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## **Spending, Ideology, and Redistribution – A Comparative Analysis of Inequality in the EU Countries of the 21<sup>st</sup> Century**

### **Abstract**

Inequality is a buzzword in today's political debates and an interesting topic from a research perspective. Focussing on the EU member states (excluding the United Kingdom) between 2006 and 2020, this paper examines what influences states to redistribute more and reduce inequality from a comparative perspective. Based on Rational Choice and Power Resources Theory expectations, the author builds a theoretical approach and hypothesises that a larger expenditure and a left-wing governing party lead to more redistribution. Using panel data regression, the author also finds that expenditure does indeed lead to more redistribution, but political ideology does not. Other relevant variables are also tested, showing that equal access to power, coalition governments, and caretaker or technocratic governments, among other significant variables, lead to more redistribution.

*Keywords: Inequality, Redistribution, Ideology, Expenditure*

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## **Introduction – To Spend or Not To Spend**

At the beginning of 2023, the German liberal finance minister Christian Lindner announced his plans to address Germany's expenditure problem in the budget for the following year (Reuters, 2023), thus clashing with the Greens and Social Democrats, the more left-wing coalition partners in the German cabinet. The controversies inside the ruling coalition continued to rise, as the Free Democrats, Lindner's party, pushed to limit public spending (Kohnert, 2023) and not expand redistributive programmes (n-tv, 2023). It is not the first time this has happened: In 2022, Lindner publicly criticised the operation of Germany's public broadcasters, claiming to see major saving potential (Schwarz, 2022). A couple of months prior to this, he rejected the renewal of the 9-Euro ticket for regional rail transport, claiming it would promote a 'gratis mentality' (Wilms, 2022). While such statements are not exclusive to Germany, this instance is the newest example of a certain stance. While it is not unexpected for a liberal politician (in Europe) to promote low-spending views, it implies a certain revival of the old question of how much money states should spend and what the intended outcome of the spending policies is. To avoid confusion, in this paper, I understand liberal political views, as they present themselves in Europe, as encompassing positions that favour business, free markets, individual liberties, and limited government intervention.

Spending, ideology, redistribution – these three buzzwords are not only present in the current German political context. As the positions of the liberal minister showed, a major focus of politics is if, how, and on what to spend public money. This larger question has two dimensions: how much to spend and how the spending should be divided. Both are highly ideological, as the answer almost always depends on the philosophical tradition and normative stance of those asked. While politics has a multitude of areas to manage, the underlying one is people's finances. With inequality rising in recent years (The Economist, 2022; U. N. News, 2020), questions concerning people's income and wealth are even more salient. The perceived role of the state differs radically across the spectrum of political views: While progressive, left-wing politicians and activists push for high government spending and redistributive politics such as progressive taxation to target the highest earners (Reich, 2021), liberal stances claim that individual responsibility and meritocracy are more desirable than achieving financial equality (Newhard, 2018). There are many nuances to these two dominating directions, such as shifting the blame for poverty (Scheffler, 2020) or unfairness (Starmans, Sheskin, & Bloom, 2017).

This theme, which has been ever-present in the political sphere, reached a new dimension with the economic crisis of 2007/2008 and the following arguments over austerity policies. This showed the more academic side of the polemic, with economists of different traditions arguing for opposite measures. While the scholarly perspective is diverse and cannot be summarised into two categories, the perspectives in the political sphere can be mainly placed into two camps: The neoliberal (known in the academia as Neo-classical or Neo-Ricardian) camp, heavily influenced by Hayek and Friedmann, argues that financial adjustment and austerity measures are the only way to allow for economic recovery by facilitating efficient private spending (Okeke, Alexiou, & Nellis,

2021, pp. 100-101). The other side, which follows in the tradition of Keynesian economics, rejects austerity as a flawed approach that would not lead to a reduction of deficit (Ibid., p.101). One of the most important exponents of the latter is Mark Blyth, whose relevant insight was his methodological approach, which was based on the assumption that political actors are deeply influenced by the theories of economic thinkers (Blyth, 2013).

On the other side, a heavily debated and pressing political issue in the 21<sup>st</sup> century is inequality (Qureshi, 2023). While it can take many forms and manifest itself in different ways, I specifically refer to income and wealth inequality, as it has grown continuously in the past years (Ibid.). Income and wealth inequality is defined as the uneven distribution of income and wealth within or between societies, social groups, or individuals. This development can take multiple forms, from rising inequality within countries to higher income and wealth differences between countries. While inequality itself is an economic measure, philosophical ideas such as on egalitarian societies and fairness, or empirical consequences like slower economic growth and its sustainability, (Dabla-Norris, Kochhar, Suphaphiphat, Ricka, & Tsounta, 2015) give the term a negative connotation. While the topic is the most visible to date, inequality plays an important role in the bigger debate surrounding globalisation and the world's economic development. Global economic integration has been accelerating continuously since the Industrial Revolution, and the developments in the fields of finance in the past decades have led to new concerns regarding inequality, the autonomy of nation-states, and the unequal power dynamics between societal groups (Berger, 2000).

The question regarding the role of states in inequality is of particular interest, as states are the institutions that can intervene the most in the economy through regulations, taxes, and transfers, but their power is threatened by free economic flows. Through mechanisms such as taxation and social spending, states are also the major political actors that have a direct influence over people's income, and implicitly, the distribution of income and wealth within societies. As such, one might wonder how the size of the government and the ideological stances influence redistribution through the state. For example, how can liberal stances of reducing social programmes (like the German example above) affect the state's redistributive effect? Does Christian Lindner's stance impact redistribution in Germany, and to what extent? What role does the size of the budget play in this whole equation?

Bringing Blyth's insight together with the evergreen spending debate in politics, the topic of rising inequality and the role of the state leads me to the following research question: To what extent do spending and the political/economic ideology of the government affect the power of the government to redistribute? In this context, I understand spending as the size of a state's expenditure, i.e., the amount of money it spends. The power to redistribute is the degree to which a government can reduce inequality – the difference in the income distribution before and after the government's policies. While the topic of inequality is usually discussed from a global economic perspective, I approach it from a comparative national viewpoint to better understand the power of the state and its determinants. As the spending debate was nowhere as

vocal as in the EU following the euro crisis, I limit this study to analysing the EU member states with the most up-to-date data available at the date of writing.

The contribution this paper brings to the existing literature is focusing on the redistributive power of the government. Isolating this variable of interest allows me to look at the impact of policies created by governments based on their ideology and the size of the expenditure affecting the actual reduction of inequality.

This paper is structured as follows: After this introduction, I review the existing literature on the topic (2) and, using different theoretical concepts, draw my hypotheses (3). Using data I gathered from the 27 European Union member states (4) I run and analyse multiple regressions and discuss the implications of the results (5).

## **Literature Review – Spending, Ideology, and Inequality**

While redistribution itself is present in research projects, the closely related topic of inequality has been studied substantively deeper, especially in the last few years. This section first looks at the connection between ideology and both redistribution and inequality, and later turns to the link between expenditure and inequality/redistribution. To allow for a holistic view, I then approach alternative factors and also present the methodological diversity present in the literature.

When it comes to studying how income inequality is influenced, spending and government ideology are mostly kept separate, rarely, and only ever briefly, mentioned together. As the relationship between ideology and inequality is complex and multi-faceted, the literature is diverse. Most of the published articles analyse the government's views and globalisation together, showing that globalisation brought increased inequality in developing nations, but left-wing governments managed to keep the rise in inequality lower than the rest (Ha, 2012). When using a similar design for nations that are part of the OECD, the results were similar, with the exception that Anglo-Saxon nations did not experience differences based on ideology after the 1980s (Dorn & Schinke, 2018).

Inequality and economic growth have been shown to have different associations under left- and right-wing governments (Bjørnskov, 2008). One of the most interesting findings is how government ideology influences not only income inequality but the health status of the population, with the neoliberal struggle to dismantle the welfare state leading to poorer public health (Coburn, 2000). When it comes to actual redistribution and expenditure decisions, results are mixed: Left-wing governments do enact more redistributive spending policies under harsher economic conditions, while right-wing cabinets also employ such strategies, but under favourable economic conditions (Herwartz & Theilen, 2017). One interesting result concerns healthcare spending, for which ideology does not seem to play an important role at all (Reeves, McKee, Basu, & Stuckler, 2014). Lastly, the EU as a political actor is also present in

research, with support for its cohesion policy by Europeans being influenced by the quality of government (Bauhr & Charron, 2020).

As mentioned before, most of the research looks at inequality as the dependent variable. When looking at the redistributive power of the state directly, there is one article of significance that analyses the determinants of redistribution, finding that left-wing governments do redistribute significantly more (Huber & Stephens, 2014). Similar to my approach, the article also defines redistribution as the difference between inequality before and after taxes and transfers.

The relationship between expenditure and inequality has also been thoroughly studied. There are two main patterns in the literature: either in-depth qualitative research on a certain country to discover the mechanism of inequality or large-N quantitative analysis of regions or as many countries as possible to discover general causal relationships. Due to the difficulty of quantifying inequality and the problem of gathering data, most of the latter have a relatively short period of analysis. Most articles look at social/welfare spending and not at the state expenditure as a whole. The body of literature has mixed results, with a slight tendency of showing that higher spending is associated with lower inequality, but results vary according to the control variables used (Anderson, Jalles D'Orey, Duvendack, & Esposito, 2017). For example, when looking at OECD countries, social spending reduces income inequality (Ulu, 2018), but when looking at Latin America, only health and education spending and not social security played an important role (Ospina, 2010).

Rather than investigating spending alone, a significant part of the research has a multicausal perspective: Corruption and spending raise inequality in the case of embezzlement but lower it in the case of “vote-buying” in Asia and Latin America (Wong, 2017); or public spending moderates the inequality-increasing effect of globalisation (Kollmeyer, 2015). Further models in which the social expenditure itself was divided into multiple categories showed that income replacement spending is more frequent in countries with less inequality (Moene & Wallerstein, 2003). Most of the papers are in line with the argument that social spending decreases income inequality (Fournier & Johansson, 2016), but there are also a few instances that take the political side of the government into account (d'Agostino, Pieroni, & Procidano, 2016). Government ideology was taken into account more in austerity research (Schaltegger & Weder, 2014), which is highly related to this topic, as fiscal adjustment programs often consist mainly of spending cuts.

There is also the issue of methodology across these articles. One approach is using panel data, such as in the former article cited. One instance of a more complex panel model is the latter, which employed a System GMM method. Another article using this found that social spending, in general, reduces inequality (Niehues, 2010). The article most related to my research question uses a fixed effect model to look at determinants for redistribution (Huber & Stephens, 2014). There are also instances in which basic statistical methods, such as OLS, are used to analyse the years affected by the 2008 economic crisis and those afterwards (Verberi & Yaşar, 2021).

As inequality is such a complex topic and there are extensive theoretical explanations for it which translate into an increased number of variables that have to be taken into account in empirical research, it is strange that these two major explanations have been studied largely separate from each other. While most of the literature looks at spending and inequality or redistributive policies under different ideologically motivated governments, the lack of focus on the extent of the redistributive power of the state (Cf. Huber & Stephens, 2014) and its determinants represents an important gap in the literature. Consequently, considering the combined impact of expenditure and ideology on redistribution is part of this gap that needs to be addressed, as ideology and expenditure were also studied separately when researching inequality. Additionally, few articles focused on European countries so far.

## **Theoretical Approach - What Do Governments Do?**

The study of expenditure, ideology, and inequality is deeply empirical. Most of the articles reviewed in the previous section do not have a theoretical approach at all, as the focus lies on the analysis of the available data. However, there are some theoretical mechanisms related to the topic that are worth mentioning. The size of the expenditure and its impact on inequality and productivity has been a long-debated topic in the sphere of economics. As most of these arguments are deeply technical, I approach the partisan theory and other complementary rationalist explanations to explain the role ideology plays in shaping redistributive policy decisions. As mentioned, in this context, I define redistribution as the reduction of inequality through taxes and transfers.

The aspect of government ideology and inequality can be approached using rationalist expectations of political actors and the Selectorate Theory (De Mesquita, Smith, Siverson, & Morrow, 2003). According to these, politicians and, implicitly, government ministers' first goal is to secure their power position, which translates to increasing the chances of re-election. While this can take numerous forms, the most common is political positioning and the shaping of the executive agenda to increase approval ratings.

As the European Union, with the exception of Cyprus, consists mostly of parliamentary systems and semi-presidential systems, in which the government is still elected/confirmed by the legislative, the focus of the incumbent government is on the legislative elections. The EU consists of both proportional as well as plurality voting systems, with the former usually allowing for the formation of multiple parties with a specific target audience and the latter facilitating the creation of a few, rather big tent parties with no clear target audience (Cf. Duverger's Law).

The rationalist expectation of re-election incentives as the main drivers of political decisions seems to directly contradict the importance of ideology in determining redistribution. This is where the partisan theory (Hibbs, 1977, 1992) comes into the equation, theorising that the economic position of parties is shaped by the opinions of the socioeconomic group that forms its voter basin. In regards to democracy theory, this

ensures that parties are responsive to the wishes of the electorate and elections serve as a tool to ensure that parties represent the policy positions present among the voters (Powell, 2000). The partisan theory brings ideology to the centre, as the main way to ensure re-election is to maintain and increase support by providing policy decisions that align with the positions and expectations of the socioeconomic group the party aims to represent. While in most policy areas, the classical partisan theory is outdated as it looks at class as the main cleavage point which creates opposing socioeconomic groups, when it comes to questions such as redistribution, there still is a clear left-right divide.

This means that left-wing parties have an incentive to support redistributive policies. Empirically, research using the left-right divide has shown that those who label themselves as being left-wing support redistributive measures (Jæger, 2008; Visser, Lubbers, Kraaykamp, & Jaspers, 2014). On a more theoretical note, left-wing parties arose as the political representatives of the working class, advocating for policies to support the living and working conditions, as well as the economic situation of the workers. The value of more egalitarian societies thus obligates left-wing parties to push for redistributive measures, as they are, by definition, the way to create a more equal distribution of wealth. The welfare state is also an important aspect of left-wing politics that implies social solidarity and the reduction of inequality. The political way through which the working class has traditionally mobilised to support the creation and expansion of the welfare state has been through social-democratic parties (Esping-Andersen, 1990).

Bringing all of these aspects together, the working class, or in more modern equivalents, the socioeconomic group of lower-earning, economically struggling individuals, supports redistributive policies as these favourably affect their economic position. Left-wing parties are dependent on the support of this socioeconomic group as their voter basin and, as such, support redistributive policies. Once in power, influenced by re-election incentives, left-wing parties will adopt policies that lead to redistribution to satisfy the demands of its electorate.

As both in plurality voting and parliamentary systems, left-wing parties have an ideological and a strategic reason to push for redistribution, and labour-oriented parties can be seen as a resource of the working class to push for the development of the welfare state, I expect left-wing governments to redistribute more to ameliorate income inequality.

Other than the ideology of the elected officials, there is also the question of the size of the expenditure. While traditionally, left-wing governments tend to opt for a more important role of the state in the economy, thus leading to a larger expenditure under left-wing incumbents (Cusack, 1997), research on this topic has also shown that a larger expenditure, indifferent of the ideology of the incumbent, leads to more redistribution (Herwartz & Theilen, 2017). The size of the expenditure variable is also needed to isolate the role of the ideology of the government from the role of the expenditure itself. This consideration is important, as there are possible exogenous factors that can affect the size of the expenditure which cannot be influenced by the government. As ideological actors are constrained by the availability of resources – in this case, the governing

parties are limited in their actions by the size of the possible expenditure – it is important to control the size of the expenditure to clarify whether a higher reduction in inequality is driven by the governing ideology or merely by a higher expenditure.

While expenditure itself can be determined by the political ideology of the governing party or parties, analysing this concept in addition to ideological views brings further understanding of the redistributive dynamics. Expenditure is, by definition, redistributive, as it does not distribute the resources gathered through taxation and borrowing to the population according to the structure present before taxes. As such, the question is in which direction (deepening or reducing inequality) and to what extent the expenditure itself drives redistribution. There are two aspects to consider when looking at how the expenditure is shaped, namely whether spending decisions are path-dependent and tend to remain constant and whether modern states have intrinsic elements that increase redistribution.

On the one side, the governing party aims to use the state's resources to satisfy the demands of the electorate, as theorised previously. This means enacting policies that alter the redistributive power of the expenditure. However, established policies and the welfare system demand a long process of policy modification and tend to remain constant. As such, introducing the concept of a path-dependency in spending decisions allows one to filter the role of the party, by isolating the role of short-term policy changes by a government from the long-term factors such as established policies. While a party in government can enact public policies that reduce inequality, pre-existing policies that require major spending, such as welfare, restrict the government's ability to steer redistribution. To filter this aspect, it is important to look not only at the size of the expenditure but also at any major increase or decrease that signals a break in the path-dependency of spending decisions.

Additionally, there are theoretical reasons why simply spending more leads to more redistribution. Modern states tend to have established welfare systems that are intrinsically redistributive towards the less fortunate and increasing the available resources automatically increases redistribution. Welfare systems are a spending obligation by the state, and an ideologically motivated government cannot dismantle them in the short term. As such, I argue that the nature of modern states ensures redistribution to some degree and provides at least short-term resilience against politically-motivated spending choices. When looking at the redistributive results of the state, using both the idea of path-dependency and the redistributive nature of modern states allows me to differentiate between the role of spending more and the role of spending according to the political views of the governing party.

To explicitly look at the role ideology plays in spending decisions and inequality dynamics, I purposely ignored the details of the expenditure. While most articles look at the different segments of spending in detail, I define it as a black box divided by the governing party to satisfy the needs of a segment of the electorate to ultimately assure re-election. As such, there are two dimensions: the size of the expenditure, as a government is restricted in its redistributive capabilities by the amount of money it can spend, and ideology, as left-wing parties are ideologically and strategically tied to

redistribution and right-wing parties are not. I do not look at specific spending details to allow for a holistic perspective on redistribution performance. The goal of redistribution is not tied to a specific policy area, and as such, it should be reflected in the overall spending. Accordingly, my hypotheses are:

*H<sub>1</sub>: A larger expenditure is more likely to reduce income inequality.*

*H<sub>2</sub>: A left-wing government is more likely to reduce income inequality.*

## **Data and Method – EU27 2006 – 2020**

To empirically test the aforementioned hypotheses, I operationalise the variables as they are described in this section. The unit of analysis is country-year and the sample includes all 27 EU countries (excluding the United Kingdom) in the time frame 2006 – 2020.

### *Dependent Variable*

**Redistribution (GINI Coeff. Difference)** is the way I measure the redistributive power of the state, calculated as the difference in inequality before and after taxation and transfers. As income inequality itself tends to be hard to use as a direct variable because of serial correlation, I use the percentual difference between the GINI Coefficient before (Eurostat, 2022b) and after transfers and taxes (Eurostat, 2022a) as the measure for this variable. Note that due to the way it is calculated, a positive number means more redistribution and less income inequality. The formula for this variable is  $((GINI_{before_t} - GINI_{after_t}) / GINI_{before_t}) * 100$ .

The GINI coefficient is one of the most frequently used measurements for inequality, in this case showing how unequal income is distributed within a country. The coefficient itself is calculated using the Lorenz curve of the household income distribution. A lower value represents lower inequality, with 0 being the value for which income is distributed completely equally within the country (Charles, Gherman, & Paliza, 2022; Schneider, 2021).

My measure for redistribution is a self-adjusted version of the GINI coefficient. It seeks to isolate and measure the power of the state to diminish income inequality by isolating the effect of taxes and transfers. As the only difference between the coefficient before and after taxes and transfers is, by definition, the redistributive effect of taxes and transfers, this measurement is a useful operationalisation of the dependent variable. This adjustment has also been used previously in similar research (Berg, Ostry, Tsangarides, & Yakhshilikov, 2018; Huber & Stephens, 2014).

### *Independent Variables*

**Left/Right** are two different variables to measure the political ideology of the government. As there is no gold standard for measuring this, I use four different measurements to increase the accuracy of the analysis. The variable is coded as a dummy variable (Cruz, Keefer, & Scartascini, 2021), with centre governments as a reference point. I also use different measures, such as the share of left/right-wing cabinet seats, the parliamentary seats of governing left/right-wing parties as a percentage of total coalition seat shares, or the parliamentary seats of governing left/right-wing parties as a share of total parliamentary seats (Armingeon, Engler, & Leemann, 2022).

**Expenditure** is the second main independent variable, calculated as the general government expenditure as a percentage of GDP (Eurostat, 2022c).

### *Control Variables*

The puzzle in the introduction has highlighted ideology and expenditure as important factors that affect inequality and, as such, they are the main variables in this paper. However, following a multicausal approach, I also control for other related variables that can be expected to influence redistribution.

**Expenditure Increase/Decrease** is the variable I use to filter the possible shock effects of major increases or decreases in expenditure, as was the case when austerity policies began to be implemented. I calculate this variable based on the expenditure Eurostat data as the percentual increase/decrease in comparison to the year before:  $(Exp_t - Exp_{t-1})$  as % of  $Exp_{t-1}$ . For decreases, the value is transformed into a positive number.

While parties claim to represent certain people according to their ideology, this is not a must. **Power by Socioeconomic Position** comes as an alternative and looks at how power is distributed across society according to socioeconomic position. A lower value means that wealthy people have more political influence, and higher scores mean that access to power is more equally distributed and wealth does not play a determinant role (Tufis & Hudson, 2021a). This variable is taken from the Global State of Democracy Indices (Tufis & Hudson, 2021b).

All policies of the state, especially the redistributive ones, have to be implemented accordingly to work properly. **Corruption** can block this, as it both wastes state resources and provides wealthy people access to express state services, thus strengthening their power position and deepening inequality. This relationship has already been proven multiple times in the existing literature (Gupta, Davoodi, & Alonso-Terme, 2002). Data was taken from the Corruption Perception Index (Transparency International, 2020).

Access to **education** provides people with the necessary skills and knowledge to perform jobs that have a higher grade of complexity and are better paid. Taking automation into account, skills from higher education protect workers from being replaced by computers and robots. In the context of economic liberalisation, more complex jobs are less likely to be cut as a company wants to move production to less developed countries with a more competitive workforce in terms of price. The literature has shown that education has a major impact on an individual's chances of success in life (Blanden, 2020). I measure education as the percentage of the population with finished tertiary education (Eurostat, 2022d).

As unemployed people usually have some sort of protection within the welfare state, an increase in **unemployment** automatically means an increase in redistribution. The role of this variable is to differentiate between the role of the policy choices of the government based on their ideology and a possible increase or decrease in employment. As unemployment benefits are usually low, I expect this variable to have a limited impact. I measure it as the number of unemployed people in the age class 15-74 as a percentage of the population in the workforce (Eurostat, 2022g).

Similar to the unemployed people, an increase in the **dependency ratio** means an increase in redistribution. I measure it as the population under and over the working age (up to 14 years or 65 and over) divided by the working age population (Eurostat, 2022e).

The existing literature usually differentiates between less and more developed countries. To check for any particularities according to the level of development, I use **GDP per capita** as a control variable (Eurostat, 2022f). Additionally, the literature found no clear pattern regarding **trade openness** and inequality, with one recent finding showing that it increases inequality in developed countries (Dorn, Fuest, & Potrafke, 2022). As this remains a debated topic, I will include it in my design (World Bank, 2022).

Finally, there are three control variables regarding the history of the country and the nature of the government. The **Post-Communist** variable checks for any special particularities of the post-socialist countries in the EU. This holds true for all EU countries that are former members of the Eastern Bloc, USSR, or communist Yugoslavia. I additionally check for **coalition** governments, as they are more present in proportional systems and the parties have more well-established supporters. I expect a coalition to redistribute more, as it has multiple supporter groups to satisfy. The required data was taken from the Centre for Political and Diplomatic Studies (Armingeon et al., 2022). Lastly, **Caretaker/Technocratic Government** checks for the particularities of caretaker and technocratic governments, as they do not have a re-election incentive. This data is also taken from CPDS.

## Methodology

Based on the aforementioned variables, I gathered data on all 27 EU member states and designed a random effects panel model. The reason for choosing 2006 – 2020 as the time frame is mainly determined by data availability: Most of the variables are taken from Eurostat, and as a significant number of countries only joined the EU at the beginning of the 2000s, there is a lot of missing data for the years before 2006. I chose the time frame to allow for the maximum number of years without creating a heavily unbalanced dataset. The panel is still unbalanced to a limited degree, with data for Romania and Bulgaria starting only in 2007 and data for Croatia beginning in 2010. All computations were done using R (R Core Team, 2021), and the table itself was created using stargazer (Hlavak, 2021). All regressions are one-way effect random effects panel models (Swamy-Arora’s transformation) and were calculated with the help of “plm” (Croissant & Millo, 2018). The only difference is in the way left and right are measured, as explained in the previous section.

Some of the variables are lagged, as I do not expect them to have an immediate impact on redistribution. This is especially true for the political ideology of the government, as there is a temporal delay between introducing political measures and the outcome due to the policy-making process. The same applies to the other lagged variables, which are expected to influence the redistributive power with a delay. The only exception applies to unemployment and dependency ratio, as they will produce direct changes based on the welfare system. Social programmes targeting these two groups are usually fixed, and the recipients thereof are entitled, meaning that a higher variable value would directly lead to more redistribution. This approach is also used in related research (Profeta, Puglisi, & Scabrosetti, 2013; Rudra & Haggard, 2005).

Table I

	Left/Right Dummy				Redistribution			
	2006	2010	2015	2020	2006	2010	2015	2020
Austria	Right	Left	Left	Right	43.78	40.91	42.86	42.18
Belgium	Right	Right	-	-	42.91	42.79	45.42	44.9
Bulgaria	-	Right	Right	Right	40.9	28.9	28.29	25.09
Croatia	NA	Center	Center	Right	-	34.43	38.33	40.04
Cyprus	Right	Left	Right	Right	23.06	29	32.67	36.58
Czechia	Left	-	Left	-	44.02	43.15	44.32	42.79
Denmark	Right	Right	Left	Left	46.29	47.56	47	44.73
Estonia	-	-	-	-	30.17	33.96	29.12	31.77
Finland	Center	Center	Right	Left	43.84	44.54	46.83	45.8
France	Right	Right	Left	Center	44.15	39.43	41.83	49.48
Germany	Left	Right	Right	Right	51.44	47.11	46.63	44.44
Greece	Right	Left	Right	Right	29.85	32.99	43.65	41.74
Hungary	Left	Left	Right	Right	40	51.11	45.24	36.65
Ireland	Center	Center	Right	Right	34.22	43.04	41.76	40.16

Italy	Right	Right	-	-	32.98	33.26	33.33	31.72
Latvia	Center	Right	-	-	29.15	29.46	27.9	26.28
Lithuania	-	-	-	-	29.92	32.84	29.42	29.23
Luxembourg	Center	Center	Center	Center	37.66	39.74	40.74	46.66
Malta	Right	Right	Left	Left	33.08	33.02	36.42	30.97
Netherlands	Right	Right	Right	Right	40.08	42.3	42.08	40.12
Poland	Right	Right	Center	Right	37.16	35.07	36.11	39.95
Portugal	Left	Right	Right	Right	26.65	32.6	43.04	42.64
Romania	NA	-	-	-	-	37.03	29.69	33.06
Slovakia	-	Left	Left	Left	37.13	40.18	41.33	45.14
Slovenia	Center	Left	-	Center	43.3	43.46	44.19	44.44
Spain	Left	Left	Right	Left	30.04	28.41	31.88	31.55
Sweden	Left	Right	Left	Left	44.44	54.46	52.91	51.96

## Analysis and Discussion – How Spending Increases Redistribution

Table I provides descriptive statistics on the ideology of the government and redistribution for each of the observed countries in certain years. It only shows the left/right dummy for ideology to allow for better visual clarity. Regarding redistribution, the observed data ranges from 20.11 to 55.40 %, showing a large diversity within and among countries. Further descriptive statistics can be found in Table II, which contains the means by country for all other independent variables.

Table III shows all regressions results. As the table shows, the variables for ideology are not statistically significant, except for the dummy for right-wing governments, which shows that such governments tend to redistribute more. This is a fairly uncommon insight that contradicts the theory. The problem with this significant result is that it is not repeated when using measurements that contain more information than a dummy (models 2-4). Model 4 presents an unexpected significant result, showing a negative correlation between the number of parliamentary seats of governing left-wing parties as a share of total parliamentary seats and redistribution. However, this coefficient is only significant at 10 %, and as such, I do not interpret it as statistically significant. Taking everything into account, in the case of  $H_2$ , I fail to reject the null hypothesis.

These findings are different to results using a similar approach (Huber & Stephens, 2014), but most importantly, in antithesis to the expectations from the Power Resource Theory. I could not find an explanation in the literature that could explain why right-wing governments would redistribute more (Model 1). It is also unexpected that the political direction of the government does not produce significant results across the models, especially as I used different measurements from different sources. These insights are puzzling but cannot be further analysed using the data for this paper. As such, they provide a puzzle for further research into the topic.

Table II: Means of all independent variables by country

Country	Expenditure	Expenditure Increase	Expenditure Decrease	Power	Corruption	Education	Unemployment	GDPPC	Trade Openness
Austria	51.15625	3.268979	0.008644	0.660446	22.75	21.8125	5.15625	36031.88	101.4089
Belgium	53.4	4.046364	0.089757	0.818001	25.6875	31.7875	7.475	33890.63	156.111
Bulgaria	37.25333	8.799888	0.9771	0.625245	59.8	21.94667	8.273333	5538.667	119.9265
Croatia	48.06364	2.367539	0.399863	0.642671	53.27273	18.97273	12.64545	11172.73	88.51417
Cyprus	40.96875	6.0465	1.873306	0.761423	39.9375	34.3	8.95	23035.63	125.7916
Czechia	42.25625	6.578083	0.516399	0.730896	NA	16.96875	5.275	15878.75	138.268
Denmark	53.175	2.982716	0.144225	0.799793	8.625	29.46875	5.875	45779.38	100.8381
Estonia	38.88125	9.377165	0.596196	0.758737	31.8125	31.38125	8.03125	12367.5	146.8503
Finland	53.275	3.557012	0	0.858194	10.0625	33.58125	7.94375	35615	76.78499
France	56.025	2.871688	0	0.691265	29.5	28.53125	9.15	31371.88	58.75801
Germany	45.5	3.158568	0.081103	0.787539	20.1875	23.53125	6.05	33218.13	82.35499
Greece	51.8625	3.953888	3.116727	0.817538	57.0625	23.29375	17.3	18734.38	62.65275
Hungary	48.98125	4.540053	0.965157	0.613555	50.5625	18.8875	7.40625	10996.88	158.4168
Ireland	36.49375	7.444205	2.274087	0.736624	25.5625	35.6875	9.1625	44656.88	194.8166
Italy	49.65	2.107753	0.018273	0.742999	53.3125	14.33125	9.50625	26846.25	54.77588
Latvia	39.325	8.608722	0.79982	0.638246	49	25.15625	10.73125	10265.63	113.4259
Lithuania	37.03125	9.300646	0.868375	0.641806	46.125	29.89375	9.5125	10906.25	136.0461
Luxembourg	41.3625	5.819364	0	0.771488	17.4375	32.2625	5.3875	83243.75	324.4512
Malta	40.1125	7.209025	0.124924	0.684771	43.125	17.7	5.6375	18098.13	286.9245
Netherlands	44.9	3.260895	0.031818	0.823578	14.8125	29.325	5.15625	39197.5	142.1221
Poland	43.4375	7.939254	0.870183	0.760658	46.5625	21.68125	8.4	10243.75	90.42374
Portugal	47.3625	3.430978	1.188196	0.706895	37.5	17.46875	10.275	16998.75	75.23193
Romania	37.13571	8.827708	1.085133	0.577198	57.64286	13.65714	6.05	7280.714	77.75109
Slovakia	41.325	8.250652	0.536068	0.636391	52.4375	17.09375	11.25	13330	170.9772
Slovenia	48.03125	5.541442	1.275769	0.781552	38.4375	23.61875	6.88125	18365.63	140.6701
Spain	43.8125	4.214726	0.584774	0.684134	37.9375	30.44375	17.225	23415.63	59.9455
Sweden	50.4875	3.494318	0.658639	0.786848	10.8125	31.425	7.40625	41185.63	85.64506

The other main variable, expenditure, is significant across all four models and positively associated with the dependent variable, meaning that a higher expenditure translates into more redistribution. This insight is extremely valuable, as, in comparison to other research, I did not divide the expenditure into multiple sections or looked only at social spending. Coupled with the insignificant results for ideology, it seems that an increase in expenditure as a whole, irrespective of the ideology of the governing party, leads to more redistribution in Europe. For  $H_2$ , I am able to reject the null hypothesis. Looking at the short-term change in expenditure, I find no significant results, meaning that a sudden increase or decrease in spending does not seem to influence the redistribution.

The results of the two main independent variables point in the direction that the size of the expenditure is the determining factor and that political ideology does not play a significant role. Returning to the theoretical expectations, it seems that how much the state spends is more important than according to which political ideology the spending is structured.

Power by socioeconomic group is also statistically significant across all four models and has a positive impact on redistribution, as was expected. The interesting aspect is that this variable could be an alternative explanation to the failed hypothesis, as equal access to political power will lead to more redistribution since those who are not wealthy have a strategic and personal incentive to push for such policies. Left-wing parties are theoretically linked to providing less-earning, more marginalised people access to political power, but it seems that this is not the case.

Surprisingly, corruption does not produce any significant results. Education, on the other hand, sees the expected results, with a higher percentage of people with tertiary education being associated with more redistribution. However, this variable is hard to interpret, as I measure its effect on the redistribution through the state and not on income inequality per se.

The economic control variables without a lag also produce significant results, except for the dependency ratio in the first, second, and third models. As expected, a higher percentage of unemployment and a higher dependency ratio do translate into more redistribution.

GDP per capita is statistically insignificant, showing that, at least in Europe, there is no major difference in redistribution through the state concerning overall country wealth. Trade openness, on the other hand, is significant across all results and has a positive impact on redistribution. This is an insight worth discussing, as there is a large academic debate on the positive and negative sides of trade liberalism and globalisation. It is important to note that some findings in the existing literature are opposed to mine: Trade seems to create more inequality, for example, in India (Daumal, 2013). As globalisation is often seen as producing winners and losers – also between countries – it suggests that the current EU member states are on the ‘winning side’.

The last three variables concern the political sphere. While there is no significant difference in redistribution in post-communist countries, the following two variables produce interesting results: Across all models, coalition or caretaker/technocratic

governments produce more redistribution. For coalition governments, this was the expected outcome. It, thus, seems that coalitions tend to redistribute more, as multiple parties mean multiple electoral groups whose needs and interests need to be satisfied. The unexpected result is found in the last category, which shows that caretaker and technocratic governments redistribute more. As such, governments either do not have a political agenda at all or are only tasked with maintaining the status quo. Accordingly, it is unexpected that the results are significant in all models.

Finally, the regression models are themselves significant and have high explanatory power, with the  $R^2$  at 37-38 %. The decision to run random effects models was based on the results of the Hausmann tests I ran on all the models, which indicated that random effects would be the suitable option. To ensure transparency, I report that in the case of fixed effects specifications, there are no significant results for the independent variables across all models. Additionally, I ran Variance Inflation Factor and Condition Number tests to check for collinearity, and the results showed little to no collinearity in all models.

Additionally, my design has some limitations that I have to acknowledge. First, there is the matter of missing control variables. While there are virtually unlimited variables that can be checked for, one is especially important in this case: the power of the unions. Union density is one of the major explanatory variables for inequality, and it can also influence the way states redistribute. Corporatist systems, in which the state is mostly an intermediary between the different actors, could redistribute less themselves, as it leaves the question of inequality to the unions. This supposition could have been checked by including a control variable. The reason I did not add one is due to the lack of available data. The most complete only started in 2009 and had data breaks (International Labour Organization, 2022), and as the time frame was already limited and the data unbalanced, I decided against using this additional variable.

The second issue is that of explanatory power. As the whole model only focuses on the current countries of the European Union, the explanatory power ends with them, as my models cannot take into account regional differences that might exist outside of Europe. Existing literature has shown that the same variables can have a different effect on inequality in different places, especially when looking at the level of economic development, so these results have to be interpreted only as explanations for the 27 EU countries in the 21<sup>st</sup> century, as all European countries have a comparatively high level of economic development.

Table III

	<i>Dependent variable:</i>			
	Redistribution - (GINI Coeff. Difference)			
	(1) L/R Dummy	(2) L/R Government Seat Share	(3) L/R Coalition Share	(4) L/R Parliament Seat Share
Left <sub>t-1</sub>	0.523 (0.485)	-0.006 (0.006)	-0.007 (0.006)	-0.023** (0.010)
Right <sub>t-1</sub>	0.949** (0.432)	0.008 (0.007)	0.010 (0.007)	0.007 (0.012)
Expenditure <sub>t-1</sub>	0.201*** (0.049)	0.186*** (0.050)	0.176*** (0.049)	0.177*** (0.049)
Expenditure Increase <sub>t-1</sub>	-0.026 (0.027)	-0.023 (0.027)	-0.021 (0.026)	-0.020 (0.026)
Expenditure Decrease <sub>t-1</sub>	0.078 (0.055)	0.081 (0.055)	0.073 (0.054)	0.074 (0.054)
Power by socio-economic group <sub>t-1</sub>	17.514*** (4.218)	19.144*** (4.294)	19.302*** (4.235)	18.874*** (4.310)
Corruption <sub>t-1</sub>	-0.043 (0.031)	-0.033 (0.030)	-0.034 (0.030)	-0.033 (0.030)
Education <sub>t-1</sub>	0.133*** (0.051)	0.124** (0.052)	0.120** (0.052)	0.129** (0.052)
Unemployment	0.174*** (0.060)	0.185*** (0.061)	0.197*** (0.060)	0.193*** (0.060)
Dependency Ratio	0.100 (0.064)	0.126* (0.065)	0.130** (0.065)	0.117* (0.065)
GDP Per Capita <sub>t-1</sub>	-0.00002	-0.00002	-0.00002	-0.00003

	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Trade Openness <sub>t-1</sub>	0.035*** (0.009)	0.036*** (0.009)	0.036*** (0.009)	0.036*** (0.009)
Post-Communist	0.149 (2.110)	-0.336 (2.149)	-0.509 (2.196)	-0.682 (2.242)
Coalition <sub>t-1</sub>	2.324*** (0.502)	2.048*** (0.493)	2.000*** (0.486)	2.051*** (0.486)
Caretaker/Technocratic Government <sub>t-1</sub>	2.669*** (0.991)	2.289** (0.986)	2.260** (0.980)	2.051** (0.975)
Countries	27	27	27	27
Time Frame (Years)	10-15	10-15	10-15	10-15
Observations	396	396	396	396
R <sup>2</sup>	0.372	0.376	0.388	0.389
Adjusted R <sup>2</sup>	0.347	0.351	0.364	0.365
F Statistic	224.399***	228.032***	240.338***	240.934***

**Note:** †p<0.1; \*\*p<0.05; \*\*\*p<0.01

## Conclusion

Income inequality and redistribution through the state are and will remain interesting topics to be studied by economists and political scientists and to be argued about by politicians and the general public. Based on elements of the Selectorate Theory and Rational Choice expectations, I have argued that a higher expenditure and more left-wing parties are more likely to redistribute more. The empirical analysis of this paper has shown that in the case of the 27 EU countries in the time frame of 2006-2020, certain variables do influence the redistribution through the state. While it seems that political ideology does not influence redistribution, states with higher expenditures do redistribute more.

To directly answer my research question, the political ideology of the government does not appear to influence the redistributive power of the state. On the other hand, the size of the expenditure does directly impact redistribution, with higher expenditure producing more redistribution.

Equal access to political power, a higher percentage of tertiary education, greater unemployment, a bigger dependency ratio, and more trade increase the redistribution. From a political point of view, only coalition or caretaker/technocratic governments

seem to redistribute more. Sudden changes in expenditure, corruption, and GDP per capita did not produce significant results, so they seem to not have an influence on redistribution.

My research results do have some limitations. As mentioned in the discussion section, I do not check for the power of labour unions and their impact on redistribution through spending. The sample selection allows me to reach conclusions for the member states of the European Union. Even though these countries are diverse and thus allow for the needed variance, there is still the dilemma of whether my results can be generalised for all countries. EU countries are comparatively wealthy and democratic, so the reality might look different in regions with different socioeconomic and political conditions.

The discussion of the results also raised a couple of points that are relevant for further research: The insight that access to political power, and not the ideology of the governing party, has an impact on redistribution is a topic that could be studied in more detail and could provide more insight into the question of whether parties are loyal to their ideology and to their core voters once in power. The discussion raised new questions about the ways education and trade openness help redistribution, and there is a need for explanatory theories. Finally, the reason why caretaker and technocratic governments redistribute more is probably the most interesting insight that needs further theoretical, qualitative, and quantitative research.

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