Was Cold War a Constraint to Income Inequality?*

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July 2016

Abstract

Did the threat of communism influence income distribution in developed capitalist economies during the Cold War? This article addresses this question by regressing top income shares of 18 OECD countries on the distance to events linked to the spread of communism - revolutions and USSR invasions. We run a fixed effects panel for the 1950-1990 period, controlling for institutional and economic conditions. This is an original contribution to the recent literature on inequality, which stresses the importance of domestic institutions and the two World Wars but fails to address the role of the Cold War in redistributing income. We find a robust and negative relationship between top income shares and the distance to communist events. The results suggest that the spread of communism redistributed income through a domestically conditioned mechanism: the creation of common interest states.

Keywords: Inequality, Income Distribution, State Capacity, External Threat, Cold War.
JEL Classification: D31, D74, O10.
Área ANPEC: Área 6 - Crescimento, Desenvolvimento Econômico, Instituições.

Resumo

A ameaça comunista influenciou a trajetória da distribuição de renda em economias capitalistas desenvolvidas durante a Guerra Fria? Este artigo discute essa questão em uma análise empírica com base em uma regressão da parcela da renda apropriada pelos mais ricos em uma medida da distância de eventos relacionados a revoluções comunistas ou invasões soviéticas. Para tal, utilizamos um modelo de dados em painel com efeitos fixos para o período 1950-1990, com controles para condições econômicas e institucionais. Com isso, este artigo oferece uma contribuição original para a literatura recente sobre desigualdade, que ressalta a importância de instituições domésticas e das duas Guerras Mundiais, mas não reconhece o papel da Guerra Fria como mecanismos de redistribuição de renda. Os resultados encontrados sugerem uma relação negativa e robusta entre a parcela de renda apropriada pelos mais ricos e a distância de eventos comunistas. Os resultados sugerem que a expansão do comunismo redistribuiu renda por meio de mecanismos domésticos, baseados na creação de estados baseados no intersse comum.

Keywords: Desigualdade, Distribuição de Renda, Capacidade Estatal, Ameaça Externa, Guerra Fria.
Área ANPEC: Área 6 - Crescimento, Desenvolvimento Econômico, Instituições.

*We are grateful to Toke Aidt, Branko Milanovic, Valeria Pero, Rudi Rocha, Kenneth Scheve and seminar participants at the GINA workshop for comments and suggestions.

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1 Introduction

Inequality is one of the most important and controversial topics of our time. It has converted into a central issue not only among socialists and anti-globalisers, but also the general public, the media, politicians from diverse affiliations and academics. Many authors have diverted from Lucas' mainstream approach to inequality. According to (Stiglitz, 2014, p.6) "of the tendencies that have marked modern macroeconomics, the most seductive and poisonous is the failure to pay due attention to inequality".

This renewed interest in the subject is related to the high levels inequality has recently attained.[1] Piketty (2014) shows that inequality has increased across the developed world, especially in Anglo-Saxon countries, since the 1980s, resuming to levels as high as those of the early twentieth century. Several possible explanations arise in this context. Timmer et al. (2014) explain the recent surge in inequality as a result of technological innovation and globalisation. Piketty et al. (2014) argue that technology cannot explain differences in inequality across continental Europe and Anglo-Saxon countries. Therefore, the authors explore the role of institutions such as tax policy in explaining variations in inequality. Atkinson et al. (2011) stress the role of the World Wars of the twentieth century in destroying massive stocks of capital, both physical and financial. In order to finance the wars and to repay the national debts, post-war governments reached a consensus to increase tax rates, which played a role in distributing income.

In spite of the importance of explaining the surge in inequality, it remains to be explained the persistence of low levels of inequality in developed countries during the period that extends from the post-war to the 1980s. This paper argues that this literature misses a relevant event that marked the post-war period: the emergence of the communist block.[2] The rise of the Soviet Union as a world power after 1945 increased the threat of communist revolutions around the world.

We argue that such context was favorable for the appearance of what Besley and Persson (2013) call a common-interest state: a consensus among different groups in a society that enabled the state to increase fiscal capacity in order to protect its existence. For this consensus to be reached, it was crucial that the ruling elites should have accepted to lose power. As Przeworski (2009) and Conley and Temimi (2001) show, in the context of franchise extension, this only happens when politically excluded groups impose a credible threat. Aidt and Jensen (2014), in their study on the relation between revolutions and franchising in Europe between 1820 and 1938, observe that elites were more likely to expand franchising the closer the threat, either domestically or abroad. This paper extends this argument to a context of democratic countries and a credible external threat: the Cold War.

In order to test this hypothesis empirically, we constructed a variable that captures the distance between the capital of OECD countries and the location of communist revolutions and invasions carried out by the Soviet Union. The Cuban Revolution in 1959 and the Red Army invasion of Prague in 1968 are famous examples of such events[3]. The variable is defined as a dummy for years with communist revolutions or USSR invasions weighted by the inverse of the Euclidean distance between the capital of the country where the revolution/invasion happened and the capitals of each OECD country.[4] We use this variable to test, using a panel on OECD countries, whether the threat of communist revolutions represented a force that lead to the

[1] This renewed interest is translated into several books recently published on the theme. See, e.g, Piketty (2014), Atkinson (2015), Scheve and Stasavage (2016) and Milanovic (2016).

[2] Piketty (2014), for example, does not include the term "Cold War" in the remissive index of his monolithic and prestigious book.

[3] A list of the revolutions, invasions and OECD countries is provided in the appendix.

[4] Campante et al. (2014) analyze how isolated (from the population) capital cities are associated to less accountability.

creation of common-interest states (Besley and Persson, 2011).

The article is organized in seven sections, including this introduction. Section II reviews the related literature and develops our argument. Section III describes the data and discusses evidence based on descriptive statistics. Section IV proposes an empirical model and Section V presents the main results of the paper. Section VI runs robustness tests and Section VII concludes the article.

2 Conceptual discussion and related literature

Inequality has been increasing in developed countries since the 1980s. This trend has attracted a great deal of interest among academics as well as the greater public. Economists have debated the causes of income concentration and identified a number of drivers of this process. In their seminal article, Katz et al. (1999) stress the role of technology and labour market globalisation in the rise of income concentration in rich countries. Globalisation narrowed down the technological gap between developed and developing economies. It also reduced trade barriers, which enabled relatively poor new industrial economies to access large consumer markets abroad. This process shifted low-skilled labour industries to less developed countries. As a consequence, the share of capital and high-skilled labour increased and the demand for low-skilled labour fell in developed economies (Timmer et al., 2014).

In his ground-breaking study of inequality in developed countries, Piketty et al. (2014) emphasize the role of institutional factors in explaining the differences in the evolution of top income shares across western countries. The authors claim that tax policy reforms have engendered behavioural changes among top earners. They introduce a richer model of pay determination in which bargaining plays a decisive role. Wages do not simply reflect marginal productivity in such framework. The model calculates three different elasticities between tax rates and wages. The first one is the traditional effort elasticity, according to which higher marginal tax reduces the incentives for hardworking. The second elasticity is related to avoidance efforts. When marginal taxes are high, individuals have a greater incentive to search for other forms of income sources, such as dividends and stock options. Finally, higher taxes make top earner less likely to bargain for additional income.

Alvaredo et al. (2013) find a strong and positive association between earned and capital income. They infer that networking makes born-rich individuals more likely to get high paying employment better paid. Moreover, top executives are more able to accumulate wealth.[5] Roine et al. (2009) conclude that financial development and GDP growth significantly increased top incomes vis-a-vis other income levels.

Most of the literature focuses in the recent period, starting from 1980s. This is natural given the speed at which inequality has been rising. Few authors address the following fact: western societies became more unequal in the last three decades because income was remarkably well distributed to start with. Piketty (2014) documents that top income shares fell during the inter-war period and remained at record low levels in the post-war. The understudied question of why inequality was so low then is as valid as the hot question of why it has been increasing lately.

Only a few authors have recently studied the causes of the fall in inequality in the twenty century. Piketty et al. (2014) presents the destruction of capital during the two world wars and the rise in tax marginal rates in the post-war as the main explanations for the fall in top income shares. Similar points appears in Atkinson et al. (2011), who also stresses the role the equalization of earned income. Goldin and Margo (1992) refer to this process as 'the Great Compression'.

[5]There is a growing literature on social networks and inequality. See, e.g., DiMaggio and Garip (2011).

Omitted variable bias, however, may compromise these results, especially the marginal tax effects. It is possible that a common variable have reduced the political power of the elites, leading to an increase in marginal taxes and to a fall in top income shares. Piketty et al. (2014) are aware of this methodological problem. They propose a micro-approach by assessing how CEO's behaved when taxes rose in a panel of countries. Nonetheless, the authors find similar results in their macro and micro-approaches.

This article addresses this omitted variable problem by assessing whether the Cold War determined the fall in inequality. The most important military rivalry of the twenty century, the Cold War conditioned the world order after 1945. Maier (2010) asserts that the potential worldwide spread of communism played a decisive role in the configuration of forces among western countries.

Our hypothesis is the following: the more national elites were under the threat of communist revolutions, more the state introduced policies that reduced top income shares. This hypothesis derives from relevant social science and historical literatures. It is striking, however, that scholars from these fields have not studied the relationship between the Cold War and inequality whatsoever.

Without appraising specifically the Cold War, social scientists make the case that military conflicts and the risk of revolutions are likely to provide the state with the tools it needs to promote income distribution. Persson and Besley (2009) and Besley and Persson (2010) show that states raised taxes, predominantly income and wealth taxes, in periods of armed conflicts. Scheve and Stasavage (2012) reach similar conclusion when studying inheritance taxes. Aghion et al. (2012) find that governments invest more in primary education in times of wars.

Przeworski (2009) and Conley and Temimi (2001) show that ruling elites only agree to expand franchising when politically excluded groups impose a credible threat. Along the same lines, Aidt and Jensen (2014) find a positive relation between revolutions and franchising in Europe between 1820 and 1938. The authors observe that the elites in each individual country responded to civil unrest not only within their borders, but also in neighboring country. Elites were more likely to expand franchising the closer the threat, either domestically or abroad.

This social science literature provides a useful insight for the study of Cold War and inequality. At first the threat of revolutions pressured the elites to distribute power; once franchise became universal, they had to distribute wealth. The earlier stage happened in Europe before the Second World War. By the time the Cold War begun, the European elites had nothing but their own wealth to share.

While social scientists relate wars to wealth distribution but miss the Cold War, historians that study the Cold War miss its role in income distribution. The historical literature focuses on international politics, which is natural given the nature of that conflict. The few pieces that draw parallels between the Cold War and inequality do so incompletely or indirectly.

Kirshner (1998) asserts that western policymakers distributed wealth during the post-war because inequality would have prevented the application of an "optimum foreign policy". The author argues that unequal economies grow less, compromising the capacity of states to spend in defence and diplomacy. Besides downplaying the impact of inequality on domestic stability, Kirshner (1998) does not test his argument empirically.

A number of studies have related the Cold War to issues indirectly linked to inequality in the United States. However, this literature fails to reach a conclusion. Dudziak (2011) argues that the threat of communism forced the American government to re-evaluate its approach to civil rights. The laws that discriminated African-Americans fostered anti-Americanism around the world, particularly among left-wingers, and compromised the country's role as the leader of the "free world". On the other hand, Schrecker (1998) states that the union laws launched under Mccarthyism weakened labour movements, making unions more docile and less likely to pressure for higher wages. Similar point appears in Brown (1997), according to whom

Mccarthyism explains why the private sector plays a greater role in healthcare, education and social programmes in the USA than in Europe.

The historical literature on post-war Europe openly rejects any relation between the Cold War and low inequality. Wegs (1991) claim that social classes stopped playing a significant role in Western Europe's politics after the end of the Second World War. Similar point appears in Whyte (1981) and Billiet (1996), according to whom religion was more important than classes in European post-war elections. (Conway, 2004, p.68) argues that the Cold War was nothing more than a "straightjacket" because inequality was virtually irrelevant.

Perhaps historians have found that issues related to classes were unimportant in post-war Europe because European governments kept the gap between classes narrow to prevent the threats of communism from disturbing the domestic *status quo*. By testing the role of the Cold War in the fall in inequality this article provides an original contribution to that historical literature. The article also contributes to social science literature that studies wars and state capacity, and to the recent empirical literature on the dynamics of inequality.

3 Data description and descriptive statistics

This article tests the following hypothesis: national elites of developed countries redistributed income in the post-war to avoid communist revolution in the context of the Cold War. As an empirical strategy, we run a panel of 18 OECD countries, from 1950 to 1990 [6]. This section describes the variables and sources used in this exercise.

The dependent variable is a measure of income inequality based on top income shares.[7] We use data on top income shares (1%, 5% and 10%) from the World Top Incomes Database [8].

We construct a variable that captures the distances between the capital of OECD countries and the location of communist revolutions and invasions carried out by the Soviet Union. The Cuban Revolution in 1959 and the Red Army invasion of Prague in 1968 are famous examples of such events[9]. The variable is defined as a dummy for years with communist revolutions or USSR invasions weighted by the Euclidean distance between the capital of the country where the revolution/invasion happened and the capitals of every OECD countries. That is:

$$CR_{it} = \frac{CR_{jt}}{distance_{ij}} \qquad (1)$$

where CR_{jt} is a dummy for the occurrence of the event communist revolution/USSR invasion at country j in period t and $distance_{ij}$ is the geographical Euclidean distance between the capitals of countries i and j. Thus, CR_{it} captures two assumptions we test in with this exercise: (i) the spread of communism during pos-war represented an external threat to Western elites; (ii) this threat was unevenly distributed across Western countries.

In addition to this external threat, we also test whether domestic groups of interest have pushed for communism. This is captured by two variables: (i)the share of communist parties in Parliament; and (ii) the presence of left-wing parties in the executive. The former, *communist vote share* is a measure of the electoral importance of communist parties in legislative elections. It is calculated as the share of seats obtained by communist parties through each electoral cycle between 1945 and 1990. The data was collected from each country's congress websites. Besides legislative elections, a variable that considers government partisanship as proposed by Scheve

[6] A list of countries in the sample can be found on appendix.

[7] This article regress top income shares rather than Gini Index because it aims to test whether the threat of communism fostered the emergence of the common-interest state, in which the elite had a smaller share of national income.

[8] http://topincomes.parisschoolofeconomics.eu/

[9] A list of the revolutions, invasions and OECD countries is provided in the appendix.

and Stasavage (2009), has additional interest because it can capture the governments' ability to implement redistributive policies. Following Scheve and Stasavage (2009), we use a dummy variable *Left Executive* that equals one if the country had a president or prime minister from a left-wing party.

Strong trade unions may also have pressured for income distribution. This appears in Atkinson (2015), although the author has not provided robust evidence. We test for the role of labour institutions with two variables. Firstly, we measure the density of trade unions from 1945 to 1990, whose source is Golden et al. (2014). Secondly, we capture different wage bargaining processes with a dummy that differentiates countries with centralized wage bargaining, involving whole industries nationwide, from those where employers and employees of individual firms negotiate directly (Scheve and Stasavage, 2009).

Besides the variables described above, we use covariates in order to control for other factors that may have affected top income shares. The empirical literature on state capacity emphasizes the role wars in building state capacity. In order to test for this, we use the variable - *War Risk* - as defined by (Aghion et al., 2012, p.16): "war risk is a binary indicator set equal to one if the country was engaged in an interstate war in the previous 10 years, according to the variable 'interstate war' in the Correlates of War (COW) database".

The model also controls for the role of democracy in determining inequality, an influential point in the literature (Acemoglu et al., 2015). We define this variable as Polity IV score, as in Marshall et al. (2011). Atkinson et al. (2011) draw attention to the effects of global forces, especially globalisation, in income distribution. We control for this by including the variable *TradeOpenness*, defined as the ratio between trade flow and GDP (Roine et al., 2009).

The model includes the ratio between government expenditure and GDP to control for the role of welfare state in income redistribution, as suggested by Atkinson (2015). This variable also controls for a possible relation between the emergence of welfare state and the Cold War. The data is from the IMF's International Financial Statistics.

We do not include income or income per capita among the independent variables to avoid endogeneity. These are arguably correlated to state capacity Persson and Besley (2009). In addition, we do not include top marginal tax rates, which is a common variable in the literature. Acemoglu et al. (2015) argue that top marginal tax rates may lead to bad control problems, as the increase in taxes, especially those linked to the top incomes, could be influenced by the Cold War.

Table 1 presents descriptive statistics for the variables used in the main sample.

Table 1: Summary Statistics

VARIABLES	(1) N	(2) mean	(3) sd	(4) min	(5) max
Share top 1%	139	7.97	1.98	3.83	12.45
Share top 5%	97	20.50	3.01	13.21	27.62
Share top 10%	129	30.88	3.49	19.92	38.78
Communist_revolution	139	0.115	0.636	0	7.408
Communist_vote_share	139	3.50	7.18	0	32.80
Left Executive	126	0.50	0.42	0	1
Log(Union Density)	139	3.36	0.60	1.22	4.50
War_risk	139	0.296	0.442	0	1
Polity IV	138	9.854	0.659	5	10
Goverment Expenditures as a share of GDP	139	0.162	0.044	0.076	0.291

4 Empirical Strategy

This section details the empirical strategy of the article and interprets the results. We run a fixed-effect model on a panel of 18 OECD countries covering the period from 1945 to 1990. The data is in a five years average basis. The benchmark specification is defined by equation (2):

$$ln(Topshare)_{it} = \beta_1 * CR_{it} + \beta_2 * X_{it} + \lambda_t + \mu_i + \varepsilon_{it} \qquad (2)$$

where $ln(Topshare)_{it}$ is the logarithm of the top percentile income share for each country i at time t. The first term in the right-hand side, CR_{it}, is the measure defined above that capture the effects of socialism as an external disciplining device to inequality in western countries. X_{it} is a vector of control variables containing additional political and economic forces that may explain top income inequality, λ_t is period-fixed effects, μ_i is the country fixed-effect and ε_{it} is the model error term.

The model relies on the identification strategy that β_1 captures the effects of the spread of socialism on income inequality, controlling for other possible channels of political economy and external influence and allowing for country and period fixed effects. As the countries in the sample were not directly affected by Soviet invasions or communist revolutions, there is rather limited room for endogeneity problems.

4.1 Results

Table 2 presents baseline results based on a panel estimation with country and period fixed effects.

Table 2: Panel Estimation: Fixed Effects

VARIABLES	(1)	(2)	(3)	(4)	(5)
communist revolution	-0.017*	-0.022**	-0.024**	-0.023**	-0.022**
	(0.009)	(0.009)	(0.009)	(0.009)	(0.010)
union density		-0.326**	-0.307**	-0.391***	-0.374***
		(0.116)	(0.123)	(0.105)	(0.111)
Left_Executive			0.008		0.024
			(0.040)		(0.036)
Communist party seats				0.018**	0.017*
				(0.008)	(0.009)
Observations	139	121	108	121	108
R-squared	0.585	0.672	0.681	0.691	0.696
Number of countries	18	15	13	15	13
Country FE	YES	YES	YES	YES	YES
Period FE	YES	YES	YES	YES	YES

Notes: The analysis is based on a country-by-period panel data set covering the period 1950-1990. Sample includes 18 OECD countries. Dependent variable is the natural logarithm of top income percentile share. All regressions include period and country fixed effects. Robust standard errors are clustered at the country level. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Results from Table 2 point to a negative relationship between the occurrence of communist revolutions and the share of top percentile between 1950 and 1990. The introduction of the control variables do not reduce explanatory power of the variable CR_{it}.

The coefficient of union density has the expected signal: workers' bargaining power, reflected by *union density*, is associated with a reduction in income inequality, in line with the bargaining game explanation proposed by Piketty et al. (2014). As for the variables that capture the threat of communism, the ideology of the party in office does not seem to have an impact on top income inequality. The share of communist parties in Parliament has a positive although less significant relationship with top inequality.

Table 3: Panel Estimation: Fixed Effects with additional controls

VARIABLES	(1)	(2)	(3)	(4)	(5)
communist_revolution	-0.022**	-0.041***	-0.041***	-0.052***	-0.051***
	(0.010)	(0.013)	(0.013)	(0.012)	(0.014)
union density	-0.371***	-0.400***	-0.378***	-0.272***	-0.268***
	(0.111)	(0.112)	(0.108)	(0.078)	(0.079)
Left_Executive	0.031	0.041	0.029	-0.032	-0.030*
	(0.033)	(0.031)	(0.040)	(0.018)	(0.017)
communist party seats	0.018*	0.016	0.017	-0.000	-0.001
	(0.009)	(0.010)	(0.010)	(0.007)	(0.007)
polity IV	-0.027*	-0.041**	-0.053***	-0.038**	-0.037**
	(0.014)	(0.015)	(0.013)	(0.017)	(0.016)
decentralized bargain		0.176**	0.206**	0.255**	0.250**
		(0.078)	(0.083)	(0.094)	(0.099)
war risk			-0.110	-0.145*	-0.142*
			(0.082)	(0.072)	(0.067)
trade openness				-0.013***	-0.012***
				(0.004)	(0.004)
gov. expenditures					-0.171
					(0.793)
Observations	108	108	108	108	108
R-squared	0.699	0.717	0.735	0.803	0.803
Number of countries	13	13	13	13	13
Country FE	YES	YES	YES	YES	YES
Period FE	YES	YES	YES	YES	YES

Notes: Analysis is based on a country-by-period panel data set covering the period 1950-1990. Sample includes 18 OECD countries. Dependent variable is the ln of top income percentile share. All regressions include period and country fixed effects. Robust standard errors are clustered at the country level. Significance: *** p<0.01, ** p<0.05, * p<0.1.

The control variable *Polity IV* confirms that democracy did reduce inequality, in line with Acemoglu et al. (2015). The coefficient of the variable on labour institutions suggests that countries where wage bargain is decentralised are more unequal. Although not strongly significant, the variable *War Risk* suggests that the escalation of the Cold War reduced inequality. Cruacially, this variable barely affect the main variable *Communist Revolution*. *Trade openness* shows a strong and negative relationship between globalisation and inequality. This is at odds

with the conclusions in Timmer et al. (2014) for the post-1970s period. This suggests that globalisation had a different effect in inequality depending on the period of analysis. Finally, the coefficient for government expenditures as a share of GDP is not significant.

The results in Table 3 show a negative and robust relationship between top income inequality and the external threat of communism. The coefficient remains robust when controlling for additional variables that capture external conflicts, domestic political institutions, decentralization in wage bargaining process and the size of government.

4.2 Mechanisms

This section tests the possible mechanism through which external events related to communist revolutions may have affected income distribution domestically. It analyses the effects of the interaction between our variable *Communist Revolution* and domestic features that may have transmitted the threat of communism to the fall in inequality. Table 4 specifies the results of these mechanisms.

Table 4: Possible mechanisms

VARIABLES	(1) Fixed Effects	(2) Fixed Effects	(3) Fixed Effects	(4) Fixed Effects
communist revolution_x_union density	-0.014***			
	(0.004)			
communist revolution_x_communist party seats		-0.027***		
		(0.006)		
communist revolution_x_Left Executive			0.182	
			(0.166)	
communist revolution_x_polity IV				-0.005***
				(0.001)
Observations	108	108	108	108
R-squared	0.802	0.814	0.787	0.803
Number of countries	13	13	13	13
Controls	YES	YES	YES	YES
Country FE	YES	YES	YES	YES
Period FE	YES	YES	YES	YES

Notes: The analysis is based on a country-by-period panel data set covering the period 1950-1990. Sample includes 13 OECD countries. Dependent variable is the ln of top income percentile share. All regressions include period and country fixed effects. Control variables in the regressions above are the same from estimation (5) of Table 3. Robust standard errors are clustered at the country level. Significance: *** p<0.01, ** p<0.05, * p<0.1.

Table 4 suggests that a few domestically-defined variables transmitted the effect of external threats into domestic pressure for less inequality. The variables are: the level of labour mobilisation, the strength of the communist parties, and the level of democratic institutions.

4.3 Robustness tests

Given such complex transmission mechanisms, communist revolutions may have had a lagged effect on inequality. Such lags may persist in spite of the five year averages in the sample. We test for this effect by lagging the variables analysed in tables 3 and 4. Table 5 reports the results of such robustness check.

Table 5: Robustness tests: lagged variables

VARIABLES	(1)	(2)	(3)	(4)	(5)
L.communist revolution	-0.016**	-0.047***			
	(0.007)	(0.007)			
L.communist revolution_x_union density			-0.013***		
			(0.002)		
L.communist revolution_x_communist party seats				-0.020***	
				(0.004)	
L.communist revolution_x_polity IV					-0.005***
					(0.001)
Observations	97	95	95	95	95
R-squared	0.818	0.851	0.851	0.852	0.851
Number of countries	13	12	12	12	12
Controls	YES				
Country FE	YES	YES	YES	YES	YES
Period FE	YES	YES	YES	YES	YES
Lagged Controls		YES	YES	YES	YES

Notes: Analysis is based on a country-by-period panel data set covering the period 1950-1990. Sample includes only OECD countries. Dependent variable is the ln of top income percentile share. All regressions include period and country fixed effects. Robust standard errors are clustered at the country level. Significance: *** p<0.01, ** p<0.05, * p<0.1.

The results in Table 5 are rather similar those in Tables 3 and 4. This is especially the case when all variables are lagged. Hence, the effect of communism on inequality had a lagged effect, but this does not change the basic conclusion of this article.

According to the literature on franchise extension (Acemoglu and Robinson, 2000; Aidt and Jensen, 2014), the Cold War contributed for income distribution because it reduced the power of national elites. If that is so, the threat of communism must have affected the very top income more than the lower top income cohorts. In order to test for this hypothesis, we divide the top income shares into three groups: top 10%, top 5% and top 0.1%. Table 6 shows the results of this exercise. The sample of countries is restricted to those with disaggregated data on top income shares.

Table 6: Robustness tests: other top incomes shares

VARIABLES	(1) Top 0.1%	(2) Top 1%	(3) Top 5%	(4) Top 10%
communist_rev	-0.092***	-0.046*	-0.018	-0.009
	(0.028)	(0.023)	(0.012)	(0.007)
Observations	78	78	78	78
R-squared	0.867	0.865	0.838	0.754
Number of countries	10	10	10	10
Controls	YES	YES	YES	YES
Country FE	YES	YES	YES	YES
Period FE	YES	YES	YES	YES

Notes: Analysis is based on a country-by-period panel data set covering the period 1950-1990. Sample includes only OECD countries. Dependent variable is the ln of top income percentile share. All regressions include period and country fixed effects. Robust standard errors are clustered at the country level. Significance: *** p<0.01, ** p<0.05, * p<0.1.

The table shows a declining effect of communist revolutions on top income shares. Although all coefficients are negative, only the coefficients on top 0.1% and top 1% are significant. This result reinforces the conclusion that the Cold War had a significant effect on income distribution because it reduced the elite's income share.

5 Conclusion

This paper shows that the threat of communism was a disciplining device to inequality in OECD countries during the Cold War. It contributed to the recent literature on top income inequality in explaining the causes of inequality beyond the marginal productivity framework. The literature stresses the role that domestic factors and, in few cases, the two World Wars played in distributing income (Atkinson et al., 2011). We introduce contributions from the State Capacity literature in this discussion by acknowledging that wars may reduce the power of the elites, forcing them to distribute some of its wealth (Persson and Besley, 2009). Our results suggests that the Cold War conditioned the creation of common-interest states, as Besley and Persson (2011) defined. A new form of social cohesion appeared under this post-war common interest states, which conditioned the fall in top income shares. The spread of communist revolutions created an external threat that redistributed income.

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6 Appendix

Table A.1 - Countries considered as having communist occurrences

Country	Year
East Germany	1947
China	1949
North Korea	1950
Vietnan	1954
Hungary	1956
Cuba	1959
Czechoslovakia	1968

Table A.2 - Countries in the sample

Country
Australia
Canada
Denmark
Finland
France
Germany
Ireland
Italy
Japan
Netherlands
New Zealand
Norway
Portugal
Spain
Sweden
Switzerland
United Kingdom
United States