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**THE EFFECT OF GOVERNMENT IDEOLOGY ON SOCIAL ECONOMIC
POLICY**

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Dedications

This thesis is dedicated to the memory of my late best friend Irene Tsiolaki who always supported and believed in me. Her dedication to academic excellence and perseverance inspired me and taught me to fight for my dreams.



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1. Introduction

The impact of party ideology on policy making is a topic that has been discussed and investigated by many authors. Political parties adopt different policies which are shaped indirectly by the preferences of the voters. Therefore, each party readjust its policy platforms in order to satisfy its clientele. One strand of this literature examines the effect of political ideology, of a governing party, on the fiscal policy of the state. On the one hand, the literature focuses on the effect political ideology has on the tax structure. In general, the findings show that, in contrast with right-wing parties, left-wing parties prefer to tax capital income and no labor income, *ceteris paribus*, as the majority of its clientele is composed of voters with labor income. Left-wing parties are also associated with fewer consumption taxes as they look after the interest of the households with low income (Angelopoulos et al., 2012; Stein and Caro, 2017; Steinmo, 2004; Osterloh and Debus, 2012; and others). Angelopoulos et al. (2012) argue that political ideology has an impact on the income and consumption tax rates for OECD economies. More specifically, they find that left-wing governments tend to tax capital income more than labor income as they expect that capital income will be higher in the higher income groups which will lead progressively to an increase for everyone. In addition, they show that left-wing parties tend to increase consumption taxes in order to create a fiscal illusion and attract more voters. On the other hand, there are studies which focus on the relationship between government ideology and social spending (Potrafke, 2010; Herwatz and Theilen, 2019; Tavares, 2004; Ferreira and Gyourko, 2007; Van Dalen and Swank, 1996; and many more). Herwatz and Theilen (2019) examines the effect of ideology on public spending for 21 OECD economies between 1980 and 2013. Ferreira and Gyourko (2007) examines the same relationship but for the local level in the United States. All the above authors have found that the ideology has no influence or a very weak one on public expenditure. Tavares (2004) show that right-wing governments are associated with larger spending cuts for the period 1960-1995 and for 19 OECD countries. Van Dalen and Swank (1996) show that left-wing governments spend more on health care and social security and that right-wing governments spend more on infrastructure and defense.

In this master's thesis I examine the effect of government ideology on public spending in kind and in money, using a dataset composed of 31 OECD and 5 non- OECD economies for the period 1960-2019. My main result is that the government ideology



has a statistically significant impact on public expenditure. In detail, according to the effect of ideology proxies on social expenditures in money, I have found that the right-wing governments have a negative impact on social expenditures in money. With regard to social expenditures in kind, I have found that there is a positive correlation between left-wing governments and public spending in money.

First, I discuss the determinants of social spending which are distinguished based on an economic, demographic and political view. Then I present the relevant literature which examines the relationship between ideology and social spending in general as well as, in concrete policy areas such as education, health and unemployment. I continue by describing the data, the methodology and the model I use. In the end, I discuss the results from the above-mentioned econometric analysis.



2. Literature Review

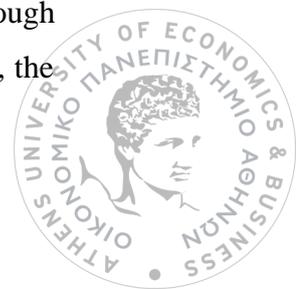
2.1 Social Spending Determinants

Many authors have examined the various determinants of social spending. This field of studies began to grow after the late 1970s and continue till now. There are various determinants of social spending, that can be divided into more concrete groups. In order to understand each one of them better, I have separated them into three groups as following: “Economic determinants of social spending”, “Demographic determinants of social spending” and “Political determinants of social spending”. The economic determinants of social spending include globalization/openness, receipt, debt and unemployment. The demographic determinants of social spending include the number of young and ageing population. Finally, regime and ideology seem to affect social spending, so they constitute the political determinants of social spending. In the next paragraphs I am going to present each one of these categories in detail.

2.1.1 Economic determinants of social spending

From an economic perspective, globalization has been for many authors one of the main determinants of social spending (Kaufman and Segura-Ubiergo (2001); Avelino et al., (2005); Dreher et al., (2008); Leibrecht et al., (2011)). Although, there are different aspects concerning the impact of globalisation on social spending, a number of research studies argue there is a positive relationship among globalisation and social spending while some others don't. (Garrett (1998); Garrett and Nickerson (2001) and others). From another point of view, globalisation influences the governments decisions concerning the entrance in international markets. These decisions usually imply a growth of social expenditures in order to make employees more productive and prevent or face the risks that could occur.

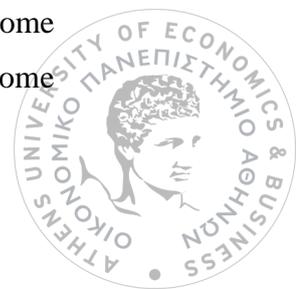
Specifically, Kaufman and Segura-Ubiergo (2001) argue that an increase in international competition has as an outcome “social dislocation, uncertainty and unequal distributive effects”. Must not be forget that the human capital is one of the most important productive factors, fact that puts a pressure on entrepreneurs to educate their workers and consequently improve their productivity and be more competitive. In this situation, governments could examine the advantage of expanding social spending in order to avert political instability through the spreading of the risks associated with growing economic openness. Moreover, the



businesses participating in this economic expansion, receiving direct investments from other countries theoretically would appreciate the support offered by their government through social spending and more specifically, the support that comes through the improved education and health standards, Gorg et al. (2009).

It should be mentioned also that a positive relationship between openness and public spending has been demonstrated in several studies. (Hicks and Swank (1992); Huber et al. (1993); Quinn (1997); Bernauer and Achini (2000); Swank (2001); Balle and Vaidya (2002); Bretschger and Hettich (20002) as cited by Gemmell et el. (2008)). Kaufman and Segura-Ubiergo (2001) come to confirm this theory through an argumentation about the impact openness has on health and education spending. They also indicate the negative impact of openness on the various types of social expenditures. Although, there is a plethora of studies supporting the previous relationships there is another strand of literature presenting different results. For example, Avelino et al. (2005) do find a positive relationship between openness and education/health but they also find that openness has a negative impact on social security. Garrett and Mitchell (2001) by examining 18 OECD countries also find a negative relationship between openness and security spending. Dreher (2006) by studying 30 OECD countries, concludes that the openness of the economy does not have an impact neither on government spending nor on social expenditures. Wibbels (2006) have demonstrated that the negative relationship between openness and social spending especially in emergent nations has to do with their position in worldwide markets. This is mostly due to the highly volatile nature of primary product prices which causes quick shifts in business cycles in developing countries. During times of crisis and production shocks, volatility prevents governments from accessing money from international markets, limiting their spending capacity.

Public sector income has received less attention as a determinant of social expenditure. Few empirical research studies have examined income limitations as a factor influencing social spending (Garett (1998); Kato (2003); Lindert (2004); Haggard and Kaufman (2004)). Especially, Haggard and Kaufman (2004) have argued that the reason behind low social spending during the 1980s and 1990s in Latin America could be the incapacity in collecting taxes. Aldunate and Martner (2006), come to reinforce this statement by arguing that the low tax burden is being noticed in the majority of the countries of the region. If we think about the relationship between government income and social spending it is pretty much obvious that when a government has lower income



and higher social services responsibilities, is more probable to encounter problems with respect to the social expenditures even when beneficiaries put an intense pressure on it. According to Gupta (1967) and Nomura (1991,1995) revenue collection increases in lockstep with economic growth. Burgess and Stern (1993), Tanzi and Zee (2000), Fox and Gurley (2005) have found that income through taxation has a positive impact on GDP per capita. This comes to confirm Wagner's law of increasing state activity Bird (1971) which support that government operations and a country's economic development over time grow together by increasing public spending in order to meet social demands. As a result, the fiscal burden as well as its relationship with GDP per capita and its increase may help to understand the dynamics of social spending.

The existence of public debt or not constitutes another economic determinant that is associated with the fiscal burden which has an impact on public expenditures. According to Lora and Olivera (2007) and Lora (2009) social spending is found to be affected by public debt and especially by the level of debt and especially whether interest payments are high or not. If we examine the case of Latin American countries, we will find out that the relationship mentioned above gets stronger, implying a limited spending on social security, education and healthcare policies (Hunter and Brown (2000); Dion (2006)). Notably, Latin American countries' non-compliance with debt servicing, according to Lora and Olivera (2007), can increase social expenditure in the short run. In a subsequent study, Lora (2009) contradicts the previous observation again for Latin America apart from countries with high debts.

One more economic determinant of public spending worth mentioning, due to the large volume of studies examining it, is unemployment. An increase in unemployment is possible to lead to a growth of social expenditure. (Snyder and Yackovlev (2000); Kittel and Obinger (2003); Avelino et al. (2005)). Despite the fact that there are not many unemployment programs in Latin America, Avelino et al. (2005) argue that a positive correlation between unemployment and social expenditures exists, due to governments efforts to overcome the bad consequences of the multiple crisis and to encourage the creation of new jobs. Moreover, a bigger number of unemployed persons in a municipality increases the demand for various public goods, such as health care or social support and this corresponds to a higher spending in general. Balmas (2015) underlines the positive relationship of unemployment to the public spending and especially in education spending. A main reason behind the difficulty of finding a job is the lack of professional qualifications. This kind of unemployed people tend to



participate in additional training in order to increase their chances of getting a job or even change their professional orientation. Therefore, an increase in unemployment may cause a growth of education expenditures.

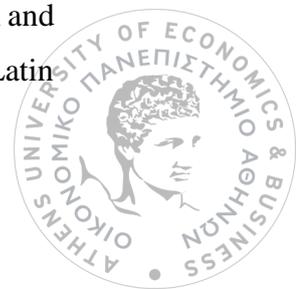
2.1.2 Demographic determinants of social spending

The demographic structure of a country plays a significant role when it comes to the social spending determinants. In general, demographics are divided in the ageing population and the young population. Consequently, I will present the research which trying to examine the effect these two subcategories of demographics on social expenditures. Lindert (1994, 1996) examines the impact of ageing population, and especially of population aged over 65, on the social spending in OECD countries. His findings verify the existence of a strong positive relationship between the ageing population and the social spending. More precisely, he argues that an increase in the size of the population aged over 65 leads to an increase on pensions. When it comes to education spending, he finds that a negative relationship exists.

Gonzalez-Eiras et al. (2007) argue that the United States demographic shift to an aging society resulted in a redistribution of social expenditures from productive public education to transfers between old and new generations that are not productive. On the contrary, they notice an increase on education spending and health spending when there is a high percentage of young population, specifically children under 15, and a decrease on social security spending. Huber et al. (2008) come to an agreement with this argumentation and point out that in Latin American and Caribbean countries, health spending increasees comes hand to hand with a large young population, while in developed countries it increases with a large elderly population.

2.1.3 Political determinants of social spending

Another question is, whether authoritarian or democratic regimes influence differently social expenditures. A significant number of studies demonstrate that democratic regimes are associated with higher social expenditures as a result, of higher election risks. Avelino et al. (2005) argue that countries in transition towards democracy are more likely to spend more, especially for the poor, since they are considered to have more strength when it comes to voting power. Again, when we examine each one of the social spending categories where different results occur. For example, Kaufman and Segura-Ubiergo (2001) as well as Avelino et al. (2005) argue that, in the case of Latin



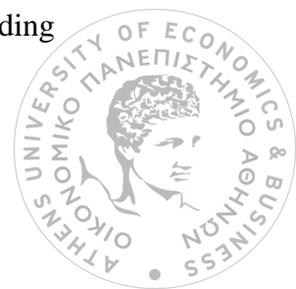
America education is affected positively by democracy due to two reasons. First, governments are attempting to gain more voters by implementing effective educational programs and second, the large number of young people which makes the government to spend more on education. However, Avelino et al. (2005) don't find any positive relationship between democracy and health/social security spending. Huber et al. (2008) argue that demographic regimes have a positive effect on security, health and education spending independent from the ideology of the government. On the contrary, authoritarian governments have a negative impact on health and education spending but this does not hold for security and welfare spending. The median voter theorem (Boix (1998); Dion (2006)) comes to clarify this difference. Democratic regimes have larger social expenditures, as they take in to consideration the entire population when they are making decisions and as the median's voter income is lower expenditures are higher, compared with authoritarian regimes, which have the power, due to the lack of "veto points" Immergut (1990) or "veto players" Tsebelis (2002), to make more drastic decisions on social spending since they do not face any oppositions on proposed political reforms, in contrast with to other political systems.

To sum up, I have discussed the most important determinants of social spending, from an economic, demographic and political view, as they appear in the literature. On the following section I am going to focus on one of the most prominent and debated political determinants of social expenditure, ideology. In detail, I will present the relevant literature for the effect of ideology on social spending, education, healthcare policies and unemployment.

2.2 Social Spending and Ideology

Many studies have examined the relationship between government ideology and public spending. The literature has focused especially on the difference between left-wing and right-wing governments policies which are likely to be influenced by ideological prepossession. More specifically, there is a stream of papers examining the impact of cabinet political inclination on total public spending.

Herwartz and Theilen (2015) pose the question of whether ideology has an impact on public expenditure. In order to answer this question, they use a data set of 21 OECD economies between 1980 and 2013. In contrary with other relevant studies, they distinct public expenditure in two subcategories: social spending and non – social spending



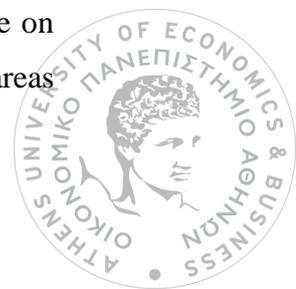
which includes for example education, infrastructure, security and administration. The results show that there is hardly a relationship between ideology and public spending. They also find that other factors influence public expenditures for example both left-wing and right wing-governments increase their public expenditure before the elections.

Budge and Hofferbert (1990) study the relationship between party programs in the United States, more specifically between Republicans and Democrats, and the government spending. They find that there is a positive relationship between them which is based on moral reasons but also due to the fear of the elected government to not be reelected at the next election. King and Laver (1993) re-examine the study of Budge and Hofferbert (1990). They show, without any modification to the original data, found that the estimates of Budge and Hofferbert (1990) do not hold for almost all the policy areas they examine. More specifically, only in four policy areas they have statistically significant findings, with defense policy being the most noticeable budget component that Democrats spend 15 times more in comparison to Republicans.

Beland and Oloomi (2015) using data from 1960 to 2012 investigate if there is any relationship between party affiliation and distributive budgetary decisions over various sectors such as education, health, public safety, social welfare and everything else together in one group. Like many other authors, they also examine the effect of government ideology on public spending, specifically between Democratic and Republican governors in the US. Their results show that Democrats spend more on education and health than Republicans. In addition, they find that both parties do not have discrepancies on budgetary amounts on social welfare. Finally, they present that on every other sector Republicans tend to spend more.

Tavares (2004) examines the impact of cabinet ideology on the adjustments made by left-wing and right-wing governments, using a dataset of 19 OECD countries from 1960 to 1995. Concerning public spending, Tavares uses a different variable than those we have seen until now: down cuts of public spending and not with its respective growth. The results he presents show that right-wing governments tend to perform larger spending cuts than left-wing governments.

Van Dalen and Swank (1996) focus their study on the impact of partisanship on government expenditure, however, in this case the study concentrates specifically in the Netherlands. The question remains the same, is there any recognizable difference on the public spending policy of right-wing and left-wing governments. The policy areas



of public expenditure that they examine are defense, infrastructure, public administration, health care, education and social security transfers. Their results show that expenditures on health care and social security transfers are higher under left-wing governments while expenditures on infrastructure and defense are higher under right-wing governments. When it comes to education the authors argue that the results are insignificant, and that the ideology does not have an impact on educational spending since both left-wing governments spend on education in order to achieve income distribution and right-wing governments invest on education in order to upgrade their human resources and achieve economic growth. They also indicate that there is a noticeable cyclical pattern of growth of public expenditures before the elections.

Ferreira and Gyourko (2007) by exploiting a dataset on mayoral elections, they tried to examine the impact of political partisanship at the local level in the United States. More specifically they try to estimate whether there is an effect of a mayor being Democratic or Republican on local policy outcomes such as the size of local government, the composition of local public expenditures and the crime rate. Concerning our variable of interest (the local public spending), they find that the political partisanship has no influence on it.

Finally, Magkonis, Logothetis and Zekente (2019) focus their study on the relationship between ideology and public spending in OECD economies by meta analyzing a data set of 800 estimates from papers published between 1992 and 2018. They conclude that in general the ideology has an impact on public spending. In more detail, they find that the left-wing governments spend more than the right-wing governments with respect to public spending. They also argue that the government spending categories play a significant role by demonstrating that even if left-wing governments spend more in public spending, they tend to spend less for other purposes such as military.

We have already present that a plethora of studies have examined the relationship between ideology and public spending. However, there are observable differences when we allow for a partition of the total public spending in concrete policy areas. These areas might be education, health, unemployment, housing, defense, old age and others. In this master's thesis apart from total public spending, I will present the literature of the first three policy areas namely: education, health, unemployment because in my opinion these are of a high interest due to the attention they get from policy makers and the media.



2.2.1 Education

Castles (1982) finds a positive relationship between public education spending and left-wing parties, by saying that “The right spend less, the social democrats are more generous” (Castles 1982). He argues that this positive relationship is affected by the weakness of the right-wing parties and not by the strength of the left-wing parties. The same argumentation is present in other authors’ works such as Schmidt (1996) and Hicks and Swank (1984). Even though there are various studies (Esping-Andersen (1985); Huber and Stephens (2001)) who claim the opposite e.g that the strength of the left is the driving force behind this discrepancy and more specifically, the strength of social democratic parties and the labor unions. Hibbs (1977) comes to explain the discrepancy appearing in education spending between left-wing and right-wing parties, by arguing that the electoral base of each party plays a significant role. He argues that the electoral base of the left-wing parties is the lower income classes; their goal is to accomplish redistribution through social policies and even more through education. On the other hand, the electoral base of right-wing parties is the middle- and upper-income classes; their goal is to create higher educational institutions. Although, since a large body of literature argues that Christian Democrats have greater social spending this comes as a contradiction with the statement of Castles (1982) that the right spends less. The best strategy in order to study the impact of partisanship on spending is to distinguish the government in a plurality of party families and not in a tight left-right spectrum (Schmidt 1996). Many studies come to confirm Schmidt’s strategy. It is already mentioned how convoluted is the division to left-right regarding the Christian Democratic parties, even though they are considered as right-wing in many terms. The same holds for liberal parties, as they can lean both to left and right according to which branch of liberal parties they belong. Specifically, social democrats despite the fact they are considered to be to the left spectrum seem to spend more on education than other left-wing parties (Ansell 2010; Busemeyer 2006,2009; Busemeyer et al.2013).

Busemeyer (2007) focuses his study on analyzing the determinants of public education spending in 21 OECD democracies, between the years 1980 and 2001, and more particular in re-analyzing the model presented by Castles (1982). At first glance, his results about the partisan factors come to an agreement with those of Castles (1982), by showing a negative relationship between right-wing parties and public education spending. However, through the splitting of the sample into sub -periods he argues that the impact of rightist parties on education spending remains negative, but it is not

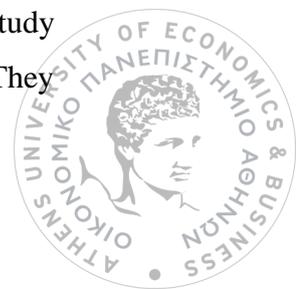


statistically significant. The same holds for social democratic parties also, as they don't have an impact on public education spending. Hence, he concludes that partisan effects, the participation of conservative parties, had an impact on public education spending only for the sub-period of 1980s.

Garrizmann and Seng (2016) using data for 21 democracies between 1995 and 2010 they discuss the party influence on total education spending from left-right dichotomies to party family approaches as mentioned before. Due to lack of data, they focused their study on the period after 1995. In contrast with widely accepted theories, that parties did have an impact on education system during the post-war decades, Garrizmann and Seng question the literature's common finding and show that government composition does not have an effect on public education spending through the years 1995-2010 for which they have available data. They also mention that apart from partisanship, another interesting relation that could be studied is the effect of party competition on education spending and in spending generally. For example, Jensen (2010) have shown that right-wing countries, with predominant left-wing parties, spend more than right-wing parties and, surprisingly, more than left-wing parties too.

Potrafke (2010) analyze the effect of ideology on public expenditures in OECD countries based on two different datasets. The first dataset given by Sanz and Velazquez (2007) between the years 1970 and 1997 and the second is an OECD dataset between the years 1990 and 2006. In general, the results show a weak impact of government on public expenditure. Regarding the effect of government ideology on education spending the author argues that left-wing parties spend more on education through the period 1990-2006 in order to oriented toward all societal groups. He also argues that globalization could play significant role especially in the case of left-wing governments which is known that they aim to direct income redistribution. Since direct income redistribution is not achievable equality of opportunity has become the mean to achieve it. Specifically, left-wing parties apart from helping lower-class voters to reduce inequality they spend more on education in order to attract middle-class voters who, due to the fact they belong to the working class they are in need of full-time childcare and university education. On the other hand, right-wing parties tend to spend on education only if they are convinced that this is going to lead to higher tax revenues and lower social transfers in the long term.

Bischoff and Hauschildt (2020) in contrast with the previous authors focus their study on the relationship between ideology and the spending to vocational education. They

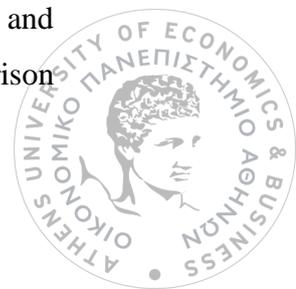


analyze the government expenditures on 301 West-German vocational schools during the period of 2002 and 2013. First of all, they analyze the usefulness of the vocational school and how political ideology shapes the expenditures for them. Regarding to working class, the traditional clientele of left-wing parties, a studentship on a vocational school comes with a lot of benefits. The students have more increased wages, potential mobility, employment perspectives and better bargaining position when it comes to negotiate for a contract. On the other hand, vocational schools favor the clientele of right-wing parties as they contribute to existence of a more productive employees and in extension the productivity of local firms which results in higher profits and stronger position on international markets. Bischoff and Hauschildt test three hypotheses. Hypothesis H1 controls if the expenditures on vocational schools are higher in election years, hypothesis H2 controls if the majority of Social Democrats in the county council leads to more spending on vocation schools and the hypothesis H2A controls if the more Christian Conservatives are in the county council the more a county spends on vocational schools. The results show that during the election years the ideology has not an impact on vocational education expenditures as both Social Democrats and Christian Conservatives spend more which supports hypothesis H1. With reference to party ideology, they find that Social Democrats spend less on vocational education, which reject hypothesis H2, while Christian Conservatives spend more, which support hypothesis H2A.

2.2.2 Health

Apart from education another sector that is crucial for public expenditure is the health care services. Health spending and specifically the public health spending is of high importance because constitute the only mean to improve a population's health. Due to its high importance many researchers started to examine the determinants of it in order to understand the structure of health policies (Tandon, Fleisher, Li, and Yap, 2014; Braendle and Colombier, 2016; and others). A number of researchers have pointed the significant role of political factors in the procedure of financing and delivering social services to citizens and especially of health services. For example, Gregorio and Gregorio (2013) have argued that the health spending is associated with political factors.

A first considerable political factor is the regime type. According to Besley and Kudamatsu (2006) democracies tend to spend more resources on health in comparison



with autocracies since they impose policies of redistribution. Acemoglu and Robinson (2006) argue that democracy is a regime that benefits most of the population. On the other hand, nondemocracy is a regime that benefits a minority of the population and more specifically the elite and the privileged. Even though there is a large number of authors who study the relationship between political regime and health spending, there is a substantial number of studies which have focused on the ideology of the government. Joshi and Yu (2014) argue that for low-income countries it is not the political regime that affects public health spending but political pressure of lower classes and ideology of political leaders. Immergut (1992) studies the effect of politics on health policies and comes up with the conclusion that: “National health insurance symbolizes the great divide between liberalism and socialism, between the free market and the planned economy.... Political parties look to national health insurance programs as a vivid expression of their distinctive ideological profiles and as an effective means of getting votes...National health insurance, in sum, is a highly politicized issue” (Immergut 1992). Therefore, it is of high interest the examination of the effect of government partisanship on public health expenditures.

Potrafke (2010) study the impact of government ideology and electoral motives on public health spending. He is using data provided by the OECD Health Data Base (2007) for 18 countries between the years 1971 and 2004. His findings show that the government ideology did not have an impact on the public health spending during the period tested even though he expected a positive relationship. He argues that neither coalition governments influence the growth of public health care expenditures. The only positive relationship that exists is between the election years and the growth of public health spending, since before the elections both left-wing and right-wing parties want to gather more voters. Potrafke (2010) also refers to demographic change as a factor that will have a distinct influence on health policies in the future. As it is well documented (Lutz et al. (2008); Rechel et al. (2013); Hess et al. (2017); and others) the population of earth gets older and older with the passing of time. In detail, demographic data from the OECD show that the number of older citizens is bigger than the number of the young citizens. As a result, the people who are in need to receive benefits from the public health system are more in comparison with the people who contribute to it. This change will also lead to a change of the policy platforms of both left-wing and right-wing parties which will pose the question if this change will be different and influenced by the ideology of each party.

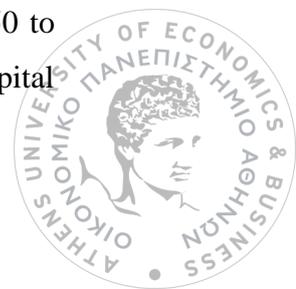


Reeves, McKee, Basu and Stuckler (2013) study the various patterns of health spending for 27 European countries during the period of 1995 to 2011. They argue that the ideology of the government has an influence on the budget. In detail, through recession periods we notice that the left-wing parties tend to increase government spending and consequently health care spending. On the other hand, right-wing governments tend to cut spending which leads to cuts on health system spending. Therefore, cuts on healthcare spending during recession are associated with right-wing governments. Concerning the “party hypothesis” of Reeves et al. (2013), the authors observe that the ideology of the governing parties, neither the right-wing oriented nor the left-wing, is associated positively with reduction on healthcare expenditure.

Aitalieva and Park (2018) analyze the role of government in the health spending, since it seems to be affected by the party that governs public administration, specifically in the period they analyzed, the administration of Trump, and the Congress which in this period was controlled by Republicans. The question they come up with is if the political trust and ideology influence differently the health care expenditures; I am going to present the results only for the ideology. The authors focus their study toward the government expenditures on health care in the United States. In general, they argue that the partisanship has a strong impact on health expenditures and that the effect of ideology is the expected. In detail, they find that in the “political ideology scale” when we are moving from “extremely liberal” towards “extremely conservative” the conservatives don’t support government spending on health care. Between Democrats and Republicans, the results indicate that Republicans spend less on health care in comparison with Democrats.

An, Zhao and Zhou (2015) examine a panel of 21 OECD countries that cover the period 1980 and 2005 in order to investigate the determinants of aggregate health expenditure which include the variable of our interest, ideology. Their findings show that both ideology and other political variables, for example electoral motives, don’t influence aggregate health spending. This differentiation between aggregate and public health spending and the fact that political factors affect more the second one may have to do with the crowding out effect that has public health expenditure on private health expenditure.

Potrafke and Roesel (2020) study the impact of government ideology on the urban-rural gap in healthcare infrastructure for 10 West German states during the years 1950 to 2014. They argue that ideology does not have an impact on the scope of hospital



infrastructure which means that both left-wing and right-wing governments provide hospitals with almost the same number of beds. When it comes to spatial distribution of hospital facilities the things change. The growth of hospitals in urban regions is not associated with left-wing governments. The authors also show that the share of beds in cities tends to increase under right-wing governments whereas in urban regions under left-wing governments. So, they conclude that the government ideology contributes to the urban-rural gap.

Herwartz and Theilen (2013) examine the impact of partisan ideology and electoral motives on public healthcare spending. They pose a hypothesis concerning ideology H1: If left-wing parties spend more on public healthcare than right-wing parties, *ceteris paribus*. The results indicate that the partisan ideology has a positive relationship on the evolution of healthcare expenditure both on short and long- run. They found clear evidence that left-wing parties spend more on public health care than right-wing parties, but this requires that the parties must be long enough in the office.

2.2.3 Unemployment

The final relation under examination is the effect of ideology on unemployment. There is a strand of empirical studies arguing that left-wing parties in Europe and Democratic party in the United States controlling government posts parties are positively associated with less unemployment than the right-wing parties and the Republicans. Hibbs (1977b) study the effect of political orientation of governments on unemployment for 12 nations in the Western Europe and the United States, specifically in North America. He found that for the Western Europe and the United States in the post war period the rate of unemployment was smaller under left-wing government in contrast with right-wing governments.

Beck (1982) re-examines Hibbs's (1977b) and he is testing the impact of government ideology and government administration on unemployment rate for the postwar period for the United States. The author argues that his findings are in accordance with the statement of Hibbs that the unemployment rate is lower under Democratic governments than under Republican, but he also states that these findings are less than half of Hibbs' estimates. Due to this result Beck proposes the examination of the effect of administration on unemployment, as it could be a better predictor than party ideology. His findings are very interesting. For example, Kennedy despite the fact that he was a Democrat he has the third worst effect on unemployment. Between the



Democrat presidents only Truman and Johnson reduced unemployment and therefore behaved according to what Hibbs (1977b) has described. As for other presidents such as Eisenhower and Nixon it is difficult to categorize them as Democrats or Republicans if the only criterion used is the unemployment rate. Hence, Beck (1982) imply that government ideology is not so accurate as a predictor.

Kelly and Witko (2014) examine if liberal state governments are associated with lower unemployment in the US between the years 1975 and 2010. The difference with other papers is that the authors are not testing at the national government level but at the state level. They argue that for leftish state governments it is more likely to want to behave like the national left governments aiming to reduce unemployment, but they face difficulties such as policy constraints. Low unemployment is correlated with liberal state governments, but this is happening only during periods of economic growth, due to the higher autonomy they enjoy in these periods.



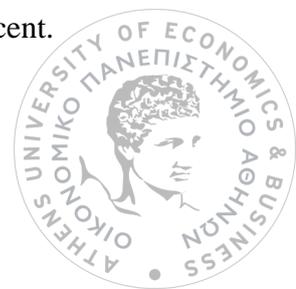
3. Data and Variables

The data set comprises annual data for 31 OECD economies, namely, Australia (AUS), Austria (AUT), Belgium (BEL), Canada (CAN), Czech Republic (CZE), Denmark (DNK), Estonia (EST), Finland (FIN), France (FRA), Germany (GER), Greece (GRC), Hungary (HUN), Iceland (ISL), Ireland (IRL), Italy (ITA), Japan (JPN), Latvia (LVA), Lithuania (LTU), Luxembourg (LUX), Netherlands (NLD), New Zealand (NZL), Norway (NOR), Poland (POL), Portugal (PRT), Slovak Republic (SVK), Slovenia (SVN), Spain (ESP), Sweden (SWE), Switzerland (CHE), United Kingdom (GBR) and the United States of America (USA) and 5 non – OECD countries Bulgaria (BGR), Croatia (HRV), Cyprus (CYP), Malta (MLT), Romania (ROU). Regarding the time dimension I am testing a period from 2000 to 2019. I have used data from the Comparative Political Data Set 1960-2019 Armingeon, Engler and Leemann (2021), the World Bank and the OECD.

From the Comparative Political Data Set I use data for the following variables. The general variables that I use are: “year” and “iso”. The variable “year” represent the year of observation. The variable “iso” is the international standard for country codes: ISO 3166-1 code (ALPHA-3) ISO country codes: AUS Australia, AUT Austria etc.

In order to measure the government composition, I use: “gov_right1”, “gov_cent1”, “gov_left1”, “gov_party”. “gov_right1”, “gov_cent1” and “gov_left1” measures cabinet posts of right-, left- and cent- wing parties respectively in percentage of total cabinet posts, weighted by the number of days in office in a given year.

“gov_party” measures the cabinet composition according to Schmidt-Index (1) hegemony of right-wing (and center) parties ($gov_left1=0$), (2) dominance of right-wing (and center) parties ($0 < gov_left1 \leq 33.33$), (3) balance of power between left and right ($33.33 < gov_left1 < 66.67$), (4) dominance of social-democratic and other left parties ($66.67 \leq gov_left1 < 100$), (5) hegemony of social-democratic and other left parties ($gov_left1=100$). Where the sum of ‘gov_left’, ‘gov_cent’ and ‘gov_right’ is not equal to 100 percent due to independents, the boundaries for the three groups were recalculated for the codes (2), (3) and (4) by taking the sum of the given entries as 100 percent. For example, Portugal 2005: $gov_right + gov_cent + gov_left = 61.12$. The total of 61.12 percent is the basis for the calculation of the new boundaries. $61.12/3 = 20.37$ is in this case the new boundary for the lower third, replacing 33.3 percent. $20.37*2 = 40.75$ would be the new boundary for the upper third, replacing 66.6 percent.



As $gov_left = 42.64$, which is a higher value than the boundary for the upper third ($=40.75$), a (4) was entered.

To measure the election year, I use the variable “year” which describes the date of election national parliament (lower house). (If there were two elections in a year, the date of the second is given).

The macroeconomic variables I use are “receipts”, “realgdp” and “debt”. Receipts represent the Total receipts (revenue) of general government as a percentage of GDP, “realgdp” the growth of real GDP, percent change from previous year and “debt” the gross general government debt (financial liabilities) as a percentage of GDP.

The openness of the economy is represented by “openc” which shows the openness of the economy, measured as a total trade (sum of import and export) as a percentage of GDP, in current prices. In order to measure the number of unemployment I use “unemp” which measures the unemployment rate as a percentage of civilian labour force. The variable “adjcov” is the Bargaining (or union) coverage, adjusted. OECD (2021: 23) defines it in the following way: “Number of employees covered by collective (wage) agreements in force as a proportion of all employees with the right to bargain defined as the proportion of employees who are not excluded from collective bargaining: $WCB/(WSEE - WStat)*100$. The public social expenditure and revenue data I have used are: “socexp_t_pmp” (Total public and mandatory private social expenditure as a percentage of GDP.), “socexp_c_pmp” (Public and mandatory private social expenditure in cash as a percentage of GDP.), “socexp_k_pmp” (Public and mandatory private social expenditure in kind as a percentage of GDP.), “health_pmp” (Total public and mandatory private expenditure on health as a percentage of GDP.) and “unemp_pmp” (Cash expenditure for unemployment benefits as a percentage of GDP (public and mandatory private.)). About educational expenditure and attainment, I use “educexp_gov” which is the General government expenditure on education (current, capital and transfers) as a percentage of GDP. It includes expenditure funded by transfers from international sources to government. General government usually refers to local, regional and central governments.

From the World Bank, I use the variables “WB_classif” and “realgdp”. The “WB_classif” describes the world bank analytical classification give in World Development indicators measured in GNI p.c.c. in US\$. The “realgdp” measures the real gross domestic product per capita on constant prices and constant ppp in OECD base price (2015).



The two OECD variables “children U16” and “elderly O65” measure the percent of total population under 15 and over 65 years old.

In the table below there are some descriptive statistics for the set of variables in our dataset, Table 1.

Table 1. Descriptive Statistics

Variables	Obs	Mean	Std. Dev.	Min	Max	p1	p99	Skew.	Kurt.
socexp_c_pmp	528	13.404	3.292	6.701	21.246	7.548	20.703	.211	2.221
socexp_k_pmp	528	8.53	2.299	4.069	15.879	4.28	14.865	.685	3.3
social_exp_total	528	21.935	4.101	11.972	31.63	12.773	30.868	.033	2.459
Debt	528	71.619	40.142	6.652	219.625	8.259	206.287	1.041	4.277
receipts	528	42.561	7.066	26.13	59.208	29.367	57.489	.228	2.272
Openc	528	97.533	60.195	19.798	408.362	22.477	343.562	2.128	9.5
unemp	528	7.642	4.156	2.1	27.5	2.4	24.5	1.977	7.942
adjcov	375	61.259	30.729	11.7	100	12.3	100	-.21	1.468
gov_party	527	2.408	1.442	1	5	1	5	.586	1.977
gov_cent1	528	19.367	28.447	0	100	0	100	1.47	4.099
gov_right1	528	42.899	36.726	0	100	0	100	.215	1.63
gov_left1	528	33.023	35.607	0	100	0	100	.682	2.081
realgdpgr	528	2.186	2.956	-	25.304	-7.082	9.311	.037	12.771
				14.066					
childrenU15	528	16.932	2.33	12.306	23.283	12.977	22.606	.432	2.398
elderlyO65	528	16.188	2.84	10.764	27.743	11.104	24.148	.504	3.684

Figure 3.1 Time series of social expenditure in money for each country.

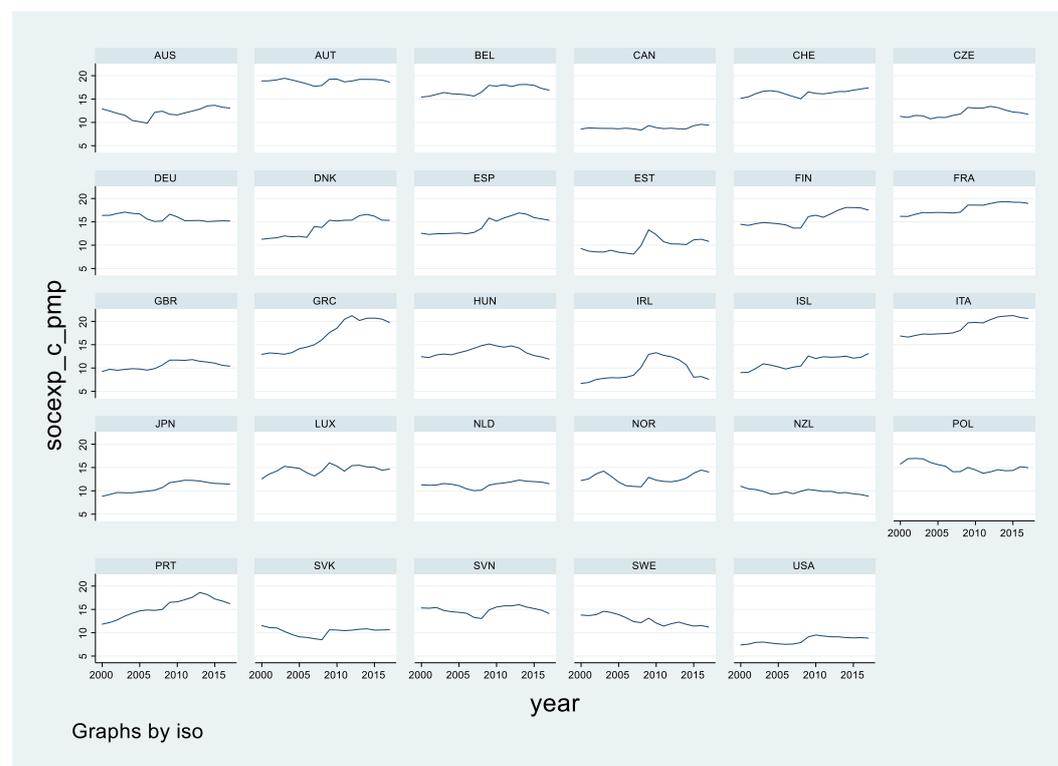
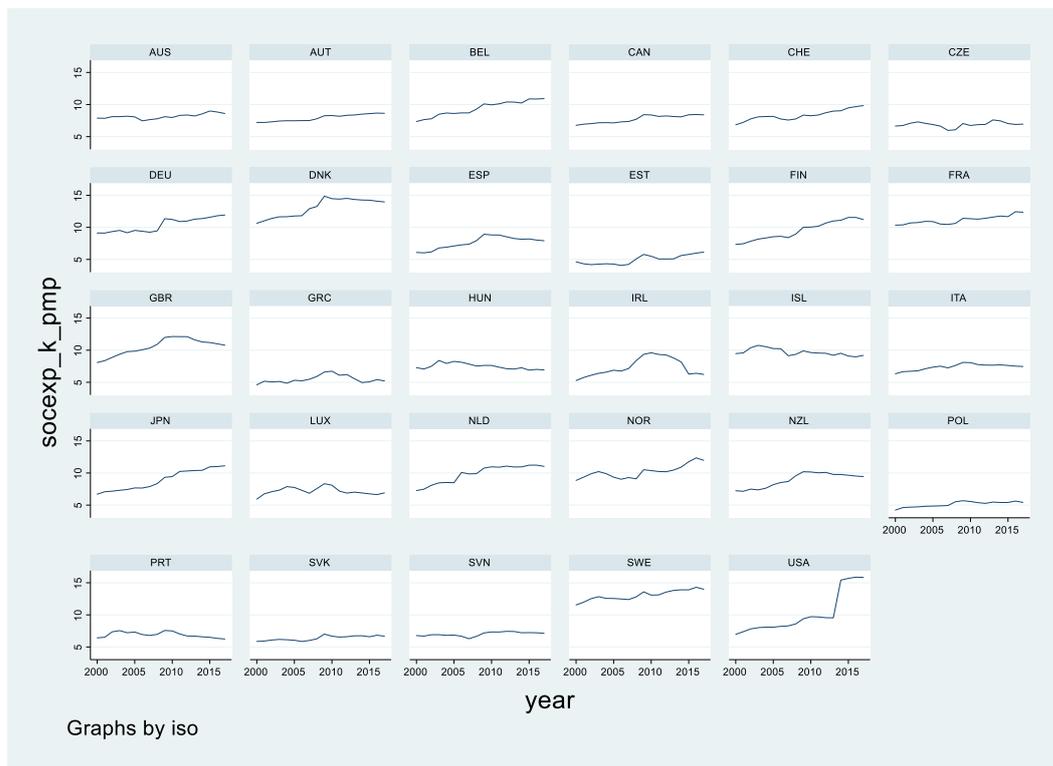


Figure 3.2 Time series of social expenditure in money for each country.



4. Primary Analysis

Figure 4.1.1

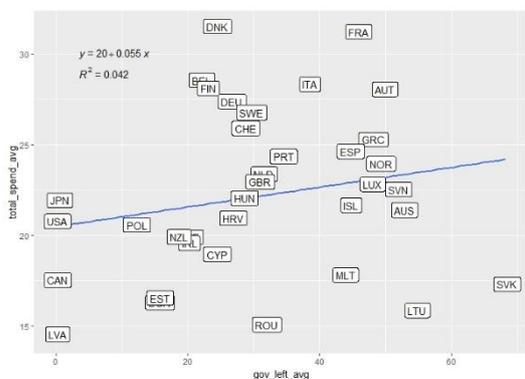


Figure 4.1.2

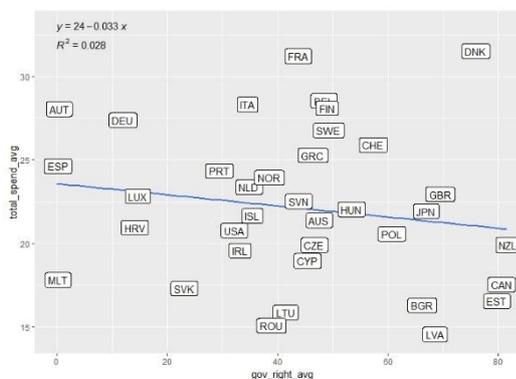
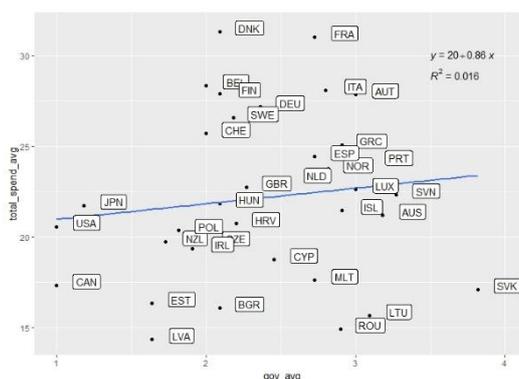


Figure 4.1.3



Both Figure 4.1.1 and Figure 4.1.3 show a slight positive correlation among left wing governments and total public spending variables. This confirms the results of Iversen (2001), Kittel and Obinger (2003), Potrafke (2009), Herwartz and Theilen (2014) that have shown that left-wing parties have only a muted effect on social expenditure. Many authors, (Hibbs (1977),(1987), Cameron (1978), Alesina (1987), Cusack (1997), De Donder and Hindriks (2007,) Pickering and Rockey (2011)), argue that right-wing parties tend to reduce public spending, Figure 4.1.2 comes to verify this.



Figure 4.2.1

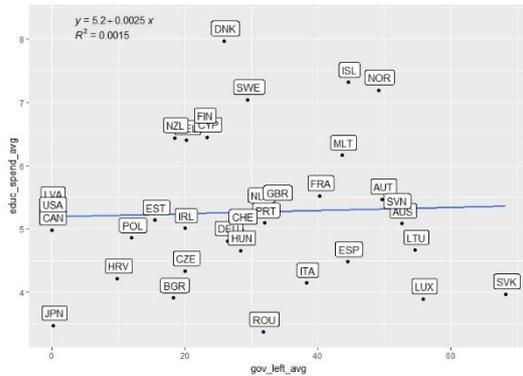


Figure 4.2.2

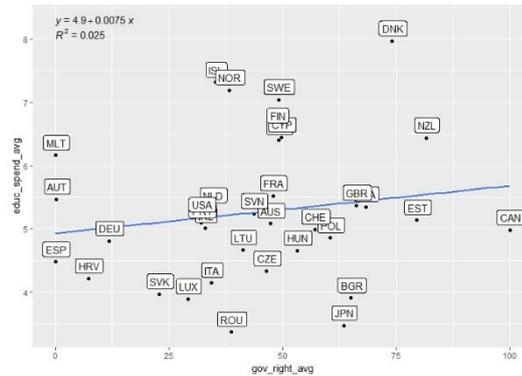
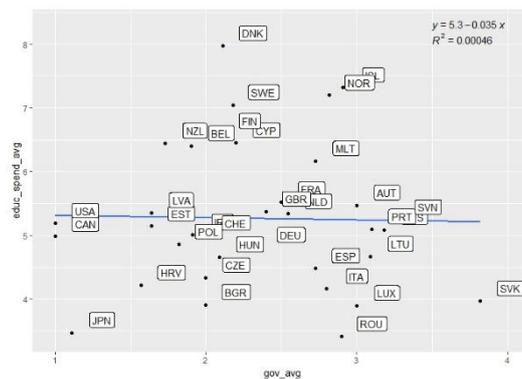


Figure 4.2.3



According to Figure 4.2.3 there is no correlation between these two variables. Furthermore, according to Figure 4.2.1 there is a marginal negative relationship among left-wing parties and education spending. This comes to direct contradiction with authors who have found that left-wing parties increase education expenditure (Boix (1998), Bussemeyer (2007), Castles (1982); Hegu and Hokenmaier (2002); Iversen and Stephens (2008); Potrafke (2010) Schmidt (2002)). Figure 4.2.2 show a slight positive correlation among right-wing parties and education expenditure which confirms the findings of Ansell (2008), (2010) and Raugh et al. (2011).



Figure 4.3.1

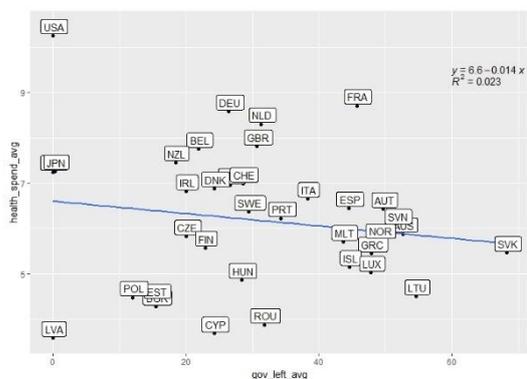


Figure 4.3.2

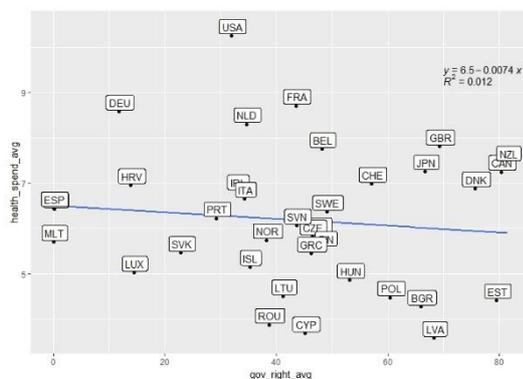
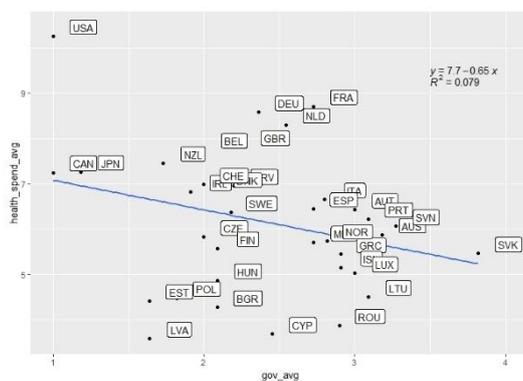


Figure 4.3.3



All figures (Figure 4.3.1, Figure 4.3.2 and Figure 4.3.3) do not verify the results of previous studies (Aitalieva and Park (2018); Herwartz and Theilen (2013)) which have shown a positive relationship between left-wing parties and health expenditure and confirms the results of Potrafke and Roesel (2020), An Zhao and Zhou (2016) and Reeves et al. (2013). Second, a peculiar contradiction is observed among Figure 4.3.1 and Figure 4.3.2. When the health spending is plotted on the percentage of right ministers in a government a marginal negative relationship arises. However, when health spending is plotted on government composition (as given by Schmidt (1996)) a negative relationship among left-wing parties and health expenditure arises also.



Figure 4.4.1

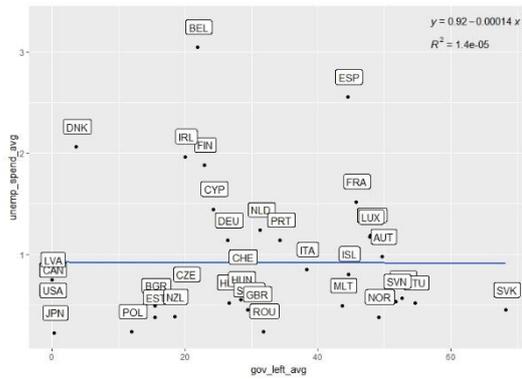


Figure 4.4.2

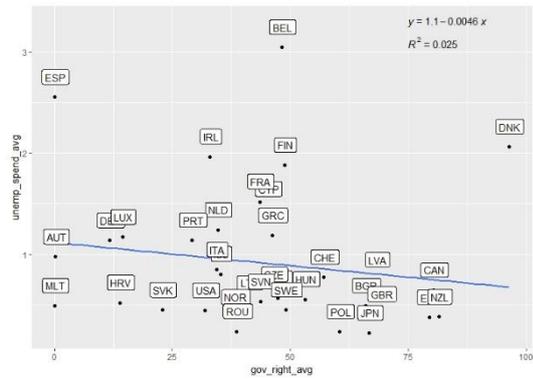
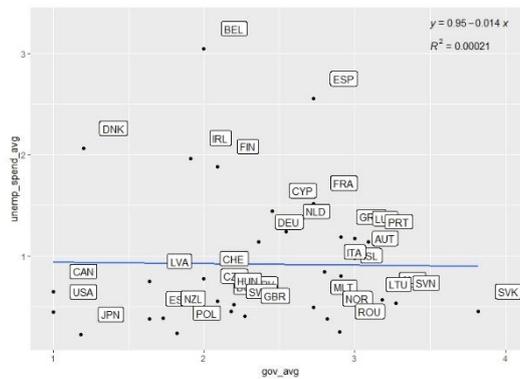


Figure 4.4.3



Figures 4.4.1 and 4.4.3 show that there is no correlation between ideology and unemployment. This doesn't verify the results of previous authors Hibbs (1977b) and Kelly and Witko (2014) which argue that ideology has an impact on unemployment and specifically, that left-wing parties are associated with a smaller rate of unemployment than right-wing parties. However, Figure 4.4.2 exposes a negative relationship among the percentage of right-wing ministers in a government and unemployment benefits.



5. Methodology

5.1 Model Specification

In this work, the methodology employed aims at tackling the primary research question of this thesis i.e. *How ideology affects the two complementary parts of social spending in a selected panel of world economies?*

In order to empirically tackle this research question, we will employ two panel data models that are described by the following equation:

$$Y_{i,t} = a_{0,i} + BX_{i,t} + \Gamma D_{i,t} + a_1 Ideology_{i,t} + \varepsilon_{i,t}$$

where: $i=1, \dots, N$ denotes the number of economies that enter in our investigation; $t \in T$ denotes the time of our time series, $Y_{i,t} = \{Social_{spending}_{m_{i,t}}, Social_{spending}_{k_{i,t}}\}$ is a 2x1 vector which consists of the two complementary expressions of social spending i.e., social spending in money and social spending in kind are the dependent variables of our analysis ; $X_{i,t} = \{GDP_{i,t}, GDP_{growth\ rate}_{i,t}, Debt_{i,t}, Revenues_{i,t}, unemployment_{i,t}, openness_{i,t}, bargaining_{power}_{i,t}, Elderly_{i,t}, Children_{i,t}\}$ is a 1x9 vector of control variables, based on the relevant literature whereas B is the vector of the respective coefficients that need to be estimated ; $D_{i,t} = \{Crisis_{i,t}; EMU_{i,t}; Elections_{i,t}; Income_{i,t}\}$ is a 4x1 vector of Dummy variables that capture the global financial crisis of 2007, the participation in the EMU, the year of Elections and the Income categorization respectively in each economy, working as fixed effects in our model, whereas Γ is the respective vector of coefficients; $Ideology_{i,t}$ is a proxy variable that captures the political ideology of the governing party in each economy. Finally, the error term $\varepsilon_{i,t}$ is assumed to follow $\varepsilon_{i,t} \sim i.i.d(0, s^2)$.



5.2 Steps of Empirical Investigation

The empirical course of action undertaken in this thesis involves the following steps.

Step 1: Preliminary examination of duplicate information in the dataset

In the first step, using correlation analysis I will identify whether these variables that enter my analysis have increased chance for presenting duplicate information. In this context, the set of (a) dependent variables; (b) control variables; and (c) content specific variables i.e. political ideology proxies, will be subjected to correlation analysis and in case of statistical evidence of high correlation coefficients among pairs of variables then a selection of the variable that will enter my analysis will be made

Step 2: Optimal Set of Control Variables

In the second step, for each dependent variable we need to econometrically unveil the set of control variables that should enter the estimation. To do so, I make use of stepwise backward elimination of variables at a 10% level of significance. In this way, having as dependent variable either social expenditures in kind or social expenditures in money, I begin by using the whole set of control variables, including the dummy variables, and in each step we remove from the set the less statistically significant variable. The stepwise backward elimination stops when all independent variables have a statistically significant effect on the dependent variable of my analysis. Note, that since in our analysis I make use of two dependent variables, then I expect two sets of control variables as well, since the nature of the dependent variables does not have perfectly overlapping information i.e. social expenditures in money and in kind are not multicollinear.



Step 3: The political ideology effect

Finally, I make use of each proxy of political ideology and I examine its effect on the dependent variables. To do so, I make use of panel data fixed effects estimation, using as explanatory variables the optimum set of control variables which was empirically established in step 2 and a single proxy for political ideology.

Of course, before the panel regressions take place all panel data time series need to be tested against the potential existence of panel unit root using relevant panel data tests i.e. LLC test.



6. Empirical Analysis

I proceed by estimating pairwise correlations among the variables. In this context, table 2, presents the correlation coefficients among the three different kinds of social expenditures i.e. social expenditures in money, in kind and in total. As anticipated, the total social expenditures are highly and statistically significantly correlated with their main counterparts. Therefore, in our analysis, I will focus on the social expenditures in terms of money and in kind.

Table 2. Pairwise Correlations among the Dependent Variables

	socexp_c_pmp	socexp_k_pmp	social_exp_total
socexp_c_pmp	1		
socexp_k_pmp	0.045	1	
social_exp_total	0.829***	0.597***	1

We continue with the pairwise correlations among the control variables in our dataset, see Table 3.

Table 3. Pairwise Correlations among the Control Variables

(1)	debt	receipts	unemp	adjcov	realgdp	realgdpgr	chilndren U15	elderlyO65
debt	1							
receipts	-0.0901	1						
unemp	0.314***	0.00998	1					
adjcov	-0.0272	0.628***	0.0652	1				
realgdp	-0.159**	0.0849	-0.425***	0.115*	1			
realgdpgr	-0.360***	-0.0366	-0.279***	-0.0959	0.0291	1		
chilndren U15	-0.480***	0.0412	-0.292***	-0.0414	0.335***	0.217***	1	
elderly O65	0.706***	0.101	0.197***	0.134**	-0.107*	-0.293***	-0.763***	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Despite the statistical significance among various pairs of control variables, none of the correlation coefficients are sufficiently high. In this context, I will make use of the entire set of control variables in our analysis.



Next, Table 4, presents the correlations among the different proxies of political ideology in our dataset. Based on our findings, government party and gov_left1 present a high and statistically significant correlation. Therefore, both variables tend to capture the same piece of information, so I will make use of government party variable in my analysis and I will drop gov_left1.

Table 4. Pairwise Correlations among the political ideology proxies

	gov_party	gov_cent1	gov_right1	gov_left1
gov_party	1			
gov_cent1	-0.310***	1		
gov_right1	-0.707***	-0.406***	1	
gov_left1	0.974***	-0.317***	-0.697***	1

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

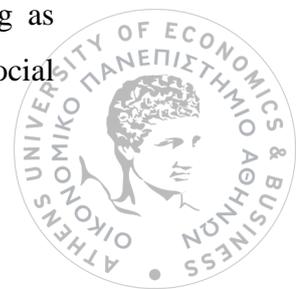
Before turning to estimation results, we have to econometrically test whether the panel data quantitative variables that would enter our estimations have econometric properties that do not critically depend on time. Therefore, Table 5 presents the results of Levin-Lee-Chow panel unit root test.

Table 5. LLC panel Unit Root test

Variable	t-stat	p-value	H0: Panel Contains Unit Root
socexp_c_pmp	-4.132	0.000	Reject
socexp_k_pmp	-3.636	0.000	Reject
debt	-2.785	0.001	Reject
receipts	-2.302	0.001	Reject
openc	-2.978	0.000	Reject
unemp	-6.441	0.000	Reject
realgdpg	-7.814	0.000	Reject
realgdp	-2.137	0.012	Reject
chilndrenU15	-3,137	0.000	Reject
elderlyO65	-7,264	0.000	Reject

Based on our findings the null hypothesis of a unit root is rejected for every variable tested. Therefore, all variables that would enter the model could be considered as being stationary.

Next, we proceed with the stepwise backward estimation of our models using as dependent variables the whole set of control variables for the two types of social



expenditures i.e. social expenditures in money and in kind. Our goal is to determine through stepwise backward elimination at a 10% level of significance the optimal set of control variables in each case. To this end, Table 6 presents the stepwise backward elimination of control variables for the social expenditures in money, whereas Table 7 summarizes our findings for the case of social expenditures in kind.

Based on the results presented in table 6, the statistically significant set of control variables for the social expenditures in money is the following:

$$X_1 = \{Debt, Revenues, Unemployment, labour union strength, GDP growth, \\ \textit{percentage of population over 65years old, Global Crisis}\}$$

Next, based on the results presented in table 7, the statistically significant set of control variables for the social expenditures in money is the following:

$$X_2 \\ = \{openness, GDP growth, GDP, \textit{percentage of population over 65years old, \\ income level, EMU}\}$$



	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp
Debt	0.00944* (2.57)	0.00949** (2.59)	0.00957** (2.61)	0.00968** (2.64)	0.00965** (2.63)	0.00960** (2.62)	0.00965** (2.64)
Receipts	0.127*** (5.94)	0.128*** (6.02)	0.129*** (6.07)	0.130*** (6.10)	0.129*** (6.07)	0.130*** (6.19)	0.128*** (6.01)
Openc	0.00242 (0.57)	0.00264 (0.63)					
election year	0.0805 (0.91)	0.0823 (0.93)	0.0799 (0.91)	0.0893 (1.01)			
Unemp	0.247*** (11.35)	0.246*** (11.42)	0.248*** (11.65)	0.253*** (11.90)	0.252*** (11.90)	0.255*** (12.51)	0.253*** (12.48)
Adjcov	0.0172*** (3.40)	0.0173*** (3.44)	0.0167*** (3.32)	0.0179*** (3.59)	0.0177*** (3.56)	0.0179*** (3.61)	0.0172*** (3.42)
Realgdpgr	-0.134*** (-6.86)	-0.136*** (-7.02)	-0.135*** (-7.03)	-0.135*** (-6.98)	-0.134*** (-6.96)	-0.135*** (-6.99)	-0.136*** (-7.10)
Realgdp	-0.0000147 (-0.85)	-0.0000133 (-0.78)	-0.00000880 (-0.59)	-0.00000656 (-0.45)	-0.00000671 (-0.46)		
children U15	-0.0735 (-0.98)	-0.0743 (-0.99)	-0.0724 (-0.97)	-0.0820 (-1.16)	-0.0837 (-1.18)	-0.0780 (-1.13)	
elderly O65	0.216*** (4.17)	0.215*** (4.15)	0.218*** (4.21)	0.207*** (4.05)	0.207*** (4.05)	0.202*** (4.04)	0.229*** (5.35)
WB_Clasiff	-0.0738 (-0.56)						
EMU	-0.335 (-1.20)	-0.272 (-1.05)	-0.216 (-0.90)				
Crisis	0.234* (2.18)	0.234* (2.18)	0.230* (2.16)	0.222* (2.08)	0.222* (2.08)	0.216* (2.04)	0.243* (2.38)
Constant	2.956 (1.36)	2.743 (1.28)	2.692 (1.25)	2.664 (1.28)	2.755 (1.32)	2.374 (1.24)	0.779 (0.65)

Table 6. Optimal Set of Control Variables for Social Expenditures through stepwise backward elimination at 10% level of significance

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$



Table 7. Optimal set of Control Variables for Social Expenditures in Kind through stepwise backward elimination at a 10% level of significance

	(1) socexp_k_pmp	(2) socexp_k_pmp	(3) socexp_k_pm p	(4) socexp_k_pm p	(5) socexp_k_pm p	(6) socexp_k_pmp	(7) socexp_k _pmp	(8) socexp_k_pmp
debt	0.000821 (0.20)	0.000606 (0.16)						
receipts	0.0247 (1.09)	0.0254 (1.13)	0.0252 (1.12)	0.0259 (1.16)	0.0187 (0.82)	0.0187 (0.83)		
openc	-0.0136** (-3.25)	-0.0135*** (-3.31)	-0.0136*** (-3.31)	-0.0135*** (-3.33)	-0.0145*** (-3.39)	-0.0147*** (-3.48)	-0.0148*** (-3.44)	-0.0116*** (-4.01)
election year	0.0408 (0.38)	0.0411 (0.38)	0.0409 (0.38)					
unemp	-0.00143 (-0.06)							
adjcov	0.00758 (1.44)	0.00757 (1.48)	0.00738 (1.50)	0.00730 (1.49)	0.00764 (1.51)	0.00754 (1.50)	0.00736 (1.45)	
realgdpgr	-0.105*** (-4.46)	-0.105*** (-4.70)	-0.106*** (-4.93)	-0.105*** (-4.90)	-0.107*** (-5.06)	-0.112*** (-5.66)	-0.113*** (-5.74)	-0.103*** (-7.74)
realgdp	0.0000957*** (5.88)	0.0000954*** (6.19)	0.0000954*** (6.21)	0.0000951*** (6.26)	0.0000986*** (6.10)	0.000100*** (6.38)	0.000100*** (6.28)	0.0000803*** (6.06)
children U15	-0.0467 (-0.56)	-0.0415 (-0.50)	-0.0440 (-0.53)	-0.0392 (-0.47)				
elderly O65	0.375*** (6.19)	0.377*** (6.34)	0.382*** (7.96)	0.382*** (7.96)	0.407*** (10.70)	0.400*** (10.77)	0.411*** (11.37)	0.421*** (13.94)
WB_Clasiff	0.368* (2.35)	0.364* (2.36)	0.366* (2.38)	0.361* (2.35)	0.379* (2.49)	0.374* (2.46)	0.378* (2.49)	0.313** (2.78)
EMU	-0.681* (-2.14)	-0.688* (-2.17)	-0.681* (-2.15)	-0.690* (-2.18)	-0.564 (-1.84)	-0.548 (-1.80)	-0.517 (-1.70)	-0.474* (-2.05)
crisis	0.0833 (0.64)	0.0855 (0.66)	0.0808 (0.63)	0.0829 (0.65)	0.0897 (0.73)			
Constant	-0.886 (-0.39)	-1.020 (-0.46)	-1.001 (-0.45)	-1.082 (-0.49)	-2.000 (-1.57)	-1.910 (-1.52)	-1.287 (-1.44)	-0.432 (-0.63)

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Having econometrically established the optimal control sets for both models, we continue with the fixed effects estimations of our models with the inclusion of the political ideology proxies. In this context, table 8, presents our findings for the case of social expenditures in money and table 9 for the case of social expenditures in kind.



Table 8. Effect of Ideology proxies on Social Expenditures in Money

	(1)	(2)	(3)	(4)
	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp	socexp_c_pmp
gov_party	0.182** (0.071)			
Debt	0.001 (0.004)	0.002 (0.004)	0.001 (0.004)	0.003 (0.004)
receipts	0.173*** (0.016)	0.178*** (0.016)	0.173*** (0.016)	0.174*** (0.016)
Unemp	0.190*** (0.027)	0.201*** (0.027)	0.188*** (0.027)	0.193*** (0.027)
Adjcov	0.005 (0.003)	0.005* (0.003)	0.004 (0.003)	0.005 (0.003)
realgdpgr	-0.155*** (0.050)	-0.161*** (0.051)	-0.170*** (0.050)	-0.158*** (0.051)
elderly O65	0.410*** (0.053)	0.420*** (0.053)	0.424*** (0.052)	0.414*** (0.053)
gov_cent1		-0.002 (0.004)		
gov_right1			-0.008*** (0.003)	
gov_left1				0.006** (0.003)
Constant	-2.162** (0.897)	-1.441 (0.917)	-1.975** (0.911)	-1.987** (0.898)
Overall R^2	0.500	0.496	0.506	0.501

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

According to our findings, presented in table 8, the proxy of government party and the government composition in terms of left has a statistically significant and positive effect on social expenditures in money. The cabinet composition in terms of right is statistically significant too but has a negative effect on social expenditures in money.



Table 9. Effect of ideology proxies on Social Expenditures in Kind

	(1)	(2)	(3)	(4)
	socexp_k_pmp	socexp_k_pmp	socexp_k_pmp	socexp_k_pmp
gov_party	0.110* (0.059)			
openc	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)	-0.018*** (0.002)
realgdpgr	-0.050 (0.041)	-0.052 (0.041)	-0.054 (0.041)	-0.047 (0.041)
realgdp	0.0001*** (0.00001)	0.0001*** (0.00001)	0.0001*** (0.00001)	0.001*** (0.00001)
elderly O65	0.027 (0.036)	0.028 (0.036)	0.027 (0.036)	0.025 (0.036)
WB_Clasiff	-0.069 (0.403)	-0.042 (0.405)	-0.035 (0.405)	-0.077 (0.403)
EMU	-0.039 (0.900)	0.003 (0.903)	-0.014 (0.903)	-0.48 (0.898)
gov_cent1		-0.001 (0.003)		
gov_right1			-0.001 (0.002)	
gov_left1				0.004** (0.002)
Constant	1.986** (0.792)	2.200*** (0.787)	2.139*** (0.776)	2.021*** (0.776)
Overall R ²	0.284	0.277	0.277	0.286

t statistics in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Based on the estimation results presented in Table 9, the cabinet composition in terms of left and the proxy of government party are statistically significant and have positive effect on the social expenditures in kind.



7. Discussion

I examine whether the government ideology has an effect on public expenditure measured in money and in kind as a percentage of GDP. I estimate Eqs. (1)-(4) using the annual data from 2000 to 2017 and the variables I've presented in Data and Variables. The main regression results are presented in Table 8 and Table 9 which reports the coefficients and t-statistics for every single equation.

First, I am going to present the results of Table 8 which shows the effect of ideology proxies on social expenditure in money. In this case, all the variables of the socio-economic environment are statistically significant. The political variables convey a clear qualitative result. Governments with left-wing perspective tend to spend more in money in contrast to right-wing parties. More specifically, the “gov_party” and “gov_left1” variables bear a positive sign and they are statistically significant. In detail, “gov_left1” variable has a minuscule positive relation while “gov_party” has a higher regression coefficient. On the contrary, “gov_right1” bear a negative sign, it has a quite small impact on social expenditure in money but it is statistically significant. The main result drawn from this table presenting the results for social expenditure in money is that when cabinet ideology moves from a “hegemony of right-wing parties” towards a “hegemony of social-democratic and other left parties” there is an increase in the public social spending in money. Because of this I am going to discuss the effect of the control variables for the columns (1), (2) and (4) of the Table 8.

Concentrating now on the variables of the socio-economic environment, the following are statistically significant in our case. We observe that “realgdp” enters with negative sign and it is statistically significant. The higher the rate of change of the real GDP per capita is the lower income a country has. Hence, “realgdp” works as an indicator of less developed nations. The variables “receipts”, “unemp” and “elderly O65” they all enter with positive sign and they are too statistically significant. In the case of unemployment and the elderly over 65 years their positive correlation with public expenditure in money can be explained through the increased demand for pensions and unemployment benefits spending when unemployment rate rises or when demographic structural changes arise with high rates of elder people in the population, for example Japan. The positive correlation between “receipts” and “socexpe_c_pmp” come to confirm the basic theory that an increase in government's income give the opportunity to governments to increase public spending.



Table 9 shows the effect of ideology proxies on social expenditure in kind. Among the political variables, we see that the proxy of governments party “gov_party” and the political proxy “gov_left1” have a positive sign and both of them are statistically significant. I am going to present the effectiveness of the explanatory variables for columns (1) and (4) of the Table 9.

The variable “openc” enters with a negative sign and it is statistically significant. It has been observed that when a country enters a global market, where lower labour standards and lower wages exist is forced to adopt similar policies in order not to lose its competitiveness which may explain the negative sign. The variable “realgdp” is statistically significant and implies that when a state has a higher GDP (gross income) then its government can spend larger amounts of money for social investments in the country.



8. Conclusion

Many authors have examined the impact of ideology on policy making. There are many studies who have tested this relationship on specific policy areas such as education, health and unemployment. In this master's thesis I have focused on the relationship between government ideology and public spending by examining 31 OECD and 5 non-OECD economies during the period 2000 and 2017. I have divided public spending in two categories, in kind and in money. In order to measure ideology, I have used the ideology proxies of government party and government composition in terms of percentage of left, center and right ministers, as given by the Comparative Political Data Set 1960-2019 Armingeon et al., (2021). My main results are that government ideology has an impact on public expenditures in kind and in money which confirms the results of many authors such as Potrafke (2009), Alesina (1987), Hibbs (1977). In detail, I have found that there is a weak positive relationship between left-wing parties and government expenditures in money, this relationship becomes negative when there are right-wing governments. The other explanatory variables that affect social spending in money are the real GDP per capital, the government's income, unemployment and elderly over 65 years with the first one entering with a negative sign and the other three with a positive one. In the case of social expenditure in kind left-wing governments have a positive impact on social spending, the same holds for the real GDP but not for the openness which shows a negative relationship.



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