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# Working Papers

# Government Ideology, Globalization, and Top Income Shares in OECD Countries

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# Government Ideology, Globalization, and Top Income Shares in OECD Countries

## Abstract

I investigate how government ideology and globalization are associated with top income shares in 16 OECD countries over the period 1970 to 2010. I use the new World Top Incomes Database. Globalization is measured by the KOF index of globalization. The results show that the top 1% income share increased more under rightwing governments than under leftwing governments. The effect was stronger when globalization proceeded more rapidly.

JEL Code: D31, D72, F62, H80, N30. Keywords: Inequality, partisan theory, globalization, panel data models.

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### **1. Introduction**

People are concerned about income inequality. Many studies focus on disparities of people's incomes or wealth levels. The standard measure of income inequality used in the academic and public discourse is the Gini index. But Gini indices have shortcomings because they are based on survey data, which often does not represent incomes of the rich correctly. People often do not report their correct income or do not respond at all, and income is measured with error. Another measure of income equality is the share of income accruing to certain percentiles of the population.<sup>2</sup> Higher income shares of top percentiles imply higher overall inequality. Following the seminal work by Piketty (2001, 2003), many scholars computed top income shares for a number of countries, and compiled the results in the World Top Incomes Database (Atkinson et al. 2011, Alvaredo et al. 2013).





Source: World Top Incomes Database

Figure 1 shows how the share of pre-tax income accruing to the top 1% of the income distribution has evolved in the United Kingdom and in the United States since the 1970s. In both countries, the income share of the top 1% has more than doubled since the beginning of the 1980s. The top 1% income share started to increase almost exactly

<sup>&</sup>lt;sup>2</sup> Other popular inequality measures include earnings ratios, for instance the ratio between the earnings of the 90<sup>th</sup> and the 10<sup>th</sup> percentiles of the income distribution, or the share of labor in national income (Guerriero and Sen 2012). See also Atkinson (1970).

when rightwing politicians took office who implemented crucial changes to the national economies: Margaret Thatcher was a conservative politician and British prime minister from 1979 to 1990, and Ronald Reagan was a Republican politician and President of the United States from 1981 to 1989. Government ideology and top income shares correlate. The 1980s were also the starting years of the latest wave of globalization (Dollar 2005). Globalization entails increased competition among states for production factors and the tax base. Some economists describe that globalization prevents governments to implement their preferred economic policies (e.g. Sinn 2003). Disentangling how top income shares, government ideology and globalization are related is hence a worthwhile endeavor.

Scheve and Stasavage (2009) first investigated whether government ideology influenced top income shares. They find the income share of the top 1% to be significantly lower under leftwing national governments. My paper contributes to the literature in several dimensions: I include more countries in the analysis than Scheve and Stasavage (Denmark, Finland, Italy, Norway, Portugal, and Spain) and I use an updated sample until the year 2010. I furthermore use an encompassing index to elaborate on the effect of globalization on inequality, and I investigate whether the effect of government ideology on top income shares depends on the pace of globalization.

My dataset includes 16 OECD countries for which data on top income shares is available. Since globalization is a multifaceted concept, I employ the KOF index of globalization as an encompassing measure of globalization. The dataset covers the period 1970 to 2010. The results show that the top 1% income share increased more under rightwing governments than under leftwing governments. The effect was stronger when globalization proceeded more rapidly.

### 2. Related studies

### 2.1. Top income shares

Top income shares have increased a great deal in English speaking countries and India and China since around 1980 (Atkinson et al. 2011). Atkinson et al. (2011) describe that

the reason is mainly a surge in top wage incomes. On the contrary, top income shares did not increase as much in continental European countries and Japan. In the first half of the 20<sup>th</sup> century, top income shares decreased sharply in many countries because of wartime destruction and strongly redistributive economic policies. Economists investigate which factors determine the differences in the evolution of top income shares over time and across countries. Roine et al. (2009) use a panel of 16 countries over the 20<sup>th</sup> century and find that high economic growth and financial development disproportionately benefit the top percentile income share. Banking crises and the degree of tax progressivity reduce the top percentile income share. The level of government spending has a negative impact on incomes of the 90<sup>th</sup> to 99<sup>th</sup> percentile of the distribution.

Some studies focus on the very top end of the income distribution (99<sup>th</sup> percentile and above). Increasing inequality at the top of the distribution in the USA is driven by financial service sector employees rather than top executives from nonfinancial companies (Kaplan and Rauh 2010, Philippon and Reshef 2012). Firm size can explain the increase of CEO pay (Gabaix and Landier 2008). Neal (2013) applies panel co-integration methods and identifies economic openness, size and ideology of government, development of financial markets, top marginal tax rates, technological progress and the strength of unions as important determinants of the top 1% income share.

### 2.2. Government ideology and inequality

The partisan theory (Hibbs 1977, Alesina 1987) describes that leftwing governments appeal to the labor base of the population while rightwing governments rather appeal to capital owners. Leftwing governments will hence implement economic policies that mainly benefit the lower part of the income distribution. Such policies include increasing size and scope of government interventions and more income redistribution.<sup>3</sup> Hence, top income shares would decrease more under leftwing governments. Scheve and Stasavage (2009) investigate how federal government ideology and top income shares

<sup>&</sup>lt;sup>3</sup> Doerrenberg and Peichl (2012) show that redistributive policies can indeed reduce inequality. Results regarding the effectiveness of different tax benefit instruments to reduce inequality are sensitive on whether a sequential accounting approach or a factor source decomposition approach is chosen for the analysis (Fuest et al. 2010).

relate. Using data from 12 OECD countries since as early as 1900 they find that top percentile income shares are lower under leftwing governments, but the magnitude of the effect is small. Decentralized wage bargaining was associated with higher inequality after 1980.

Government ideology also plays a role in the relationship between inequality and other economic outcomes. The inequality-growth association, for example, is positive under rightwing governments and negative under leftwing governments (Bjørnskov 2008).

### 2.3. Globalization and inequality

The relevant theoretical framework for the relationship between the level of globalization and inequality is the Heckscher-Ohlin model (Ohlin 1933), which explains how countries specialize in international trade. The Stolper-Samuelson theorem (Stolper and Samuelson 1941) states that when a country opens up to trade, the relatively abundant production factor will benefit. As skilled labor is relatively abundant in rich countries, income gaps are expected to widen and inequality to increase in pace with economic globalization. The empirical evidence is mixed (see Potrafke, 2014, for a comprehensive survey of the literature).<sup>4</sup> Some scholars examine subcategories of globalization such as trade openness (Spilimbergo et al. 1999, Dollar and Kraay 2004, Bigsten and Munshi 2014), others use composite indices like the KOF index of globalization.

Some studies using the KOF index of globalization and Gini indices to measure inequality find that globalization increased inequality in high-income countries (Dreher and Gaston 2008, Bergh and Lindsson 2010). On the contrary, Roine et al. (2009) find no clear impact of trade openness on the income distribution. Aspects of globalization differ in their effect on inequality: trade globalization decreases inequality and financial globalization increases inequality (International Monetary Fund 2007).

The compensation hypothesis (e.g. Rodrik 1998) describes that citizens want governments to compensate them for the risks of globalization. On the contrary, the "race-to-

<sup>&</sup>lt;sup>4</sup> For evidence from low and middle income countries, see e.g. Milanovic (2005).

the-bottom" theory (e.g. Sinn 2003) describes that globalization gives rise to lower tax rates and lower government spending. The size and composition of government spending could in turn affect inequality outcomes. Empirical studies do not find evidence that globalization decreased government expenditures (Dreher et al. 2008b, Meinhard and Potrafke 2012).

The available theories and empirical evidence give rise to four hypotheses that I will test in the empirical section:

- 1) Top income shares are lower under leftwing governments.
- 2) Top income shares are positively associated with the pace of globalization.
- *3)* The effect of government ideology on top income shares increases when globalization is proceeding rapidly.
- 4) The effects of government ideology and globalization on income shares differ across percentiles of the top decile of the income distribution.

### 3. Data

I use data on top income shares from the World Top Incomes Database (Alvaredo et al. 2013). The database provides pre-tax income shares of various percentiles of the income distribution based on evidence from tax records. I focus on two widely used measures: the share of income accruing to the top 1% (the "rich") and the share of income accruing to the next 9% of the income distribution (the "upper middle class").<sup>5</sup> The two groups have different characteristics: one can expect mainly executives with a high share of capital incomes in the top percentile, whereas the next 9% rather consist of people who earn high but stable wages. I focus on OECD countries because government ideology is difficult to measure in non-OECD countries. For 16 OECD countries yearly

<sup>&</sup>lt;sup>5</sup> The income share of the next 9% is computed as the difference of the top 10% income share and the top 1% income share.

data on the top 10% and top 1% is available for at least some years over the 1970 to 2010 period.<sup>6</sup> The panel is unbalanced.

To measure government ideology I use the index by Potrafke (2009), updated until the year 2010. The index takes on values between 1 (powerful rightwing cabinet) and 5 (powerful leftwing cabinet). The KOF index of globalization (2013 version; see Dreher 2006 and Dreher et al. 2008a) measures globalization based on a great variety of variables. In particular it encompasses economic, social and political dimensions of globalization.<sup>7</sup> The sample starts in 1970 when the KOF index of globalization is first available.

The average income share of the top 1% increased from 7.4% in 1970 to 9.7% in 2010. The average income share of the next 9% moved less: it increased from 24.1% in 1970 to 24.6% in 2010. The level of globalization has increased a great deal: the KOF index increased from 59 index points in 1970 to 80.5 index points in 2010. The economic globalization subindex increased from 49.3 to 73.8 index points, the social globalization subindex increased from 53.7 to 78.9 index points, and the political globalization subindex increased from 80.1 to 91.9 index points.

<sup>&</sup>lt;sup>6</sup> The countries are Australia, Canada, Denmark, Finland, France, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, the United Kingdom, and the United States (see Table 1). Yearly data for Switzerland is available from 1995 to 2009 but the country is dropped since there were no changes in government ideology. The series for Canada, Finland, and the United Kingdom have structural breaks. When data based on two different computation methods are available for the same year I use data based on the method that is available until more recently.

<sup>&</sup>lt;sup>7</sup> Economic globalization includes trade flows, foreign direct investment, portfolio investment, income payments to foreign nationals, hidden import barriers, the mean tariff rate, taxes on international trade, and capital account restrictions. Social globalization includes data on telephone traffic, transfers, international tourism, foreign population, international letters, internet users, television, trade in newspapers, number of McDonald's restaurants, number of Ikea stores, and trade in books. Political globalization includes embassies, membership in international organizations, participation in UN Security Council missions, and international treaties (Dreher 2006).

### 4. Empirical approach

The panel data model has the following form:

$$\Delta share_{p,i,t} = \alpha_p + \beta_p \Delta share_{p,i,t-1} + \gamma_p ideology_{i,t} + \theta_p \Delta kof_{i,t} + \rho_p ideology_{i,t} * \Delta kof_{i,t} + \sum_m \delta_{p,m} \Delta X_{m,i,t} + \eta_i + \varepsilon_t + u_{i,t}$$
  
with *i* =1,..., 16; *m* =1,..., 4; *p* =1, 2; *t* =1,..., 39.

The dependent variable  $\Delta share_{p,i,t}$  denotes the percentage points change of the income share of group *p*, *ideology*<sub>*i*,*t*</sub> describes the government ideology variable,  $\Delta kof_{i,t}$  describes the change of the KOF index of globalization, and  $X_{m,i,t}$  are m control variables.  $\eta_i$  denotes a fixed country effect,  $\varepsilon_t$  is a fixed period effect, and  $u_{i,t}$  describes the error term. Following Roine et al. (2009) I include the growth rate of real GDP, population growth, government spending as a share of GDP, and the top marginal income tax rate as main control variables. Table 2 shows descriptive statistics and the data sources.

I include all variables (except for the government ideology variable) in first differences to avoid spurious regression that may arise because of unit roots in the variables in levels.<sup>8</sup> To control for potential autocorrelation in the residuals, I include the lagged dependent variable as a regressor. I estimate an Ordinary Least Squares (OLS) fixed effects model with heteroskedasticity-robust standard errors (Huber/White/sandwich standard errors; see Huber 1967, and White 1980 and 1982). By controlling for variables that scholars have shown to be other determinants of top income shares, I avoid omitted variable bias. I include time fixed effects to exclude other confounding factors that affect all countries simultaneously. By including country fixed effects I exploit the within-country variation to identify the effect of the explanatory variables on top income shares, ignoring country-specific characteristics that are constant over time. It is conceivable that income shares in year *t*-1 affect the explanatory variables in year *t*. I

<sup>&</sup>lt;sup>8</sup> Im-Pesaran-Shin (2003) panel unit root tests (including a trend and lag length determined by the AIC criterion) do not reject the null hypothesis that all country series contain unit roots for the top 1% income share, the KOF index, and the top marginal income tax rate.

deal with this issue by including the lagged dependent variable as a regressor. Nickell bias occurs in a fixed effects panel data model with lagged dependent variables (Nickell 1981). The bias is  $1/_{T}$  and should thus be small with T = 39.

I use yearly data to identify the determinants of top income shares, like Neal (2013) and unlike Roine et al. (2009), Scheve and Stasavage (2009), and Bergh and Nilsson (2010) who use 5-year averages in their studies. First, average government ideology over a 5-year period is an imprecise measure when government ideology changed in the mean-time.<sup>9</sup> Second, results based on 5-year averaged data may be sensitive to the choice of the starting year. Third, income shares of top percentiles show less cyclical fluctuations than income shares of bottom percentiles (Castañeda et al. 1998), and including the GDP growth variable controls for remaining business-cycle related fluctuations in the data.

### 5. Results

### 5.1. Baseline Results

Table 4 and Table 5 show the main regression results. Government ideology turns out to be significantly associated with top 1% income shares (Table 4). Under leftwing governments, the year-on-year change of the income share is 0.1 percentage points lower than under coalition governments (column (6), note that the ideology variable is coded such that a change from rightwing to leftwing implies an effect of twice this magnitude). The size of the effect is economically relevant, and the result is robust to including or excluding the KOF index and other control variables. The coefficient of the top marginal income tax rate is significant and negative: when the top marginal income tax rate is significant and negative: when the top marginal income tax rate increases by one percentage point, the top 1% income share decreases by 0.02 percentage points. The other control variables lack statistical significance.

<sup>&</sup>lt;sup>9</sup> Changes in government ideology are expected to have immediate effects on income shares via different channels. Stock markets may react to changes in government ideology and affect capital incomes in the same year (Füss and Bechtel 2008). Wage agreements may also be affected by changes in government ideology (Falch and Rattsø 1997). Government ideology has changed frequently in some countries (e.g. in Denmark, Ireland, and Norway; see Figure 2).

Table 5 shows the results for the income shares of the next 9%. Government ideology has a negative coefficient but it lacks statistical significance.<sup>10</sup> The KOF index also lacks statistical significance. GDP growth has a negative and significant coefficient, even though it is smaller than in the specification using 5-year averages. A one percentage points increase of annual GDP growth is associated with a 0.03 percentage points average yearly decrease of the next 9% income share. The results confirm the first and the forth hypothesis. The second hypothesis is rejected.

The effect of government ideology on top income shares may depend on the level of globalization, and vice versa.<sup>11</sup> I therefore include an interaction term in the model. Table 6 shows the results. The results remain qualitatively unchanged with respect to the results shown in columns (5) and (6) in Table 4 and Table 5. The interaction terms lack statistical significance in all specifications. Figure 3(a) and (b) show the marginal effects that correspond to the full specification in columns (2) and (4) of Table 6. Government ideology has a negative effect (at the 5% significance level) on the top 1% income share when the KOF index increases between 0 and 2.5 percentage points. The effect becomes stronger as the year-on-year change in the KOF index increases. Government ideology does not have an effect on the next 9% income share (if anything it is negative). The results confirm the third hypothesis.

### 5.2. Robustness Checks

I replaced the overall KOF index by its subindices in the interaction model to investigate whether the effect of globalization on top income shares differs across subcategories. Table 7 shows the results. The regression results are similar across the different subindices and do not differ from the results for the composite index in Table 6. The coefficient of government ideology is negative and significant for the top 1% income share but not for the next 9% income share. The coefficients of the globalization indices

<sup>&</sup>lt;sup>10</sup> Since the effects of ideology on the income share of the top 1% and on the next 9% do not compensate each other, the income share of the bottom 90% of the income distribution is positively associated with the government ideology variable (results not shown).

<sup>&</sup>lt;sup>11</sup> See Potrafke (2009) on how the effect of partisanship on social expenditures depends on the pace of globalization.

and of the interaction term lack significance in all specifications. The inference regarding the control variables does not change.

Figure 3 (c) shows that the negative effect of government ideology on the top 1% income share becomes smaller as the year-on-year change in the economic globalization index increases. Furthermore the effect is significant at a wider range, i.e., between a decrease of the economic globalization index by 4 percentage points and an increase of the index by 1.5 percentage points. The results for the social globalization index (Figure 3 (e)) and the political globalization index (Figure 3 (g)) are similar to those for the composite index: The negative effect of government ideology on the top 1% income share increases in the change of the social globalization and the political globalization index, and the effects are significant mostly in the positive range (-1 to 6 for the social globalization index, -0.5 to 4.5 for the political globalization index). The results for the composite index are mostly driven by social and political globalization and less by economic globalization. It is conceivable that governments of different partisanship where most able to influence the top 1% income share in the desired way when economic globalization was moderate or even negative, but social and political globalization moderate or even rapid.

As to the income share of the next 9%, the marginal effects of government ideology are never significant (if anything, they are negative).

It is conceivable that top income shares and their determinants in Anglo-Saxon countries differ from those in continental Europe and Japan (Roine et al. 2009).<sup>12</sup> Table 8 and Figure 4 show the results when the sample is split between Anglo-Saxon countries and other countries. The subsamples are indeed different. The marginal effect of government ideology on the top 1% income share is not significant for Anglo-Saxon countries (Figure 4 (a)), but for other countries (Figure 4 (c)). The marginal effect of government ideology on the next 9% income share is significant for Anglo-Saxon countries

<sup>&</sup>lt;sup>12</sup> Anglo-Saxon countries include Australia, Canada, New Zealand, the United Kingdom, and the United States.

(Figure 4 (b)), but not for other countries (Figure 4 (d)). However, the average marginal effect on the top 1% income share in other countries (-0.13 at  $\Delta$  KOF index = 1) is larger in absolute value than the average marginal effect on the next 9% income share in Anglo-Saxon countries (-0.05 at  $\Delta$  KOF index = 1).

I have checked whether single countries drive the results for the full sample. Leaving out single countries does not change the main inferences. However, I find two additional effects. When I drop Italy or Sweden from the sample, the marginal effect of ideology on the next 9% income share becomes significant when the KOF index does not change. When I drop Norway from the sample, the coefficient of the KOF index becomes positive and significant in the main specification for both the top 1% and the next 9% income share. It is left for future research to uncover institutional differences between countries that may explain why such effects arise.

The results may be sensitive to the inclusion of other control variables. Technological change and financial development may also influence top income shares. I have included the growth rate of the number of patents by residents and nonresidents in the baseline regressions. I have also included the first difference of the ratio of private credit to GDP in the baseline regressions. The sample size decreases slightly (to 477 and 488 observations), but neither the number of patents nor the private credit variable turns out to be significant. Inferences regarding the other explanatory variables do not change.

I ran fixed effects regression models using 5-year averages of the data. Table 9 shows the results for the income share of the top 1%. Neither the government ideology variable nor the KOF index have a significant coefficient in any specification. The control variables GDP growth, population growth, government spending and the top marginal income tax rate do not turn out to be significant in any specification. Table 10 shows the results for the income share of the next 9%. Again, the government ideology variable and the KOF index do not turn out to be significant in any specification. The coefficient of GDP growth and the top marginal income tax rate are negative and significant.

When top income shares increase/decrease, voters may elect a new national government (Meltzer and Richard 1981, Milanovic 2000),<sup>13</sup> which would give rise to reverse causality in the empirical model. In a similar vein, top income shares may affect globalization outcomes, e.g. if top income earners spend large shares of additional income on imported goods. I do not establish causation but correlations. To identify a causal effect I would need a valid instrumental variable. Such instruments remain yet to be found in the literature. An alternative approach would be a regression-discontinuity approach (Pettersson-Lidbom 2008).

### 6. Conclusions

Economists examine whether government ideology matters for economic outcomes. In some policy areas, policy platforms have converged between rightwing and leftwing parties (for example regarding health spending, see Potrafke 2010). My results show that government ideology shapes distributional outcomes, especially the income share of the top 1% of the income distribution. Voters and observers of public policy can anticipate that changes in government ideology are likely to have distributional consequences.

My results also show that globalization does not have a clear impact on top income shares. However, waves of globalization seem to provide a window of opportunity in which leftwing governments can compensate their electorate for the risks of globalization and increase the income share of the bottom 90% of the income distribution. Rightwing governments may use waves of globalization to implement policies that in large parts benefit the top of the income distribution. Contrary to the 'race-to-thebottom' hypothesis, globalization did not deprive governments of policy instruments to shape distributive outcomes.<sup>14</sup>

<sup>&</sup>lt;sup>13</sup> The demand for equal incomes also depends on perceived fairness in the population (Bjørnskov et al. 2013).

<sup>&</sup>lt;sup>14</sup> This result is in line with Potrafke (2009, 2013).

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# Appendix

Table 1: Availabili	ty and Sources	of Top Incomes	Data (after 1970)
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Country	Years	Source
Australia	1970-2010	Atkinson and Leigh (2007a)
Canada	1970-2010	Saez and Veall (2007), Veall (2012)
Denmark	1970-1972, 1974-2010	Atkinson and Søgaard (2013)
Finland	1990-2009	Jäntti et al. (2010)
France	1970-2009	Piketty (2001, 2007), Landais (2007)
Ireland	1975-2009	Nolan (2007)
Italy	1974-1995, 1998-2009	Alvaredo and Pisano (2010)
Japan	1970-2010	Moriguchi and Saez (2010)
Netherlands	1989-1999	Salverda and Atkinson (2007)
New Zealand	1970-2010	Atkinson and Leigh (2007b, 2007c)
Norway	1970-2008	Aaberge and Atkinson (2010)
Portugal	1976-1982, 1989-2005	Alvaredo (2009)
Spain	1981-2010	Alvaredo and Saez (2009)
Sweden	1970-2010	Roine and Waldenström (2010)
United Kingdom	1970-1979, 1981-2007	Atkinson (2007)
USA	1970-2010	Piketty and Saez (2007)

Table 2: Descript	ive Statistics
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Variable	Obs.	Mean	Std. Dev.	Min	Max	Source
Top 1% income share	555	7.91	2.55	3.97	18.33	Alvaredo et al. (2013)
Next 9% income share	555	23.58	2.90	14.45	31.48	Alvaredo et al. (2013)
Ideology (left)	555	2.87	0.97	1	4	Own compilation
KOF index of globaliza- tion	555	73.77	11.49	33.95	91.67	Dreher (2006; version 2013)
Economic globalization	555	67.75	15.85	21.07	96.83	Dreher (2006; version 2013)
Social globalization	555	70.00	13.12	28.78	91.25	Dreher (2006; version 2013)
Political globalization	555	87.49	9.40	58.09	98.43	Dreher (2006; version 2013)
Real GDP per capita growth rate	555	2.03	2.36	-8.63	9.56	Bolt and van Zanden (2013)
Population growth rate	555	0.71	0.56	-0.43	4.96	World DataBank (7-10-13)
Government Spending (share of GDP)	555	19.58	4.02	7.44	30.14	World DataBank (7-10-13)
Top marginal income tax rate	555	54.06	13.17	28	91.3	Piketty et al. (2014)
Number of patents	523	50042.19	101837	146	490226	World DataBank (15-2-14)
Private credit (share of GDP)	525	88.21	46.04	9.66	237.58	Beck et al. (2000; version Noven ber 2013)

Table 3:	Correlations	of Main	Variables
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	Top 1% income share	Next 9% income share	Ideology (left)	KOF index	Econ. glob.	Social glob.	Political glob.	GDP growth	Popula- tion growth	Govern- ment spending
Next 9% income share	0.6451									
Ideology (left)	-0.0383	-0.0765								
KOF index	0.2009	-0.0653	0.2049							
Economic glob.	0.0908	-0.1467	0.1692	0.9209						
Social glob.	0.2652	0.0175	0.1978	0.9223	0.7557					
Political glob.	0.1968	0.0045	0.1656	0.6706	0.4476	0.5415				
GDP growth	-0.0155	-0.0029	0.0754	-0.0801	0.0047	-0.1259	-0.1340			
Population growth	0.2234	0.1043	-0.0320	-0.0473	-0.0415	0.0688	-0.2595	-0.0511		
Government spending	-0.3256	-0.4093	0.1669	0.6076	0.4965	0.5318	0.6115	-0.2586	-0.3778	
Top marginal income tax rate	-0.6134	-0.4281	0.0525	-0.3646	-0.3475	-0.4031	-0.0844	0.1233	-0.1175	0.1341

### Table 4: Regression results - top 1% income shares

	(1)	(2)	(3)	(4)	(5)	(6)
	$\Lambda \tan 1\%$	$\Delta \tan 1\%$	$\Delta \tan 1\%$	$\Delta \tan 1\%$	$\Delta \tan 1\%$	$\Lambda \tan 1\%$
	income share	income share	income share	income share	income share	income share
Ideology (left)	-0.083**	-0.099**			-0.084**	-0.101**
	(0.032)	(0.037)			(0.030)	(0.036)
A KODI 1	(0.002)	(01007)	0.010	0.010	(0.015	(0.024)
$\Delta$ KOF index			0.010	0.019	0.015	0.024
			(0.042)	(0.042)	(0.041)	(0.041)
GDP growth		0.026		0.023		0.026
		(0.017)		(0.016)		(0.017)
Population		0.082		0.092		0.088
growth		(0.062)		(0.052)		(0.060)
growin		(0.001)		(0.009)		(0.001)
$\Delta$ government		-0.031		-0.039		-0.032
spending		(0.038)		(0.038)		(0.038)
$\Delta$ top marginal		-0.021*		-0.021*		-0.021*
income tax rate		(0.010)		(0.010)		(0.010)
Lagged depend		-0.317***		-0.310***		-0.310***
ant variable		(0.064)		-0.510		(0.063)
ent variable		(0.004)		(0.005)		(0.003)
Time and country	Yes	Yes	Yes	Yes	Yes	Yes
fixed effects						
Observations	516	516	516	516	516	516
Countries	16	16	16	16	16	16
R2 (within)	0.125	0.226	0.115	0.212	0.126	0.227
R2 (overall)	0.122	0.217	0.111	0.202	0.122	0.217

*Notes:* OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors). p < 0.10, p < 0.05, p < 0.01.

### Table 5: Regression results – next 9% income shares

	(1)	(2)	(3)	(4)	(5)	(6)
	$\Delta$ next 9%					
	income share					
Ideology (left)	-0.029	-0.025			-0.032	-0.028
	(0.023)	(0.021)			(0.023)	(0.022)
$\Delta$ KOF index			0.037	0.037	0.038	0.038
			(0.032)	(0.029)	(0.032)	(0.029)
GDP growth		$-0.026^{*}$		-0.027**		$-0.026^{*}$
6		(0.013)		(0.012)		(0.013)
Population		-0.038		-0.027		-0.028
growth		(0.056)		(0.047)		(0.047)
$\Delta$ government		0.015		0.012		0.014
spending		(0.034)		(0.037)		(0.036)
$\Delta$ top marginal		-0.003		-0.002		-0.002
income tax rate		(0.005)		(0.006)		(0.006)
Lagged depend-		$0.173^{**}$		$0.175^{**}$		$0.174^{**}$
ent variable		(0.067)		(0.068)		(0.069)
Time and country	Yes	Yes	Yes	Yes	Yes	Yes
fixed effects						
Observations	516	516	516	516	516	516
Countries	16	16	16	16	16	16
R2 (within)	0.130	0.170	0.134	0.174	0.137	0.176
R2 (overall)	0.130	0.173	0.128	0.174	0.136	0.180

*Notes:* OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors). p < 0.10, p < 0.05, p < 0.01.

### Table 6: Regression results – interaction model

	(1)	(2)	(3)	(4)
	$\Delta$ top 1% income	$\Delta$ top 1% income	$\Delta$ next 9% income	$\Delta$ next 9% income
	share	share	share	share
Ideology (left)	-0.079**	-0.098**	-0.035*	$-0.030^{*}$
	(0.036)	(0.042)	(0.018)	(0.016)
$\Delta$ KOF index	0.043	0.038	0.024	0.030
	(0.114)	(0.099)	(0.104)	(0.098)
Ideology $* \Delta$ KOF index	-0.010	-0.005	0.005	0.003
	(0.032)	(0.026)	(0.026)	(0.025)
GDP growth		0.026		-0.026*
C		(0.017)		(0.013)
Population growth		0.087		-0.028
1 0		(0.062)		(0.051)
$\Delta$ government spending		-0.032		0.014
		(0.039)		(0.037)
$\Delta$ top marginal income tax		-0.021*		-0.002
rate		(0.010)		(0.006)
Lagged dependent varia-		-0.318***		$0.174^{**}$
ble		(0.063)		(0.069)
Time and country fixed	Yes	Yes	Yes	Yes
effects				
Observations	516	516	516	516
Countries	16	16	16	16
R2 (within)	0.126	0.227	0.137	0.176
R2 (overall)	0.123	0.217	0.136	0.180

*Notes:* OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors).  ${}^{*}p < 0.10$ ,  ${}^{**}p < 0.05$ ,  ${}^{***}p < 0.01$ .

	(1) $\Delta$ top 1% income share	(2) $\Delta \text{ top } 1\%$ income share	(3) $\Delta$ top 1% income share	(4) $\Delta$ next 9% income share	(5) $\Delta$ next 9% income share	(6) $\Delta$ next 9% income share
Ideology (left)	-0.123 <sup>**</sup> (0.044)	-0.091 <sup>**</sup> (0.036)	-0.095 <sup>**</sup> (0.038)	-0.036 (0.025)	-0.027 (0.017)	-0.025 (0.022)
$\Delta$ economic global- ization	-0.073 (0.100)			-0.034 (0.051)		
Ideology $* \Delta$ eco- nomic globalization	0.032 (0.023)			0.013 (0.015)		
$\Delta$ social globaliza- tion		0.040 (0.040)			0.018 (0.045)	
Ideology * $\Delta$ social globalization		-0.012 (0.013)			0.000 (0.012)	
$\Delta$ political globalization			0.047 (0.055)			0.027 (0.037)
Ideology * $\Delta$ politi- cal globalization			-0.015 (0.018)			-0.007 (0.010)
GDP growth	0.028 (0.019)	0.025 (0.017)	0.026 (0.018)	-0.028 <sup>*</sup> (0.016)	-0.029 <sup>*</sup> (0.015)	-0.029 <sup>*</sup> (0.016)
Population growth	0.088 (0.065)	0.084 (0.062)	0.075 (0.056)	-0.035 (0.075)	-0.027 (0.066)	-0.040 (0.070)
$\Delta$ government spending	-0.025 (0.049)	-0.032 (0.037)	-0.032 (0.038)	0.021 (0.038)	0.014 (0.038)	0.018 (0.037)
$\Delta$ top marginal income tax rate	-0.022 <sup>**</sup> (0.010)	-0.021 <sup>*</sup> (0.010)	-0.021 <sup>*</sup> (0.010)	-0.001 (0.006)	-0.001 (0.006)	-0.001 (0.006)
Lagged dependent variable	-0.323 <sup>***</sup> (0.059)	-0.316 <sup>***</sup> (0.064)	-0.318 <sup>****</sup> (0.065)	0.021 (0.035)	0.024 (0.036)	0.021 (0.034)
Time and country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	516	516	516	516	516	516
Countries	16	16	16	16	16	16
R2 (within) R2 (overall)	0.231 0.220	0.227 0.218	0.228 0.218	0.144 0.139	0.149 0.146	$\begin{array}{c} 0.144 \\ 0.140 \end{array}$

### Table 7: Regression results – interaction model with KOF subindices

*Notes:* OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors).  ${}^{*}p < 0.10$ ,  ${}^{**}p < 0.05$ ,  ${}^{***}p < 0.01$ .

	(1)	(2)	(3)	(4)
	$\Delta$ top 1% income	$\Delta$ top 1% income	$\Delta$ next 9% income	$\Delta$ next 9% income
	share	share	share	share
Ideology (left)	-0.030	-0.139*	-0.046*	-0.025
	(0.030)	(0.066)	(0.020)	(0.033)
$\Delta$ KOF index	0.260	-0.052	0.041	0.039
	(0.221)	(0.109)	(0.053)	(0.135)
Ideology $* \Delta$ KOF index	-0.055	0.013	-0.001	0.003
	(0.056)	(0.031)	(0.021)	(0.036)
GDP growth	0.052	0.032	-0.006	-0.029
	(0.053)	(0.027)	(0.033)	(0.020)
Population growth	$0.108^{*}$	0.013	-0.001	-0.022
	(0.047)	(0.123)	(0.042)	(0.051)
$\Delta$ government spending	-0.021	-0.021	-0.022	0.038
	(0.071)	(0.044)	(0.044)	(0.035)
$\Delta$ top marginal income tax	-0.034	-0.003	-0.015	0.000
rate	(0.020)	(0.010)	(0.008)	(0.007)
Lagged dependent varia-	-0.273***	-0.356***	-0.093*	$0.272^{***}$
ble	(0.055)	(0.063)	(0.035)	(0.066)
Time and country fixed	Yes	Yes	Yes	Yes
effects				
Sample	Anglo-Saxon coun-	other countries	Anglo-Saxon coun-	other countries
	tries		tries	
Observations	189	327	189	327
Groups	5	11	5	11
R2 (within)	0.385	0.242	0.343	0.262
R2 (overall)	0.372	0.235	0.327	0.270

### Table 8: Regression Results - Anglo-Saxon countries vs. other countries

Notes: OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors). Anglo-Saxon countries: Australia, Canada, New Zealand, United Kingdom, United States. \* p < 0.10, \*\* p < 0.05, \*\*\* p < 0.01.

	(1)	(2)	(3)	(4)	(5)	(6)
	$\Delta$ top 1%					
	income share					
Ideology (left)	-0.068	-0.073			-0.065	-0.071
	(0.059)	(0.061)			(0.056)	(0.056)
$\Delta$ KOF index			-0.044	-0.057	-0.036	-0.048
			(0.108)	(0.131)	(0.102)	(0.125)
GDP growth		0.036		0.029		0.034
U		(0.025)		(0.019)		(0.022)
Population		-0.079		-0.084		-0.078
growth		(0.097)		(0.110)		(0.099)
$\Delta$ government		0.204		0.203		0.215
spending		(0.232)		(0.246)		(0.256)
$\Delta$ top marginal		-0.018		-0.015		-0.016
income tax rate		(0.017)		(0.016)		(0.018)
Time and country	Yes	Yes	Yes	Yes	Yes	Yes
fixed effects						
Observations	114	114	114	114	114	114
Countries	16	16	16	16	16	16
R2 (within)	0.250	0.276	0.238	0.264	0.252	0.280
R2 (overall)	0.226	0.223	0.211	0.210	0.229	0.229

### Table 9: Regression Results - top 1% income shares, data in 5-year averages

*Notes:* OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors). p < 0.10, p < 0.05, p < 0.05, p < 0.01.

### (1) (2) (3) (4) (5) (6) $\Delta$ next 9% income share income share income share income share income share income share Ideology (left) -0.054 -0.045 -0.046 -0.056 (0.049) (0.047) (0.042) (0.043) $\Delta$ KOF index 0.027 0.010 0.033 0.016 (0.081)(0.055)(0.081) (0.056)-0.072\*\*\* -0.075\*\*\* -0.072\*\*\* GDP growth (0.023)(0.021)(0.023)Population -0.237 -0.241 -0.237 growth (0.220)(0.209)(0.209)0.074 $\Delta$ government 0.078 0.066 spending (0.115)(0.107)(0.110)-0.048\*\* -0.048\*\* -0.049\*\* $\Delta$ top marginal income tax rate (0.022)(0.022)(0.023)Time and country Yes Yes Yes Yes Yes Yes fixed effects 114 114 114 114 114 114 Observations Countries 16 16 16 16 16 16 0.190 0.367 0.180 0.359 0.192 R2 (within) 0.367 R2 (overall) 0.189 0.306 0.164 0.285 0.192 0.307

### Table 10: Regression results - next 9% income shares, data in 5-year averages

Notes: OLS estimations. Robust standard errors in parentheses (Huber/White/sandwich standard errors).

p < 0.10, p < 0.05, p < 0.01, p < 0.01



### Figure 2: Top income shares and government ideology by country

*Note:* Top 1% income share in white, next 9% income share in yellow. Government ideology in red shades (red=leftwing).



### Figure 3: Average marginal effects of government ideology (left)





Figure 4: Average marginal effects of government ideology (left), Anglo-Saxon countries vs. other countries

*Note:* bands show 95% confidence intervals. The range on the abscissa is determined by the maximum and minimum values.

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