Federalism, Governance and Inequality: A Comparative Study in Europe and the Case of Germany*

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Abstract:
This paper looks at the implications for governance in interpersonal economic inequality in Europe. In doing so, it looks at the economic repercussions of territorial governance and intergovernmental relations stemming from this governance structure from different perspectives: Regional, national and EU-level. First, by using cross-sectional data, it tests whether countries with higher regional fiscal authority and more decentralized governance structures experience higher interpersonal income inequality. Then, it examines whether the co-sharing of fiscal power between the center and the subnational actors is related to lower inequality levels. Using qualitative data gathered in fieldwork, the second section takes Germany as a case for understanding the importance of governance on redistributive matters and inequality. The case study shows that, despite increases in inequality, a general federal commitment to achieving a certain level of economic and services inequality persists in Germany through the delicate balance of centralized and decentralized elements of its federal governance structure.

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Federalism, Governance and Economic Inequality: A Comparative Study in Europe and the Case of Germany

Increasing economic inequality is a worldwide phenomenon. Recent years have seen the gap between the rich and poor increase not only in countries with already high inequality levels but also in many European countries known to be more egalitarian. Widening income gaps between the rich and the poor have become a global phenomenon in the recent decades especially in the developed economies. A report published in December 2011 by the Organization for Economic Cooperation and Development (OECD) informs us that in 2000s, the gap between the rich and poor increased not only in countries with already high inequality levels but also in countries such as Germany, Denmark, and Sweden, known to be ‘more egalitarian’. The income gap in those countries has risen from 5 to 1 in the 1980s to 6 to 1 today. In Italy, Japan, Korea and the United Kingdom, this gap is 10 to 1. Since 1990, the wage gap between the 10% highest and lowest paid of full-time German workers has increased more than five times. 1

The economic inequality research had been neglected in the period following the end of the World War II during the times of economic growth in North America and Western Europe, but interest in understanding the determinants and the consequences of inequality has resurfaced since 1960s and 1970s. This upsurge in interest is usually credited to the increasing economic inequality levels especially in the industrialized countries (Jenkins and Micklewright 2007, Kenworthy 2004, Kenworthy and Pontusson 2005, Stiglitz 2012). As the wage distribution widened in 1980s in the UK and in the USA, researchers on income inequality started to be concerned with whether income inequality was a peril of these two countries, or whether it was prevalent in the industrialized world (Salverda, Nolan and Smeeding 2009; Gottschald and Smeeding 1997). Taking into account the recent upsurge in inequality among developed economies in the world, Europe is an appropriate region to investigate the determinants of inequality. Furthermore, the Great Recession of the late 2000s also heightened concerns about inequality, resulted in

1 OECD (2011), Divided We Stand: Why Inequality Keeps Rising, www.oecd.org/els/social/inequality
Country Note: Germany. I will revisit this trend later in the section about Germany.
many protest movements around the worlds, including the *Occupy Wall Street Movement*, and brought inequality to the research agendas of many academics and practitioners (Alderson and Doran 2013).

Over the last few decades, several scholars have investigated the determinants of income inequality from a structural perspective, looking at the impact of political institutions and economic indicators, such as poverty, growth, inflation, unemployment and investment (Boix 2003, 2010, Qian and Weingast 1997, Reuveny and Li 2003). These studies are informative about the institutional and contextual factors that influence income inequality in specific countries. For example, changing patterns of trade, declining rates of unionization and the decentralization of wage-setting have been shown as some contributors to increasing inequality, but no single ‘smoking gun’ has been agreed upon (Alderson and Nielsen 2002, Gustafsson and Johansson 1999). ²

Addressing the determinants of income inequality in developed economies through the lens of territorial governance/decentralization offers a suitable framework to assess whether the redistributive welfare state policies are influenced by the territorial structure of countries. We know that some political structures are more ‘inequality inducing’ than ‘inequality reducing’ (Linz and Stepan 2000) due to the organization and the aims of their tax structures, yet there is no consensus in the literature on the reasons for this induction or reduction. Several authors claim that the varying levels of decision-making autonomy of subnational units have important repercussions for the distribution of income in a country (Marks *et al.* 2008, 2010; Boix 2003; Beramendi 2007). However, the causal mechanism and the directions of the mechanism have been underexplored, especially as far as empirical studies are concerned. There is a gap in the literature concerning the causal mechanism that links these three components: Economic geography (namely territorial governance patterns), redistribution and income inequality. If redistribution, by default, targets economic distribution, and thus inequality; then how do territorial governance

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² Obviously, determinants of rising inequality have also been studied with respect to the changes in the economy and wage inequality, brought about by globalization and technological changes (Alderson and Doran 2013). However, in this paper I look at the importance of the existing governance structure of countries, holding other important variables constant.
patterns, which shape redistributive politics, have an impact on inequality? This is the main question I address in this paper, with my quantitative and qualitative study.

This paper looks at the implications for territorial governance for regional and interpersonal economic inequality across Europe with a quantitative study, and with a case study on Germany. The first section of the paper presents a statistical analysis on European countries. By using cross-sectional data, it first tests whether countries with higher regional fiscal authority and more decentralized governance structures experience higher interpersonal economic inequality. Then, it examines whether the co-sharing of fiscal power between the center and the subnational levels, and the relevant non-state actors is related to lower interpersonal inequality levels. The results are in line with the theoretical expectation that, across Europe, higher fiscal decentralization leads to higher income inequality, but the co-sharing of fiscal power is associated with lower income inequality.

The second part of the paper takes Germany as a case, and uses qualitative data gathered from semi-structured interviews in the field to further examine how the territorial governance structure impacts redistributive matters in the country. This case study shows that, a) despite increases in income inequality in the last decades, the general commitment to achieving a certain level of economic and services equality persists in Germany through its delicate balance of centralized and decentralized elements, and b) the territorial governance structure has a bigger influence on regional inequality and the distribution of services rather than national interpersonal inequality. The case study of Germany also looks at the role of the region (Land) of North Rhine-Westphalia as an example of how intergovernmental relations and the interactiveness of governance in Germany has a bearing on implementing the European level policies that target economic inequality.

1) Territorial Governance and Inequality: Theoretical Perspective and Quantitative Study
The lack of scholarly consensus on the impact of the territorial governance structure on income inequality levels enables us to analyze this link through different lenses.
Governing always has a territorial dimension to it (Hague and Harrop 2004), since rulers need to extract resources from regions while keeping the willingness of the population to stay in their own sphere of influence. The differences in the organization of this territorial dimension are mainly analyzed within the dichotomy of federal and unitary states. Yet, not all types of federal and unitary states produce same type of policy outcomes. There are two competing views on whether federalism (measured with higher regional authority in this paper) can address cross-jurisdictional economic discrepancies.

First, some welfare economists, such as Gramlich (1973) and Oates (1972) argue that federalism can deal with different local preferences and cross-jurisdictional externalities in a more effective way. Another similar view of federalism comes from public choice theorists as it enables different levels of government to extract returns in a strategic way (Qian and Weingast 1997). However, the competing view, which this paper is based on, emphasizes how federalism enables extra veto points that can block ‘nationwide distributive endeavors’ and ‘large redistributive coalitions’ (Beramendi 2012). The understanding that federalism or more decentralized political structures are associated with lower redistribution and thus less equality has been dominant in the political economy literature, albeit without much empirical application (Wildavsky 1984, Rodden 2006, Treisman 2004, 2007). Wildavsky has argued that ‘there is no escape from a compelling truth: federalism and equality of results cannot coexist’ (1984, p.68).

Fiscal federalism is one of the main concepts that link the territorial governance structure with inequality. In his seminal work on fiscal federalism, Oates (1972) regards the tackling of inequality as an important task of the public sector in a country where ‘optimum welfare state’ is sought after. ‘The attainment of the most equitable distribution of income (the distribution problem)’ has been regarded as an important task for the governments, yet as Oates (1972) argues, highly decentralized fiscal systems can have different communities whose levels of willingness to carry out ‘equalitarian distributions of income’ can vary to a great extent.
Based on this discussion, in what ways can the structure of the government, or the allocation of authority across jurisdictions, can influence redistribution in a country? What is the impact of the level of relationship between the central authority and the subnational political units on income inequality? Does having more authoritative regions lead to more income inequality in a country? Based on the literature review on territorial governance and inequality, my theory is as follows: I expect higher regional authority to have a significant effect on increasing inequality, mainly through the causal mechanism of limiting redistribution. Thus, the more decentralized a country is, the higher the expected inequality. This causal mechanism rests on the assumption that the welfare would be undermined when the center has less power, and that there will be under-provision of social welfare, or a ‘race to the bottom’ (Pierson 1995). Higher levels of revenue sharing granted to regions through fiscal autonomy should also have an increasing impact on inequality due to the lessening of the standardization of redistribution. If the subnational units and the central government interact and decide together on fiscal issues, then this is expected to have a negative impact on income inequality.

My main argument is that devolution to regions, and especially fiscal devolution where regions can implement their own tax policies, inhibits the overall ability of the central government to exercise standardized central fiscal policies (redistributive and tax) that target inequality. Additionally, in a devolved structure, intraregional differences in capacities of the regions can also lead to inconsistencies in redistribution and infrastructures to overcome income disparities. However, if subnational units (e.g. regions) share the power in deciding what the central government ‘redistributes’ and there are more structural opportunities for ‘consensus’, this would offset the impact of regional fiscal autonomy on increasing income inequality. In the quantitative study, I test the following two hypotheses:

*Hypothesis 1:* OECD countries in Western Europe that have more overall regional authority (more devolution to regions) are more likely to have higher income inequality.

*Hypothesis 2:* Fiscal authority is a significant predictor of income inequality in OECD countries in Western Europe.
2a: The higher the fiscal autonomy of subnational units, the higher the national income inequality. (self-rule)

2b: The higher the fiscal shared rule level of subnational units with the central government, the lower the national income inequality. (shared-rule)

Data and Research Design

For the purpose of understanding the hypothesized effect of varying degrees of regional authority on income inequality, a fixed effects model is applied, to rule out the possibility that the results are dependent on any particular effect pertaining to a country in the sample. The data set includes 17 OECD countries in Europe\(^3\) with information on subnational government levels with an average population of 150,000 or more citizens. The unit of analysis is country-year, and it includes data for the time period of 1960 to 2006. Including the OECD countries in the analysis is justified since I would like to compare industrialized 'comparable countries' in Western Europe for income distribution, in order to single out the effects of regional authority.

Dependent Variable

The dependent variable is the national NET INCOME INTERPERSONAL INEQUALITY level, which is operationalized by the *Gini* coefficient.\(^4\) The unit of analysis for this study is country year for the years 1960 – 2006. Also, Gini scores are calculated with different determinants for some countries.\(^5\) I use the post-tax net income inequality measure, which is the measure after taxes and transfers, in

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\(^3\) The full list of countries included in the dataset is in the Appendix. Iceland is dropped because of missing data.

\(^4\) The Gini coefficient is based on the Lorenz curve that plots the share of population against the received income (Deininger and Squire 1996). It is acknowledged that measurement of inequality is a complex matter. Inequality data taken from Frederick Solt's Standardized World Income Inequality Database (SWIID), which standardizes the United Nations University's World Income Inequality Database. It uses the data collected by the Luxembourg Income Study as the standard. The SWIID has comparable Gini indices of gross and net income inequality for 171 countries from 1960 to the present, and estimates of uncertainty in these statistics. [http://www.siuc.edu/~fsolt/swiid/swiid.html](http://www.siuc.edu/~fsolt/swiid/swiid.html)

\(^5\) The Gini coefficient can range from 0 to 1; it is sometimes multiplied by 100 to range between 0 and 100. A Gini coefficient of 100 denotes perfect income inequality, whereas a Gini of zero indicates perfect income equality in a country. In this data set, the Gini coefficient measure is on a scale of 0 to 100. The larger the Gini coefficient, the more income inequality there is in that country.
order to control for income inequality after redistribution and social spending, as
my argument is centered on how decentralization impacts the redistributive role of
the countries.

Independent Variables

The main independent variable of this study, which measures
decentralization, is taken from Hooghe, Marks and Schakel’s “Regional Authority
Index” (2008, 2010). The aggregate regional authority index score consists of the
addition of the following characteristics: The self-rule and the shared rule aspects of
the relevant regions in one country, which in total are measured along eight
dimensions. The variables making up the shared rule score measure the authority
exercised by the regional government in co-determining decision making at the
national level. The four components are: Law making, executive control, fiscal
control, and constitutional reform. A regional government can exercise authority
either in its own jurisdiction – self rule-; or it can contribute to the decision making
in the country by sharing the power with the central government and other regional
governments – shared rule-, a well-known conceptualization coined by Elazar
(1987) These Table 1 explains these measures.

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6 Hooghe, Liesbet, Gary Marks, Arjan H. Schakel (2008), "Regional Authority in 42 Democracies,
Hooghe, Liesbet, Gary Marks, Arjan H. Schakel (2010). "The Rise of Regional Authority: A
Table 1: Components of the Regional Authority Index

1. Institutional depth: The authority exercised by a regional government is autonomous rather than de-concentrated. (Measured from 0 to 3)
2. Policy scope: The range of policies for which a regional government is responsible (Measured from 0 to 4)
3. Fiscal autonomy: The extent to which a regional government can independently tax its population. (Measured from 0 to 5)
4. Representation: The extent to which a regional government is endowed with an independent legislature and executive. (Measured from 0 to 4)
5. Law making: The extent to which regional representatives co-determine national legislation. (Measured from 0 to 2)
6. Executive control: The extent to which a regional government co-determines national policy in intergovernmental meetings. (Measured from 0 to 2)
7. Fiscal control: The extent to which regional representatives co-determine the distribution of national tax revenues. (Measured from 0 to 3)
8. Constitutional reform: The extent to which regional representatives co-determine constitutional change. (Measured from 0 to 3)


The overall Regional Authority Index (RAI) score of a country is calculated by adding all of the abovementioned relevant scores together. However, the scores are also weighted according to certain conditions in the countries. The more regional tiers a country has, the higher is the country score, all other things equal. This index presents useful measures of different types of decentralization that actually measures the territorial institutional arrangements making it appropriate it to use in this study. I first use the aggregate measure of the regional authority index,

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7 According to Hooghe et al. (2008) among the abovementioned eight dimensions, the Cronbach’s alpha in 2006 is 0.94, indicating that the dimensions actually do cover a single construct to a great extent.
rather than using different disaggregate measures of the construct. Then I use fiscal autonomy and fiscal control and remove RAI in the following models, in order to prevent multicollinearity. Analyzing the index data, one can see that no country in the sample has experienced a transition from a more regionalized structure to a less regionalized structure during the period covered. However, certain countries have transitioned from a less regionalized to a more regionalized structure over time, such as Belgium, France, Italy and Spain.

As explained in the theory section, I also single out certain components of the aggregate RAI index to test my second hypothesis. Rather than the aggregate RAI score, I use FISCAL AUTONOMY and FISCAL CONTROL indices in Model 2 and 3, to test Hypothesis 2a and Hypothesis 2b. Whereas FISCAL AUTONOMY corresponds with self-rule of fiscal authority of subnational units, FISCAL CONTROL indicates the shared-rule component of federalism, where the subnational units and the central government co-decide on redistributive matters. I use them separately to see whether the causal mechanism of regional authority and inequality goes through the channel of centralized/decentralized fiscal structure, which measures tax autonomy and co-decision on tax revenues, respectively. In Model 4, I include both FISCAL AUTONOMY and FISCAL CONTROL together since they are not mutually exclusive indices. Model 4 aims to control for the effect of these variables on one another in a discussion of income inequality.

Additionally, I use some control variables to see whether the causal effect between regional authority and income inequality is affected by certain variables that have been shown to be causes of inequality in the literature. To account for some economic factors that might have an effect on national inequality levels, I use the control variables of GDP per capita, the overall unemployment level (UNEMPLOYMENT) and annual economic growth (GDP GROWTH), democracy, social expenditures, social security transfers, wage coordination and net union membership.  

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8 Due to space reasons, I explain the control variables in the appendix. Data taken from Penn World Tables. Alan Heston, Robert Summers and Bettina Aten, Penn World Table Version 7.0, Center for
Results of the Quantitative Study

I test my model, taking the (interpersonal net national income inequality as my dependent variable. The fixed effects model produce mixed results on regional authority and income inequality. Table 2 shows the results, where the impact of aggregated regional authority scores of countries, regional fiscal autonomy and regional fiscal control, are tested separately on net national income inequality levels after transfers in European countries.

As the results of Model 1 show, ranking higher on overall REGIONAL AUTHORITY scores is not a significant predictor of overall income inequality. This result accentuates the importance of the fiscal powers of regions in decentralization, rather than using an aggregated score that measures the overall political decentralization. Thus, the first hypothesis does not hold. The results also indicate democracy is significantly and positively related to income inequality, as well as unemployment and employment in industry, as suggested by previous research. Net union membership is also negatively related to income inequality, as expected. However social security transfers fails to reach statistical significance, showing that the amount of social security transfers does not account for net income inequality.

Model 2 takes FISCAL AUTONOMY as its measure of decentralization, rather than the combined RAI score. As predicted in Hypothesis 2a, countries with regions of higher fiscal autonomy have more national net income inequality; statistically significant at the %99 confidence level. Therefore, the countries where the regional government sets the rate of more of the major taxes (personal income, corporate, value added or sales tax) are expected to have a more unequal distribution of income. This autonomy gives room to regional governments to decide on their own taxes, and if all the regions have varying tax structures, this will lead to discrepancies between regions in redistribution, leading to more overall income inequality.

International Comparisons of Production, Income and Prices at the University of Pennsylvania, May 2011.
Table 2: Determinants of Net Income Inequality

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<tr>
<th>VARIABLES</th>
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<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
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<td>Net income</td>
<td>Net income</td>
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<td>Regional authority index</td>
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<td></td>
<td>(0.0497)</td>
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<td>Fiscal autonomy</td>
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<td>0.372**</td>
<td>0.396***</td>
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<tr>
<td></td>
<td>(0.141)</td>
<td>(0.147)</td>
<td>(0.152)</td>
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<td>Fiscal control</td>
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<td>-2.381***</td>
<td>-2.993***</td>
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<tr>
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<td>(0.583)</td>
<td>(0.612)</td>
<td>(0.644)</td>
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<td>Democracy</td>
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<td>0.0507</td>
<td>0.0178</td>
<td>-0.0999</td>
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<td></td>
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<td>(0.338)</td>
<td>(0.336)</td>
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<td>GDP per capita</td>
<td>7.13e-05***</td>
<td>6.68e-05***</td>
<td>6.58e-05***</td>
<td>6.11e-05***</td>
<td>7.05e-05***</td>
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<td>(1.43e-05)</td>
<td>(1.43e-05)</td>
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<td></td>
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<td>(0.0419)</td>
<td>(0.0416)</td>
<td>(0.0452)</td>
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<td>Unemployment</td>
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<td>0.0821**</td>
<td>0.0871**</td>
<td>0.0937**</td>
<td>0.148***</td>
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<td>Net union membership</td>
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<td>(0.000284)</td>
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<td>(0.0485)</td>
<td>(0.0481)</td>
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<td>Wage coordination</td>
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<td></td>
<td></td>
<td>-0.208*</td>
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<td></td>
<td></td>
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<td></td>
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<td>(0.111)</td>
</tr>
<tr>
<td>Constant</td>
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<td>26.72***</td>
<td>27.02***</td>
<td>26.78***</td>
<td>33.52***</td>
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<td>(3.324)</td>
<td>(3.288)</td>
<td>(3.268)</td>
<td>(6.299)</td>
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<td>436</td>
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<td>0.239</td>
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Standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1
Model 3, where the key explanatory variable is FISCAL CONTROL, is also in line with my expectations in Hypothesis 2b. FISCAL CONTROL is statistically significant at the 99% confidence level. Thus, we can argue that higher shared rule on taxation in the countries in this sample ‘brings the regions together’ and bridges the gaps in overall income inequality levels in a country. While FISCAL AUTONOMY is a component of the self-rule of the regions, FISCAL CONTROL looks at how regions share power in fiscal issues with the central authority. Including FISCAL CONTROL in lieu of FISCAL AUTONOMY does not change the coefficients or statistical significance of the control variables.

Model 4 aims to control for the effect of FISCAL CONTROL when investigating the effect of FISCAL AUTONOMY, and vice versa. The results are similar to the previous two models in that the signs and the statistical significance of these two main independent variables do not change. Thus, I conclude that the *self-rule* component of fiscal authority, measured by FISCAL AUTONOMY increases overall income inequality, while the *shared-rule* component of fiscal authority, measured by FISCAL CONTROL decreases net income inequality, when controlling for centralized aspects of welfare states, such as social expenditures, social security transfers and union membership. These measures enable us to analyze the fiscal authority of regional governments independently of their revenues or spending (Hooghe *et al.* 2010).

In Model 5, I add the WAGE COORDINATION variable to the last model where I include both FISCAL AUTONOMY and FISCAL CONTROL in the model, and the results are as expected. The model has similar results to the previous one, and WAGE COORDINATION is negatively and significantly related to income inequality as expected.
Implications and Alternative Arguments of the Quantitative Study

The results of this quantitative study show that fiscal autonomy and fiscal control granted to regions in the OECD countries in Europe have significant impacts on the Gini coefficient, which measures national income inequality levels. The more fiscal autonomy the regions have, the higher the expected income inequality. On the other hand, more shared rule between the subnational regions and the central government is significantly associated with less income inequality. However, the aggregate regional authority index does not seem to be statistically significant, and thus, it calls for caution against claims that high levels of regional authority will lead to higher income inequality under all circumstances.

One possible alternative argument is that more decentralized communities are also more likely to be homogenous within their own structure and may be more willing to redistribute, utilizing the social and economic capital of their own community. This system can lead to an overall decrease in the inequality scores in a country. Thus, the theory is tested against this alternative argument whereby decentralized structures could construct their own mechanisms to better tackle inequality. Also, alternatively, one needs to look at cases in which granting more powers to subnational actors would decrease inequality within certain regions. One example for future study would be whether the more powers Scotland gets through the devolution process will be associated with greater income equalization, at least for that region, given the policy agenda of the Scottish National Party and Scottish Labour Party. Yet, the possibility of lower inequality in the region might also change the inequality levels among the regions. Therefore, applying the same study by looking at regional inequality levels would open new avenues for research. Further refinement of regional authority, decentralization and redistribution is of crucial importance not only for its theoretical but also for its public policy related underpinnings. Therefore, the next section takes Germany as a case study to further illuminate the causal mechanism.
2) Federalism, Governance and Inequality: The Case of Germany

The quantitative exercise in this paper aimed at refining the dichotomous unitary/federal approach to understanding the importance of territorial governance on inequality. The case study on Germany examines a) the application of ‘federalism’ and the multi-level governance structure of Germany, b) whether/how regional authorities have changed over the recent years, c) the relationships between the federal government and the Länder for financial equalization and taxes, and how Länder are represented at the federal ‘Bund’ level d) how the territorial governance structure of Germany enables the Länder and the federal government interact in terms of the implementation of the European Union (EU) regional policies. By doing so, I aim to further illuminate the causal mechanism between territorial governance and income distribution/economic inequality. This case study looks at the concept of governance through a multi-level lens both at the subnational, national and supranational (EU) levels. The territorial governance structure in Germany has also been influenced to a large extent from the Europeanization process (Börzel 2002).

2a) The Constitutional Structure: Federalism and the Multi-Level Governance Structure in Germany

Germany is a federal country with specified competences of its subnational levels of government. The relationship between the parliamentary structure, the federal structure and its subnational governments is regarded to be an important characteristic of the German democracy (Benz and Zimmer 2012). The return to federalism was something brought about by returning to democracy (Bendel and Sturm 2013). After the end of the Second World War, the territory of Germany was restructured into several regions, otherwise known as Länder, some of which had their historical identities, such as Hamburg or Bavaria. The federal constitution of Germany, the Basic Law, was proclaimed in 1949. After the fall of the Berlin Wall, with the German unification, the Federal Republic welcomed five new Länder. Currently, Germany has 16 Länder, 323 counties and 12,312 municipalities. Except for Bavaria, Hamburg and Saxony (after 1990), the boundaries of the Länder do not correspond to historical allegiances (Scharpf 2008; Bendel and Sturm 2013).
Germany has a bicameral structure, with the Bundestag\(^9\) and Bundesrat (German Federal Council), where the members of the governments of the Länder are represented. Since all the important legislation needs majorities of both houses, this indicates how both chambers actually depend on each other (Scharpf 1988).

Germany’s federal structure has been classified as “federal-decentralized” (Thelen and Karcher 2013) as “cooperative federalism” (Börzel 2002; Gordin 2009), “executive federalism” (Benz and Zimmer 2012) and as “unitarian federalism” (Bendel and Sturm 2013) among many other classifications of federalism. The idea of joint decision-making (politikverflechtung) ensures that the Länder are represented at the federal level (Scharpf 1988; Hooghe et al. 2010). For this structure not to lead to “joint-decision trap”, as Scharpf (1998) suggests, the de facto requirement of unanimous decisions at different levels need to be managed with a problem solving decision making style. This obviously needs a strong steering mechanism and willingness by the federal government and Länder. On a similar note, Beramendi (2012) stresses that Germany’s compatibility between its federalism and its attempts to create solidarity has roots in history starting from the Bismarck days. Therefore, this case study is an exercise

2b) Regional authority and intergovernmental relations in Germany –
Political, administrative and financial aspects – Findings from the interviews

As a notable scholar on German federalism asserted during our interviews: “Germany is not really in the process of ‘decentralizing’, so it is not correct to talk about ‘decentralization’ (as a process) in Germany. Centralization of the system is very important in Germany; it can be regarded as a neo-corporatist structure, with employers’ association at the center level”, noting that recent changes in the federal laws do not change the sharing of competences to a large extent\(^{10}\).

Despite federal reforms in the 2000s, the idea of decentralization in Germany therefore cannot be understood as an ongoing process as experienced in other

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\(^9\) There is no specific ‘upper’ – ‘lower’ chamber distinction in Germany but Bundesrat is known as the upper chamber in many sources, so I will refer to it accordingly.

\(^{10}\) Personal interview, February 2014, Cologne, Germany.
countries like Spain, where the sharing of competences between different levels of government are known to be in constant flux (Colino and Del Pino 2012). While the main constitutional structure remains intact, certain reforms are taking place that have changed or will change the way the centralized/decentralization German structure is held together. In the 2006 federal reforms, the competences of the Länder were altered in some areas. In 2009, the Bundestag and the Bundesrat approved the second stage of Germany’s fiscal federalism. The first stage was about the reallocation of certain responsibilities between the Land governments and the central government. Feld and Baskaran (2009) argue that in this second stage, despite approving certain reforms, the decision makers left the intergovernmental transfer scheme untouched despite different aims in the beginning, leaving the decisions to 2019.

Despite the reforms not having been put into place yet, it is important to take a look at what the fiscal federalism reforms specify. With this reform, a new borrowing rule – the debt brake – is put in place, which will be valid as of 2016 at the federal level and in 2020 at the regional level. The aim is to prevent “excessive indebtedness”, and additional transfers will be granted to Länder of Saarland, Sachsen-Anhalt, and Schleswig-Holstein, creating fiscal asymmetry in the system (Feld and Baskaran 2009).

Auel (2008) argues that the reform process of 2006 cannot be regarded as an increase of powers for the Bund level because it has become obligatory for the Bundesrat to give consent in all cases if the federal legislation bears any costs on Länder. Overall, the dominant view from the interviews was that these reforms did not significantly alter the sharing of competences to make a significant impact on redistributive policies.

As Germany’s federal structure points out to a “functional division of independent powers”, it is safe to claim that most laws are still passed at the federal level, where both the Bundestag and the Bundesrat have a say, but then the implementation of these laws are left to the Land or local governments (Benz and Zimmer 2012). Also the fact that the Land governments do have a veto in Bundesrat points out the higher ‘interactiveness’ between different levels in the system. If the
competences or finances of the Länder are at stake, then the Bundesrat has to approve those laws with a majority (Benz and Zimmer 2012).

To explain how the executive-implementation type of federalism works in the case of Germany, an expert explained the following: “Unlike Spain, the Länder in Germany are not as relevant for determining the competences, but they are influential in implementing the decisions. For example, labor market policy is under federal law and it aims at integrating unemployed people and migrants into the labor market. There are special programs – active labor market policy - by Länder, especially in those where there are social democrats are in power. These kinds of policies can be compared to the ones in Sweden. These policies don’t cost much money to the Länder and they concern Länder more at the ‘implementation’ stage of policy making.” \(^{11}\)

While analyzing the impact of the territorial governance structure on inequality, it is important to examine other independent variables factors that have been shown to influence inequality related to governance. One important factor mentioned in the interviews was that the changing nature of employment in Germany has given rise to income inequalities, as it has done in other developing and developed nations. If we look at the Gini inequality scores in Germany, we can see that national interpersonal inequality has seen a great increase since 1990s. Interviews pointed out to the commonly accepted view that this is “partly because of the incorporation of East Germany to the system of Germany”. “Germany became like the ‘sick man of Europe’, with low growth and the overburdening of the welfare state with the increasing of services and transfers” \(^{12}\). Unemployment had risen after the German unification and the decade of 2000s saw unemployment rise generally, going from 7.6% in April 2001 to peaking at 11.2% in August 2005. \(^{13}\) The table below shows the increase of the Gini scores in Germany in the years 1985 – 2011, going from 0.25 to 0.29 out of 1. \(^{14}\) While income inequality has risen in Germany, it

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\(^{11}\) Personal interview, Cologne, Germany, February 2014,  
\(^{12}\) Personal interview with an expert on German federalism, Cologne, Germany, February 2014.  
\(^{13}\) Data from Eurostat, accessed at Google Public Data.  
\(^{14}\) The higher the Gini score is, the more unequal the country. The data are taken from OECD Stat Extracts. [http://stats.oecd.org/index.aspx?queryid=46189](http://stats.oecd.org/index.aspx?queryid=46189)
is still classified to be among the “middle inequality” countries in Europe, in the same group as Austria, Belgium, Hungary, Ireland, Luxembourg and Sweden (Gyorgy Toth and Keller 2013).

Table 3: Germany's Inequality Scores 1985 - 1995

<table>
<thead>
<tr>
<th>Year</th>
<th>Gini Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1985</td>
<td>0.2505</td>
</tr>
<tr>
<td>1986</td>
<td>0.2559</td>
</tr>
<tr>
<td>1987</td>
<td>0.2628</td>
</tr>
<tr>
<td>1988</td>
<td>0.2678</td>
</tr>
<tr>
<td>1989</td>
<td>0.2595</td>
</tr>
<tr>
<td>1990</td>
<td>0.2654</td>
</tr>
<tr>
<td>1991</td>
<td>0.2643</td>
</tr>
<tr>
<td>1992</td>
<td>0.2697</td>
</tr>
<tr>
<td>1993</td>
<td>0.2804</td>
</tr>
<tr>
<td>1994</td>
<td>0.2845</td>
</tr>
<tr>
<td>1995</td>
<td>0.2903</td>
</tr>
</tbody>
</table>

Source: OECD Statistics.

1980s was a decade of stable inequality but after late 1990s inequality skyrocketed in Germany. Schundeln et al. (2009) show that inequality proved to be stable in West Germany until German unification but then it increased especially for market incomes and wages after 1998. Furthermore, the “already existing problems of unequal financial capabilities of Länder were substantially increased after German unification” (Benz and Zimmer 2012). As explained in the interviews, ‘Solidaritat Zuschlag’ has helped the regions and benefitted the labor markets, helping to better the situation by reducing unemployment. With the ‘Reform 2004’ being put into place, the period people got unemployment benefits was shortened, so that nobody could get the benefits for more than one year. The reforms also changed the social assistance system with a new type of transfer and service being put in place for all
job seekers at the level of social insurance. This actually enabled the financial burden to be borne by the federal unemployment agency and this decreased the burden of the Länder. In the words of an expert: "Care was taken to avoid regional inequalities between different Länder. Whereas in the past the employment agency had to find applicants a job at the skill level of the applicants, now the job seekers were obliged to take the job below their skill level if the agency matched them with a job. This meant that there was an elimination of ‘Arbeitslosenhilfe’ and the elimination of the threshold of the formal skill level requirement. While this can be regarded as a positive move towards securing more employment, it also increased low wages and ‘atypical employment’, also paving the way for higher overall national inequality.\textsuperscript{15}

Grabka and Frick (2013) find that during the Great Recession of the late 2000s, employment and income levels remained stable, and that the flexible labor arrangements and the federal government’s ‘aggressive stimulus packages’ proved to be beneficial, pointing out to the unitary elements of its federal structure and strong central steering mechanism. The Unemployment Insurance is actually operated by the Ministry of Labor and the Federal Employment Agency and the local governments assist them. Beramendi (2012) highlights the fact that the rates of contribution and benefit entitlements are uniform throughout the country. Other types of income support programs, such as sickness insurance and other family related benefits are funded by taxes, and this time, administered both by the federal and the regional governments.

Regardless of its federal structure, the redistributive component of the welfare state in Germany is not considered high in Europe, even with relatively progressive tax structure (Van den Bosch and Cantillon 2008). As one expert

\textsuperscript{15} This insight was provided by experts in the personal interviews conducted in Cologne, February 2014. This point about how atypical employment impacted inequality will be analyzed in the next stages of the project by looking at how it was handled at the regional level. Another highlight of the interviews was the discussion of minimum wage in Germany: What would happen if Germany introduced minimum wage? (and it has since been introduced to go into effect in 2015\textsuperscript{19}). While some experts argue that it would help reduce income inequality, others argue that it would help increase inequality because it will be too expensive for certain employers. One argument against minimum wages is that the labor market will not be able to naturally deal with this and the jobs would go away. On the other hand, the argument pro-minimum wage is that more people will have a job where they can make a living. However, the differences in the living costs will naturally mean the minimum wage will not have the same impact everywhere in the country.
claimed in the interviews, “The redistributive component of the welfare state is one of the lowest in Europe”. For the period 1981 – 2000, Mahler and Jesuit (2006) have studied the impact of taxes and transfers on inequality in 12 OECD countries. During this time, in Germany, taxes and transfers caused a reduction of 39 per cent, indicating a medium level of income redistribution. This score was 20 per cent in the US and between 40 and 50 per cent in Scandinavian countries. Grabka and Frick (2013) argue that the plans of the government to reduce public spending on families with low income and a general cut in public expenditures after the Great Recession might have an inequality inducing effect in the medium and long term in the near future.

2c) The Aim for Vertical and Horizontal Equalization: Fiscal Matters in Federalism and Inequality

The overarching theme of many of the interviews was that the idea of complete equality prevailed in Germany and that the federal government strives to equalize regional differences as much as possible, also paving the way for lower national inequality. This can also be explained with the evolution of German federalism, according to Thelen and Karcher (2013), where they argue that the public debates center on the inability of federalism to provide the same type of living conditions, and people’s dissatisfaction with it. In Germany, the fiscal equalization scheme supposes that the level of public services should be the same and that the Länder would have the same level of public support. Currently, there is a vertical distribution of revenues, and big taxes such as income Value Added Tax (VAT) and corporate taxes are all part of common taxes.

In the words of an expert, “Centralized welfare state reform tackles inequality and there is local solidarity”. Generally speaking, the idea of uniformity between Länder and the idea of central equalization is still in place to a large extent,

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16 I do not examine regional inequality levels quantitatively in this paper; I include qualitative information. When focusing on overall national interpersonal inequality levels, I assume that higher regional authority would also be correlated with higher national interpersonal inequality.
at least as a goal, and tax issues are always decided at the central (Bund) level.\textsuperscript{17} All of the legislation goes to the Bundesrat (upper chamber) and the 2/3 of the collected tax goes into one big central pot. While the federal level decides on the tax rules the Länder do not have the authority to propose tax legislation, the tax administration is decentralized, meaning there is no such institution like the Internal Revenue Service in the US.\textsuperscript{18}

In other words, while the Länder do not have financial autonomy for determining the tax levels (which I assume is conducive to more standardization – and hence lower inequality), it is also argued that there is an intense bargaining process among different levels. Therefore, going back to the theory, the fact that the Länder and the federal government can actually represent themselves at the Bund level shows a higher level of ‘shared-rule’. In general terms, the federal government collects the taxes, and they are distributed to the Länder. That has been modified because VAT is not allocated according to place where it is collected; it is rather done on a per capita basis, which creates an equalization effect. The share of the Länder of the VAT is distributed among the Länder based on the number of inhabitants. If some Länder get tax revenues below average, they get additional shares. However, in the views of some experts, this can also lead to inequalities: “Income and corporate taxes are allocated to where they are collected, and this favors rich areas”.

In addition to the vertical equalization, horizontal equalization grants exist (Ausgleichszuweisungen) among the Länder, which are distributed according to per capita for each of the Länder. For example, if there is a 120% - 50% per capita difference between the Länder, after equalization, it is more in line with a difference, such as 105% - 95%, but the ranking of Länder is not supposed to change. There are only 3 Länder (Bavaria, Hesse and Baden-Wurttemberg) who are paying and most are at the receiving end of fiscal equalization. As far as the financial equalization -

\textsuperscript{17} With this idea in mind, as a part of the larger project, I am analyzing how tax rules have been decided in the recent years and whether and to what extent the representatives of the Länder actually impacted the decisions.
\textsuperscript{18} Personal interviews, Cologne, Germany, February 2014.
\textsuperscript{19} Personal interviews, Cologne, Germany, February 2014.
“the finanzausgleich” - is concerned, Bavaria and Berlin are very important Länder. When a rich Land increases the revenue, then it is taken away, which is not growth oriented for industrial policy and revenues are lost in the system. For example, Bavaria and Hesse have a suit impending before the Constitutional Court, challenging the system of tax transfers, to stop subsidizing spending in the city of Berlin and other poorer states.20

Overall, one can argue that this federal system tries to equalize revenue based on needs. Therefore, as stated in the interviews, whether such growth inducing policies are actually disadvantageous in terms of receiving need-based benefits, and whether regions would rather opt-out of growing in order to receive the benefits - leading to a ‘race to the bottom’ - is a concern. There are also additional federal grants for Länder that have less than 99.5 per cent of the average financial capability, after the VAT distribution and the horizontal equalization scheme (Benz and Zimmer 2010).21

As stated earlier, in Germany, the services are competences of the Länder and the local governments. Trade unions in the Länder are powerful especially in voicing concerns about social insurance. Information from the meetings suggests that trade unions have lost influence in the recent years but they achieved a lot in the past. It is argued that trade unions had a strong voice in the reforms of 2004, and unions mobilized against the government. One interviewee claimed the following: “In fiscal equalization, the non-state actors are active when it concerns taxes, but it is pretty much an insider game, meaning that ‘politics ‘actually shape the outcomes and even parties are not involved”. As a professor in Cologne, Germany described, the general principle in Germany is that ‘All the parties oppose and rule at the same time’.22 The same idea applies to the welfare policies as well. Bargaining is also conducted at the regional level but then the policies are implemented in a

20 Financial Times, “States challenge Germany’s subsidies”, http://www.ft.com/cms/s/0/a1968c60-6fb9-11e2-8785-00144fabe49a.html#axzz3TEJXo6CI


22 Personal interview, Heinrich-Heine University of Dusseldorf, Germany, February 2014.
centralized manner. Who is involved in the bargaining process? In the bargaining process, political parties link *Bundestag* and *Bundesrat* together. Also, *Länder* function as subnational units but their representatives are part of the federal party system, again pointing to the interactiveness in the system.  

Unlike Spain, the *Länder* in Germany do not have the relevant competences for policies regarding inequality, however they implement decisions. For example, labor market policy is under federal law and it aims at integrating unemployed people and migrants into the labor market. There are special programs – active labor market policy - by *Länder*, especially in those where there are social democratic parties and the eastern *Länder*. At the local level, municipalities are important for designing market policies – services and infrastructures. For example in Dortmund, the antipoverty policies are implemented at the local level, related to the increase of local discretion with the Hartz reforms of 2000s.  

2d) The Role of North Rhine-Westphalia in Implementing EU Policies

North Rhine-Westphalia (NRW) is the most populous and fourth largest *Land* by size in Germany, with its capital in Dusseldorf and its largest city of Cologne. NRW is one of the oldest subnational units in Germany. The *Länder* are in many cases older than the federal government. NRW was founded in 1946, whereas the federal government was founded in 1949. NRW was the heart of the coal and steel industry until the 1970s but then there was a transition to services and research and

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23 The concept of ‘interactive governance’ is borrowed from Torfing et al. (2012). The importance of party decentralization and party coalitions manifests itself in policy making. There are different coalitions at the Bundestag (CDU/CSU and SPD) and at the Bundesrat level. Currently, there are some a) Länder with Social Democrat coalition with Greens, b) Länder with coalition of Christian Democrats and Liberals (such as Sachsen). For future iterations of this project, I am analyzing the meeting minutes of the *Bundesrat* (interest groups – working groups) – which are available after 1990s. This will allow me to understand the effectiveness of their representation at the federal level, going back to the theory tested in the quantitative part.  


25 Information in this section is based on interviews with official representatives of North Rhine-Westphalia in *Düsseldorf* (*Land level - Staatskanzlei*) and Berlin (*Bund level*) and at Hans-Bockler-Stiftung, carried out in February 2014, and author’s own elaboration of those interviews.
development. With the growth of the creative economy and the Internet and fashion industries, NRW thrived and currently 95% of workers work in small and medium enterprises.

As explained earlier, negotiations about redistributive tax policies take place at the federal level with representation from both Bund and Land levels, but they are centrally coordinated. As a NRW official stated, “Länder do not have the authority to propose tax legislation. The Bund level is very powerful in taxes and we need to influence that”. On the other hand, the European Union’s (EU) policies that aim at poverty and inequality reducing mainly take place at the regional level and target regions. In this subsection, I draw from qualitative data gathered in NRW about the role of NRW and Länder in implementing EU policies general in policies that matter for inequality.

As a highly industrialized Land, NRW also has a high representative profile at the European Union level. In EU’s operational programs, the 50% is co-financed by the member states, and the other 50% by the EU. As the official representative of NRW expressed: “Between the three funds (Regional Development Fund, Agricultural Fund and European Social Fund), coordination is crucial to prevent overlap and cooperation is necessary with the EU to make sure that the relevant national actors implement the EU funds. Therefore, the coordination procedure, through which the subnational units and the federal government share power, is very important and NRW is successful in managing this process. We also need to cooperate with the European Commission to make sure that the devolved priorities of the EU and its structural funds are carried out”. This view is line with Börzel’s (2002) explanation of the dilemma that the regions faced during the ‘Europeanization’ process. They would either ‘roll-back’ because of losing some of their competences to the European level, or they would use this as an opportunity to “rein in” with their expertise, spending power and administrative capacity for applying the European policies, and Börzel (2002) argues that the latter prevailed, as my interviewees also stated.

As expressed by representatives of NRW in Berlin, in the dissemination and the implementation of the regional funds, the EU institutions pay more attention to
the Länder whereby the Länder have the role of ‘informal lobbying’, for example at the Committee of Regions of the EU. The same applies to the Land – Bund relations as well. When the Bundesrat moved to Berlin in 2002, the NRW representation also followed suit and opened a representation in Berlin. This representation has an important role within the federal lawmaking process, especially in the Bundesrat. They have roles with different intensities concerning the ‘Zustimmungsgesetz’ (act of assent) whereby the Länder has the say in the Bundesrat. 90% of the federal legislation goes to Bundestag (through mediation committees) and then to Bundesrat.

How is the “fight with inequality” carried out at the regional level? At the Länder level, the emphasis is on regional development and certain social programs. As of 1980s and with the Maastricht Treaty, the EU became more aware of the fact that the EU is made up of “regions”. As the official representative of NRW in Berlin stated: “Smaller parts of NRW are more unequal. For example, Düsseldorf is rich, but the Ruhr Valley is poor, with the highest rate of unemployment. In this respect, the representatives of Länder, such as NRW, act as ‘informal lobbyists’ who are not formally a part of the decision making process. But we get in touch with Commissioners to talk about issues that interest the NRW, such as regional development. Therefore, we see formal and informal channels of representation converging for the same types of goals (pointing to more shared rule)”. As far as the European Social Fund is concerned, the new Eastern European members currently get a bigger share, so the share of older EU members is decreasing. When these funds are allocated—usually, the poorest regions and also issues that require ‘excellence’ which needs funding, such as universities, research and development get the funds from the EU. Also, issues of general politics, such as climate change and justice-police collaboration get funded and these are specifically issues pertaining to NRW, including electricity from coal and supply. Certain funds also go to research and programs regarding minimum wages and social inequality issues. Whether the states should decide on the minimum wage is another issue of concern that has a bearing on regional inequalities.
The NRW officials argue that the region has the capacity to implement projects with the EU Regional funds which all have to be co-financed at 25%, as expressed by the NRW officials. Related to the territorial governance structure however, not all the Länder have the experts and the trained personnel, in other words, the administrative capacity to implement the policies. The federal structure inevitably leads to certain disparities between the regions. As far as the budget is concerned, NRW has no more public debt and after 2020, there will be no more borrowing. 20% is spent on interest rates. The federal ‘Bund’ is structured so that there are 16 Länder and less than 30% is spent on staff. The rest goes to social security, defense, traffic and investments. The Länder spend around 50% on staff (teachers, police, courts). The budget of the ‘Bund’ is quite flexible while at the Länder level, this is not so much the case. There are not substantial differences in salaries, not more than before, which means that the Länder cannot introduce or fight for great changes in that regard, again indicating an aim leaning towards equalization and standardization. Still, some Länder are trying to compete with each other by attracting teachers to their region, as most public employees are mostly employed at the Länder level. This is an example of how a decentralized structure actually does not lead to ‘race to the bottom’ in terms of economic conditions but more a race towards attracting employees. Beramendi (2012) summarizes the system in Germany as follows: “This equal treatment of individuals across unequal territories, and the fact that a significant share of the social policy efforts is either fully funded and administered or implemented by subnational governments, raises once again the problem of resource allocation across different territories” (p.138).

Summing it Up: The Case of Germany

As the literature shows, federalism makes a country prone to political, administrative and economic diversity. The quantitative exercise and the German case study are attempts to demonstrate that the territorial governance structure is significantly associated with income distribution and income inequality. Germany has experienced increases in inequality, especially after the unification. However, it still retains its position as a mid-level inequality country in Europe despite its
changes in the labor market structure, helped by its redistributive federal policies. Since the competences of the regions have not changed dramatically to the extent they will impact the overall welfare state and redistribution levels, we cannot yet attribute the changes in the Gini scores to constitutional changes in relations between levels of governance. The ongoing fiscal federalism reforms will shed more light on this issue for future research. However, interviews corroborate the literature that official intergovernmental mechanisms set in the federal structure of Germany for vertical and horizontal coordination among the regions are effective in sustaining the welfare state and achieving consensus, in a context challenged by the unification, and then to some extent, the recession. Furthermore, the regions have important – but asymmetric according to their needs and capabilities – roles in terms of administering EU’s regional policies. Therefore, evidence points in the direction of a centripetal Germany, whereby the ‘culture’ and the ‘laws’ are in place, with – at least – the aim of achieving interpersonal standardization of welfare services which would have an impact on reducing or at least sustaining mid-level overall inequality levels in Europe. Studies have shown that taxes and transfers achieve in reducing inequality at 39 per cent – medium level - in Germany (Mahler and Jesuit 2006). The unequal aspect of the federal structure has more implications for increasing inequality among the Länder rather than among persons, while the centrally decided redistribution system achieves its roles of achieving standardization to a considerable extent.

Even though the Länder do not have the autonomy at their own level to decide on fiscal rules that would matter for inequality, intergovernmental relations are more effective especially with regards to the representation of Länder at the federal level through the Bundesrat. Furthermore, the fiscal federalism reforms, which will be in effect as of 2019, foresee the creation of a “stability council” which will be made up of the federal finance minister, the federal economy minister and the Länder finance ministers. This can pave the way for a possible increase in the cooperation between different levels towards similar financial goals throughout the country (Feld and Baskaran 2009). Despite fiscal policies being centrally determined, the fact that the federal government shows a commitment to unity also
bolsters the shared-rule component of federalism. As Börzel (2002) stated, "the formal institutions of German federalism are embedded in an institutional culture which favors multilateral bargaining and consensus-seeking as the most appropriate behavior in territorial politics" (p.49).

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Appendix 1:

Control Variables of the Quantitative Study

Since unemployment is one of the key indicators equality in the literature (Albani 2007, Björklund 1991; Blinder and Esaki 1978; Buse 1982; Gustafsson and Johansson 1999; Weil 1984), I use unemployment as a control variable, which is measured in percentages. The variable of UNEMPLOYMENT enables us to control for variations in the working age population who would be eligible for social transfers (Lupu and Pontusson 2011). I expect countries that have more unemployment to have higher levels of inequality. GDP GROWTH is also measured in percentages, which can also assume a negative value for some cases. Annual growth is especially known to be a positive indicator for social spending, which may or may not translate to redistributive outcomes (Lupu and Pontusson 2011). GDP per capita has also been used a determinant of income inequality, with varying

effects in less developed and OECD countries (Reuveny and Li 2003). Another control variable, EMPLOYMENT INDUSTRY, measures the percentage of people employed in the industry, shown to have a negative impact on overall inequality (Gustafsson and Johanson 1999).

A well-established finding in the literature is that democracy is negatively related with inequality. In fact, democracy offers more opportunities for participation, thereby allowing the poor to demand more equitable redistribution. Since democratic leaders must care about reelection, they tend to adopt redistributive policies that favor the lower classes, such as welfare spending or minimum wage laws (Chan 1997, Reuveny and Li 2003). Although most of the countries in the database are democracies during the period under analysis, I include the DEMOCRACY as a control variable, which is operationalized by the Polity IV score, in order to assess whether varying degrees of democracy has an impact on economic redistribution. I also include variables which are, on general, expected to be higher in welfare states and highly centralized states, such as public spending, social security transfers or net union membership. The measures of net union membership, social security transfers and total social expenditure aim to control for factors that are used frequently in the literature that links welfare states and income inequality (Rueda 2008, Moene and Wallerstein 2003). As stated earlier, centralized wage bargaining and strong union membership should be expected to counterbalance the effect of market forces, which increase inequality (Kenworthy and Pontusson 2005, Glaeser 2006). The NET UNION MEMBERSHIP variable measures net union membership, (gross minus independent workers, students, unemployed or retired members), which is expected to have a negative impact on income inequality (Cusack, Iversen and Rehm 2009). SOCIAL EXPENDITURE, as a characteristic of welfare states, measures the total public and mandatory private social expenditure as a percentage of GDP (Esping-Andersen 1990). The variable of SOCIAL SECURITY TRANSFERS measures these transfers as a percentage of GDP and includes social assistance grants and welfare benefits paid by general government,
like benefits for sickness, old-age, family allowances, etc.\textsuperscript{27} Among advanced democracies, government redistribution through taxes and transfers is argued to be associated with less income inequality, especially before transfers (Lupu and Pontusson 2011). The last control variable I include is WAGE COORDINATION\textsuperscript{28} which aims to capture the cross-national differences of the levels at which wage agreements are negotiated, which looks at how Model 5 also includes another control variable WAGE COORDINATION. Wage coordination measures ‘the degree of intentional harmonization in the wage setting process – wages and salaries –’ and how centralized the peak bargaining process is (Wallerstein 1999). Countries that rank higher on wage coordination would have a more centralized process of the determination of wages and salaries, and thus I expect higher wage coordination to lead to less income inequality.

Appendix 2: Countries Included in the Dataset
1. Austria
2. Belgium
3. Denmark
4. Finland
5. France
6. Germany
7. Greece
8. Ireland
9. Italy
10. Luxembourg
11. Netherlands
12. Norway
13. Portugal
14. Spain
15. Sweden
16. Switzerland
17. United Kingdom

\textsuperscript{27} Data taken from Comparative Political Data Set I.
\textsuperscript{28} Data taken from Kenworthy (2001).
### Appendix 3

**Summary Statistics**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income inequality (scale of 0 to 100)</td>
<td>27.8014</td>
<td>4.186748</td>
<td>19.7</td>
<td>39.1091</td>
</tr>
<tr>
<td>Regional authority (aggregate score)</td>
<td>10.9860</td>
<td>8.756616</td>
<td>0</td>
<td>32.1</td>
</tr>
<tr>
<td>Fiscal autonomy (scale of 0 to 5)</td>
<td>1.5472</td>
<td>1.511185</td>
<td>0</td>
<td>4.9</td>
</tr>
<tr>
<td>Fiscal control (scale of 0 to 3)</td>
<td>.5374</td>
<td>.835053</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Democracy (scale of -10 to 10)</td>
<td>8.9716</td>
<td>3.722842</td>
<td>-9</td>
<td>10</td>
</tr>
<tr>
<td>GDP per capita (in $)</td>
<td>14471.62</td>
<td>11611.04</td>
<td>716.18</td>
<td>81428.24</td>
</tr>
<tr>
<td>GDP growth (in %)</td>
<td>3.4329</td>
<td>2.627138</td>
<td>-7.3</td>
<td>13.</td>
</tr>
<tr>
<td>Unemployment (in %)</td>
<td>5.3292</td>
<td>4.261337</td>
<td>.002472</td>
<td>5.329254</td>
</tr>
<tr>
<td>Employment industry (in K)</td>
<td>2802.596</td>
<td>3472.426</td>
<td>23.6</td>
<td>15068</td>
</tr>
<tr>
<td>Social expenditures (% of GDP)</td>
<td>22.60482</td>
<td>4.909158</td>
<td>10.15</td>
<td>36.178</td>
</tr>
<tr>
<td>Wage coordination (1-5)</td>
<td>3.675</td>
<td>1.254</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>Net union membership (total, in K)</td>
<td>2407.992</td>
<td>2625.728</td>
<td>52.4</td>
<td>11969.4</td>
</tr>
<tr>
<td>Social security transfers (% of GDP)</td>
<td>13.6724</td>
<td>4.531272</td>
<td>2.3</td>
<td>28.9093</td>
</tr>
</tbody>
</table>