 1999)



Reasons for redistribution: Corneo and Gruener 2002

- Homo oeconomicus effect
 - Support in favor for redistribution depends inversely related to an individual's position in the income scale.
 - Under a linear redistributive scheme, all individuals with less than average income are in favor for redistribution.
- Public values effect
 - Individuals have a social welfare function that express their preferences over resource allocations which is independent of their income.
 - Ethics: Personal hard work justifies inequality
 - Efficiency: Incentive costs for redistribution
- Social rivalry effect: relative position matters
 - Redistribution of income might lead to changes in social composition
 - Heterogenous neighborhood or schools
 - Mixed marriages

Reasons for redistribution: Empirical test

- Data: ISSP which contains individual information about preferences for redistribution, incomes, prestige scores of their jobs
- Construction of relative social indicator measuring the distance to the lower social class
- Logit estimation on question: government should reduce inequality

Cross-country Results from Corneo and Gruener (2002)

Table 5
Logit for question V57 (Government should reduce inequality)^a

Variable	Coefficient Logit (1)	Coefficient Logit (2)	Coefficient Logit (3)	Coefficient Logit (4)
'I would gain'	0.4531** (0.0531)		0.4503** (0.0539)	0.4530** (0.0531)
.....		-0.6187** 0.0739		
'Hard work is key'	-0.4366** (0.1122)		-0.4027** (0.1112)	-0.4351** (0.1122)
'Bastard off than father'			-0.1470** (0.0567)	
SRE	-0.0437** (0.0122)	-0.0304* (0.0130)		-0.0432** (0.0124)
DVD				-0.0502** (0.0184)
UVD				0.0321** (0.0170)
Australia	-0.5469** (0.3090)	-0.4295** (0.1039)	-0.4904** (0.1107)	-0.5500** (0.1092)
Bulgaria	0.8655** (0.1556)	1.2609** (0.1555)	0.8736** (0.1551)	0.8615** (0.1557)
Canada	-0.4000** (0.1379)	-0.2663 (0.1366)	-0.3661** (0.1384)	-0.4115** (0.1401)
Czechoslovakia	0.3836** (0.1157)	0.5382** (0.1171)	0.4607** (0.1171)	0.3792** (0.1266)
East Germany	1.6805** (0.1619)	1.8001** (0.1700)	1.7855** (0.1676)	1.7137** (0.1698)
Hungary	0.6446** (0.1278)	0.9470** (0.1277)	0.6900** (0.1294)	0.6673** (0.1365)
Norway	0.2465* (0.1135)	0.2512** (0.1117)	0.2109** (0.1152)	0.2472* (0.1135)
Poland	0.7944** (0.1509)	0.8811** (0.1236)	0.8192** (0.1338)	0.7825** (0.1332)
Russia	-0.2908* (0.1452)	0.1732 (0.1509)	0.2708* (0.1492)	0.2717* (0.1491)
USA	-0.7646** (0.1261)	-0.7444** (0.1314)	-0.7565** (0.1272)	-0.7708** (0.1268)
West Germany	0.0134 (0.1190)	0.2902** (0.1289)	0.1451 (0.1211)	0.0191 (0.1195)
Married	-0.0428 (0.373)	-0.0115 (0.573)	0.0034 (0.582)	-0.0423 (0.6579)
Employed	-0.0800 (0.0661)	-0.1184 (0.0690)	-0.1098 (0.0671)	-0.0843 (0.0665)
Female	0.1742** (0.0528)	0.0894 (0.0536)	0.1657** (0.0535)	0.1727** (0.0529)
Age	-0.0013** (0.0020)	-0.0088** (0.0020)	-0.0049** (0.0020)	-0.0054** (0.0020)
Observations	7272	7313	7080	7272
-2 Log-lik.:	8899.353	8946.719	8672.170	8899.129

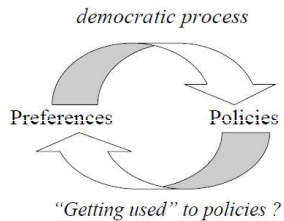
^a Note: asymptotic standard errors in parentheses. * Significantly different from zero at the 5% level.

** Significantly different from zero at the 1% level.

The effect of the political system on preferences for redistribution

- Is it possible that living under a specific political system leads to adaption of preferences?
- Why is that an interesting question?
 - can explain persistence in differences between countries
 - makes it difficult to change policies in the short run
- Why is it difficult to establish empirical evidence about the causal effect of the political system on preferences for redistribution
 - Feedback between preferences and policy
 - How is it possible to isolate the effect of a political system from other factors explaining redistribution, e.g. income

Feedback: Policies on preferences



Correlation versus causality

- In general we are interested in the causal effect of variable x on y
- Correlation between x and y could be due to:
 - causal effect x on y
 - causal effect y on x
 - third factor influencing both x and y
- Natural experiments: exogenous shock that allows to split population into treatment and control group
- Randomized experiments: research design that allows to split population into treatment and control group (similar to medicine)
- Instrumental variables: find an exogenous variables z that is correlated with the potential endogenous variable x

Reunification in Germany as natural experiment: Alesina and Fuchs-Schuendeln (2007)

- Germany before 1945 relative homogenous population
- After World War II split into East and West Germany
 - Split was bargained by Allies
 - Related to geography
 - **Exogenous to preferences**
- Reunification 1990
 - Economic and political system of West Germany transferred to the East
- West Germans serve as control group

Research question of Alesina and Fuchs-Schuendeln (2007)

- Have 45 years of living under Communism had any lasting effects on preferences for state interventions?
 - Economic effect: East poorer than West
 - Pure preference effect: East Germans got used to redistribution and intense state involvement
- Do preferences converge to those of West Germans?
- To answer these questions, compare preferences of East Germans to those of West Germans after reunification

Are the West Germans a valid control group: Economic situation

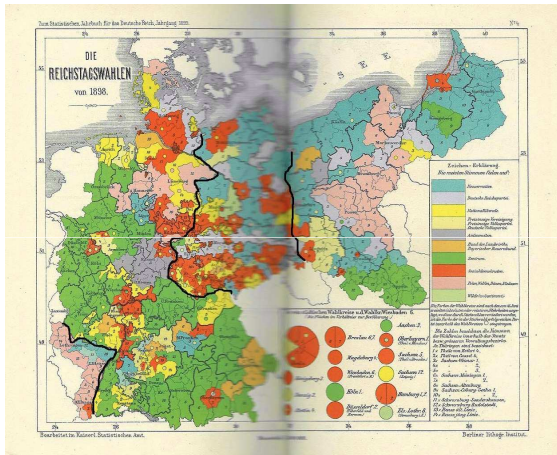
Germany before 1945

Average per capita income by region (in 1928 Mark)

	1928	1936
Prussia	1,174	1,161
Provinz East-Prussia	814	849
Stadt Berlin (E/W)	1,822	1,895
Provinz Brandenburg (E)	1,140	1,158
Provinz Pommern	921	967
Grenzmark Posen/West-Prussia	837	781
Niederschlesien	1,057	953
Oberschlesien	850	758
Sachsen (E)	1,155	1,161
Schleswig-Holstein (W)	1,164	1,192
Hannover (W)	1,069	1,156
Westfalen (W)	1,080	1,045
Hessen-Nassau (W)	1,226	1,140
Rheinprovinz (W)	1,218	1,171
Bayern (W)	1,041	1,049
Sachsen (E)	1,423	1,270
Württemberg (W)	1,183	1,348
Baden (W)	1,135	1,117
Thüringen (E)	1,095	1,087
Hessen (W)	1,158	1,039
Hamburg (W)	1,754	1,746
Other Länder	1,155	1,314
Deutsches Reich	1,185	1,173

Source: Statistisches Jahrbuch für das Deutsche Reich, various issues

Are the West Germans a valid control group: Elections in 1898



Data: Socio Economic Panel (SOEP)

- Household panel survey
- started in 1984 in West, since 1990 covering East as well
- Survey rounds 1997 and 2002 since special questions on preferences
- Observations: 11,400 West / 7,000 East
- In analysis, East and West refers to residence before reunification

Dependent variable

“Who should be responsible for the following areas: state or private forces?”

year	variable	West sample		East Sample	
		Obs.	Per cent	Obs.	Per cent
1997	Responsibility for the financial security when unemployed (state=1)	6,104	63.24%	3,735	78.85%
	Responsibility for the financial security when sick (state=1)	6,105	34.50%	3,728	52.76%
	Responsibility for the financial security of the family (state=1)	6,095	32.78%	3,732	49.06%
	Responsibility for the financial security when old (state=1)	6,110	38.46%	3,737	56.09%
	Responsibility for the financial security when requiring care (state=1)	6,110	40.77%	3,737	56.44%
2002	Responsibility for the financial security when unemployed (state=1)	5,307	65.33%	3,343	76.64%
	Responsibility for the financial security when sick (state=1)	5,309	40.01%	3,345	51.81%
	Responsibility for the financial security of the family (state=1)	5,311	32.10%	3,347	45.65%
	Responsibility for the financial security when old (state=1)	5,319	36.70%	3,350	48.51%
	Responsibility for the financial security when requiring care (state=1)	5,313	44.27%	3,354	53.04%

Basic regressions: Probit regression

Dependent variable	unemployed		sick		families		old		care	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
east	0.432	0.030	0.434	0.028	0.420	0.028	0.426	0.028	0.371	0.028
year02	0.064	0.023	0.165	0.023	-0.012	0.024	-0.033	0.023	0.103	0.023
east*year02	-0.123	0.039	-0.161	0.036	-0.060	0.036	-0.143	0.036	-0.176	0.036
age	-0.026	0.015	-0.005	0.015	-0.009	0.015	-0.019	0.014	-0.003	0.014
age squared (*10 ³)	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
age cubed (*10 ³)	0.000	0.000	0.000	0.000	0.000	0.000	-0.000	0.000	0.000	0.000
male	-0.083	0.023	-0.072	0.022	-0.003	0.022	-0.020	0.022	0.020	0.021
number of children	0.034	0.014	0.034	0.012	0.064	0.012	0.038	0.012	0.010	0.012
number of adults	0.022	0.013	0.043	0.012	0.022	0.011	0.037	0.011	0.007	0.012
married	0.069	0.039	0.106	0.037	0.026	0.037	0.045	0.036	0.109	0.036
divorced	0.089	0.052	0.048	0.051	0.042	0.050	0.047	0.050	0.107	0.049
married but separated	0.011	0.087	-0.028	0.083	-0.042	0.083	0.082	0.084	0.161	0.084
widowed	-0.050	0.060	0.027	0.058	-0.043	0.059	-0.038	0.057	0.075	0.057
log(household income)	-0.156	0.027	-0.264	0.025	-0.135	0.025	-0.224	0.025	-0.148	0.025
civilservant	-0.122	0.057	-0.222	0.059	0.085	0.059	-0.060	0.059	-0.113	0.055
self-employed	-0.317	0.052	-0.403	0.053	-0.332	0.053	-0.450	0.053	-0.306	0.051
white-collar worker	-0.030	0.033	-0.044	0.032	0.011	0.032	-0.089	0.031	-0.101	0.031
unemployed	0.161	0.051	0.005	0.047	0.142	0.047	0.005	0.046	-0.034	0.046
retired	-0.075	0.059	-0.090	0.057	0.149	0.058	0.019	0.056	0.011	0.056
maternity	0.015	0.080	-0.051	0.077	0.119	0.075	-0.197	0.077	-0.081	0.075
nonworking	-0.027	0.043	-0.022	0.042	0.158	0.042	-0.012	0.041	0.021	0.041
training	-0.049	0.066	-0.021	0.063	-0.115	0.065	-0.086	0.063	-0.021	0.063
other nonworking	-0.000	0.052	-0.093	0.049	0.062	0.049	-0.046	0.049	-0.097	0.049
college	-0.203	0.064	-0.258	0.061	-0.141	0.062	-0.277	0.061	-0.122	0.060
vocational training	-0.096	0.057	-0.140	0.054	-0.136	0.055	-0.163	0.054	-0.087	0.054
secondary schooling	-0.101	0.059	-0.071	0.056	-0.023	0.057	-0.103	0.056	-0.068	0.056
Intermediate schooling	-0.103	0.069	-0.152	0.066	-0.147	0.068	-0.155	0.065	-0.052	0.065
constant	1.994	0.303	1.852	0.293	0.728	0.293	1.859	0.291	1.178	0.287

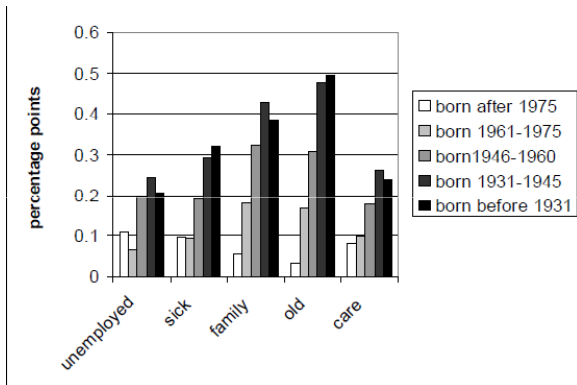
Speed of convergence

- In 1997, being from the East increases probability of favoring state intervention by 15 to 17 percentage points
- Between 1997 and 2002, probability of favoring state intervention declines by between 2.3 and 6.9 percentage points for an East German
- Convergence (assuming linearity) takes between 20 and 40 years, i.e. 1 to 2 generations

Age and cohort effects

Dependent variable	unemployed		sick		family		old		care	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
east	0.029	0.064	-0.034	0.060	-0.032	0.060	-0.226	0.060	-0.002	0.059
year02	0.070	0.023	0.172	0.023	-0.006	0.024	-0.024	0.023	0.108	0.023
east*year02	-0.139	0.039	-0.176	0.036	-0.074	0.037	-0.168	0.036	-0.189	0.036
age	-0.000	0.001	-0.002	0.001	-0.003	0.001	-0.003	0.001	-0.005	0.001
east*age	0.009	0.001	0.011	0.001	0.010	0.001	0.015	0.001	0.008	0.001
obs	18,489		18,487		18,485		18,516		18,514	

By how many percentage points is East German of certain birth cohort more likely to favor state intervention than a West German of same cohort?



Do East Germans favor redistribution only because their household income increases due to redistribution?

- Results robust to inclusion of the following controls:
 - fourth-order polynomial of household income
 - decomposition of household income by sources
 - expected future income: change of household income between 1997 and 2002 (in regression with 1997 data only)
- Up to one third of East effect due to economic effects of Communism

Preferences and Migration

Dependent variable	unemployed		sick		family		old		care	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
east	0.076	0.090	0.204	0.089	0.221	0.089	0.202	0.088	0.130	0.088
east living in East	0.383	0.092	0.246	0.090	0.212	0.090	0.239	0.089	0.258	0.089
year02	0.064	0.023	0.165	0.023	-0.013	0.024	-0.033	0.023	0.103	0.023
east*year02	0.160	0.117	-0.070	0.111	0.100	0.114	0.007	0.107	-0.085	0.113
(east living in East)*year02	-0.302	0.119	-0.092	0.113	-0.169	0.114	-0.157	0.108	-0.092	0.114

Why have former East Germans stronger preferences for redistribution (besides economic effects)?

- Simply because they are used to it?
- Or has communism changed their beliefs regarding the driving forces of success in life (effort, luck, or social conditions)?

Life achievements determined by social conditions

Independent variable: Life achievements determined by social conditions

	(i)		(ii)	
	Coeff.	S.E.	Coeff.	S.E.
east	0.292	0.032	-0.186	0.085
age*east			0.011	0.002
age	0.008	0.022	0.002	0.002
age squared (*10 ³)	-0.000	0.000		
age cubed (*10 ³)	-0.000	0.000		
male	-0.145	0.031	-0.145	0.031
number of children	0.018	0.017	0.022	0.017
number of adults	0.047	0.015	0.048	0.015
log(household income)	-0.140	0.037	-0.135	0.037

Dep. variable	unemployed		sick		family		old		care	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
east	0.421	0.032	0.423	0.030	0.412	0.030	0.406	0.030	0.334	0.030
year02	0.050	0.025	0.154	0.024	-0.026	0.026	-0.041	0.025	0.093	0.024
east*year02	-0.131	0.041	-0.145	0.038	-0.051	0.038	-0.108	0.038	-0.136	0.038
social conditions	0.075	0.024	0.087	0.023	0.089	0.023	0.087	0.023	0.073	0.023

Independent variable: Life achievements determined by luck vs. effort (luck=1)

	(i)		(ii)	
	Coeff.	S.E.	Coeff.	S.E.
east	-0.273	0.031	-0.402	0.081
age*east			0.003	0.002
age	-0.109	0.020	0.011	0.002
age squared (*10 ³)	0.002	0.000		
age cubed (*10 ³)	-0.000	0.000		
male	-0.149	0.030	-0.143	0.030
number of children	0.032	0.016	0.015	0.016
number of adults	0.068	0.014	0.074	0.014
log(household income)	-0.406	0.036	-0.403	0.036

Dep. variable	unemployed		sick		family		old		care	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
east	0.432	0.030	0.442	0.029	0.430	0.028	0.435	0.028	0.375	0.028
year02	0.061	0.023	0.160	0.024	-0.022	0.025	-0.039	0.024	0.102	0.023
east*year02	-0.134	0.040	-0.142	0.037	-0.046	0.037	-0.119	0.037	-0.157	0.037
luck	0.038	0.024	0.135	0.023	0.077	0.023	0.114	0.023	0.067	0.023

Conclusion

- Strong effects of Communism on preferences:
 - East Germans are on average around 16 percentage points more likely to be in favor of state intervention than West Germans
 - Convergence will take around 1 to 2 generations
 - These effects go beyond purely economic effects, i.e. there is a feedback from policies on preferences
- Policy Conclusions:
 - For Germany, that means that reunification not only constituted an economic shock, but also a preference shock
 - In general, this means that policy reforms might be hard to implement

Alesina and Angeletos (2005): Fairness and redistribution

- Beliefs about the tax systems affect the effort-luck composition of income and this affects preferences for redistribution.
- Assumption of the model: redistribution is fair if income is driven by luck
- Different beliefs might lead to different stable equilibria and this explains differences in redistribution between countries
- Dynamic extension of the model: different initial conditions or different shocks, not different beliefs, explain why a specific regime exists in an economy

Fairness and redistribution: US and Europe

- Europe: for centuries wealth and success were determined by class (feudalism; i.e. birth major determinant of success in life); when feudalism was abolished, wealth distribution was hence perceived as "unfair" similar to luck
- US was considered the "land of opportunities" by immigrants: those who became wealthy and successful had "made it", and hence wealth distribution was considered "fair"
- while nowadays e.g. intergenerational mobility is the same in Europe and US, these perceptions are still there and reinforce themselves through taxation

The Believe in Luck and Preferences for Redistribution

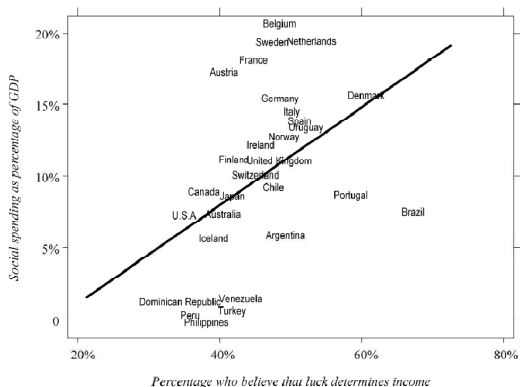


FIGURE 1

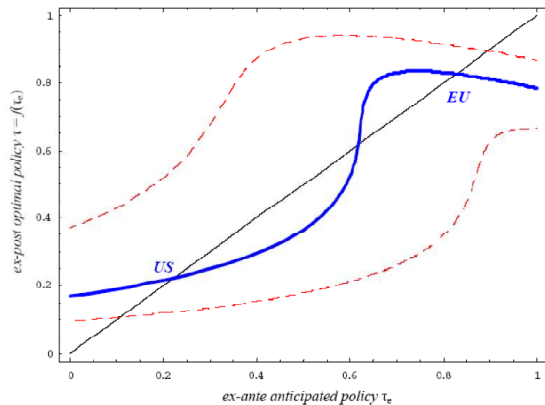
Note: Reproduced from Alesina et al. (2001). This scatterplot illustrates the positive cross-country correlation between the percentage of GDP allocated to social spending and the fraction of respondents to the *World Value Survey* who believe that luck determines income.

- Optimal policy: Maximize the utility of median voter
- Preferences of agents depend on private utility from consumption (income - tax) and from disutility generated by unfair social outcome
- Fairness depends on the effort-luck composition of income
- Two period model
 - Period I: investment before tax rate is known
 - Period II: effort after tax rate is known
- Differences in beliefs about taxation in the first period generate different optimal policy response

Optimal Policy: Multiple Equilibria

- Optimal policy: trade off between fairness and efficiency
- Equilibrium tax rate: expected and actual tax rates are the same
- The higher expected tax rate, the lower is effort, the higher is equilibrium tax rate
- Dynamics (s-shape) through the effect that higher tax rate in itself has 2 opposing effects:
 - leads to lower effort, and thus lower signal to noise ratio in pre-government income
 - leads to more redistribution, and thus lower effect of luck in post-government income
- Multiple equilibria: higher tax rates reduce the fair component of income (through negative incentive effects) by more than the unfair component of income (through actual redistribution)

Multiple Equilibria



Optimal Policy: US versus Europe

- Europe: anticipation of high tax rates, lower effort and more luck thus redistribution is optimal
- US: anticipation of low tax rates, higher effort and less luck thus less redistribution is optimal
- Faced with alternative, median voter would rather have US equilibrium: more output (though higher effort), less distortions, higher signal-to-noise ratio, i.e. though income distribution is more unequal, it is perceived as "fairer"
- If government could pre-commit to taxes, only US equilibrium would survive