Online Appendix For: The Democratic State and Redistribution: Whose Interests Are Served?

American Political Science Review

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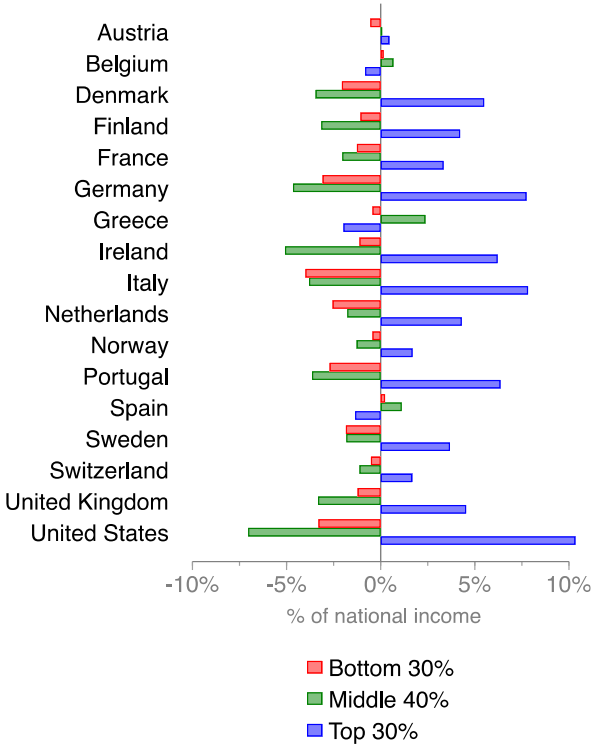
Appendix A:

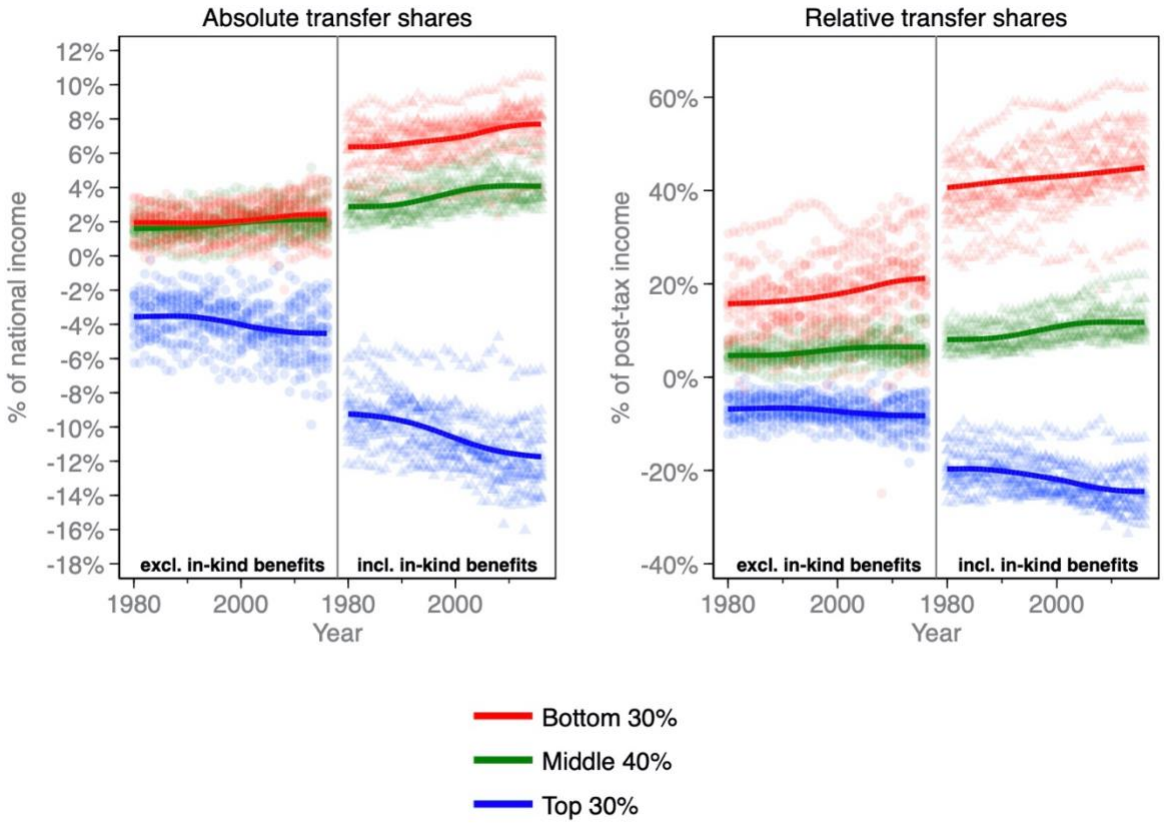
Dividing the Entire Income Distribution into Three Groups: Bottom 30%, Middle 40%, and Top 30%.

Figure A1. Changes in pre-tax national income shares from 1980 to 2016.



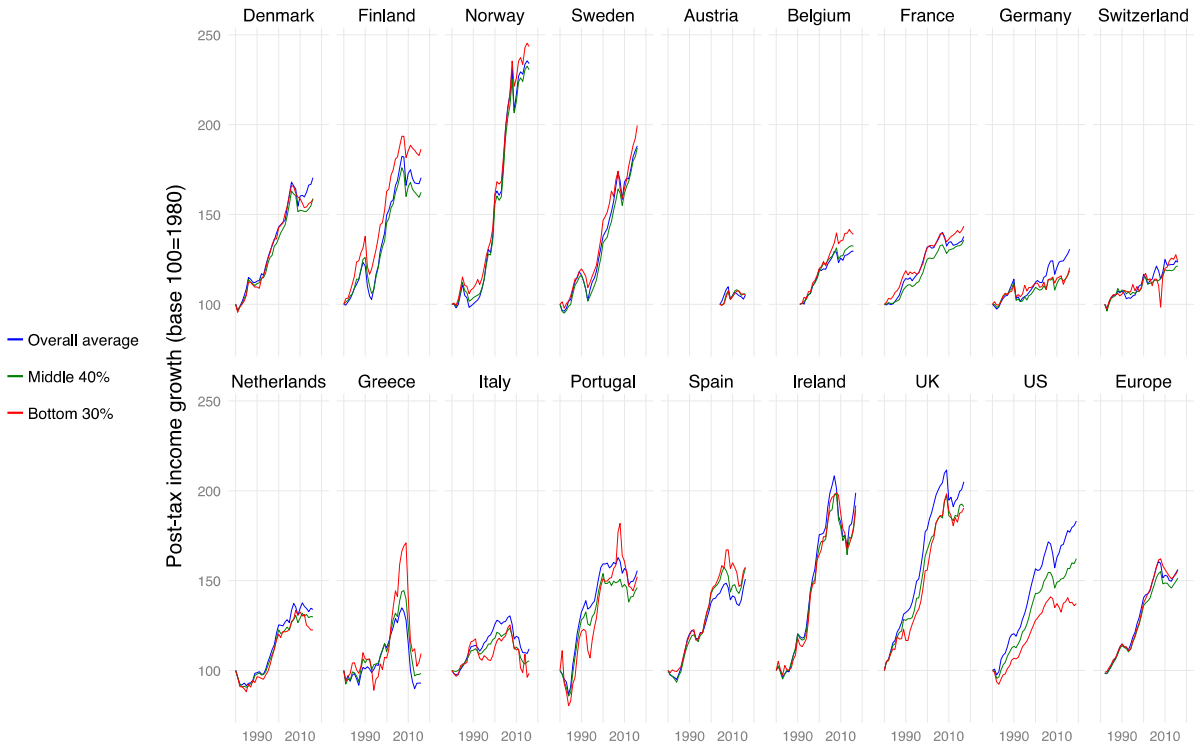
Note: The years for which change is calculated differs for Austria (2004-2016), Belgium (1991-2016), and Switzerland (1982-2016).

Figure A2. Absolute and Relative Transfer Rates in 17 Advanced Democracies, 1980-2016.



Note: In Switzerland the series starts in 1982, in Belgium in 1991, and in Austria in 2004. The results are highly similar when including only countries for which full time series are available.

Figure A3. Real Post-Tax Income Growth (including in-kind transfers and public goods)



Note: In Austria, Belgium, and Switzerland the base 100 is 2004, 1991, and 1982. The graph for Europe includes all the European countries except Austria and Belgium and has base 100 in 1982.

Table A1. Determinants of the Relative Transfer Rates of Top 30%, Middle 40%, and Bottom 30%

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 30% transfer rate		Δ Middle 40% transfer rate		Δ Bottom 30% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.34*	-0.30*	-0.36*	-0.34*	-0.46*	-0.36*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T30/M40	-0.84	-5.00*	5.97*	12.18*	1.73	9.30*
	(0.72)	(0.75)	(0.70)	(0.49)	(2.28)	(0.93)
T30/M40$_{t-1}$	-0.25	-1.82*	1.73*	4.11*	1.60	3.91*
	(0.31)	(0.40)	(0.38)	(0.57)	(0.97)	(0.55)
Δ M40/B30	0.34	0.02	-0.91*	-1.20*	3.82*	7.63*
	(0.24)	(0.25)	(0.25)	(0.17)	(1.00)	(0.38)
M40/B30$_{t-1}$	0.05	-0.08	-0.01	-0.24*	0.70	2.54*
	(0.17)	(0.18)	(0.16)	(0.12)	(0.71)	(0.41)
Δ Capital market openness	0.89	0.64	0.20	0.27	-4.46	-0.91
	(0.77)	(0.77)	(0.64)	(0.43)	(2.68)	(1.02)
Capital market openness$_{t-1}$	-0.39	-0.48	0.41	0.49*	0.33	0.55
	(0.26)	(0.27)	(0.24)	(0.16)	(0.78)	(0.29)
Δ Trade openness	-1.27	-0.66	1.64*	0.94	0.58	-0.68
	(0.74)	(0.76)	(0.82)	(0.58)	(1.94)	(0.83)
Trade openness$_{t-1}$	-0.02	-0.01	0.29	0.24	-0.29	-0.46
	(0.26)	(0.26)	(0.33)	(0.23)	(0.75)	(0.32)
Δ Partisanship (left)	-0.02	-0.03	0.04	0.03	-0.03	0.01
	(0.11)	(0.11)	(0.10)	(0.07)	(0.33)	(0.12)
Partisanship (left)$_{t-1}$	-0.03*	-0.05*	0.01	0.01	0.13*	0.05*
	(0.01)	(0.01)	(0.01)	(0.01)	(0.03)	(0.01)
Δ Marriage rate	0.06	0.07	-0.15*	-0.11*	0.09	0.08
	(0.06)	(0.06)	(0.05)	(0.04)	(0.20)	(0.08)
Marriage rate$_{t-1}$	-0.09	-0.10	0.05	0.00	0.09	0.14
	(0.05)	(0.06)	(0.06)	(0.04)	(0.19)	(0.08)
Δ Unemployment	-0.01	-0.04	-0.04	0.01	0.06	0.00
	(0.03)	(0.04)	(0.03)	(0.02)	(0.10)	(0.05)
Unemployment $_{t-1}$	0.02	0.02	-0.04*	-0.02	0.04	-0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.04)	(0.02)
Δ Public goods consumption		-45.32*		9.15*		51.23*
		(5.20)		(3.26)		(6.28)
Public goods consumption$_{t-1}$		-14.10*		1.75		25.63*
		(3.57)		(1.95)		(4.33)
R-squared	0.18	0.32	0.31	0.62	0.27	0.71
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Appendix B:

How May Governments Affect "Predistribution"?

In Table B1 we use simple error-correction models to consider how governments may affect "predistribution." In all models, the dependent variable is the pre-tax Gini coefficient using data from the World Inequality Database.

As noted in the main part of the paper, the rise in pre-fisc inequality is driven by deep forces of change – the ICT revolution, the rise of cities, and global economic integration – that democratic governments have for the most part accommodated in the name of economic progress. The off-setting fiscal policies designed to share such progress more equally do not appear to directly affect the pre-fisc income distribution (all long-run effects of transfer rates are insignificant in Table B1), but the results do suggest that left-of-center governments have an additional dampening effect on pre-fisc inequality. Future research will need to pinpoint the mechanisms, but the effect is plausibly driven by a combination of higher minimum wages, union-inclusive corporatist bargaining, and policies aimed at containing the concentration of housing wealth (which shows up as lower imputed rents in our data). The partisan effects on transfer rates that we report in the main part of the paper are therefore somewhat magnified by the effects on the pre-fisc income distribution. Consistent with Goldin and Katz (2007) we also find that public educational spending reduces pre-fisc inequality. The effect of educational spending, however, is only statistically significant in the short run, meaning that the effect tends to fade over time. It is conceivable that differentiating between different types of educational spending would reveal stronger effects (see Iversen and Stephens 2008 for an argument along these lines), but a fine-grained analysis of educational policies is beyond the scope of this paper.

The models also show by now familiar patterns suggesting that as advanced economies have expanded, measured by GDP per capita, pre-tax income inequality has increased. Recessions, however, measured by unemployment, have the expected effect of raising pre-fisc income inequality.

Table B1. Determinants of Pre-Tax Income Inequality

	(1)	(2)	(3)
	Pre-tax Inequality (Gini)		
Pre-tax Gini $_{t-1}$	-0.1413*	-0.1476*	-0.2974*
	(0.0273)	(0.0286)	(0.0422)
Δ Partisanship (left)	-0.0002	-0.0003	-0.0002
	(0.0010)	(0.0010)	(0.0010)
Partisanship (left)$_{t-1}$	-0.0002+	-0.0004*	-0.0009*
	(0.0001)	(0.0002)	(0.0003)
Δ Transfer rate bottom 20%	0.1268	0.1301	0.0388
	(0.1113)	(0.1108)	(0.1175)
Transfer rate bottom 20%$_{t-1}$	0.0550	0.0522	-0.1033
	(0.1085)	(0.1076)	(0.1383)
Δ Transfer rate middle 20%	0.8411*	0.8527*	0.9406*
	(0.2268)	(0.2268)	(0.2238)
Transfer rate middle 20%$_{t-1}$	-0.0840	-0.0653	0.2483
	(0.1929)	(0.1941)	(0.2304)
Δ General government expenditure on education	-0.0025+	-0.0024+	-0.0024+
	(0.0013)	(0.0013)	(0.0013)
General government expenditure on education$_{t-1}$	0.0003	0.0003	0.0003
	(0.0007)	(0.0007)	(0.0008)
Δ Unemployment	0.0008*	0.0008*	0.0009*
	(0.0004)	(0.0004)	(0.0004)
Unemployment$_{t-1}$	0.0005*	0.0004*	0.0008*
	(0.0002)	(0.0002)	(0.0002)
Δ GDP per capita	0.0204*	0.0207*	0.0261*
	(0.0053)	(0.0053)	(0.0053)
GDP per capita$_{t-1}$	0.0038*	0.0021	0.0091*
	(0.0012)	(0.0015)	(0.0028)
Time trend	No	Yes	Country-specific
R-squared	0.21	0.21	0.29
N	539	539	539
N of countries	17	17	17

Note: * p<0.05, + p<0.1. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

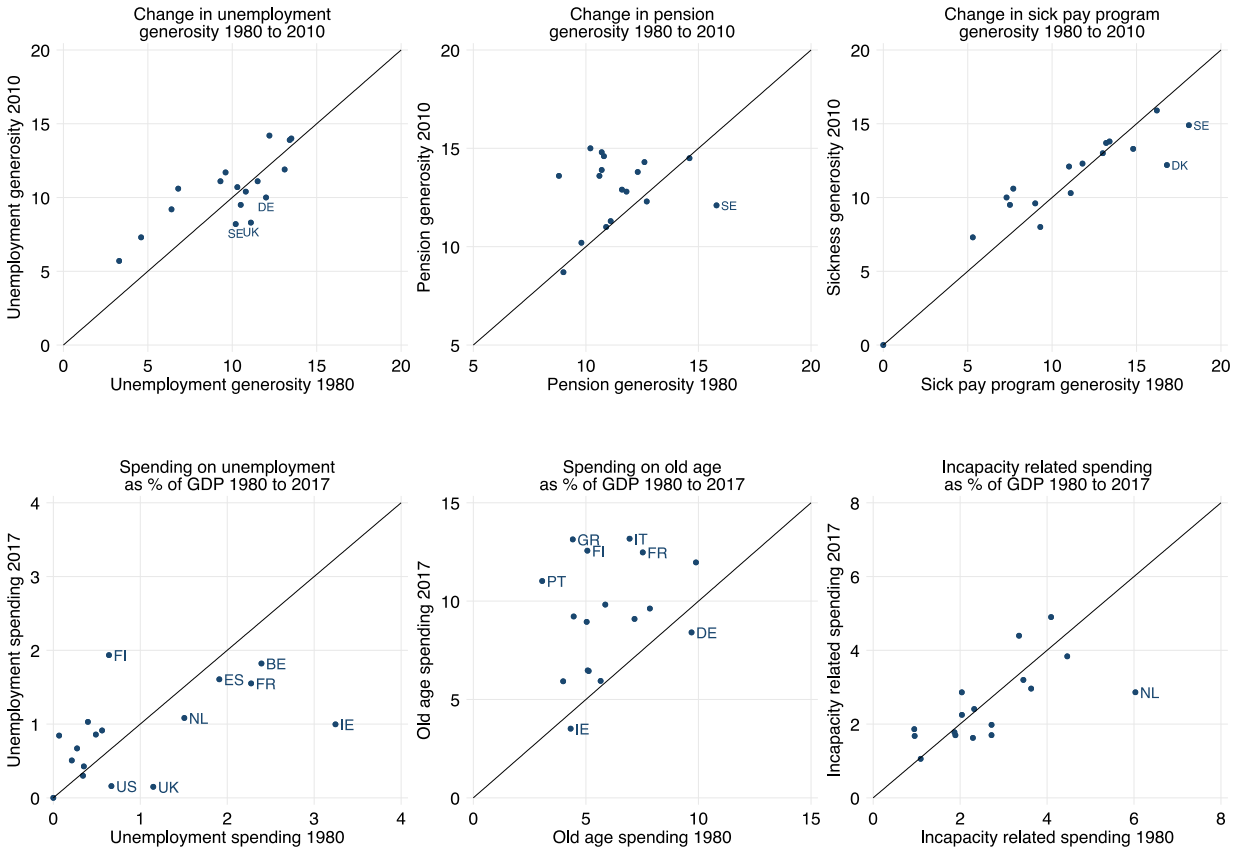
Appendix C:

Spending and Generosity of Replacement Income Programs

The top panel of Figure C1 shows that the generosity of welfare programs (unemployment, pension, and sick pay) has been fairly stable since 1980. In fact, in most of the countries in our sample, these programs have become (slightly) more generous, especially pensions. The bottom panel shows spending as percentage of GDP. Again, there is no general downward trend of lower spending in our sample of countries.

In Table C1, we include the measure of unemployment generosity in our main models. The regressions show that the generosity of unemployment programs only has a lasting effect on the transfer rates of *L*. Less (more) generous unemployment programs is associated with more (less) transfers to *L*. In other words, had unemployment benefits been included in post-tax rather than pre-tax income, *L*'s transfer rate would have been higher. We also note that our main results are very similar when controlling for the generosity of unemployment programs.

Figure C1. Changes in The Generosity of (Top Panel) and Spending on (Bottom Panel) Unemployment, Pensions, and Sick Pay Programs.



Note: The top panel shows changes in the generosity of unemployment, pension, and sick pay programs from 1980 to 2010 using data from Scruggs, Jahn, and Kuitto (2017). The bottom panel shows changes in unemployment, old age, and incapacity related spending between 1980 and 2017.

Table C1. Determinants of the Relative Transfer Rates, Including a Measure of the Generosity of Unemployment Programs.

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.35*	-0.32*	-0.44*	-0.27*	-0.49*	-0.32*
	(0.05)	(0.05)	(0.05)	(0.04)	(0.06)	(0.05)
Δ T1/M20	2.25	-0.01	4.38*	10.31*	6.72	10.63*
	(5.78)	(7.96)	(0.78)	(0.73)	(3.80)	(1.62)
T1/M20$_{t-1}$	-1.42	-5.25	2.42*	3.54*	1.93	3.89*
	(2.84)	(4.13)	(0.43)	(0.59)	(2.05)	(0.84)
Δ M20/B20	-0.01	0.18	-0.27*	-0.24*	4.22*	5.02*
	(0.56)	(0.71)	(0.10)	(0.09)	(0.72)	(0.24)
M20/B20$_{t-1}$	0.00	0.02	0.12	0.14	0.18	1.54*
	(0.50)	(0.66)	(0.08)	(0.07)	(0.58)	(0.30)
Δ Capital market openness	3.86	3.94	-0.13	-0.18	-4.82	0.21
	(4.74)	(5.87)	(0.78)	(0.64)	(4.18)	(1.49)
Capital market openness$_{t-1}$	-3.68	-4.31	0.56	0.50*	1.77	0.66
	(2.00)	(2.56)	(0.30)	(0.24)	(1.65)	(0.50)
Δ Trade openness	-7.51	-6.40	1.54	0.75	-2.16	-1.68
	(5.94)	(7.61)	(0.98)	(0.87)	(3.66)	(1.50)
Trade openness$_{t-1}$	6.91	6.95	-0.02	0.25	-0.37	-0.46
	(3.53)	(4.54)	(0.51)	(0.44)	(1.92)	(0.78)
Δ Partisanship (left)	0.80	0.89	-0.07	-0.04	-0.36	-0.19
	(0.90)	(1.13)	(0.11)	(0.09)	(0.57)	(0.20)
Partisanship (left)$_{t-1}$	-0.08	-0.17	0.00	-0.01	0.18*	0.03
	(0.11)	(0.14)	(0.02)	(0.02)	(0.07)	(0.03)
Δ Marriage rate	0.39	0.80	-0.19*	-0.16*	0.19	0.06
	(0.47)	(0.64)	(0.06)	(0.05)	(0.34)	(0.13)
Marriage rate$_{t-1}$	-0.60	-0.42	0.03	0.00	-0.01	0.13
	(0.43)	(0.62)	(0.07)	(0.06)	(0.35)	(0.14)
Δ Unemployment	0.14	-0.22	0.00	0.03	-0.14	-0.12
	(0.23)	(0.37)	(0.04)	(0.04)	(0.18)	(0.08)
Unemployment $_{t-1}$	0.18	0.15	-0.04*	-0.00	-0.01	-0.05
	(0.11)	(0.15)	(0.02)	(0.02)	(0.09)	(0.04)
Δ Public goods consumption		-68.30		14.09*		79.35*
		(56.13)		(4.85)		(11.32)
Public goods consumption$_{t-1}$		-17.35		2.48		34.64*
		(28.07)		(2.81)		(7.28)
Δ Unemployment generosity	-1.56*	-2.07*	0.11	0.07	0.02	-0.19
	(0.73)	(0.92)	(0.12)	(0.10)	(0.49)	(0.18)
Unemployment generosity $_{t-1}$	-0.27	-0.71	-0.02	-0.01	-0.47*	-0.18*
	(0.35)	(0.46)	(0.05)	(0.04)	(0.22)	(0.09)
R-squared	0.20	0.20	0.31	0.44	0.40	0.72
N	481	481	481	481	481	481

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Appendix D:

Additional Figures

Figure D1. Top 1%'s absolute transfer rate under different assumptions of the value of in-kind benefits and public goods.

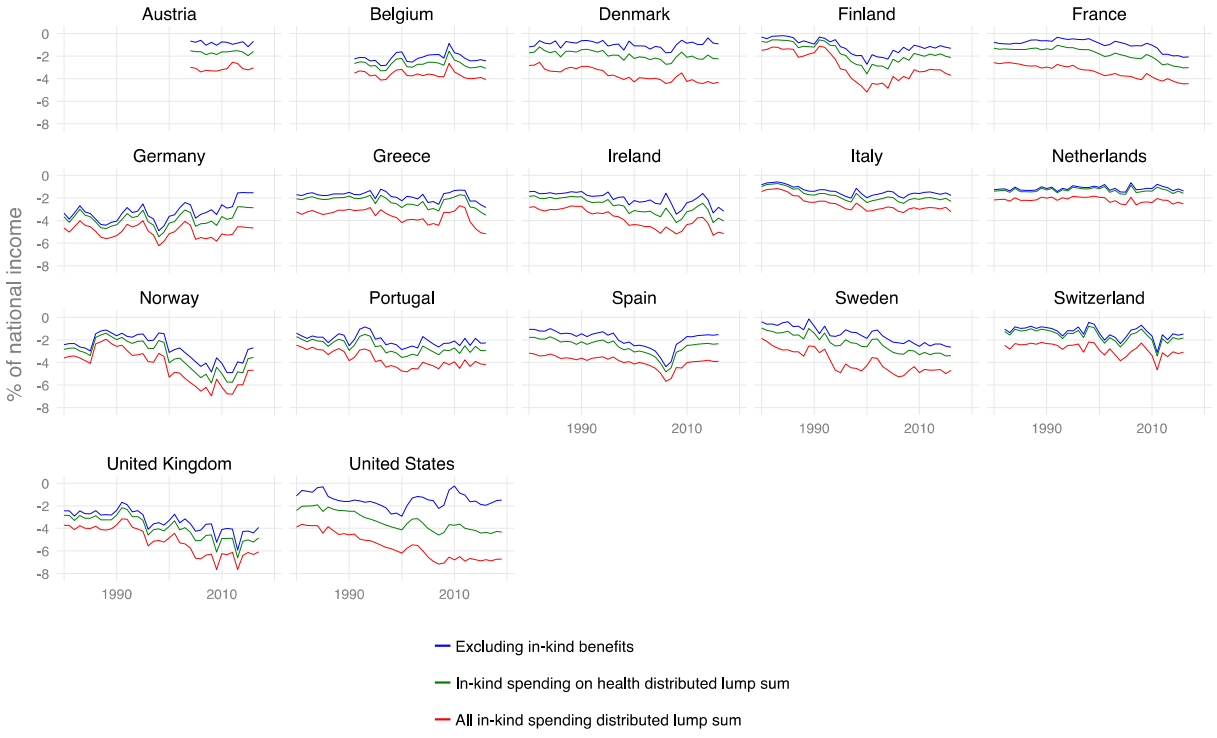


Figure D2. Middle 20%'s absolute transfer rate under different assumptions of the value of in-kind benefits and public goods.

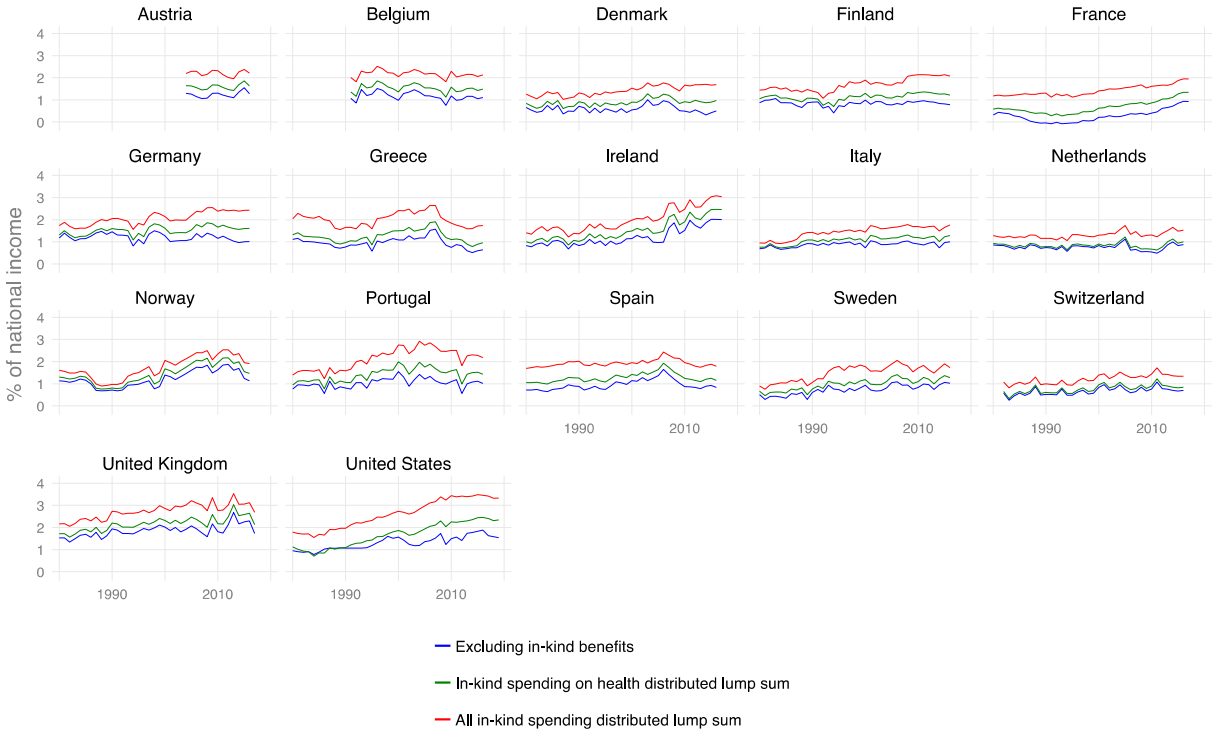
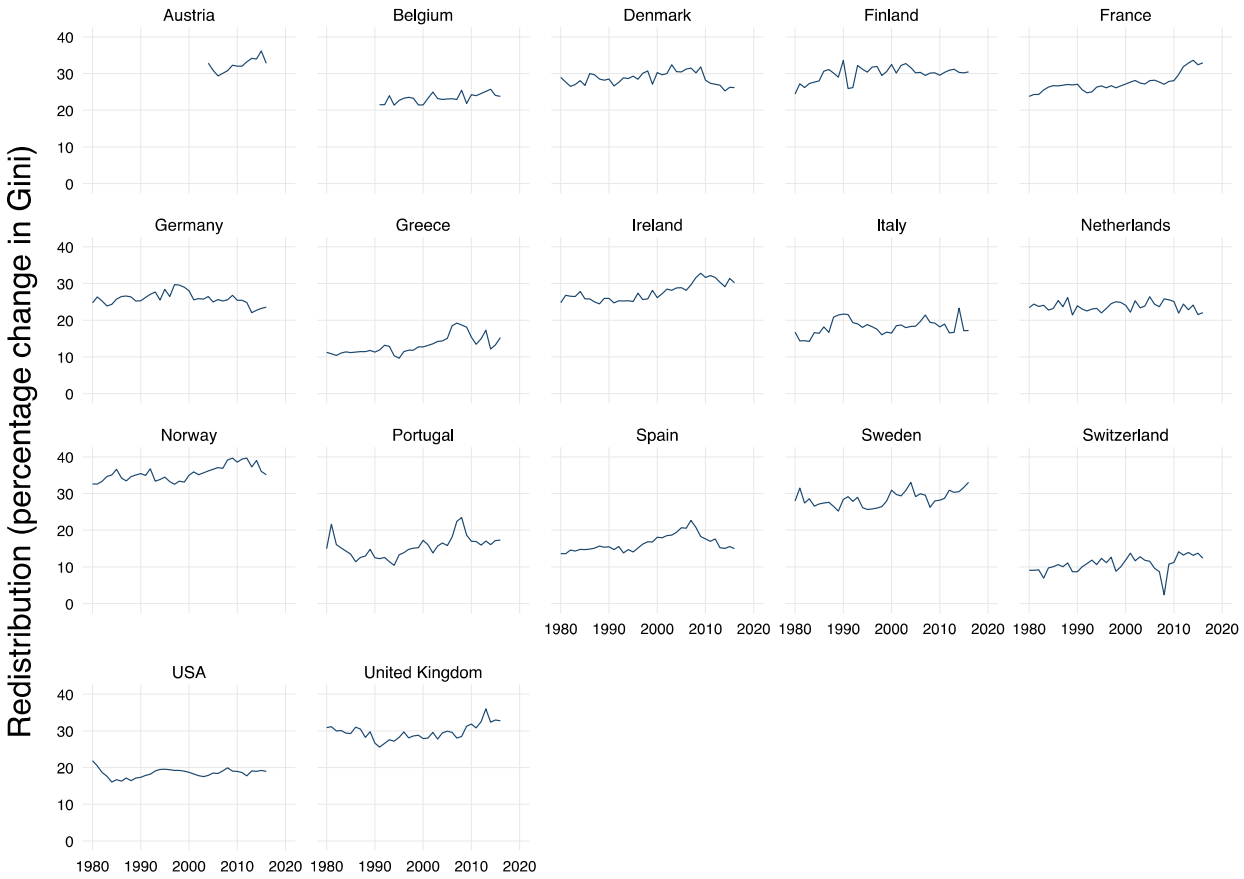


Figure D3. Bottom 20%'s absolute transfer rate under different assumptions of the value of in-kind benefits and public goods.

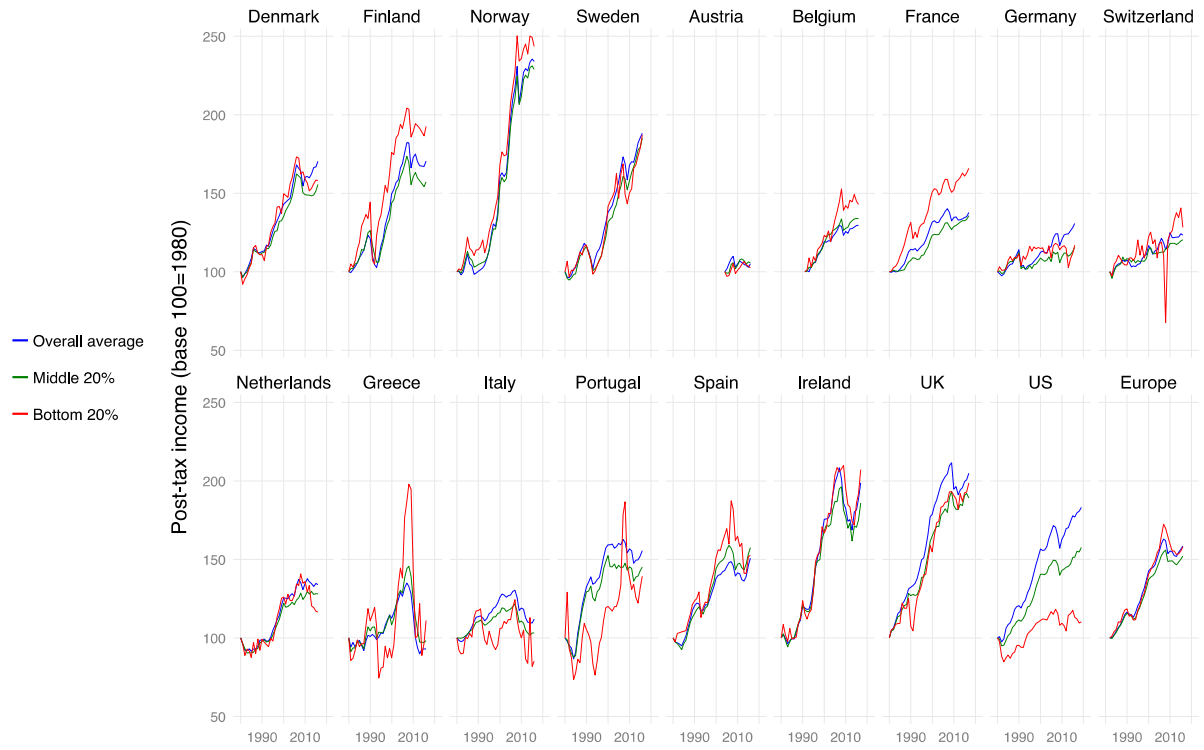
Figure D4. Evolution of Pre-Tax and Post-Tax Gini Coefficients

Figure D5. Redistribution measured as percentage change in Gini from before to after taxes and transfers.



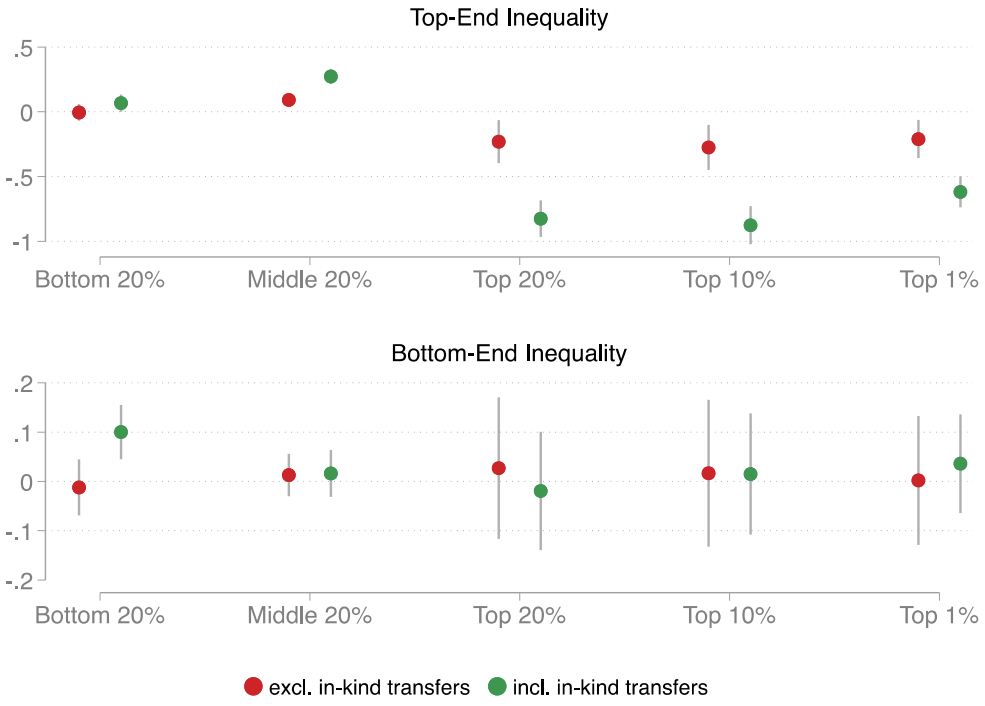
Note: The blue lines show percentage changes in Gini from before to after taxes and transfers for the standard WID series that assumes that only in-kind spending on health has redistributive effects.

Figure D6. The Evolution of Low and Middle Incomes (Post-Tax) Since 1980 (including only in-kind spending on health as an equal lump-sum)



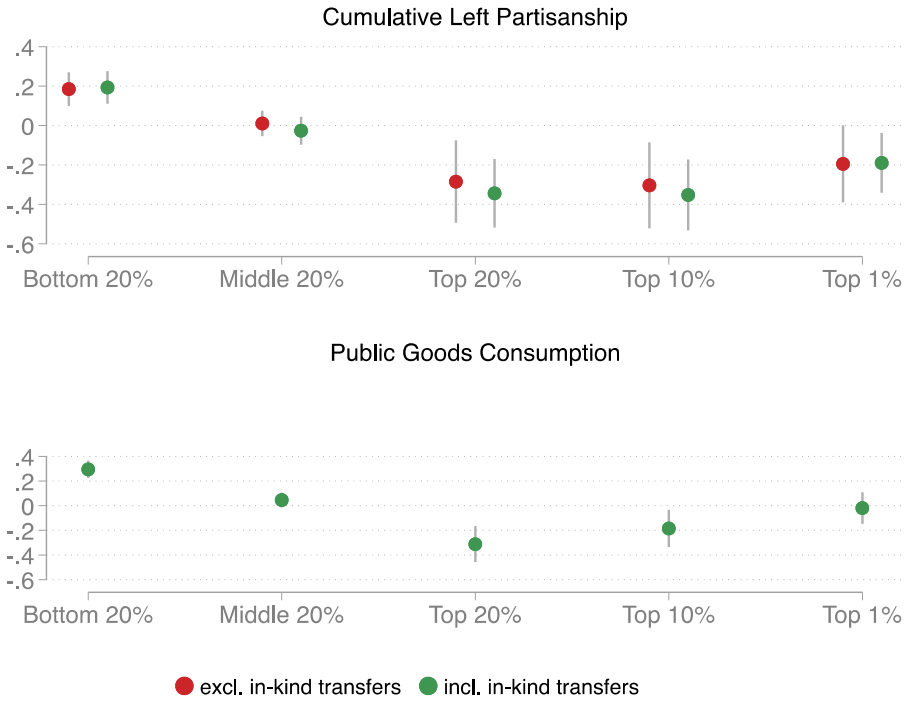
Note: In Austria, Belgium, and Switzerland the base 100 is 2004, 1991, and 1982. The graph for Europe includes all the European countries except Austria and Belgium and has base 100 in 1982.

Figure D7. Long-Run Effects of Top and Bottom-End Inequality on Absolute Transfer Rates



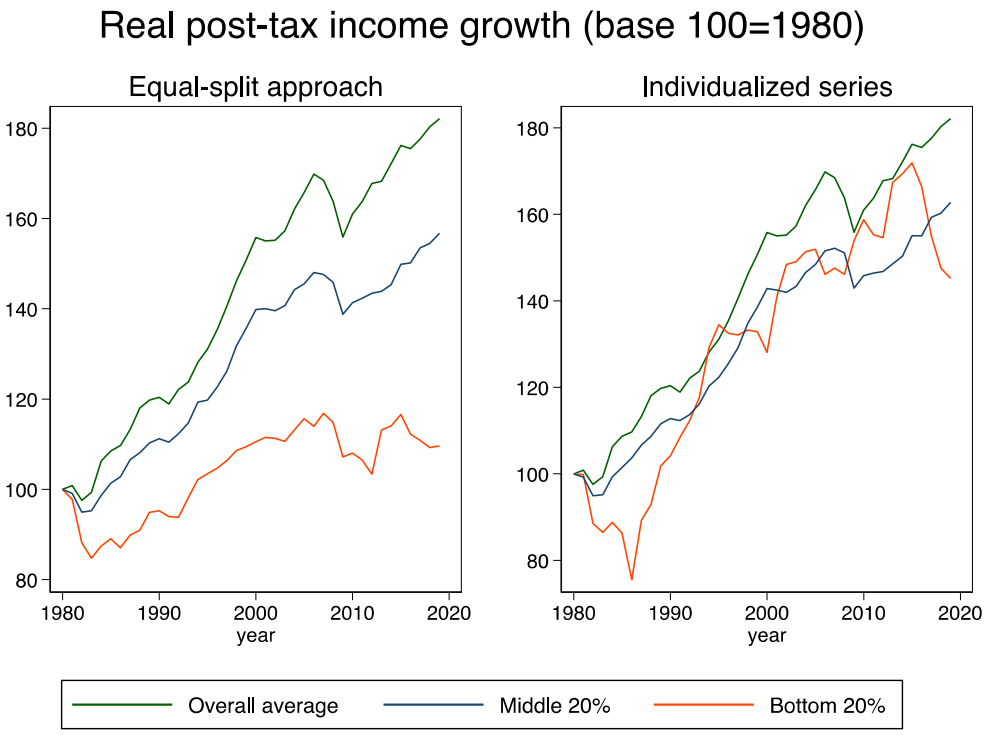
Note: The figure shows the total long-run effect of a one standard deviation change in top or bottom-end inequality on the absolute transfer rate of a group with and without including in-kind transfers. The long-run multipliers are estimated using the Bewley (1979) transformation.

Figure D8. Long-Run Effects of Left Partisanship and Public Goods Consumption on Absolute Transfer Rates



Note: The figure shows the total long-run effect of a one standard deviation change in left partisanship or public goods consumption on the relative transfer rate of a group with and without including in-kind transfers. The long-run multipliers are estimated using the Bewley (1979) transformation.

Figure D9. Real Post-Tax Income Growth in the US, Comparing the Equal-Split Approach and the Individualized Series.



Note: The lines show real post-tax income growth in the US assuming that only in-kind spending on health has redistributive effects (standard WID series).

Appendix E:

Alternative Model Specifications

Table E1. Determinants of the Relative Transfer Rates, Two Lagged DVs

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.38*	-0.37*	-0.43*	-0.35*	-0.53*	-0.44*
	(0.06)	(0.06)	(0.05)	(0.05)	(0.06)	(0.05)
Relative transfer rate$_{t-2}$	0.10	0.11*	0.12*	0.13*	0.07	0.13*
	(0.06)	(0.06)	(0.05)	(0.04)	(0.06)	(0.03)
Δ T1/M20	2.07	-0.76	4.11*	9.94*	5.36	8.16*
	(5.41)	(7.39)	(0.75)	(0.69)	(3.61)	(1.42)
T1/M20$_{t-1}$	0.83	-2.26	1.84*	3.18*	0.66	3.25*
	(2.33)	(3.48)	(0.39)	(0.55)	(1.78)	(0.70)
Δ M20/B20	0.30	0.56	-0.20	-0.17	3.70*	4.63*
	(0.52)	(0.66)	(0.10)	(0.09)	(0.76)	(0.23)
M20/B20$_{t-1}$	-0.23	-0.43	0.11	0.13	0.93	1.63*
	(0.43)	(0.57)	(0.07)	(0.07)	(0.59)	(0.28)
Δ Capital market openness	5.20	5.40	0.50	0.39	-10.11*	-0.97
	(4.41)	(5.50)	(0.76)	(0.63)	(5.02)	(1.58)
Capital market openness$_{t-1}$	-3.73*	-4.78*	0.55*	0.46*	-0.24	-0.41
	(1.76)	(2.33)	(0.27)	(0.23)	(1.52)	(0.45)
Δ Trade openness	-5.69	-3.59	1.42	1.00	-1.17	-0.74
	(5.76)	(7.53)	(0.89)	(0.79)	(3.61)	(1.49)
Trade openness$_{t-1}$	2.35	2.76	0.35	0.35	1.31	-0.10
	(2.66)	(3.44)	(0.37)	(0.32)	(1.30)	(0.57)
Δ Partisanship (left)	0.13	0.03	0.02	0.04	0.19	0.00
	(0.83)	(1.07)	(0.11)	(0.09)	(0.60)	(0.19)
Partisanship (left)$_{t-1}$	-0.07	-0.14	-0.01	-0.02	0.23*	0.08*
	(0.10)	(0.13)	(0.02)	(0.01)	(0.06)	(0.02)
Δ Marriage rate	0.41	0.67	-0.17*	-0.13*	0.18	0.08
	(0.45)	(0.63)	(0.06)	(0.06)	(0.34)	(0.13)
Marriage rate$_{t-1}$	-0.58	-0.65	0.05	0.04	0.15	0.20
	(0.39)	(0.55)	(0.06)	(0.06)	(0.35)	(0.12)
Δ Unemployment	0.18	-0.12	-0.05	-0.02	0.20	0.04
	(0.22)	(0.33)	(0.03)	(0.03)	(0.20)	(0.08)
Unemployment $_{t-1}$	0.07	0.10	-0.04*	-0.03	0.14	-0.04
	(0.09)	(0.13)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-62.60		14.16*		65.47*
		(52.71)		(4.70)		(10.77)
Public goods consumption$_{t-1}$		-20.13		3.72		28.43*
		(27.57)		(2.70)		(6.73)
R-squared	0.18	0.18	0.28	0.43	0.35	0.70
N	559	559	559	559	559	559

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E2. Determinants of the Relative Transfer Rates, Prais-Winsten Regression

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.26*	-0.24*	-0.33*	-0.21*	-0.47*	-0.27*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T1/M20	2.39	-0.19	4.08*	10.10*	5.30	8.51*
	(5.35)	(7.32)	(0.75)	(0.68)	(3.62)	(1.46)
T1/M20$_{t-1}$	0.44	-2.64	1.87*	3.03*	0.68	3.08*
	(2.08)	(2.99)	(0.36)	(0.51)	(1.68)	(0.65)
Δ M20/B20	0.37	0.66	-0.24*	-0.20*	3.78*	4.75*
	(0.52)	(0.66)	(0.10)	(0.09)	(0.75)	(0.24)
M20/B20$_{t-1}$	-0.14	-0.28	0.07	0.08	0.94	1.32*
	(0.40)	(0.52)	(0.07)	(0.07)	(0.55)	(0.26)
Δ Capital market openness	5.94	6.38	0.24	0.25	-9.91*	-0.18
	(4.26)	(5.32)	(0.75)	(0.62)	(4.91)	(1.58)
Capital market openness$_{t-1}$	-3.32*	-4.17*	0.42	0.36	0.33	0.14
	(1.52)	(2.01)	(0.25)	(0.21)	(1.42)	(0.42)
Δ Trade openness	-7.48	-5.93	1.75	1.16	-2.82	-1.84
	(5.64)	(7.27)	(0.91)	(0.79)	(3.62)	(1.44)
Trade openness$_{t-1}$	1.81	1.97	0.49	0.44	0.55	-0.26
	(2.33)	(2.99)	(0.35)	(0.29)	(1.26)	(0.53)
Δ Partisanship (left)	0.09	0.04	0.04	0.03	0.09	-0.05
	(0.76)	(0.96)	(0.11)	(0.08)	(0.58)	(0.18)
Partisanship (left)$_{t-1}$	-0.05	-0.11	-0.00	-0.02	0.22*	0.05*
	(0.09)	(0.11)	(0.01)	(0.01)	(0.06)	(0.02)
Δ Marriage rate	0.52	0.84	-0.18*	-0.13*	0.15	0.03
	(0.45)	(0.63)	(0.06)	(0.06)	(0.36)	(0.13)
Marriage rate$_{t-1}$	-0.55	-0.66	0.05	0.05	0.12	0.12
	(0.34)	(0.48)	(0.06)	(0.05)	(0.33)	(0.12)
Δ Unemployment	0.15	-0.10	-0.04	-0.01	0.19	-0.00
	(0.20)	(0.31)	(0.03)	(0.03)	(0.19)	(0.08)
Unemployment $_{t-1}$	0.06	0.08	-0.04*	-0.02	0.14	-0.04
	(0.08)	(0.12)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-65.59		15.73*		66.03*
		(50.90)		(4.60)		(10.71)
Public goods consumption$_{t-1}$		-20.98		3.35		24.93*
		(24.73)		(2.57)		(6.09)
R-squared	0.14	0.14	0.24	0.40	0.32	0.67
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E3. Determinants of the Relative Transfer Rates, Including Linear Time Trend

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.31*	-0.29*	-0.35*	-0.26*	-0.49*	-0.32*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T1/M20	2.86	0.21	3.97*	9.98*	5.52	8.57*
	(5.47)	(7.49)	(0.76)	(0.69)	(3.61)	(1.49)
T1/M20$_{t-1}$	1.10	-1.39	1.76*	3.21*	0.71	3.33*
	(2.79)	(4.01)	(0.40)	(0.54)	(1.86)	(0.75)
Δ M20/B20	0.45	0.78	-0.26*	-0.23*	3.81*	4.79*
	(0.53)	(0.68)	(0.11)	(0.10)	(0.75)	(0.24)
M20/B20$_{t-1}$	-0.06	-0.09	0.05	0.06	1.00	1.56*
	(0.44)	(0.58)	(0.07)	(0.07)	(0.57)	(0.28)
Δ Capital market openness	5.22	5.31	0.26	0.24	-9.92*	-0.17
	(4.33)	(5.44)	(0.75)	(0.62)	(4.93)	(1.61)
Capital market openness$_{t-1}$	-3.63*	-4.63*	0.39	0.34	0.31	0.20
	(1.66)	(2.20)	(0.26)	(0.22)	(1.49)	(0.47)
Δ Trade openness	-7.20	-5.53	1.64	1.01	-3.01	-2.01
	(5.71)	(7.35)	(0.92)	(0.79)	(3.65)	(1.46)
Trade openness$_{t-1}$	2.26	3.09	0.25	0.14	0.57	-0.51
	(2.84)	(3.59)	(0.41)	(0.35)	(1.46)	(0.62)
Δ Partisanship (left)	-0.02	-0.15	0.04	0.04	0.09	-0.07
	(0.82)	(1.04)	(0.11)	(0.09)	(0.59)	(0.19)
Partisanship (left)$_{t-1}$	-0.04	-0.06	-0.02	-0.04*	0.23*	0.05
	(0.15)	(0.18)	(0.02)	(0.02)	(0.09)	(0.03)
Δ Marriage rate	0.40	0.60	-0.16*	-0.11	0.16	0.06
	(0.47)	(0.64)	(0.07)	(0.06)	(0.37)	(0.14)
Marriage rate$_{t-1}$	-0.61	-0.79	0.08	0.08	0.13	0.14
	(0.41)	(0.56)	(0.07)	(0.06)	(0.38)	(0.14)
Δ Unemployment	0.11	-0.20	-0.04	-0.02	0.20	-0.01
	(0.22)	(0.33)	(0.03)	(0.03)	(0.20)	(0.08)
Unemployment $_{t-1}$	0.07	0.07	-0.04*	-0.02	0.15	-0.04
	(0.09)	(0.13)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-68.81		15.74*		65.93*
		(52.48)		(4.69)		(10.99)
Public goods consumption$_{t-1}$		-21.72		3.75		29.14*
		(27.26)		(2.75)		(6.63)
Linear time trend	-0.02	-0.08	0.02	0.02*	-0.00	0.01
	(0.09)	(0.11)	(0.01)	(0.01)	(0.06)	(0.02)
R-squared	0.16	0.16	0.26	0.41	0.33	0.68
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts. Note that only the effect of partisanship, when in-kind benefits are included in transfers, turns insignificant when adding time trends.

Table E4. Determinants of the Relative Transfer Rates, Including Country-Specific Time Trend

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.44*	-0.40*	-0.47*	-0.34*	-0.62*	-0.49*
	(0.05)	(0.05)	(0.05)	(0.04)	(0.06)	(0.05)
Δ T1/M20	2.30	-0.29	3.76*	9.70*	3.64	7.59*
	(5.52)	(7.49)	(0.76)	(0.70)	(3.56)	(1.46)
T1/M20$_{t-1}$	0.87	-1.33	1.79*	3.41*	-5.70*	3.66*
	(4.46)	(5.86)	(0.57)	(0.62)	(2.73)	(1.06)
Δ M20/B20	0.44	0.87	-0.27*	-0.23*	3.48*	4.73*
	(0.52)	(0.68)	(0.11)	(0.10)	(0.73)	(0.23)
M20/B20$_{t-1}$	-0.31	-0.27	0.06	0.08	0.85	2.33*
	(0.45)	(0.61)	(0.09)	(0.08)	(0.60)	(0.31)
Δ Capital market openness	7.13	7.75	0.07	0.05	-9.57	0.11
	(4.23)	(5.35)	(0.71)	(0.60)	(4.95)	(1.58)
Capital market openness$_{t-1}$	-0.85	-2.21	0.13	0.32	-0.83	0.37
	(2.09)	(2.65)	(0.34)	(0.30)	(2.21)	(0.70)
Δ Trade openness	-10.33	-9.60	2.10*	1.11	-0.59	-1.61
	(5.65)	(7.35)	(0.94)	(0.82)	(3.81)	(1.50)
Trade openness$_{t-1}$	-1.89	-0.45	0.84	0.09	6.00*	0.14
	(4.08)	(5.10)	(0.69)	(0.58)	(2.86)	(1.11)
Δ Partisanship (left)	-0.24	-0.47	0.10	0.09	0.21	-0.28
	(0.82)	(1.05)	(0.11)	(0.09)	(0.58)	(0.19)
Partisanship (left)$_{t-1}$	0.40	0.56	-0.05	-0.03	0.36*	-0.02
	(0.31)	(0.38)	(0.04)	(0.03)	(0.18)	(0.06)
Δ Marriage rate	0.65	1.06	-0.16*	-0.13*	0.27	0.03
	(0.45)	(0.61)	(0.07)	(0.06)	(0.35)	(0.14)
Marriage rate$_{t-1}$	-0.08	0.15	0.06	0.02	0.28	0.05
	(0.51)	(0.69)	(0.08)	(0.07)	(0.37)	(0.15)
Δ Unemployment	0.17	-0.18	-0.04	-0.04	0.11	-0.03
	(0.22)	(0.34)	(0.03)	(0.03)	(0.19)	(0.08)
Unemployment $_{t-1}$	0.18	0.19	-0.05*	-0.04*	0.14	-0.06
	(0.10)	(0.14)	(0.02)	(0.02)	(0.09)	(0.03)
Δ Public goods consumption		-74.65		16.91*		66.65*
		(51.03)		(4.64)		(10.73)
Public goods consumption$_{t-1}$		-21.98		5.66		44.78*
		(29.38)		(2.98)		(7.50)
Country-specific time trend?	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.23	0.23	0.31	0.44	0.40	0.71
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts. Note that only the effect of partisanship, when in-kind benefits are included in transfers, turns insignificant when adding time trends.

Table E5. Determinants of the Relative Transfer Rates, Unimputed Series (Capital Account and Market Openness, and the Marriage Rate)

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.32*	-0.30*	-0.35*	-0.25*	-0.53*	-0.33*
	(0.04)	(0.04)	(0.05)	(0.04)	(0.06)	(0.04)
Δ T1/M20	4.79	1.85	4.14*	10.47*	6.01	9.79*
	(5.63)	(7.43)	(0.80)	(0.71)	(3.86)	(1.59)
T1/M20$_{t-1}$	2.58	-0.91	1.79*	3.33*	0.93	4.30*
	(2.91)	(3.86)	(0.43)	(0.56)	(2.01)	(0.82)
Δ M20/B20	0.61	0.90	-0.28*	-0.22*	3.53*	4.72*
	(0.53)	(0.67)	(0.10)	(0.09)	(0.75)	(0.24)
M20/B20$_{t-1}$	0.12	0.08	0.02	0.05	0.92	1.56*
	(0.46)	(0.61)	(0.08)	(0.07)	(0.58)	(0.29)
Δ Capital market openness	5.11	5.35	0.62	0.38	-12.93*	-0.38
	(5.00)	(6.23)	(0.85)	(0.74)	(5.97)	(1.94)
Capital market openness$_{t-1}$	-4.96*	-6.58*	0.51+	0.46*	-1.07	0.20
	(1.77)	(2.27)	(0.27)	(0.22)	(1.56)	(0.48)
Δ Trade openness	-0.08	-0.07	0.02+	0.01	-0.02	-0.02
	(0.06)	(0.08)	(0.01)	(0.01)	(0.04)	(0.02)
Trade openness$_{t-1}$	0.02	0.02	0.01	0.00	0.01	-0.00
	(0.03)	(0.03)	(0.00)	(0.00)	(0.01)	(0.01)
Δ Partisanship (left)	-0.31	-0.36	0.09	0.07	0.32	-0.07
	(0.87)	(1.11)	(0.11)	(0.09)	(0.63)	(0.21)
Partisanship (left)$_{t-1}$	-0.07	-0.17	0.00	-0.01	0.24*	0.06*
	(0.10)	(0.13)	(0.02)	(0.01)	(0.06)	(0.03)
Δ Marriage rate	0.25	0.43	-0.16*	-0.12*	0.08	0.01
	(0.48)	(0.67)	(0.07)	(0.06)	(0.36)	(0.14)
Marriage rate$_{t-1}$	-0.83*	-1.06+	0.07	0.07	-0.02	0.05
	(0.42)	(0.59)	(0.07)	(0.06)	(0.37)	(0.14)
Δ Unemployment	0.11	-0.17	-0.04	-0.03	0.25	0.00
	(0.22)	(0.33)	(0.03)	(0.03)	(0.20)	(0.08)
Unemployment $_{t-1}$	0.05	0.06	-0.04*	-0.03+	0.17+	-0.04
	(0.09)	(0.13)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-75.84		18.39*		67.87*
		(52.72)		(4.71)		(11.14)
Public goods consumption$_{t-1}$		-27.07		4.66		29.45*
		(27.58)		(2.92)		(6.80)
R-squared	0.18	0.18	0.27	0.43	0.35	0.69
N	523	523	523	523	523	523

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts. The results in the main text (Table 1) contain one imputed value on trade openness, thirteen on capital market openness, and 31 on the marriage rate. The results presented here contain no imputed values.

Table E6. Determinants of the Relative Transfer Rates, Including Two Outliers (CH08-CH09)

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.31*	-0.29*	-0.35*	-0.25*	-0.60*	-0.34*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.08)	(0.04)
Δ T1/M20	1.89	-1.08	3.89*	10.00*	17.11*	10.12*
	(5.29)	(7.29)	(0.75)	(0.68)	(5.17)	(1.60)
T1/M20$_{t-1}$	0.72	-2.56	1.98*	3.43*	1.19	3.70*
	(2.25)	(3.30)	(0.37)	(0.54)	(2.04)	(0.75)
Δ M20/B20	0.48	0.76	-0.24*	-0.21*	3.16*	4.71*
	(0.52)	(0.67)	(0.10)	(0.09)	(0.75)	(0.24)
M20/B20$_{t-1}$	-0.07	-0.14	0.06	0.07	1.21*	1.68*
	(0.43)	(0.57)	(0.07)	(0.07)	(0.59)	(0.28)
Δ Capital market openness	5.25	5.36	0.24	0.21	-11.20*	-0.21
	(4.33)	(5.43)	(0.75)	(0.63)	(5.10)	(1.61)
Capital market openness$_{t-1}$	-3.68*	-4.86*	0.44	0.40	0.48	0.30
	(1.66)	(2.21)	(0.26)	(0.22)	(1.72)	(0.46)
Δ Trade openness	-7.07	-5.86	1.91*	1.34	-10.88	-3.64*
	(5.57)	(7.18)	(0.91)	(0.78)	(5.63)	(1.68)
Trade openness$_{t-1}$	1.79	1.70	0.54	0.52	-0.25	-0.41
	(2.48)	(3.21)	(0.36)	(0.31)	(1.94)	(0.66)
Δ Partisanship (left)	-0.03	-0.16	0.04	0.04	0.16	-0.06
	(0.82)	(1.05)	(0.11)	(0.09)	(0.61)	(0.19)
Partisanship (left)$_{t-1}$	-0.07	-0.15	-0.00	-0.02	0.31*	0.07*
	(0.10)	(0.13)	(0.02)	(0.01)	(0.07)	(0.02)
Δ Marriage rate	0.44	0.71	-0.18*	-0.14*	0.11	0.03
	(0.45)	(0.63)	(0.06)	(0.05)	(0.37)	(0.14)
Marriage rate$_{t-1}$	-0.56	-0.62	0.05	0.03	0.25	0.12
	(0.38)	(0.53)	(0.06)	(0.06)	(0.37)	(0.13)
Δ Unemployment	0.09	-0.23	-0.04	-0.01	0.31	0.01
	(0.21)	(0.32)	(0.03)	(0.03)	(0.21)	(0.08)
Unemployment $_{t-1}$	0.07	0.08	-0.04*	-0.03	0.14	-0.05
	(0.09)	(0.13)	(0.02)	(0.01)	(0.10)	(0.03)
Δ Public goods consumption		-68.99		16.56*		61.86*
		(52.17)		(4.67)		(11.06)
Public goods consumption$_{t-1}$		-21.46		3.73		31.46*
		(27.20)		(2.77)		(6.95)
R-squared	0.16	0.16	0.25	0.41	0.35	0.65
N	579	579	579	579	579	579

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E7. Determinants of the Relative Transfer Rates, with *H* Defined As The Top 10%

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 10% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.34*	-0.30*	-0.34*	-0.30*	-0.49*	-0.38*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T10/M20	-1.63	-5.84*	3.33*	7.15*	-0.21	5.44*
	(1.01)	(1.16)	(0.44)	(0.34)	(2.40)	(0.86)
T10/M20$_{t-1}$	-0.32	-2.07*	1.05*	2.29*	0.16	2.83*
	(0.43)	(0.58)	(0.22)	(0.33)	(1.00)	(0.42)
Δ M20/B20	0.40*	0.48*	-0.29*	-0.32*	3.84*	4.72*
	(0.18)	(0.21)	(0.10)	(0.08)	(0.75)	(0.24)
M20/B20$_{t-1}$	0.02	0.02	0.02	-0.04	1.03+	1.73*
	(0.15)	(0.17)	(0.07)	(0.05)	(0.57)	(0.28)
Δ Capital market openness	1.86	1.41	0.19	0.12	-9.97*	-0.52
	(1.60)	(1.74)	(0.73)	(0.54)	(4.92)	(1.58)
Capital market openness$_{t-1}$	-1.22*	-1.57*	0.37	0.37*	0.35	0.11
	(0.60)	(0.68)	(0.25)	(0.19)	(1.44)	(0.44)
Δ Trade openness	-2.54	-1.33	1.52+	0.92	-1.72	-2.22
	(1.86)	(2.12)	(0.89)	(0.70)	(3.57)	(1.42)
Trade openness$_{t-1}$	0.24	0.17	0.47	0.49+	0.55	-0.56
	(0.74)	(0.81)	(0.36)	(0.28)	(1.32)	(0.55)
Δ Partisanship (left)	-0.01	-0.04	0.03	0.02	0.07	-0.17
	(0.27)	(0.30)	(0.11)	(0.08)	(0.59)	(0.19)
Partisanship (left)$_{t-1}$	-0.06+	-0.10*	0.00	-0.00	0.22*	0.07*
	(0.03)	(0.04)	(0.01)	(0.01)	(0.06)	(0.02)
Δ Marriage rate	0.26+	0.32+	-0.17*	-0.13*	0.17	0.09
	(0.14)	(0.16)	(0.06)	(0.05)	(0.36)	(0.13)
Marriage rate$_{t-1}$	-0.20+	-0.19	0.06	0.03	0.09	0.20
	(0.12)	(0.15)	(0.06)	(0.05)	(0.34)	(0.12)
Δ Unemployment	0.03	-0.10	-0.04	0.01	0.17	0.02
	(0.07)	(0.09)	(0.03)	(0.03)	(0.19)	(0.08)
Unemployment $_{t-1}$	0.05	0.04	-0.04*	-0.02	0.16+	-0.02
	(0.03)	(0.04)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-57.73*		12.94*		61.98*
		(14.34)		(3.87)		(10.43)
Public goods consumption$_{t-1}$		-17.03*		2.69		34.11*
		(8.47)		(2.26)		(6.51)
R-squared	0.19	0.23	0.28	0.55	0.33	0.69
N	576	576	576	576	576	576

Note: * p<0.05, + p<0.1. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E8. Determinants of the Relative Transfer Rates, with *H* Defined As The Top 20%

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 20% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.33*	-0.29*	-0.35*	-0.33*	-0.49*	-0.39*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T20/M20	-0.74	-3.55*	3.09*	6.32*	-1.05	4.74*
	(0.51)	(0.55)	(0.38)	(0.27)	(2.12)	(0.73)
T20/M20$_{t-1}$	-0.19	-1.25*	0.95*	2.10*	0.12	2.52*
	(0.21)	(0.29)	(0.19)	(0.29)	(0.86)	(0.37)
Δ M20/B20	0.28*	0.24*	-0.31*	-0.37*	3.87*	4.69*
	(0.11)	(0.12)	(0.10)	(0.07)	(0.75)	(0.24)
M20/B20$_{t-1}$	0.03	-0.01	0.01	-0.06	1.05+	1.77*
	(0.09)	(0.10)	(0.07)	(0.05)	(0.57)	(0.28)
Δ Capital market openness	1.34	1.05	0.21	0.19	-10.00*	-0.52
	(1.02)	(1.05)	(0.72)	(0.50)	(4.92)	(1.57)
Capital market openness$_{t-1}$	-0.61+	-0.77*	0.38	0.45*	0.37	0.17
	(0.37)	(0.39)	(0.25)	(0.18)	(1.43)	(0.44)
Δ Trade openness	-2.07+	-1.22	1.49+	0.84	-1.44	-2.37+
	(1.07)	(1.12)	(0.87)	(0.65)	(3.53)	(1.40)
Trade openness$_{t-1}$	-0.11	-0.08	0.40	0.39	0.55	-0.74
	(0.39)	(0.40)	(0.35)	(0.26)	(1.33)	(0.56)
Δ Partisanship (left)	-0.04	-0.04	0.04	0.03	0.05	-0.17
	(0.16)	(0.17)	(0.11)	(0.08)	(0.59)	(0.19)
Partisanship (left)$_{t-1}$	-0.04*	-0.06*	0.01	0.00	0.22*	0.08*
	(0.02)	(0.02)	(0.01)	(0.01)	(0.06)	(0.02)
Δ Marriage rate	0.13	0.14	-0.16*	-0.12*	0.17	0.11
	(0.09)	(0.09)	(0.06)	(0.04)	(0.36)	(0.13)
Marriage rate$_{t-1}$	-0.12+	-0.13	0.06	0.02	0.09	0.20+
	(0.07)	(0.08)	(0.06)	(0.05)	(0.34)	(0.12)
Δ Unemployment	0.00	-0.06	-0.04	0.01	0.16	0.02
	(0.04)	(0.05)	(0.03)	(0.03)	(0.19)	(0.08)
Unemployment $_{t-1}$	0.03	0.03	-0.04*	-0.02	0.16+	-0.02
	(0.02)	(0.02)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-51.89*		9.92*		59.41*
		(7.72)		(3.62)		(10.24)
Public goods consumption$_{t-1}$		-15.52*		2.18		34.48*
		(5.01)		(2.15)		(6.49)
R-squared	0.19	0.28	0.30	0.59	0.33	0.70
N	576	576	576	576	576	576

Note: * p<0.05, + p<0.1. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E9. Determinants of the Relative Transfer Rates, Full Set of Results

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer share$_{t-1}$	-0.31*	-0.29*	-0.35*	-0.25*	-0.49*	-0.32*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T1/M20	2.67	-0.48	4.10*	10.18*	5.51	8.67*
	(5.40)	(7.39)	(0.76)	(0.69)	(3.62)	(1.49)
T1/M20$_{t-1}$	0.74	-2.57	1.97*	3.40*	0.69	3.49*
	(2.25)	(3.30)	(0.37)	(0.54)	(1.72)	(0.71)
Δ M20/B20	0.44	0.73	-0.25*	-0.22*	3.81*	4.79*
	(0.52)	(0.67)	(0.10)	(0.09)	(0.75)	(0.24)
M20/B20$_{t-1}$	-0.08	-0.14	0.06	0.07	1.00	1.56*
	(0.43)	(0.57)	(0.07)	(0.07)	(0.56)	(0.28)
Δ Capital market openness	5.24	5.36	0.24	0.21	-9.92*	-0.18
	(4.33)	(5.44)	(0.76)	(0.63)	(4.93)	(1.61)
Capital market openness$_{t-1}$	-3.71*	-4.87*	0.44	0.40	0.30	0.23
	(1.65)	(2.21)	(0.26)	(0.22)	(1.45)	(0.45)
Δ Trade openness	-7.42	-6.28	1.78	1.21	-3.02	-1.90
	(5.67)	(7.32)	(0.91)	(0.79)	(3.62)	(1.46)
Trade openness$_{t-1}$	1.85	1.75	0.52	0.51	0.55	-0.31
	(2.51)	(3.25)	(0.36)	(0.31)	(1.29)	(0.57)
Δ Partisanship (left)	-0.03	-0.15	0.05	0.04	0.09	-0.07
	(0.82)	(1.05)	(0.11)	(0.09)	(0.59)	(0.19)
Partisanship (left)$_{t-1}$	-0.06	-0.15	-0.00	-0.02	0.23*	0.06*
	(0.10)	(0.12)	(0.02)	(0.01)	(0.06)	(0.02)
Δ Marriage rate	0.44	0.71	-0.18*	-0.14*	0.16	0.05
	(0.45)	(0.63)	(0.06)	(0.05)	(0.36)	(0.14)
Marriage rate$_{t-1}$	-0.55	-0.62	0.05	0.04	0.13	0.12
	(0.38)	(0.53)	(0.06)	(0.06)	(0.34)	(0.13)
Δ Unemployment	0.10	-0.22	-0.04	-0.01	0.20	-0.01
	(0.21)	(0.33)	(0.03)	(0.03)	(0.19)	(0.08)
Unemployment $_{t-1}$	0.07	0.08	-0.04*	-0.03	0.15	-0.04
	(0.09)	(0.13)	(0.02)	(0.01)	(0.09)	(0.03)
Δ Public goods consumption		-70.29		16.19*		66.16*
		(52.37)		(4.68)		(11.01)
Public goods consumption$_{t-1}$		-21.91		3.71		29.03*
		(27.20)		(2.75)		(6.62)
R-squared	0.16	0.16	0.25	0.41	0.33	0.68
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E10. Determinants of the Absolute Transfer Rates

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% absolute transfer rate		Δ Middle 20% absolute transfer rate		Δ Bottom 20% absolute transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Absolute transfer rate$_{t-1}$	-0.30*	-0.30*	-0.36*	-0.29*	-0.50*	-0.43*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)
Δ T1/M20	-1.83*	-4.51*	0.44*	1.44*	0.18	0.26
	(0.35)	(0.29)	(0.13)	(0.12)	(0.24)	(0.22)
T1/M20$_{t-1}$	-0.45*	-1.31*	0.24*	0.56*	-0.02	0.21*
	(0.15)	(0.21)	(0.06)	(0.09)	(0.11)	(0.10)
Δ M20/B20	0.03	0.04	-0.04*	-0.04*	0.07	0.18*
	(0.04)	(0.03)	(0.02)	(0.02)	(0.03)	(0.03)
M20/B20$_{t-1}$	0.00	0.02	0.01	0.01	-0.01	0.07*
	(0.03)	(0.03)	(0.01)	(0.01)	(0.03)	(0.02)
Δ Capital market openness	0.30	0.17	0.04	0.05	-0.52	-0.33
	(0.27)	(0.21)	(0.13)	(0.11)	(0.28)	(0.23)
Capital market openness$_{t-1}$	-0.21*	-0.24*	0.08	0.09*	0.04	0.03
	(0.10)	(0.08)	(0.05)	(0.04)	(0.08)	(0.07)
Δ Trade openness	-0.62	-0.26	0.32*	0.23	-0.18	-0.25
	(0.36)	(0.27)	(0.16)	(0.14)	(0.25)	(0.20)
Trade openness$_{t-1}$	0.13	0.10	0.09	0.10	-0.04	-0.04
	(0.16)	(0.12)	(0.06)	(0.06)	(0.09)	(0.08)
Δ Partisanship (left)	-0.04	-0.03	0.01	0.01	0.00	-0.00
	(0.05)	(0.04)	(0.02)	(0.02)	(0.04)	(0.03)
Partisanship (left)$_{t-1}$	-0.01	-0.01*	0.00	-0.00	0.02*	0.02*
	(0.01)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Δ Marriage rate	0.03	0.02	-0.03*	-0.02*	0.03	0.02
	(0.03)	(0.02)	(0.01)	(0.01)	(0.03)	(0.02)
Marriage rate$_{t-1}$	-0.04	-0.03	0.01	0.01	0.03	0.03
	(0.02)	(0.02)	(0.01)	(0.01)	(0.02)	(0.02)
Δ Unemployment	0.02	-0.01	-0.01	-0.00	0.02	0.01
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Unemployment$_{t-1}$	0.01	0.00	-0.01*	-0.00	0.01	-0.00
	(0.01)	(0.00)	(0.00)	(0.00)	(0.01)	(0.00)
Δ Public goods		-0.45		2.49*		11.37*
		(1.91)		(0.84)		(1.57)
Public goods consumption$_{t-}$		-0.30		0.68		6.51*
		(0.99)		(0.49)		(1.05)
R-squared	0.22	0.48	0.23	0.35	0.27	0.38
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E11. Determinants of the Relative Transfer Rates, One-Way Fixed Effects Models

	(1)	(2)	(3)	(4)	(5)	(6)
	Top 1% transfer rate		Middle 20%. transfer rate		Bottom 20%. transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	0.63*	0.64*	0.54*	0.53*	0.42*	0.27*
	(0.07)	(0.06)	(0.06)	(0.06)	(0.09)	(0.04)
Relative transfer rate$_{t-2}$	0.09	0.11	0.12*	0.12*	0.09	0.14*
	(0.06)	(0.06)	(0.06)	(0.05)	(0.09)	(0.04)
T1/M20	1.02	-0.84	2.23*	5.15*	-0.12	4.87*
	(2.05)	(3.14)	(0.40)	(0.60)	(2.19)	(0.92)
M20/B20	-0.06	-0.26	0.01	0.03	1.78*	3.50*
	(0.43)	(0.58)	(0.09)	(0.08)	(0.64)	(0.22)
Capital market openness	-3.84*	-4.88	0.72*	0.75*	-1.42	-0.70
	(1.87)	(2.54)	(0.32)	(0.30)	(2.18)	(0.68)
Trade openness	1.57	3.22	0.41	0.46	1.62	-0.43
	(3.34)	(4.21)	(0.41)	(0.38)	(1.53)	(0.67)
Partisanship (left)	-0.05	-0.14	-0.02	-0.04*	0.28*	0.13*
	(0.12)	(0.16)	(0.02)	(0.01)	(0.07)	(0.03)
Marriage rate	-0.31	-0.21	-0.02	-0.05	0.20	0.16
	(0.39)	(0.56)	(0.07)	(0.06)	(0.38)	(0.12)
Unemployment	0.07	0.16	-0.03	-0.02	0.12	-0.10*
	(0.10)	(0.13)	(0.02)	(0.02)	(0.12)	(0.04)
Public goods consumption		-27.46		6.22*		57.68*
		(27.31)		(2.62)		(7.14)
R-squared	0.81	0.83	0.90	0.96	0.85	0.97
N	559	559	559	559	559	559

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E12. Determinants of the Relative Transfer Rates, Two-Way Fixed Effects Models

	(1)	(2)	(3)	(4)	(5)	(6)
	Top 1% transfer rate		Middle 20% transfer rate		Bottom 20%. transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	0.63*	0.65*	0.56*	0.54*	0.41*	0.26*
	(0.07)	(0.06)	(0.07)	(0.06)	(0.09)	(0.04)
Relative transfer rate$_{t-2}$	0.09	0.10	0.14*	0.13*	0.09	0.15*
	(0.07)	(0.06)	(0.07)	(0.05)	(0.09)	(0.04)
T1/M20	1.78	0.80	2.13*	4.73*	0.15	4.39*
	(2.62)	(3.86)	(0.44)	(0.60)	(2.59)	(0.90)
M20/B20	-0.09	-0.34	0.02	0.03	1.85*	3.45*
	(0.41)	(0.56)	(0.09)	(0.08)	(0.64)	(0.22)
Capital market openness	-4.12+	-4.79	0.74*	0.57+	-0.13	-0.22
	(2.26)	(3.32)	(0.36)	(0.34)	(2.34)	(0.58)
Trade openness	3.64	6.17	0.21	0.26	-0.20	-1.35+
	(4.19)	(5.35)	(0.58)	(0.52)	(1.89)	(0.81)
Partisanship (left)	-0.00	0.03	-0.02	-0.05*	0.22*	0.08*
	(0.19)	(0.24)	(0.03)	(0.02)	(0.11)	(0.04)
Marriage rate	-0.38	-0.50	-0.02	-0.02	0.23	0.20
	(0.44)	(0.61)	(0.08)	(0.07)	(0.42)	(0.14)
Unemployment	0.08	0.12	-0.04+	-0.02	0.11	-0.12*
	(0.12)	(0.15)	(0.02)	(0.02)	(0.11)	(0.04)
Public goods consumption		-21.62		5.99+		45.89*
		(33.08)		(3.22)		(7.45)
R-squared	0.82	0.84	0.91	0.96	0.86	0.97
N	559	559	559	559	559	559

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country and year fixed effects.

Table E13. Determinants of the Relative Transfer Rates, Only In-Kind Spending on Health is Distributed as an Equal Lump Sum.

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
Relative transfer rate$_{t-1}$	-0.31*	-0.31*	-0.30*	-0.31*	-0.45*	-0.46*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.05)
Δ T1/M20	5.16	5.97	6.39*	6.14*	5.73*	5.36*
	(6.32)	(6.41)	(0.76)	(0.76)	(2.48)	(2.48)
T1/M20$_{t-1}$	-0.30	1.11	2.83*	2.53*	3.23*	2.60*
	(2.76)	(3.40)	(0.46)	(0.47)	(1.13)	(1.23)
Δ M20/B20	0.48	0.55	-0.22*	-0.24*	5.26*	5.23*
	(0.57)	(0.57)	(0.10)	(0.10)	(0.41)	(0.41)
M20/B20$_{t-1}$	-0.21	-0.15	0.09	0.07	2.39*	2.40*
	(0.48)	(0.49)	(0.07)	(0.07)	(0.41)	(0.41)
Δ Capital market openness	4.93	4.88	0.28	0.32	-3.35	-3.33
	(4.65)	(4.65)	(0.70)	(0.70)	(2.79)	(2.78)
Capital market openness$_{t-1}$	-4.78*	-4.51*	0.48+	0.41+	1.37	1.24
	(1.89)	(1.88)	(0.25)	(0.25)	(0.83)	(0.85)
Δ Trade openness	-5.55	-4.68	1.58+	1.33	-3.27	-3.69
	(6.29)	(6.32)	(0.90)	(0.90)	(2.43)	(2.44)
Trade openness$_{t-1}$	1.15	2.70	0.57	0.12	0.18	-0.55
	(2.80)	(3.09)	(0.35)	(0.40)	(0.93)	(1.00)
Δ Partisanship (left)	-0.06	-0.05	0.02	0.02	0.03	0.02
	(0.89)	(0.89)	(0.10)	(0.10)	(0.34)	(0.34)
Partisanship (left)$_{t-1}$	-0.12	-0.02	-0.01	-0.04*	0.15*	0.11*
	(0.11)	(0.16)	(0.01)	(0.02)	(0.04)	(0.05)
Δ Marriage rate	0.66	0.53	-0.19*	-0.15*	-0.01	0.05
	(0.51)	(0.52)	(0.06)	(0.06)	(0.22)	(0.23)
Marriage rate$_{t-1}$	-0.35	-0.55	-0.01	0.05	0.00	0.10
	(0.44)	(0.47)	(0.06)	(0.07)	(0.21)	(0.22)
Δ Unemployment	-0.12	-0.10	-0.01	-0.02	-0.01	-0.02
	(0.28)	(0.28)	(0.04)	(0.04)	(0.14)	(0.14)
Unemployment $_{t-1}$	0.14	0.13	-0.04*	-0.04*	-0.06	-0.05
	(0.11)	(0.11)	(0.02)	(0.02)	(0.06)	(0.06)
Δ Public goods consumption	59.90	61.64	3.74	3.16	7.71	6.88
	(44.89)	(44.98)	(5.16)	(5.16)	(17.90)	(17.92)
Public goods consumption$_{t-1}$	15.89	16.49	-0.83	-1.00	23.69*	23.69*
	(22.85)	(22.97)	(2.96)	(2.95)	(9.37)	(9.35)
Linear time trend		-0.09		0.03*		0.04
		(0.09)		(0.01)		(0.04)
R-squared	0.16	0.17	0.29	0.30	0.51	0.51
N	576	576	576	576	576	576

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E14. Determinants of the Relative Transfer Rates, Including Extra Controls

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.34*	-0.32*	-0.38*	-0.27*	-0.50*	-0.37*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.06)	(0.05)
Δ T1/M20	4.29	0.27	4.22*	10.50*	7.11*	9.84*
	(5.59)	(7.61)	(0.78)	(0.71)	(3.55)	(1.45)
T1/M20$_{t-1}$	4.58	1.11	1.75*	3.64*	-1.31	3.71*
	(2.78)	(3.83)	(0.41)	(0.56)	(1.99)	(0.78)
Δ M20/B20	0.33	0.51	-0.21	-0.20*	4.12*	4.93*
	(0.57)	(0.73)	(0.11)	(0.10)	(0.76)	(0.24)
M20/B20$_{t-1}$	-0.44	-0.60	0.12	0.09	0.79	1.71*
	(0.49)	(0.64)	(0.08)	(0.08)	(0.61)	(0.29)
Δ Capital market openness	3.79	3.76	0.03	0.01	-7.33	-0.09
	(4.55)	(5.78)	(0.78)	(0.64)	(5.07)	(1.61)
Capital market openness$_{t-1}$	-6.91*	-8.56*	0.60*	0.45	0.90	0.31
	(2.01)	(2.62)	(0.29)	(0.24)	(1.46)	(0.47)
Δ Trade openness	-10.56	-10.48	1.71	1.17	-1.49	-2.15
	(5.67)	(7.37)	(0.93)	(0.80)	(3.76)	(1.46)
Trade openness$_{t-1}$	0.58	0.01	0.48	0.26	2.66	-0.26
	(2.87)	(3.65)	(0.45)	(0.38)	(1.77)	(0.71)
Δ Partisanship (left)	-0.35	-0.45	0.07	0.04	0.06	-0.13
	(0.83)	(1.06)	(0.11)	(0.09)	(0.56)	(0.18)
Partisanship (left)$_{t-1}$	-0.23*	-0.35*	0.01	-0.02	0.27*	0.05*
	(0.11)	(0.14)	(0.02)	(0.01)	(0.07)	(0.02)
Δ Marriage rate	0.81	1.16	-0.19*	-0.13*	0.13	0.07
	(0.47)	(0.65)	(0.06)	(0.06)	(0.35)	(0.13)
Marriage rate$_{t-1}$	0.27	0.42	0.03	0.05	-0.04	0.13
	(0.45)	(0.63)	(0.07)	(0.06)	(0.35)	(0.13)
Δ Unemployment	0.19	-0.01	-0.05	-0.02	0.06	-0.04
	(0.23)	(0.34)	(0.04)	(0.03)	(0.20)	(0.08)
Unemployment $_{t-1}$	0.29*	0.30	-0.04*	-0.02	0.12	-0.01
	(0.12)	(0.17)	(0.02)	(0.02)	(0.11)	(0.04)
Δ Public goods consumption		-95.49		19.31*		67.01*
		(52.91)		(4.72)		(10.82)
Public goods consumption$_{t-1}$		-35.20		5.34		30.14*
		(27.51)		(2.75)		(6.79)
Δ Share of elderly (65+)	-3.92	-4.41	0.34	0.43	0.38	0.54
	(2.12)	(2.70)	(0.28)	(0.23)	(1.36)	(0.49)
Share of elderly (65+) $_{t-1}$	0.67*	0.94*	-0.10*	-0.02	-0.00	0.10
	(0.28)	(0.36)	(0.04)	(0.03)	(0.18)	(0.07)
Δ Female labor force particip.	0.14	0.14	0.07	0.05*	-0.18	-0.10
	(0.26)	(0.32)	(0.04)	(0.03)	(0.18)	(0.06)
Female labor force particip $_{t-1}$	0.09	0.11	0.01	0.01	-0.13*	-0.04*
	(0.06)	(0.07)	(0.01)	(0.01)	(0.04)	(0.01)
Δ Union density	0.21	0.16	0.01	-0.03	0.47*	0.12
	(0.35)	(0.45)	(0.05)	(0.04)	(0.22)	(0.08)
Union density $_{t-1}$	-0.08	-0.08	0.00	-0.00	-0.08	-0.05*
	(0.08)	(0.10)	(0.01)	(0.01)	(0.06)	(0.02)
R-squared	0.19	0.18	0.28	0.43	0.36	0.71
N	562	562	562	562	562	562

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts.

Table E15. Determinants of the Relative Transfer Rates, Including Measure of House Prices

	(1)	(2)	(3)	(4)	(5)	(6)
	Δ Top 1% transfer rate		Δ Middle 20% transfer rate		Δ Bottom 20% transfer rate	
	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers	Excl. in-kind transfers	Incl. in-kind transfers
Relative transfer rate$_{t-1}$	-0.33*	-0.31*	-0.34*	-0.24*	-0.48*	-0.32*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.06)	(0.04)
Δ T1/M20	4.06	1.73	3.83*	9.67*	7.47*	8.65*
	(5.69)	(7.70)	(0.78)	(0.69)	(3.75)	(1.50)
T1/M20$_{t-1}$	2.39	0.13	1.76*	3.11*	1.07	3.19*
	(2.44)	(3.62)	(0.37)	(0.55)	(1.83)	(0.70)
Δ M20/B20	0.39	0.77	-0.26*	-0.19	4.21*	4.76*
	(0.63)	(0.80)	(0.12)	(0.10)	(0.86)	(0.29)
M20/B20$_{t-1}$	-0.46	-0.47	0.12	0.11	1.45*	1.68*
	(0.53)	(0.70)	(0.08)	(0.08)	(0.69)	(0.34)
Δ Capital market openness	3.39	3.29	0.73	0.64	-12.17*	-0.67
	(4.57)	(5.76)	(0.79)	(0.65)	(5.02)	(1.63)
Capital market openness$_{t-1}$	-4.33*	-5.38*	0.47	0.39	1.07	0.38
	(1.81)	(2.35)	(0.29)	(0.25)	(1.61)	(0.49)
Δ Trade openness	-6.04	-4.17	1.42	1.03	-4.33	-2.21
	(6.07)	(7.84)	(0.92)	(0.79)	(3.50)	(1.52)
Trade openness$_{t-1}$	3.40	3.47	0.43	0.55	-0.43	-0.44
	(2.71)	(3.45)	(0.37)	(0.31)	(1.27)	(0.59)
Δ Partisanship (left)	-0.26	-0.53	0.07	0.06	0.29	-0.03
	(0.83)	(1.06)	(0.11)	(0.09)	(0.59)	(0.19)
Partisanship (left)$_{t-1}$	0.10	0.07	-0.01	-0.02	0.23*	0.09*
	(0.12)	(0.15)	(0.02)	(0.01)	(0.06)	(0.02)
Δ Marriage rate	0.68	1.10	-0.19*	-0.17*	0.33	0.09
	(0.49)	(0.67)	(0.06)	(0.05)	(0.33)	(0.13)
Marriage rate$_{t-1}$	-0.45	-0.42	0.04	0.03	0.19	0.12
	(0.40)	(0.56)	(0.06)	(0.06)	(0.35)	(0.12)
Δ Unemployment	0.01	-0.45	-0.03	0.03	-0.09	-0.07
	(0.28)	(0.40)	(0.04)	(0.04)	(0.24)	(0.09)
Unemployment $_{t-1}$	-0.18	-0.33	-0.02	-0.01	0.05	-0.07
	(0.14)	(0.21)	(0.02)	(0.02)	(0.11)	(0.04)
Δ Public goods consumption		-54.68		15.26*		59.96*
		(58.30)		(4.90)		(11.41)
Public goods consumption$_{t-1}$		-5.96		3.65		24.86*
		(33.11)		(2.95)		(7.04)
Δ House price index	-0.10	-0.14	0.01	0.02*	-0.11*	-0.04*
	(0.06)	(0.08)	(0.01)	(0.01)	(0.05)	(0.02)
House price index $_{t-1}$	-0.05*	-0.09*	0.00	0.00	-0.00	-0.00
	(0.02)	(0.03)	(0.00)	(0.00)	(0.01)	(0.00)
R-squared	0.17	0.18	0.25	0.42	0.34	0.65
N	551	551	551	551	551	551

Note: * p<0.05. Panel corrected standard errors in parentheses. All models include country-specific intercepts. The measure of house prices is from OECD's analytical house price indicators dataset and is an index of real house prices.